SECOND SUPPLEMENT DATED AUGUST 14, 2018 TO
PRELIMINARY OFFICIAL STATEMENT DATED JULY 31, 2018,
AS PREVIOUSLY SUPPLEMENTED BY FIRST SUPPLEMENT DATED AUGUST 11, 2018

$914,860,000*
Allegheny County Hospital Development Authority
Revenue Bonds
(Allegheny Health Network Obligated Group Issue)
Series 2018A

This Supplement, dated August 14, 2018 (the "Second Supplement"), to the Preliminary Official Statement dated July 31, 2018 (the "Preliminary Official Statement"), as previously supplemented by a Supplement dated August 11, 2018 (the "First Supplement"), all with respect to the above-referenced bonds further amends and supplements the Preliminary Official Statement as described below.

The audited financial statements of Allegheny Health Network ("AHN") for the fiscal years ended December 31, 2016 and 2015 that were provided as ATTACHMENT 3 to the First Supplement are being provided with certain reclassified amounts to conform to the presentation of the audited financial statements of AHN for the fiscal years ended December 31, 2017 and 2016 that were included as APPENDIX B to the Preliminary Official Statement. There have been no changes to the audited financial statements of AHN for the fiscal years ended December 31, 2017 and 2016, but, for ease of reference, copies of the audited financial statements for both periods are attached together as described further below.

ATTACHMENT 3 – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015" to the First Supplement and APPENDIX B – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016" of the Preliminary Official Statement are both replaced in their entirety with the additional financial information included hereto as ATTACHMENT 1 – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017, 2016 AND 2015." Certain amounts in the comparative 2016 and 2015 audited consolidated financial statements included in the First Supplement have been reclassified so as to conform to the 2017 audit presentation in the Preliminary Official Statement. In addition, there were conforming changes to the notes to the comparative 2016 and 2015 audited consolidated financial statements. Such financial statement reclassifications consist of reclassification of income tax recoverables, components of unrestricted net assets and cash flows of investing activities.

None of these changes affected income from operations, excess of revenues over expenses, total unrestricted net assets or cash, cash equivalents, and investments.

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* Preliminary, subject to change.

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ATTACHMENT 1

AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF
ALLEGHENY HEALTH NETWORK
FOR THE YEARS ENDED DECEMBER 31, 2017, 2016 AND 2015

[SEE ATTACHED]

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Allegheny Health Network

Consolidated Financial Statements
December 31, 2017, 2016 and 2015

Allegheny Health Network
Index
December 31, 2017, 2016 and 2015

Report of Independent Auditors

To the Boards of Directors of Highmark Health and Allegheny Health Network

We have audited the accompanying consolidated financial statements of Allegheny Health Network and its subsidiaries (the "Health Network"), which comprise the consolidated balance sheets as of December 31, 2017, 2016 and 2015, and the related consolidated statements of operations, of changes in net assets and of cash flows for the years then ended.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Health Network's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Health Network's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Allegheny Health Network and its subsidiaries as of December 31, 2017, 2016 and 2015, and the results of their operations, changes in their net assets and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

March 28, 2018

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Allegheny Health Network
Consolidated Balance Sheets
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Assets		
Current assets		
Cash and cash equivalents	$ 220,017	$ 196,553
Assets limited or restricted as to use	-	12,627
Accounts receivable		
Patient accounts, less allowance for doubtful accounts of $47,176 and $60,464, respectively	319,422	311,691
Other	52,735	50,950
Inventory, net	59,152	53,571
Estimated third-party payor settlements	2,194	2,135
Prepaid expenses and other current assets	27,567	30,245
Total current assets	681,087	657,772
Investments		
Debt securities, available-for-sale at fair value	69,802	55,830
Equity securities, available-for-sale at fair value	11,535	10,140
Board designated, restricted and other investments at fair value	585,865	397,550
Beneficial interest in perpetual trusts	251,177	224,405
Equity method investments	40,450	48,458
Property and equipment, net	1,152,002	1,074,835
Goodwill and other intangible assets, net	114,565	115,316
Other assets	106,442	104,648
Total assets	$ 3,012,925	$ 2,688,954
Liabilities and Net Assets		
Current liabilities		
Accounts payable	$ 192,719	$ 191,950
Accrued salaries and benefits	122,945	104,295
Accued expenses	49,899	48,892
Long-term debt subject to short-term remarketing	-	55,385
Current portion of long-term debt	10,854	14,385
Current portion of deferred revenue	26,357	23,361
Current portion of self-insurance liabilities	10,999	10,122
Other current liabilities	1,570	3,148
Total current liabilities	415,343	451,538
Accrued pension obligation	341,676	438,130
Self-insurance liabilities	167,074	161,991
Long-term debt	1,062,392	1,351,898
Deferred tax liability, net	625	2,624
Deferred revenue	30,395	30,359
Other liabilities	51,499	56,003
Total liabilities	2,069,004	2,492,543
Net assets		
Unrestricted	619,372	(100,746)
Unrestricted - noncontrolling interests	16,155	16,092
Total unrestricted	635,527	(84,654)
Temporarily restricted	22,810	23,859
Permanently restricted	285,584	257,206
Total net assets	943,921	196,411
Total liabilities and net assets	$ 3,012,925	$ 2,688,954

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Operations
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Unrestricted revenue and other support		
Patient service revenue (net of contractual allowances and discounts)	$ 2,938,577	$ 2,724,421
Provision for bad debts	(50,667)	(69,413)
Net patient service revenue	2,887,910	2,655,008
Other operating revenue	179,249	193,546
Net assets released from restriction	4,203	6,191
Total unrestricted revenue and other support	3,071,362	2,854,745
Expenses		
Salaries, wages and fringe benefits	1,647,241	1,550,643
Patient care supplies	606,405	559,765
Professional fees and purchased services	394,851	370,368
Depreciation and amortization	141,931	128,047
Other operating expenses	252,163	284,956
Total operating expenses	3,042,591	2,893,779
Operating income (loss)	28,771	(39,034)
Net investment income	41,609	26,029
Gain on interest rate swaps	3,576	1,860
Interest expense	(39,320)	(30,292)
Loss (income) attributed to non-controlling interest	234	(993)
Gain on sale of joint venture	13,017	-
Non-operating income (expense), net	1,256	(526)
Excess (deficit) of revenue over expenses before income taxes	49,143	(42,956)
Income tax benefit	(1,960)	(2,912)
Excess (deficit) of revenue over expenses	$ 51,103	$ (40,044)
Other changes in unrestricted net assets:		
Gain on qualifying derivative instruments	3,844	3,046
Pension liability adjustments	8,325	(63,302)
Change in non-controlling interest	63	1,948
Net assets released from restriction for acquisition of equipment	809	1,274
Transfers from affiliate	657,728	108,364
Other, net	(1,691)	4,415
Increase in unrestricted net assets for other changes in unrestricted net assets	669,078	55,745
Increase in unrestricted net assets	$ 720,181	$ 15,701

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Changes in Net Assets
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Unrestricted net assets		
Excess (deficit) of revenue over expenses	$ 51,103	$ (40,044)
Gain on qualifying derivative instruments	3,844	3,046
Pension liability adjustments	8,325	(63,302)
Change in non-controlling interest	63	1,948
Net assets released from restriction for acquisition of equipment	809	1,274
Transfers from affiliate	657,728	108,364
Other, net	(1,691)	4,415
Increase in unrestricted net assets	720,181	15,701
Temporarily restricted net assets		
Contributions	2,644	4,647
Net investment income	2,437	1,381
Net assets released from restriction used for:		
Operations	(4,203)	(6,191)
Acquisition of equipment	(809)	(1,274)
Other, net	(1,118)	(284)
Decrease in temporarily restricted net assets	(1,049)	(1,721)
Permanently restricted net assets		
Contributions	841	7
Net investment income	36,471	13,091
Transfer out of trusts to net investment income	(9,046)	(8,578)
Other, net	112	2
Increase in permanently restricted net assets	28,378	4,522
Increase in net assets	747,510	18,502
Net assets		
Beginning of the year	196,411	177,909
End of the year	$ 943,921	$ 196,411

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Cash flows from operating activities		
Increase in net assets	$ 747,510	$ 18,502
Adjustments to reconcile change in net assets to net cash provided by operating activities		
Transfers from affiliate	(134,034)	(108,364)
Debt forgiveness transfers	(523,694)	-
Provision for bad debts	50,667	69,413
Depreciation and amortization	141,931	128,047
Pension liability adjustments	(8,325)	63,302
Noncash pension expense	1,798	3,008
Net realized and unrealized gain on investments	(24,512)	(8,104)
Dividends received from equity method investments	4,534	5,656
Undistributed gains of equity method investments	(5,537)	(4,789)
Beneficial interest in perpetual trusts	(26,772)	(4,633)
Gain on sale of joint venture	(13,017)	-
Change in derivative instruments	(3,844)	(3,046)
Deferred taxes	(1,998)	(2,874)
Restricted contributions	(3,485)	(4,654)
Assets acquired through acquisition	-	(1,000)
(Decrease) increase due to change in:		
Accounts receivable	(58,397)	(87,109)
Other receivables	(1,785)	12,383
Inventory, prepaids and other current assets	(5,362)	(2,563)
Other long-term assets	9,713	(17,359)
Accounts payable, accrued expenses and other current liablities	(2,654)	37,632
Accrued pension obligation	(89,927)	(12,205)
Other liabilities	6,931	18,268
Net cash provided by operating activities	59,741	99,511
Cash flows from investing activities		
Purchases of investments	(712,626)	(340,054)
Proceeds from sales of investments	495,396	284,084
Proceeds from maturities of investments	40,869	46,273
Proceeds from sale of joint venture	22,030	-
Purchases of property and equipment	(140,130)	(139,116)
Net cash used in investing activities	(294,461)	(148,813)
Cash flows from financing activities		
Restricted contributions	3,485	4,654
Proceeds from issuance of debt	1,023,828	9,348
Repayment of debt	(895,431)	(14,128)
Debt issuance costs	(7,732)	-
Transfers from affiliate	134,034	108,364
Net cash provided by financing activities	258,184	108,238
Increase in cash and cash equivalents	23,464	58,936
Cash and cash equivalents		
Beginning of year	196,553	137,617
End of year	$ 220,017	$ 196,553

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Supplemental disclosure of cash flow information		
Interest paid, net	$ 34,429	$ 25,524
Income taxes paid (recovered), net	$ 223	$ (650)
Supplemental disclosure of noncash investing and financing		
Assets acquired through other payables	$ 23,543	$ (2,519)
Assets acquired through financing	$ 54,308	$ -
Noncash debt forgiveness	$ (523,694)	$ -

The accompanying notes are an integral part of these consolidated financial statements.

(in thousands of dollars)

1. Nature of Operations

Allegheny Health Network ("AHN"), formed in 2013, is incorporated as a nonprofit corporation in the Commonwealth of Pennsylvania and is federally recognized as a 501(c)(3). Highmark Health, the sole corporate member of AHN, is a diversified health and wellness enterprise that includes: Highmark Inc. - a hospital plan corporation and professional health services plan in the Commonwealth of Pennsylvania; HM Health Solutions Inc.; and HM Health Holdings Company. AHN was formed to act as the parent company of West Penn Allegheny Health System, Inc. ("WPAHS"), Jefferson Regional Medical Center ("JRMC"), and Saint Vincent Health Center and Saint Vincent Health System, collectively "SVHS". AHN, WPAHS, JRMC, SVHS, and their other subsidiaries and consolidated affiliates are herein referred to as the "Health Network".

AHN is a western Pennsylvania-based, patient-centered and clinician-led academic healthcare system that provides charitable care and high-quality, comprehensive health care services to patients from western Pennsylvania and the adjacent regions of Ohio, West Virginia, New York, and Maryland.

AHN is comprised of eight hospitals, of which one is a quaternary academic medical center and seven are tertiary/community hospitals that provide a wide array of general and advanced clinical services. AHN is also home to more than 250 additional healthcare sites, including surgery centers, comprehensive Health + Wellness Pavilions and physician practices; and a physician organization that includes more than 2,400 employed and affiliated physicians. It also includes HMPG Inc., a for-profit holding company whose subsidiaries and affiliates include a group purchasing organization, a captive insurance company (Palladium Risk Retention Group Inc. - "Palladium"), real estate companies, a surgery center. The Health Network also includes joint ventures that offer durable medical equipment, home infusion services, home health and hospice services. In 2017, the Health Network formed Physician Partners of Western PA LLC, a clinically integrated network, as a subsidiary of HMPG Inc. Additionally, the Health Network operates a research institute and charitable foundations.

The Health Network provides a comprehensive array of advanced clinical and research programs across all medical specialties, including orthopedic surgery and sports medicine, cardiology and cardiovascular surgery, neurosurgery and neurology, women's health, cancer, emergency medicine, trauma and burn care, bariatric and metabolic disease, primary care, psychiatric care, general surgery, diabetes, autoimmune diseases, critical care, digestive diseases, men's health/urology, lung and esophageal diseases, rehabilitation services and a complete spectrum of diagnostic care.

AHN offers forty-four graduate medical programs and has three medical school affiliations with Drexel University, Temple University and the Lake Erie College of Osteopathic Medicine, allowing medical residents and fellows to receive advanced training at AHN hospitals. The Health Network also operates two nursing education programs, including the West Penn Hospital School of Nursing and the Citizens School of Nursing.

In 2017, AHN entered into an agreement with an Emerus affiliate to form a joint venture ("Emerus JV") for the purpose of constructing and operating multiple neighborhood hospital facilities in the Health Network's service area. AHN maintains an ownership of 51% in the Emerus JV and includes the Emerus JV in its consolidated financial statements. Operations for this entity have not yet commenced.

2. Summary of Significant Accounting Policies

Basis of Financial Presentation

The accompanying consolidated financial statements include the accounts of the Health Network.

The consolidated financial statements are presented on the accrual basis of accounting, in accordance with accounting principles generally accepted in the United States of America ("GAAP"). All significant

intercompany balances and transactions have been eliminated from the consolidated financial statements.

The Health Network uses the equity method of accounting for 50% or less owned affiliates or those affiliates for which the Health Network does not hold a controlling financial interest but may influence operating or financial decisions as well as 50% or more owned affiliates for which the Health Network does not hold a controlling financial interest.

Reclassifications
The Health Network has reclassified certain amounts relating to its prior period results to conform to its current period presentation. These reclassifications have not changed the results of operations of prior periods.

New Accounting Pronouncements

Implemented
In January 2017, Financial Accounting Standards Board ("FASB") issued new guidance eliminating step 2 from the goodwill impairment test. The new guidance is effective for fiscal years beginning after December 15, 2021. The Health Network elected to early adopt the guidance for the current reporting period, which is permitted. The early adoption of this new guidance did not materially impact the financial position, results of operations and cash flows of the Health Network.

In March 2016, FASB issued new guidance to simplify the accounting for equity method investments by eliminating the requirement that an entity retroactively adopt the equity method if an investment qualifies for use of the equity method as a result of an increase in the level of ownership. The new guidance is effective for fiscal years beginning after December 15, 2016. The adoption of this new guidance did not impact the financial position, results of operations and cash flows of the Health Network.

In May 2015, FASB issued new guidance removing the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. In addition, the new guidance requires the disclosure of information that helps users of its financial statements to understand the nature and risks of the investments and whether the investments, if sold, are probable of being sold at amounts different from net asset value per share. The Health Network adopted this new guidance and has included additional disclosures in the Fair Value of Financial Instruments footnote (see Note 4).

Under Evaluation
In March 2017, FASB issued new guidance regarding the presentation of net periodic pension and postretirement benefit costs. The new guidance requires an entity to disaggregate the service cost component from the other components of net benefit cost and is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on its results of operations.

In August 2016, FASB issued new guidance regarding the presentation of financial statements of not-for-profit entities. The new guidance replaces the currently-required three classes of net assets with two classes (net assets with donor restrictions and net assets without donor restrictions), eliminates the requirement to present or disclose the indirect method reconciliation if using the direct method on the cash flow statement, and requires enhanced disclosures about governing board designations and appropriations, composition of net assets with donor restrictions, management of liquidity, expenses, methods of cost allocation, and underwater endowment funds. The new guidance is effective for fiscal years beginning after December 15, 2017. This guidance will not have a material impact on the financial position, results of operations and cash flows.

(in thousands of dollars)

In August 2016, FASB issued new guidance to reduce existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The guidance addresses the following cash flow issues: debt prepayment or debt extinguishment costs, settlement of zero-coupon debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims and corporate owned life insurance policies, distributions received from equity method investees, beneficial interest in securitization transactions, and separately identifiable cash flows and application of the predominance principle. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on the statement of cash flows.

In February 2016, FASB issued new guidance regarding the recognition of leases. The new guidance requires lessees to recognize a lease liability and a lease asset for all leases, including operating leases, with a term greater than 12 months on its balance sheet. The guidance also expands the required quantitative and qualitative disclosures surrounding leases. The new guidance is effective for fiscal years beginning after December 15, 2019. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In January 2016, FASB issued new guidance requiring all equity investments, other than those accounted for under the equity method or those that result in the consolidation of the investee, to be measured at fair value with changes in the fair value recognized through net income. The new guidance also eliminates the requirement to disclose the fair value of financial instruments measured at amortized cost for entities that are not public business entities. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In May 2014, FASB issued new guidance related to revenue recognition for contracts with customers. This new guidance removes most industry-specific revenue recognition requirements and requires that an entity recognize revenue for the transfer of goods or services to a customer at an amount that reflects the consideration to which an entity expects to be entitled in exchange for the goods or services. Insurance contracts are not covered by this guidance. The new guidance also requires additional disclosures regarding the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the adoption of this new guidance on the financial position, results of operations and cash flows.

Use of Estimates
The preparation of the Health Network's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents
The Health Network considers all highly-liquid investments with maturities of three months or less when purchased, excluding assets limited or restricted as to use, to be cash equivalents.

Revenue and Accounts Receivable
Revenues consist primarily of net patient service revenues that are recorded based upon established billing rates less contractual allowances and discounts. Revenues are recorded during the period the health care services are provided, based upon the estimated amounts due from the patients and third-party payers. Third-party payers include federal and state agencies (under the Medicare and Medicaid programs), managed care health plans and commercial insurance companies (including plans offered through the health insurance exchanges), and employers. Estimates of contractual allowances are based upon the payment terms specified in the related contractual agreements. Contractual payment

(in thousands of dollars)

terms are generally based upon predetermined rates per diagnosis, per diem rates or discounted fee-for-service rates. Revenues related to uninsured patients and uninsured copayment and deductible amounts for patients who have health care coverage may have discounts applied (uninsured discounts and contractual discounts). The Health Network also records a provision for bad debts (based primarily on historical collection experience) related to uninsured accounts to record net self-pay revenues at the estimated amounts expected to be collected. An additional provision for bad debts is recorded based upon the age of the patient account. The allowance for uncollectible accounts is assessed by management on a regular basis by review of past write-off experience and expected net collections. The difference between billed rates and the amounts actually collected after all reasonable collection efforts have been exhausted is charged off against the allowance for doubtful accounts.

Net patient service revenue, by major payor, was as follows for the years ended December 31:

	2017	2016
Medicare*	$ 1,175,272	$1,063,136
Medical assistance	225,856	229,838
Blue Cross Blue Shield payors	1,023,204	926,535
Other third-party payors	472,946	445,512
Self-pay patients	41,299	59,400
Total patient service revenue, net of contractual allowances and discounts	2,938,577	2,724,421
Less: Provision for bad debts	(50,667)	(69,413)
Total net patient service revenue	$ 2,887,910	$2,655,008

* Includes Medicare Fee for Service as well as Medicare Advantage from commerical payors

In 2017, revenue from Medicare and Blue Cross Blue Shield accounted for 40% and 35%, respectively, of total patient service revenue, net of contractual allowances and discounts. In 2016, revenue from Medicare and Blue Cross Blue Shield accounted for 39% and 34%, respectively, of total patient service revenue, net of contractual allowances and discounts. Laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation. As a result, there is at least a reasonable possibility recorded estimates will change by a material amount. Estimated reimbursement amounts are adjusted in subsequent periods as cost reports are prepared and filed and as final settlements are determined (in relation to certain government programs, primarily Medicare, this is generally referred to as the “cost report” filing and settlement process).

The mix of net receivables from patients and payors was as follows at December 31:

	2017	2016
Medicare*	37.7%	38.7%
Medical assistance	16.3%	16.1%
Blue Cross Blue Shield payors	19.0%	19.3%
Other third-party payors	24.2%	22.0%
Self-pay patients	2.8%	3.9%
	100.0%	100.0%

* Includes Medicare Fee for Service as well as Medicare Advantage from commerical payors

(in thousands of dollars)

Investments and Assets Limited or Restricted as to Use
Debt and equity securities classified as available-for-sale are carried at fair value (based on quoted or estimated market prices), and unrealized gains and losses are reported in unrestricted net assets, net of deferred income taxes. Premiums and discounts are amortized using the effective interest method. Realized gains and losses on debt securities are based on amortized cost. Realized gains and losses on equity securities are based on cost (specific identification method). Realized gains and losses on available-for-sale debt and equity securities are reported in net investment income in the consolidated statements of operations.

The Health Network monitors its available-for-sale investments portfolio for unrealized losses that appear to be other-than-temporary. At the time an equity security is determined to be other-than-temporarily impaired, the Health Network reduces the book value of the security to the current market value and records a realized loss in net investment income in the consolidated statements of operations.

In determining if an available-for-sale debt security is other-than-temporarily impaired, the Health Network considers whether it has intent to sell the available-for-sale debt security or whether it is more likely than not that the Health Network will be required to sell the available-for-sale debt security before recovery of its amortized cost basis, which may be at maturity. If the Health Network intends to sell the debt security or it is more likely than not that the Health Network will be required to sell the debt security before recovery of its amortized cost basis, an other-than-temporary impairment is recorded as a realized loss in net investment income in the consolidated statements of operations for the difference between fair value and amortized cost.

If the Health Network does not have the intent to sell and it does not believe that it is more likely than not that it will be required to sell the debt security before recovery of its amortized cost, the Health Network performs a detailed review to determine the underlying cause of the unrealized loss and whether an other-than-temporary impairment is warranted. At the time a debt security is determined to be other-than-temporarily impaired, the credit component of the other-than-temporary impairment is recognized in income in the consolidated statements of operations and the non-credit component of the other-than-temporary impairment is recognized in the statement of changes in net assets, net of deferred income taxes.

Board designated and restricted investments include assets whose use is contractually limited by external parties, assets set aside by the Board of Directors (“Board”) for future capital improvements or liquidity, over which the Board retains control and may at its discretion subsequently use for other purposes, as well as assets held by trustees under indenture agreements. Other investments consist primarily of marketable debt and equity securities and marketable securities maintained in a master trust fund. Investment income or loss (including realized gains and losses, interest and dividends, and unrealized gains and losses) is recorded in net investment income in the consolidated statements of operations unless restricted by donor or law. Investment income related to temporarily and permanently restricted gifts is recorded based on donor restriction as part of the corresponding net asset class in the consolidated statements of changes in net assets.

The Health Network’s assets are invested in a variety of financial instruments. Accordingly, the related values as presented in the consolidated financial statements are subject to various market fluctuations, which include changes in the interest rate environment, equity markets and general economic conditions.

Beneficial Interest in Perpetual Trusts
Beneficial interest in perpetual trusts represents permanently restricted assets that are managed by donor-selected trustees and are recorded at the fair value of the underlying assets in the trusts.

(in thousands of dollars)

Fair Value of Financial Instruments
In accordance with FASB fair value measurement guidance, financial assets and liabilities recorded at fair value in the consolidated balance sheets are categorized based upon the level inputs used to measure their fair value.

Inventory, Net
Inventory consists primarily of health care delivery-related drugs, medical supplies and surgical supplies. Inventory is stated at the lower of cost or market. Inventory cost is determined using the first-in first-out basis. Obsolescence reserves were $2,477 and $3,262 at December 31, 2017 and 2016, respectively.

Prepaid Expenses, Other Current Assets and Other Assets
Prepaid expenses, other current assets and other assets primarily include prepaid expenses, insurance recoveries, interests in net assets of foundations and 457(b) plan assets.

Property and Equipment, Net
Property and equipment is recorded at cost, net of accumulated depreciation. If a donor contributes property and equipment, it is recorded at the fair market value on the date contributed. Maintenance, repairs and minor improvements are expensed as incurred. Certain costs related to the internal development of software or software purchased for internal use are capitalized. Gains or losses on sales or disposals of property and equipment are included in operations.

Depreciation is computed under the straight-line method by annual charges to expense over the estimated useful lives of the various asset types as follows: buildings and building or land improvements, up to 40 years; leasehold improvements, lesser of lease term or useful life; office furniture and equipment, 3 to 30 years; and capitalized software, 3 to 10 years.

Property and equipment is reviewed for impairment whenever changes in circumstances indicate that the carrying value of the assets may not be recoverable. Impairment losses are recognized to the extent the carrying amount of an asset exceeds the undiscounted future cash flows expected to result from the use of the asset and its eventual disposal (step 1). If the carrying amount of a long-lived asset (asset group) is not recoverable, an impairment loss is recognized if the carrying amount exceeds the fair value (step 2). There were no impairment losses recorded in either 2017 or 2016.

Goodwill and Other Intangible Assets, Net
Intangible assets with finite lives are amortized using the straight-line method over their estimated lives, which range from 3 to 20 years. The Health Network has intangible assets of $9,898 and $10,649 for the years ended December 31, 2017 and 2016, respectively. Amortization expenses related to these assets were $1,063 and $3,052 in 2017 and 2016, respectively.

Intangible assets with indefinite useful lives, including goodwill, are not amortized, but are tested for impairment at least annually and more frequently if events or changes in circumstances indicate that an asset may be impaired. If fair value is less than carrying value, the asset is adjusted to the fair value and an impairment loss is recorded in the consolidated statements of operations. Goodwill consisted of $104,667 at December 31, 2017 and 2016. Management tested goodwill as of December 31, 2017 and 2016 and concluded that no impairment existed.

Self-Insurance Liabilities
Self-insurance liabilities are based on actuarial methods and loss experience data and are considered by management to be adequate. Such liabilities are determined, in the aggregate, based on a reasonable estimation of the ultimate settlement of reported losses, including individual case estimates for reported losses plus supplemental amounts for losses incurred but not reported.

(in thousands of dollars)

Palladium, as further discussed in Note 12, provides medical professional and general liability coverage. Palladium has begun to accumulate sufficient historical loss experience to determine whether actual losses and loss adjustment expenses will reasonably conform to the assumptions used in determination of the estimated liability for losses and loss adjustment expenses. There is uncertainty associated with the loss estimates, and actual results could differ significantly from the estimates. Changes in loss and loss adjustment expense liabilities relating to prior years are recorded in the year determined.

Self-insurance liabilities are recorded at the present value of the estimated future cash flows for payments of those losses and loss adjustment expenses. The present value of those losses and loss adjustment expenses is discounted using a risk-free rate which is equivalent to the current interest rate on United States government obligations at the time of the loss and for the duration of expected payout of the loss.

Medical malpractice exposure can be subject to long settlement delays and can include large single event claims. This type of exposure has higher inherent volatility than typical insurance exposures. Palladium has insurance exposure to only report years beginning January 1, 2015. Given the immaturity of the exposures, meaningful future claim payment and case reserve activity is expected. The uncertainty of these years will decrease over time as these years mature and losses are reported.

In the normal course of business, Palladium seeks to reduce losses that may arise from risks or occurrences of an unexpected nature that may cause unfavorable underwriting results by reinsuring certain levels of risk in various areas of exposure with other insurance enterprises or reinsurers.

Other Liabilities
Other liabilities include among other things, deferred grant revenue, payor advances, 457(b) plan obligations and interest rate swap liabilities.

Derivative Financial Instruments
The Health Network makes limited use of derivatives, which relate primarily to interest rate swaps. The Health Network entered into multiple interest rate swap agreements that convert variable debt to a fixed rate, as well as converting a fixed rate to a variable rate. The liabilities associated with the interest rate swaps are reported in other non-current liabilities in the consolidated balance sheets. Changes in the fair value of interest rate swaps deemed effective and that qualify for hedge accounting are accounted for as unrestricted net assets in the consolidated statements of changes in net assets. For those interest rate swaps that do not qualify for hedge accounting, the changes in fair value are reported as a separate line item in non-operating expense on the consolidated statements of operations. Specific types of loans and amounts that the Health Network hedges are determined based on prevailing market conditions and are further disclosed in Note 8.

Temporarily and Permanently Restricted Net Assets
Temporarily restricted net assets are those whose use is limited by donor-imposed stipulations that either expire with the passage of time or can be fulfilled and removed by actions of the Health Network pursuant to those stipulations. Temporarily restricted net assets are available for capital and other program expenditures.

Permanently restricted net assets are those whose use is limited by donor-imposed stipulations that neither expire with the passage of time nor can be fulfilled or otherwise removed by the actions of the Health Network. Investment earnings from permanently restricted net assets may be unrestricted or temporarily restricted for capital or operating needs depending upon the original intent of the donor.

(in thousands of dollars)

Net assets are released from donor restrictions by incurring expenses satisfying the restricted purposes or by occurrence of other events specified by donors. Net assets released from restrictions and used for operations are recorded in net assets released from restriction. Net assets released from restriction and used for capital purposes are recorded in unrestricted net assets in the consolidated statements of changes in net assets.

Donor-Restricted Contributions
The Health Network classifies the portions of donor-restricted endowment funds of perpetual durations as permanently restricted net assets. Permanently restricted net assets are comprised of (a) the original value of the contributions made to the permanent endowment, (b) the original value of the subsequent contributions made to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with applicable donor gift instruments. Any portion of donor-restricted endowment funds that are not classified as permanently restricted are appropriated in accordance with donor intent.

The Health Network considers the following factors in determining if donor-restricted endowment funds are accumulated or appropriated:

(1) The duration and preservation of the fund
(2) The purposes of the organization and the donor-restricted endowment fund
(3) General economic conditions
(4) The possible effect of inflation and deflation
(5) The expected total return from income and appreciation of investments
(6) Other resources of the organization
(7) The investment policies of the organization

The Health Network's permanently restricted net assets consist of endowments managed by donor-selected trustees and endowments managed by the Health Network. Unless otherwise directed by the donor, gifts received for endowments are invested in accordance with the Health Network's investment policy. In order to preserve the real value of a donor's gift and to sustain funding consistent with donor intent, the annual appropriation rate is set to strike a reasonable balance between long-term objectives of preserving and growing each endowment fund for the future of providing stable, annual appropriations.

Return Objectives and Risk Parameters
The Health Network has adopted endowment investment and spending policies that attempt to provide a predictable stream of funding programs supported by its endowment while seeking to maintain the purchasing power of endowment assets. Under this policy, the return objective for the endowment assets, measured over a full market cycle, shall be to maximize the return with a balanced growth emphasis based on the endowment's target allocation applied to the appropriate individual benchmarks.

Strategies Employed for Achieving Investment Objectives
To achieve its long-term rate of return objectives, the Health Network elected a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends). The investment income percentage distribution is recorded as a transfer out of trusts in permanently restricted net assets. The Health Network targets diversified asset allocation that places a greater emphasis on fixed income based investments to achieve its long-term objectives within prudent risk constraints.

Uncompensated Care and Community Services Benefit
The Health Network offers medical care to all patients, including those who may have difficulty paying for services due to limited income. Consistent with its mission to deliver compassionate, high quality, affordable healthcare services and to advocate for those who are poor and disenfranchised, the Health

(in thousands of dollars)

Network strives to ensure that the financial capacity of people who need healthcare services does not prevent them from seeking or receiving care. The Health Network provides, without discrimination, care for emergency medical conditions or other medically necessary care to individuals regardless of their eligibility for financial assistance or for government assistance. These individuals are not to be charged more than the amounts generally billed to individuals covered by insurance.

The Health Network's financial assistance policy defines the income eligibility criteria, the type of financial assistance, and the services that are included and excluded under its policy. The policy sets forth the procedure by which a patient shall apply for financial assistance, sometimes referred to as charity care. If the patient and/or guarantor's income is at or under 200% of the Federal Poverty Guidelines, all patient liability balances will be forgiven at 100%, whereas discounted care for uninsured but failing charity thresholds ranges between 70% and 83% of gross charges based upon the look-back method. The Health Network does not pursue collection of amounts determined to qualify for charity care; therefore, charity care amounts are not recorded as net patient service revenue.

Of the Health Network's total expenses reported, an estimated $24,000 and $20,000 arose from providing services to charity patients in 2017 and 2016, respectively. The Health Network estimated these costs by applying the cost of the total direct and indirect costs of each procedure to the individual charity care cases. Patients are required to apply for the charity care discount, but often do not complete the necessary paperwork to determine if they qualify. As a result, certain uncompensated services that would potentially be considered charity care under the policy, instead are ultimately reflected in the provision for bad debts.

In addition to uncompensated care, the Health Network provides free and below cost services and programs for the benefit of the community. The cost of these programs is included in salaries, wages, and fringe benefits, patient care supplies, and professional fees and purchased services lines in the accompanying consolidated statements of operations.

Services are also provided to beneficiaries of government-sponsored programs, including state Medical Assistance and indigent care programs. Reimbursement from these programs is often less than the cost of providing these services.

Other Operating Revenue
Other operating revenue includes among other things, grants, Medicare and Medicaid electronic health record ("EHR") incentive payments and other ancillary hospital services revenue such as parking, cafeteria, tuition and rent. Other operating revenue also includes the Health Network's proportionate share of affiliate earnings.

The composition of other operating revenue is as follows for the years ended December 31:

	2017	2016
Grant revenue	$ 38,562	$ 29,623
Affiliation income	-	29,100
Facility services	37,458	33,894
Equity method investment income	4,713	4,123
Medicare/Medicaid EHR incentives	1,473	2,213
Other miscellaneous revenue	97,043	94,593
	$ 179,249	$ 193,546

(in thousands of dollars)

Income Taxes
AHN and some of the entities within the Health Network are tax-exempt organizations under Section 501(c)(3) of the Internal Revenue Code ("IRC") and are exempt from federal income taxes on exempt purpose income. These tax-exempt organizations are subject to federal taxes on unrelated business income under section 511 of the IRC. No such tax liability exists in 2017 or 2016, and as such, no provision for unrelated business income tax has been made in the consolidated financial statements.

Certain for-profit entities within the Health Network are subject to federal and state income taxes. Provisions for the applicable tax liabilities have been made in the consolidated financial statements. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using tax rates and laws that are expected to be in effect when the difference is reversed. The Health Network records a valuation allowance against its deferred tax assets when it determines that it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Excess (Deficit) of Revenue over Expenses
The consolidated statements of operations include an excess (deficit) of revenue over expenses. Changes in unrestricted net assets (deficit) which are excluded from the excess (deficit) of revenue over expenses, consistent with industry practice, include unrealized gains and losses on available-for-sale securities, benefit plan asset and liability changes, contributions of long-lived assets (including assets acquired using contributions which by donor restriction were to be used for the purposes of acquiring such assets), gain on qualifying derivative instruments, change in non-controlling interests and certain tax benefits.

Subsequent Events
In connection with the preparation of the consolidated financial statements, the Health Network evaluated events subsequent to the balance sheet date of December 31, 2017 through March 28, 2018, which is also the date the financial statements were available to be issued, and has determined that all material transactions have been recorded and disclosed properly.

3. Investments

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2017 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 28,223	$ 2	$ (489)	$ 27,736
Agency mortgage-backed securities	1,468	-	(23)	1,445
Asset-backed and other loan-backed securities	500	-	(4)	496
Corporate and other debt securities	40,232	184	(291)	40,125
Total debt securities	70,423	186	(807)	69,802
Equity securities				
Domestic	3,219	835	-	4,054
Foreign	7,165	316	-	7,481
Total equity securities	10,384	1,151	-	11,535
Total	$ 80,807	$ 1,337	$ (807)	$ 81,337

(in thousands of dollars)

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2016 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 19,296	$ -	$ (380)	$ 18,916
Asset-backed and other loan-backed securities	500	-	(4)	496
Corporate and other debt securities	36,610	130	(322)	36,418
Total debt securities	56,406	130	(706)	55,830
Equity securities				
Domestic	3,219	186	(3)	3,402
Foreign	6,950	5	(217)	6,738
Total equity securities	10,169	191	(220)	10,140
Total	$ 66,575	$ 321	$ (926)	$ 65,970

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2017 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 10,855	$ (126)	$ 16,378	$ (363)	$ 27,233	$ (489)
Agency mortgage-backed securities	1,445	(23)	-	-	1,445	(23)
Asset-backed and other loan-backed securities	-	-	496	(4)	496	(4)
Corporate and other debt securities	19,986	(140)	10,067	(151)	30,053	(291)
Total debt securities	32,286	(289)	26,941	(518)	59,227	(807)
Equity securities						
Domestic	-	-	-	-	-	-
Foreign	96	-	-	-	96	-
Total equity securities	96	-	-	-	96	-
Total	$ 32,382	$ (289)	$ 26,941	$ (518)	$ 59,323	$ (807)

(in thousands of dollars)

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2016 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 18,416	$ (380)	$ -	$ -	$ 18,416	$ (380)
Asset-backed and other loan-backed securities	496	(4)	-	-	496	(4)
Corporate and other debt securities	24,277	(317)	242	(5)	24,519	(322)
Total debt securities	43,189	(701)	242	(5)	43,431	(706)
Equity securities						
Domestic	197	(3)	-	-	197	(3)
Foreign	4,017	(99)	1,306	(118)	5,323	(217)
Total equity securities	4,214	(102)	1,306	(118)	5,520	(220)
Total	$ 47,403	$ (803)	$ 1,548	$ (123)	$ 48,951	$ (926)

At December 31, 2017 and 2016, the Health Network held available-for-sale debt securities with gross unrealized losses of $807 and $706, respectively. Management evaluated the unrealized losses and determined that they were due primarily to volatility in the interest rate environment and market conditions. The Health Network does not intend to sell the related debt securities and it is not likely that the Health Network will be required to sell the debt securities before recovery of their amortized cost basis, which may be maturity. Therefore, management does not consider the available-for-sale debt securities to be other-than-temporarily impaired as of December 31, 2017 and 2016.

At December 31, 2017 and 2016, the Health Network held available-for-sale equity securities with gross unrealized losses of $0 and $220, respectively. Management reviews equity securities in which fair value falls below cost. In determining whether an equity security is other-than-temporarily impaired, management considers both quantitative and qualitative information. The impairment review process is subjective and considers a number of factors, including, but not limited to, the length of time and extent to which the fair value has been less than book value, the financial condition and near-term prospects of the issuer, recommendations of investment advisors, the intent and ability to hold securities for a time sufficient to allow for any anticipated recovery in value and general market conditions and industry or sector-specific factors, including forecasts of economic, market or industry trends. Management does not consider the available-for-sale equity securities to be other-than-temporarily impaired as of December 31, 2017 and 2016.

The realized (losses) gains on the available-for-sale debt securities were $(23) and $103 for the years ended December 31, 2017 and 2016. There were no realized gains or losses on the available-for-sale equity securities for the years ended December 31, 2017 and 2016. There were no other-than-temporary impairments on the available-for-sale debt or equity securities for the years ended December 31, 2017 and 2016.

(in thousands of dollars)

The amortized cost and fair value of available-for-sale debt securities at December 31, 2017 and 2016 are shown below by contractual maturity. Expected maturities could differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	2017		2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within one year or less	$ 8,492	$ 8,484	$ -	$ -
Due after one year and within five years	37,213	36,912	30,672	30,597
Due five years through ten years	21,773	21,434	23,248	22,764
Due after ten years	977	1,031	1,986	1,973
Asset-backed and other loan-backed securities	1,968	1,941	500	496
Total	$ 70,423	$ 69,802	$ 56,406	$ 55,830

Board designated, restricted and other investments consist of the following investments at December 31:

	2017	2016
Cash and cash equivalents	$ 249,354	$ 70,095
Debt securities		
U.S. Treasury and agency obligations	99,713	64,243
Agency mortgage-backed securities	3,732	4,833
Asset and mortgage-backed securities	2,198	5,102
Corporate and other debt securities	61,188	94,112
Total debt securities	166,831	168,290
Equity securities		
Domestic	100,708	128,938
Foreign	68,710	42,614
Total equity securities	169,418	171,552
Common collective trust interests	262	240
Total board designated, restricted and other investments	$ 585,865	$410,177

(in thousands of dollars)

Board designated, restricted and other investments consist of the following components at December 31:

	2017	2016
Unrestricted		
Other investments	$ 271,300	$ 278,897
Board designated		
Capital improvements	-	4,110
Foundation	35,335	34,973
Capital project funds	194,556	-
Debt service	-	5,596
Self-insurance	807	2,913
Grant funds and other	29,336	28,454
Total unrestricted	531,334	354,943
Temporarily restricted	20,057	22,433
Permanently restricted	34,474	32,801
Total board designated, restricted and other investments	$ 585,865	$ 410,177

The following is a summary of net investment income for the year ended December 31, 2017:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 19,744	$ 1,239	$ 3,910
Net realized gains on investments	12,094	2,031	9,353
Net unrealized gains (losses) on board designated, restricted and other investments	9,771	(833)	23,208
Total net investment income	$ 41,609	$ 2,437	$ 36,471

The following is a summary of net investment income for the year ended December 31, 2016:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 17,722	$ 878	$ 3,658
Net realized (losses) gains on investments	(833)	(43)	2,068
Net unrealized gains on board designated, restricted and other investments	9,140	546	7,365
Total net investment income	$ 26,029	$ 1,381	$ 13,091

There were no other-than-temporary impairment charges on available-for-sale securities included in net realized gains (losses) on unrestricted investments for 2017 and 2016.

The recognition of unrealized gains and losses on investments that are restricted as to use are recorded directly to temporarily and permanently restricted net assets as required by donor or regulation. These investments consist primarily of equity securities, agency mortgage-backed securities, corporate debt securities and U.S. Treasury obligations. All unrealized gains and losses on marketable unrestricted board-designated and other investments are recognized in net investment income.

(in thousands of dollars)

4. Fair Value of Financial Instruments

Input levels, as defined by Fair Value Measurement guidance, are as follows:

Level 1: Pricing inputs are based on unadjusted quoted market prices for identical financial assets or liabilities in active markets. Active markets are those in which transactions occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2: Pricing inputs include observable inputs other than Level 1 pricing inputs, such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Pricing inputs include unobservable inputs that are supported by little or no market activity and that reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

The following methods and assumptions were used to determine the fair value of each class of the following assets and liabilities recorded at fair value in the consolidated balance sheets:

Cash equivalents: Cash equivalents consist of highly liquid investments with maturities of three months or less and are designated as Level 1.

Debt securities, available-for-sale: Fair values of available-for-sale debt securities are based on quoted market prices, where available. These fair values are obtained primarily from a third party pricing service, which generally use Level 1 or Level 2 inputs, for the determination of fair value to facilitate fair value measurements and disclosures.

Equity securities, available-for-sale: Fair values of equity securities are generally designated as Level 1 and are based on quoted market prices for identical assets in active markets. For certain equity securities, quoted market prices for identical securities are not always available and the fair value is estimated by reference to similar or underlying securities for which quoted prices are available. These securities are designated Level 2.

Board designated, restricted and other investments: Board-designated, restricted and other investments include cash equivalents, debt securities and equity securities that follow the same methods and assumptions and fair value designations described above.

Beneficial interest in participating trusts: Permanently restricted net assets consist of amounts held in perpetuity as designated by donors, including the Health Network's portion of beneficial interests in several endowments managed by donor-selected trustees. The fair value for endowments managed by donor-selected trustees are designated as Level 3 securities with the interest in these trusts based on the fair value of the underlying trust investments.

The Health Network uses a third party pricing service to obtain quoted prices for each security. The third party service provides pricing based on recent trades of the specific security or like securities, as well as a variety of valuation methodologies for those securities where an observable market price may not exist. The third party service may derive pricing for Level 2 securities from market-corroborated pricing, matrix pricing, discounted cash flow analyses and inputs such as yield curves and indices. Pricing for Level 3 securities may be obtained from investment managers for private placements.

Certain invested assets are valued at NAV as a practical expedient to fair value. The holdings of the underlying investments are measured at fair value as of the reporting date. These investments, if sold, are probable of being sold at amounts equal to net asset value per share. The underlying investments in real estate trusts are measured at fair value on a recurring basis. The underlying investments in the

(in thousands of dollars)

limited partnerships are based on the Health Network's share of the entities' undistributed earnings based on issued financial statements.

The Health Network performs an analysis of reasonableness of the prices received for fair value by monitoring month-to-month fluctuations and determining reasons for significant differences, selectively testing fair values against prices obtained from other sources, and comparing the consolidated fair value of a class of assets against an appropriate index benchmark. The Health Network did not make adjustments to the quoted market prices obtained from third party pricing services that were material to the consolidated financial statements.

The following table summarizes fair value measurements by level at December 31, 2017 for financial assets measured at fair value on a recurring basis:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Assets					
Cash and cash equivalents	$ 220,017	$ 220,017	$ -	$ -	$ -
Investments					
Debt securities, available-for-sale					
U.S. Treasury and agency obligations	27,736	24,177	3,559	-	-
Agency mortgage-backed securities	1,445	-	1,445	-	-
Asset-backed and other loan-backed securities	496	-	496	-	-
Corporate and other debt securities	40,125	-	40,125	-	-
Total debt securities	69,802	24,177	45,625	-	-
Equity securities, available-for-sale					
Domestic	4,055	4,055	-	-	-
Foreign	7,480	7,480	-	-	-
Total equity securities	11,535	11,535	-	-	-
Board designated, restricted and other investments					
Cash and cash equivalents	249,355	249,355	-	-	-
Debt securities					
U.S. Treasury and agency obligations	99,713	49,263	50,450	-	-
Agency mortgage-backed securities	3,732	-	3,732	-	-
Asset-backed and other loan-backed securities	2,198	-	2,198	-	-
Corporate and other debt securities	61,188	-	61,188	-	-
Equity securities					
Domestic	100,707	93,208	-	7,499	-
Foreign	68,710	68,710	-	-	-
Common collective trust interests	262	-	-	-	262
Total board designated, restricted and other investments	585,865	460,536	117,568	7,499	262
Beneficial interest in perpetual trusts	251,177	-	-	251,177	-
Total assets	**$ 1,138,396**	**$ 716,265**	**$ 163,193**	**$ 258,676**	**$ 262**
Liabilities					
Interest rate swaps	$ -	$ -	$ -	$ -	$ -

(in thousands of dollars)

The following table summarizes fair value measurements by level at December 31, 2016 for financial assets measured at fair value on a recurring basis:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Assets					
Cash and cash equivalents	$ 196,553	$ 196,553	$ -	$ -	$ -
Investments					
Debt securities, available-for-sale					
U.S. Treasury and agency obligations	18,916	18,416	500	-	-
Agency mortgage-backed securities	-	-	-	-	-
Asset-backed and other loan-backed securities	496	-	496	-	-
Corporate and other debt securities	36,418	-	36,418	-	-
Total debt securities	55,830	18,416	37,414	-	-
Equity securities, available-for-sale					
Domestic	3,403	3,403	-	-	-
Foreign	6,737	6,737	-	-	-
Total equity securities	10,140	10,140	-	-	-
Board designated, restricted and other investments					
Cash and cash equivalents	70,095	70,095	-	-	-
Debt securities					
U.S. Treasury and agency obligations	64,243	56,799	7,444	-	-
Agency mortgage-backed securities	4,833	-	4,833	-	-
Asset-backed and other loan-backed securities	5,102	-	5,102	-	-
Corporate and other debt securities	94,112	-	94,112	-	-
Equity securities					
Domestic	128,938	121,439	-	7,499	-
Foreign	42,614	42,614	-	-	-
Common collective trust interests	240	-	-	-	240
Total board designated, restricted and other investments	410,177	290,947	111,491	7,499	240
Beneficial interest in perpetual trusts	224,405	-	-	224,405	-
Total assets	**$ 897,105**	**$ 516,056**	**$ 148,905**	**$ 231,904**	**$ 240**
Liabilities					
Interest rate swaps	$ 12,265	$ -	$ 12,265	$ -	$ -

Transfers between levels, if any, are recorded annually as of the end of the reporting period unless, with respect to a particular issue, a significant event occurred that necessitated the transfer be reported at the date of the event.

There were no material transfers between Levels 1 and 2 during the years ended December 31, 2017 and 2016. There were no material transfers from Level 3 during the years ended December 31, 2017 and 2016.

(in thousands of dollars)

The changes in fair value for assets measured using significant unobservable inputs (Level 3) for the years ended December 31, 2017 and 2016 were as follows:

	Beneficial Interest in Perpetual Trusts	Privately Held Equity Securities	Total
Balance at January 1, 2016	**$ 219,772**	**$ 7,499**	**$ 227,271**
Net unrealized gains	7,452	-	7,452
Net realized gains	5,759	-	5,759
Purchases	-	-	-
Transfers out of trusts	(8,578)	-	(8,578)
Balance at December 31, 2016	**$ 224,405**	**$ 7,499**	**$ 231,904**
Net unrealized gains	20,315	-	20,315
Net realized gains	15,503	-	15,503
Purchases	-	-	-
Transfers out of trusts	(9,046)	-	(9,046)
Balance at December 31, 2017	**$ 251,177**	**$ 7,499**	**$ 258,676**

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2017:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Common collective trust interests	262	-	Quarterly	60 Days
Total	**$ 262**	**$ -**		

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2016:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Common collective trust interests	240	-	Quarterly	60 Days
Total	**$ 240**	**$ -**		

Fair Value Option

The Health Network elected the fair value option for its unrestricted investments, with the exception of the available-for-sale debt and equity securities held by Palladium. At December 31, 2017 and 2016, the Health Network reported unrestricted investments of $531,334 and $354,943, respectively under the fair value option within the Board designated, restricted and other investments at fair value on the consolidated balance sheets. The Health Network has recorded unrealized gains of $9,771 and $9,140 (included in net investment income on the consolidated statements of operations) for the years ended December 31, 2017 and 2016, respectively.

(in thousands of dollars)

5. Equity Method Investments

The Health Network and its subsidiaries have ownership interests in various health-related ventures which were formed to reduce the costs and increase effectiveness in providing community service benefits. These include ventures which provide laboratory, ambulance, oncology and other services and are accounted for under the equity method of accounting. The accompanying consolidated balance sheets reflect equity investments as follows for December 31:

	2017		2016	
	Ownership Interest	Investment Balance	Ownership Interest	Investment Balance
Regional Cancer Center	50.0%	$ 9,696	50.0%	$ 10,009
Associated Clinical Labs	12.3%	8,615	12.3%	8,827
UPMC VNA Home Health	0.0%	-	33.4%	8,191
Vantage Holding Company	52.3%	6,310	52.3%	6,443
Jefferson Medical Associates	43.8%	5,069	43.8%	5,055
EmergyCare, Inc.	50.0%	2,787	50.0%	2,389
Community Blood Bank of Erie County	40.0%	1,568	40.0%	1,610
AHN Emergency Medicine Management, LLC	50.0%	1,843	50.0%	1,325
Other (a)	various	4,562	various	4,609
		$ 40,450		$ 48,458

(a) Consists of various individually immaterial investments of varying ownership interests (ranging from 20.7% to 50%).

Total assets, liabilities, and net assets of the equity investees were approximately $164,714, $79,032, and $85,682, respectively, at December 31, 2017 and $201,622, $89,026, and $112,596, respectively, at December 31, 2016. Total revenues, expenses and net income of the equity investees was approximately $179,965, $158,818 and $21,147, respectively, for the year ended December 31, 2017 and $175,630, $153,771 and $21,859, respectively, for the year ended December 31, 2016.

Differences, if any, between the carrying amount of the investment and the amount of underlying equity in net assets of the investment are, in the opinion of management, deemed to be immaterial in the aggregate.

In June 2017, JRMC divested its 33.4% ownership interest in UPMC/JRMC Home Health, L.P. (“UPMC VNA Home Health”), a home health agency in Western Pennsylvania providing skilled nursing, medical-social, home health aide and physical therapy. JRMC received proceeds of $22,030 on the divestiture which resulted in the recognition of a one-time gain of $13,017 reported on the consolidated statement of operations as non-operating activity.

(in thousands of dollars)

6. Property and Equipment, Net

Property and equipment was comprised of the following at December 31:

	2017	2016
Land, buildings and leasehold improvements	$ 882,425	$ 777,044
Equipment	672,900	558,112
Capitalized software	79,251	62,717
Total depreciable assets	1,634,576	1,397,873
Less: accumulated depreciation	(559,496)	(425,372)
Net depreciable assets	1,075,080	972,501
Construction in progress	76,922	102,334
Property and equipment, net	$ 1,152,002	$ 1,074,835

Depreciation expense amounted to $140,868 and $124,995 for 2017 and 2016, respectively.

Included in total depreciable assets is $62,523 of assets recorded under a capital lease with accumulated amortization of $13,161 at December 31, 2017. The assets primarily relate to a capital lease for parking garages and a medical office building adjacent to one of the Health Network's hospitals.

The Health Network capitalizes interest on certain assets that require a period of time to prepare for their intended use. The amount capitalized is based on the weighted average outstanding borrowing rate. For the years ended December 31, 2017 and 2016, the Health Network capitalized $696 and $3,573, respectively.

7. Employee Benefit Plans

Defined Benefit Plans

The Health Network covers certain employees meeting age and service requirements through multiple non-contributory defined benefit pension plans (the "pension plans"), the Retirement Plan for Eligible Represented Employees of West Penn Allegheny Health System and the Retirement Plan for Eligible Non-Represented Employees of West Penn Allegheny Health System (collectively the "WPAHS pension plans"), the Jefferson Retirement Plan (the "JRMC pension plan"), and the Saint Vincent Health System Pension Plan (the "SVHS pension plan"). The JRMC and SVHS pension plans are frozen. In 2017, WPAHS froze the Retirement Plan for Eligible Non-Represented Employees of West Penn Allegheny Health System effective December 31, 2017.

The Health Network funds its pension plans according to minimum funding requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"), as amended. During 2018, the Health Network expects to contribute $29,100 to the pension plans related to the 2017 plan year and $26,000 to the pension plans related to the 2018 plan year.

(in thousands of dollars)

The amounts recognized in the consolidated balance sheets were as follows:

	2017	2016
Accumulated benefit obligation	$ 1,341,619	$ 1,262,654
Change in benefit obligations		
Benefit obligations at beginning of year	$ 1,282,899	$ 1,237,249
Service cost	23,626	23,414
Interest cost	39,149	39,491
Participant contributions	22	37
Benefit payments	(61,178)	(63,955)
Curtailment gain	(13,336)	-
Actuarial loss	73,831	46,663
Benefit obligations at end of year	$ 1,345,013	$ 1,282,899
Change in plan assets		
Net plan assets at beginning of year	$ 844,769	$ 853,226
Actual return on plan assets	129,797	43,257
Participant contributions	22	37
Employer contributions	89,927	12,204
Benefit payments	(61,178)	(63,955)
Settlement payments	-	-
Net plan assets at end of year	$ 1,003,337	$ 844,769
Amounts recognized in the consolidated balance sheets		
Benefit plan liabilities	$ (341,676)	$ (438,130)
Amounts included in unrestricted net assets		
Actuarial loss	(106,985)	(115,310)
Net amounts recognized	$ (106,985)	$ (115,310)

The estimated actuarial loss for the pension plans that will be amortized from net assets in 2018 is $1,278.

The following table provides the components of net periodic benefit cost for the years ended December 31:

	2017	2016
Service cost	$ 23,626	$ 23,414
Interest cost	39,149	39,491
Expected return on plan assets	(61,861)	(60,170)
Amortization of:		
Actuarial loss	884	273
Net periodic benefit costs	$ 1,798	$ 3,008

(in thousands of dollars)

The Health Network's weighted-average assumptions related to the calculation of the pension benefit obligations and net periodic benefit cost for the pension and other post-retirement plans are presented in the tables below:

	2017	2016
Weighted-average assumptions		
Discount rate - benefit obligations	3.44%	3.88%
Discount rate - net periodic costs	3.88%	4.05%
Expected return on plan assets	7.27%	7.28%
Rate of compensation increase	2.45 - 6.09%	2.88 - 7.15%

The expected return on pension plan assets is developed using inflation expectations, risk factors and input from actuaries to arrive at a long-term nominal expected return for each asset class. The nominal expected return for each asset class is then weighted based on the target asset allocation to develop the expected long-term rate of return on plan assets.

The expected return on other post-retirement plan assets is developed based on historical returns and the future expectations for returns for each asset class as well as the asset allocation of the other post-retirement plan assets.

Estimated benefit payments are expected as follows:

2018	$	95,000
2019	$	95,000
2020	$	93,000
2021	$	91,000
2022	$	90,000
2023-2027	$	422,000

The pension plans' overall investment strategies are determined by the plans' investment committees, investment advisors and plan administrators. Overall, the goals of the Health Network are to achieve sufficient diversification of asset types, fund strategies and fund managers in order to minimize volatility and maximize returns over the long term, while still having sufficient funds to pay those benefits due in the near term.

The Health Network's pension plans primarily set an investment strategy to achieve a mix of 25% of long-duration fixed income securities meant to hedge the benefit obligations, 73% of investments for long-term growth and 2% for near-term benefit payments with a diversification of asset types, fund strategies and fund managers. The target allocations for the Health Network's plans assets are approximately 25% fixed income securities, 60% equity securities, 13% alternative investments and 2% cash equivalents. Equity securities primarily include stock investments in U.S. developed and emerging market corporations. Fixed income securities primarily include bonds of domestic and foreign companies from diversified industries, domestic mortgage-backed securities and bonds of U.S. and foreign governments and agencies. Alternative investments include investments in real estate and private equity funds that follow several different strategies.

(in thousands of dollars)

The following table summarizes the fair value measurements by level at December 31, 2017:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Pension plan assets					
Cash and cash equivalents	$ 4,475	$ 4,475	$ -	$ -	$ -
Debt securities					
U.S. Treasury and agency obligations	67,302	62,742	4,560	-	-
Agency mortgage-backed securities	8,362	-	8,362	-	-
State and political obligations	5,838	-	5,838	-	-
Commercial mortgage-backed securities	2,518	-	2,518	-	-
Residential mortgage-backed securities	1,002	-	1,002	-	-
Asset-backed securities	12,930	-	12,430	500	-
Corporate and other debt securities	134,441	-	134,441	-	-
Total debt securities	232,393	62,742	169,151	500	-
Equity securities					
Domestic	319,535	319,535	-	-	-
Foreign	76,329	76,329	-	-	-
Total equity securities	395,864	395,864	-	-	-
Registered investment company shares	350,894	350,894	-	-	-
Common collective trust interests	705	-	705	-	-
Private limited partnerships	16,449	-	-	-	16,449
Total	$ 1,000,780	$ 813,975	$ 169,856	$ 500	$ 16,449

At December 31, 2017, the fair value of pension plan assets excluded accrued interest and other receivables of $2,557.

The following table summarizes the fair value measurements by level at December 31, 2016:

(in thousands of dollars)

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Pension plan assets					
Cash and cash equivalents	$ 5	$ 5	$ -	$ -	$ -
Debt securities					
U.S. Treasury and agency obligations	70,037	65,801	4,236	-	-
Agency mortgage-backed securities	9,930	-	9,930	-	-
State and political obligations	6,015	-	6,015	-	-
Commercial mortgage-backed securities	2,203	-	2,203	-	-
Residential mortgage-backed securities	420	-	420	-	-
Asset-backed securities	12,209	-	12,209	-	-
Corporate and other debt securities	129,661	-	129,661	-	-
Total debt securities	230,475	65,801	164,674	-	-
Equity securities					
Domestic	362,191	362,191	-	-	-
Foreign	62,394	62,394	-	-	-
Total equity securities	424,585	424,585	-	-	-
Registered investment company shares	178,593	152,245	26,348	-	-
Common collective trust interests	2,649	-	2,649	-	-
Private limited partnerships	6,741	-	-	-	6,741
Total	$ 843,048	$ 642,636	$ 193,671	$ -	$ 6,741

At December 31, 2016, the fair value of pension plan assets excluded accrued interest and other receivables of $1,721.

The changes in fair value for pension plans measured using significant unobservable inputs (Level 3) for the years ended December 31 were as follows:

	2017	2016
Balance at January 1	$ -	$ -
Purchases	500	-
Balance at December 31	$ 500	$ -

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2017:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private limited partnerships	16,449	-	Quarterly	30 Days
Total	**$ 16,449**	**$ -**		

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2016:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private limited partnerships	6,741	-	Quarterly	30 Days
Total	**$ 6,741**	**$ -**		

Defined Contribution Plans

The Health Network sponsors several forms of defined contribution savings plans including: 403(b), 401(a), and 401(k) plans under the Internal Revenue Code. While a number of the plans are frozen, certain plans continue to provide employer matching at various levels. The Health Network's expense

(in thousands of dollars)

associated with contributions to these savings plans was $8,238 and $6,969 for the years ended December 31, 2017 and 2016, respectively.

Deferred Compensation Plans
The Health Network sponsors multiple deferred compensations plans, for a select group of management and highly compensated employees, which are governed by Internal Revenue Code Section 457(b). Salary deferrals are subject to Code 457(b) limits. The Health Network makes no employer contributions to the plan. The related plan assets, while held in a separate trust, are recorded on the accompanying consolidated financial statements within the caption of other assets, and the offsetting liabilities recorded as of December 31, 2017 and 2016 were $34,148 and $27,370, respectively. The Health Network is not at risk for any negative changes to the market value of these assets.

8. Debt

The Health Network's total debt consisted of the following at December 31:

	2017	2016
AHN revenue bonds	$ 992,268	$ -
JRMC revenue bonds	-	93,588
SVHS revenue bonds	-	87,450
WPAHS term loan	-	699,054
Highmark Inc. notes payable	-	502,794
Floating rate restructuring certificates	-	3,973
Mortgage loan, due March 15, 2032, interest at 6.00%	22,668	23,187
Capital leases payable due through 2021 at varying interest rates	50,047	6,293
Mortgage and other loans due through 2024 at varying interest rates	8,263	5,329
Total debt	$ 1,073,246	$ 1,421,668
Less: current portion	(10,854)	(14,385)
Less: long-term debt subject to short term remarketing arrangements	-	(55,385)
Total debt, net of current portion	$ 1,062,392	$ 1,351,898

A summary of scheduled principal repayments on debt is as follows:

(in thousands of dollars)

Years ending December 31,	
2018	$ 10,854
2019	42,402
2020	3,255
2021	2,235
2022	994,164
Thereafter	20,336
Total	$ 1,073,246

Allegheny Health Network
Allegheny County Hospital Development Authority Revenue Bonds ("AHN Revenue Bonds")
In December 2017, the Health Network issued aggregate tax exempt revenue bonds of $1,000,000 ($300,000 (Series 2017A); $250,000 (Series 2017B); $250,000 (Series 2018C); and $200,000 (Series 2017D)) through the Allegheny County Hospital Development Authority for direct purchase by a financial institution. While the bonds are scheduled to mature in April 2047, the current structure of the multimodal master trust agreement requires that the initial mode with the financial institution end by December 1, 2022, to be replaced with an alternate mode of the bond instrument as remarketed. Under the multimodal structure of the bonds, the bonds can be remarketed in a fixed rate mode. The variable rate interest on the bonds under the initial mode is payable monthly and the Health Network has an option during the initial mode to select the interest rate based on either one-month LIBOR, 60 day LIBOR or 90 day LIBOR plus a credit spread. The interest rate is subject to change upon a revision in the federal corporate tax rate. The Health Network has selected one-month LIBOR at December 31, 2017, with a rate of 2.59% at December 31, 2017. Proceeds from the bonds were used to refinance existing bond debt at JRMC and SVHS as well as the 2014 term loan at WPAHS and provide funding of $194,000 for various capital projects, which are reported in a project fund included in board designated, restricted and other investments in the consolidated balance sheets. The bonds are collateralized by a guarantee from Highmark Inc (related only to the initial mode) as well as the gross receivables (excluding restricted amounts) and mortgages on property and equipment of the WPAHS hospitals. Deferred bond issuance costs of $7,732 were recognized in association with the issuance and will be amortized over the life of the bonds.

Jefferson Regional Medical Center
Allegheny County Hospital Development Authority Revenue Bonds ("JRMC Revenue Bonds")
JRMC issued aggregate revenue bonds of $123,335 in September 2010, July 2008, February 2007, May 2006, May 2000 and March 1998 through the Allegheny County Hospital Development Authority with scheduled maturities through March 2040. In December 2017, these bonds were defeased and all outstanding amounts and related unamortized premiums and discounts were settled. At December 31, 2016, JRMC had bonds outstanding of $93,588. Interest rates ranged from 0.78% to 5.125% at December 31, 2016. Proceeds from the bonds were used primarily for various capital projects. The unamortized discount was $368 and premium was $81 at December 31, 2016. JRMC had aggregate letters of credit in place for these bonds in the amount of $59,715. Of this total, no amounts were outstanding at December 31, 2017 and 2016.

JRMC was party to related interest rate swap agreements designated as fair value hedges with a highly-rated major U.S. financial institution. The interest rate swap agreements were terminated and settled in December 2017 as part of the Health Network's retirement of existing bond debt at JRMC. In 2017 and 2016, JRMC paid $997 and $1,257, respectively, to the counterparty for settlement under the interest rate swap agreements. These amounts were included in interest expense in the consolidated statements of operations. JRMC recorded an interest rate swap liability of $5,544 at December 31, 2016, included in other liabilities in the consolidated balance sheets related to the swap agreements. The interest rate swaps did not qualify for hedge accounting, and changes in fair value are accounted for as non-operating income (expenses) in the consolidated statements of operations.

Saint Vincent Health System

(in thousands of dollars)

Erie County Hospital Authority Revenue Bonds ("SVHS Revenue Bonds")
SVHS issued aggregate revenue bonds of $90,600 with the Series 2009 and Series 2010A issued in December 2009 and the Series 2010B issued in January 2010 through the Erie County Hospital Authority with scheduled maturities through July 2039. In December 2017, these bonds were defeased and all outstanding amounts were settled. At December 31, 2016, SVHS had a total of $81,889, outstanding in Series 2009 and 2010 bonds. Interest rates ranged from 0.77% to 7.00% at December 31, 2016. Proceeds from the bonds were used primarily for various capital projects and to advance the refund of previously issued bonds.

The Series 2010B bonds were demand bonds and, while subject to long-term amortization periods, may have been put to SVHS at the option of the bondholders in connection with certain remarketing dates. To the extent that bondholders may, under the terms of the debt, put their bonds within 12 months after the reporting date, the Board of Trustees of SVHS restricted cash and investments of $46,667 at December 31, 2016, as a source of self-liquidity in the event the put option would have been enacted. SVHS had an irrevocable direct-pay letter of credit in place for the Series 2010B bonds in the amount of $55,800. Of this total, no amounts were outstanding at December 31, 2017 and 2016.

SVHS issued bonds of $8,828 in Series 2011A in August 2011 through Erie County Hospital Authority and scheduled to mature in August 2026. In December 2017, bonds were retired and all outstanding amounts were settled. At December 31, 2016, SVHS had Series 2011A bonds of $5,561 outstanding. Principal and interest were payable monthly and calculated based on 70% of the taxable interest rate, which is a floating rate of interest equal to the one-month LIBOR plus 2.75%. Interest rates were 2.36% at December 31, 2016. Proceeds from the Series 2011A bonds were used primarily to refinance the construction loan for the new parking facility.

SVHS was party to multiple interest rate swap agreements with highly-rated major U.S. financial institutions (the "counterparties"). The interest rate swap agreements were terminated and settled in December 2017 as part of the Health Network's retirement of existing bond debt at SVHS. In 2017 and 2016, SVHS paid $1,204 and $1,239, respectively, to the counterparties for settlements under the interest rate swap agreements which were included in interest expense in the consolidated statements of operations. SVHS recorded an interest rate swap liability of $2,877 at December 31, 2016, included in other liabilities in the consolidated balance sheets related to the swap agreements. The interest rate swaps did not qualify for hedge accounting, and changes in fair value are accounted for as non-operating income (expenses) in the consolidated statements of operations.

Term Loan
In May 2014, WPAHS entered into a $700,000 term loan credit facility ("Term Loan") with a maturity in May 2019. In December 2017, the Term Loan was terminated and the outstanding amounts was settled and related deferred issuance costs were written off. At December 31, 2016, the carrying value was $699,054, net of debt issuance costs of $946. The interest on the Term Loan was payable monthly and calculated based on LIBOR plus 0.75%. Interest rates were 0.97% at December 31, 2016. The Term Loan was fully guaranteed by Highmark Inc. with a pledge of cash and securities. The fair value of the pledged assets held by Highmark Inc. was $855,960 at December 31 2016, which satisfied the minimum level needed to maintain the guarantee. These assets were excluded from the Health Network's consolidated balance sheets at December 31, 2016 as they remained the assets of Highmark Inc.

WPAHS was party to a related interest rate swap agreement with a highly-rated major U.S. financial institution. The interest rate swap agreements were terminated and settled in December 2017 as part of the Health Network retirement of existing debt at WPAHS. The intent of the interest rate swap agreement was to hedge the interest rate risk associated with future interest payments on the Term Loan by converting the variable rate to a fixed rate of 2.34%. In 2017 and 2016, WPAHS paid $3,788 and $7,917, respectively, to the counterparty for settlements under the interest rate swap agreement. This amount was included in interest expense in the consolidated statements of operations. WPAHS

(in thousands of dollars)

recorded an interest rate swap liability of $3,844 at December 31, 2016, included in the consolidated balance sheets. The interest rate swap qualified for hedge accounting and changes in fair value were accounted for as unrestricted net assets in the consolidated statement of changes in net assets. The termination of the swap agreement in December 2017 resulted in a gain of $2,298 and is reported as gain on interest rate swaps on the consolidated statements of operations.

Highmark Inc. Notes Payable

In December 2017, Highmark Inc. and the Health Network entered into an intercompany debt termination agreement whereby the outstanding Health Network loans totaling $523,694 at December 1, 2017 were terminated and all amounts due and owing were deemed to be forgiven by Highmark Inc. with no further liability to the Health Network. The impact of this forgiveness was recorded as a net asset transfer resulting in an increase to the unrestricted net assets on the statement of changes in net assets. At December 31, 2016, the Health Network had loans from Highmark Inc. totaling $502,794, consisting of both secured and unsecured borrowings that paid interest at varying rates.

Other

WPAHS had outstanding floating rate restructuring certificates ("FRRCs") of $3,973 at December 31, 2016. In 2017, WPAHS settled and extinguished this debt.

SVHS has an outstanding mortgage loan of $22,668 and $23,187 at December 31, 2017 and 2016, respectively, related to a medical office building. The mortgage note matures on March 15, 2032 and requires monthly principal and interest payments. The related medical office building is pledged as collateral on the loan and has a carrying value of $19,850 and $20,595 at December 31, 2017 and 2016, respectively.

As a result of the interest rate swap agreements previously discussed, the Health Network is subject to interest rate risk and default risk. Only cash flows related to the differential in the fixed interest rates and the variable interest rates as applied to the notional amounts of the interest rate swaps are subject to interest rate risk over the terms of the interest rate swap agreements. The notional amounts do not represent the amounts at risk; rather, they are used only as the basis for calculating the amounts due under the interest rate swap agreements.

Several of the debt agreements referred to above contain covenants, including covenants relating to such matters as indebtedness, minimum net worth and financial ratings. At December 31, 2017 and 2016, the Health Network was in compliance with all debt covenants that could affect the financial position or results from operations.

9. Income Taxes

The components of the income tax provision were as follows for the years ended December 31:

	2017	2016
Federal		
Current	$ 179	$ 41
Deferred	(2,063)	(2,864)
Total Federal	(1,884)	(2,823)
State		
Current	$ 238	$ 25
Deferred	(314)	(114)
Total State	(76)	(89)
Total income tax provision	$ (1,960)	$ (2,912)

There were no foreign current or deferred provisions for the years ended December 31, 2017 and 2016.

(in thousands of dollars)

The components of deferred income taxes were as follows at December 31:

	2017	2016
Deferred tax assets		
Net unrealized losses on available-for-sale securities	$ -	$ 212
Other payables and accrued expenses	1,655	1,825
Net operating loss carryforwards	97,563	126,489
Allowance for doubtful accounts	1,141	1,990
Investment in partnerships	3,711	5,458
Total deferred tax assets	104,070	135,974
Less: valuation allowance	(95,707)	(125,492)
Total deferred tax assets, net of valuation allowance	8,363	10,482
Deferred tax liabilities		
Goodwill and other intangibles	2,168	2,887
Benefit plan	433	622
Property and equipment	6,052	9,443
Net unrealized gains on available-for-sale securities	111	-
Other payables and accrued expenses	224	154
Total deferred tax liabilities	8,988	13,106
Net deferred tax liability	$ (625)	$ (2,624)

The realization of net deferred tax assets is dependent on the Health Network's ability to generate sufficient taxable income in future periods. The amount of deferred tax assets considered realizable, however, could change if estimates of future taxable income change.

While the majority of entities within the Health Network are not-for-profit, there are a limited number of entities organized as for-profit companies. These include HMPG and its subsidiaries as well as several physician practices consolidated within WPAHS.
At December 31, 2017, various subsidiaries and affiliates of the Health Network had state net operating loss carryforwards totaling $324,116 that expire between 2018 and 2037 and are available to offset future state taxable income of the subsidiary that generated the loss carryforward. The utilization of the state net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance given uncertainty surrounding the realizability of the carryforwards.

At December 31, 2017, the Health Network had federal net operating loss carryforwards, related to subsidiaries of $342,683, which expire in various amounts through 2037. The utilization of the federal net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance for that portion of the federal net operating loss carryforward not expected to be utilized.

A reconciliation of income tax expense recorded in the consolidated statements of operations and amounts computed at the statutory federal rate was as follows for the years ended December 31:

(in thousands of dollars)

	2017	2016
Income taxes at statutory rate	$ 17,200	$ (15,035)
Tax exempt income	(31,370)	(5,549)
Valuation allowance adjustments	(21,167)	13,018
Rate change	30,655	-
Nondeductible compensation	2,232	4,254
Other	490	400
Total income tax benefit	$ (1,960)	$ (2,912)

The Health Network has no uncertain tax positions for 2017 or 2016, respectively, and does not anticipate any uncertain tax positions in 2018.

The Tax Cuts and Jobs Act of 2017 (the "TCJA"), signed into law on December 22, 2017, reduces the federal income tax rate of the Health Network's taxable entities from 35% to 21% for periods beginning after December 31, 2017. This change resulted in a decrease in the Health Network's net deferred tax liability in 2017 due to revaluation of deferred tax assets and liabilities. Although this change does not have an immediate cash impact, the revaluation resulted in $460 of deferred tax benefit being recorded through the statement of operations for the year ended December 31, 2017. Any additional impact of TCJA in future periods is currently being evaluated by the Health Network and will be separately disclosed in those periods in which an adjustment is deemed necessary.

10. Temporarily and Permanently Restricted Net Assets

Temporarily restricted net assets were available for the following purposes at December 31:

	2017	2016
Clinical	$ 16,546	$ 18,522
Capital expansion	1,207	923
Health education and support	5,057	4,414
Total temporarily restricted net assets	$ 22,810	$ 23,859

Temporarily restricted net assets for capital expansion and renovation represent donations, gifts and pledges made for specific hospitals and other facilities. Similarly, temporarily restricted net assets for clinical programs, health education and other support represent donations, gifts and pledges made to support specific programs or departments at hospitals and other facilities. In 2017 and 2016, temporarily restricted net assets were released from donor restrictions by incurring expenditures satisfying the specified restricted purposes in the amount of $5,012 and $7,465, respectively.

Permanently restricted net assets at December 31, 2017 and 2016 were $285,584 and $257,206, respectively. These net assets are restricted in perpetuity. Income distributions generated from permanently restricted net assets are either classified as unrestricted or are classified as temporarily restricted based on donor-imposed restrictions. At December 31, 2017 and 2016, permanently restricted net assets consisted of endowments managed by donor-selected trustees as well as endowments managed by the Health Network.

11. Leases

Non-cancellable operating leases, primarily for equipment and office space, were in effect at December 31, 2017. Rental expense is recognized on a straight-line basis over the lease term. Aggregate future rental commitments for all operating leases having initial or remaining non-cancellable lease terms in excess of one year are shown in the following table:

(in thousands of dollars)

	Lease Commitments
Years ending December 31,	
2018	$ 63,457
2019	48,981
2020	39,144
2021	30,927
2022	26,663
Thereafter	136,870
Total	$ 346,042

Rent expense of $65,101 and $84,203 in 2017 and 2016, respectively, was recorded in other operating expenses in the accompanying consolidated statements of operations.

12. Insurance Coverage

Professional Liability

Palladium provides medical professional liability coverage on a claims-made basis to the Health Network and its employed physicians and also on a claims-made or occurrence basis to its affiliated physicians and groups. Palladium provides general liability coverage on an occurrence basis. Defense costs with respect to medical professional liability and general liability are outside the limits and are unlimited. Overall coverage for professional liability extends to $52,000 and general liability extends to $46,000.

With respect to the primary layer of medical professional liability coverage, Palladium provides limits of $500 per occurrence, $2,500 aggregate per hospital and $500 per occurrence, $1,500 aggregate per physician to providers participating in the Pennsylvania Medical Care Availability and Reduction of Error ("MCARE") Fund, and limits of $1,000 per occurrence, $3,000 aggregate to providers and entities not participating in the MCARE Fund. The primary layer of general liability coverage affords limits of $1,000 per occurrence, $3,000 aggregate.

The excess policies written in 2017 and 2016 afford the following shared limits corresponding to the first through sixth excess layers respectively: $2,000 per occurrence, $8,000 aggregate with respect to medical professional liability; $4,000 per occurrence, $4,000 aggregate for WPAHS and $4,000 per occurrence, $4,000 aggregate all other insureds with respect to medical professional liability; $5,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability (which includes general liability, auto liability, employers' liability, helipad liability and non-owned aircraft liability); $5,000 per occurrence, $5,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $5,000 aggregate with respect to excess follow-form liability; $10,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $10,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability; $25,000 each occurrence, $25,000 aggregate with respect to excess health care liability. The excess medical professional liability coverage is claims-made and the excess-follow form liability coverage is occurrence-based. The excess health care liability coverage afforded by the sixth layer is occurrence-reported. Defense costs with respect to the excess layers are outside the limits and are unlimited.

In 2017 and 2016, Palladium ceded 100% of the underlying risk for the third through sixth excess layers to third-party, highly-rated reinsurers. Reinsurance contracts do not relieve Palladium from its obligations to participants. Additionally, failure of the reinsurers to honor their obligations could result in significant losses to Palladium.

(in thousands of dollars)

Accordingly, Palladium continually evaluates the reinsurers' financial condition. The financial condition of third-party reinsurers is assessed by review of the reinsurers' A.M. Best rating. Palladium records an allowance for credit losses when it's believed that it will be unable to collect amounts due.

JRMC joined Palladium September 10, 2013. Prior to joining, JRMC was insured by the PACE Risk Retention Group. SVHS joined Palladium October 1, 2013. Prior to joining, SVHS was insured by Steadfast Insurance Company. WPAHS joined Palladium January 1, 2014. Prior to joining, WPAHS was insured by Community Health Alliance Reciprocal Risk Retention Group.

Additional coverage is also provided for the Health Network by the Medical Care Availability and Reduction of Error ("MCARE") Fund created by Pennsylvania Act No. 113 of 2002. Most of the Health Network's entities providing services in Pennsylvania are required to participate in the MCARE Fund. The MCARE Fund, an agency fund of the Commonwealth of Pennsylvania, provides coverage in excess of the required primary layer. The MCARE Fund exposure was capped at $500 per incident and $1,500 in aggregate for 2017 and 2016. The actuarially-computed liability to all health care providers (hospitals, physicians and others) participating in the MCARE Fund at December 31, 2016 is expected to be substantially in excess of the amount the MCARE Fund has available to pay these claims. The Health Network's annual surcharge premium for participation in the MCARE Fund was approximately $6,895 and $6,187 for 2017 and 2016, respectively which are included in the amounts charged to malpractice expense. No provision has been made for any future MCARE Fund assessments in the accompanying consolidated financial statements as the Health Network's portion of the MCARE Fund's unfunded liability could not be reasonably estimated.

13. Functional Expenses

The Health Network provides general health care services to residents within its geographic region. Expenses related to providing these services are as follows for the years ended December 31:

	2017	2016
Healthcare services	$ 2,693,123	$ 2,511,002
General and administrative	357,930	385,633
Research	30,472	27,031
Fundraising and other	386	404
	$ 3,081,911	$ 2,924,070

14. Related Party Transactions

As described more fully in Note 8, there were certain debt agreements with outstanding loan balances with Highmark Inc. that were terminated and forgiven in December 2017. For the years ended December 31, 2017 and 2016, the Health Network incurred interest expense of $6,314 and $4,560, respectively, associated with the outstanding loan balances.

In the normal course of business, the Health Network has transactions with Highmark Health and its subsidiaries and affiliates.

Total net patient service revenue from insurance claims, quality incentive programs and Community Health Reinvestment grants were $1,323,378 and $1,164,687 for the years ended December 31, 2017 and 2016, respectively. Included within net patient receivable balances are related party receivables of $124,786 and $128,961 as of December 31, 2017 and 2016, respectively. Additionally, total payor advances amounted to $29,859 as of December 31, 2017 and 2016 and are reported in deferred revenue.

(in thousands of dollars)

The Health Network was party to a multi-year agreement to ensure access to quality care to its members and provide an environment for building quality and outcome based incentive programs. In 2016, the Health Network recognized $29,100 related to this agreement through other operating revenue on the statement of operations. The agreement expired on December 31, 2016.

In the normal course of business, the Health Network purchases certain services and receives shared service charges and allocations. Total purchased services and shared service charges were $66,797 and $47,181 for the year ended December 31, 2017 and 2016, respectively. At December 31, 2017 and 2016, $18,623 and $11,883, respectively, were outstanding and are included in accounts payable.

The Health Network has routinely received net asset transfers from Highmark Inc. in support of strategic capital improvements, service-line expansions and technology enhancements. For the years ended December 31, 2017 and 2016, the Health Network received $134,034 and $108,364, respectively, in transfers recorded as additions to unrestricted net assets. The majority of these transfers were specific to an intercompany funding agreement to finance necessary capital expenditure projects with the purpose of expanding services and healthcare capabilities that will serve to benefit Highmark Inc. policyholders in the Western Pennsylvania region.

At December 31, 2017 and 2016, the Health Network maintained unfunded affiliation agreements with Highmark Inc. of $6,824 and $7,961, respectively for capital project funding at JRMC. Funding under these arrangements is subject to certain conditions including meeting certain qualifying expenditures and use of the funds.

The Health Network continues to implement a new electronic medical record system which is financed and owned by Highmark Health. Upon implementation at certain Health Network entities, fees are incurred by the Health Network for the right to use the system in the form of an authorization agreement with Highmark Health. Right to use fees incurred under this authorization agreement were $6,369 and $18,853 for 2017 and 2016, respectively. Effective April 1, 2017, the authorization agreement with Highmark Health was terminated and a new authorization agreement executed which provided the full use of the system at no cost to the Health Network.

Effective January 1, 2018, the Health Network entered into a five year Clinical Affiliation Agreement with Highmark Inc. in order for Highmark Inc.'s members to have access to high quality medical and healthcare services in Western Pennsylvania and the surrounding community. Under the terms of the Agreement, Highmark Inc. has made an initial commitment of up to $364,000 subject to certain conditions, to the Health Network to fund certain initiatives and objectives in furtherance of the integrated delivery and financing system objective of delivering high quality, lower cost health care in the community.

15. Contingencies

Participation in government-sponsored healthcare programs subjects the Health Network to a variety of federal laws and regulations and risks associated with audits conducted under these programs. These audits may occur in years subsequent to the Health Network providing the relevant services under audit. These risks may include reimbursement claims as well as potential fines and penalties. The Health Network believes, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

The Health Network is subject to various other contingencies, including legal and compliance actions and proceedings that arise in the ordinary course of its business. Due to the complex nature of these actions and proceedings, the timing of the ultimate resolution of these matters is uncertain. In the

opinion of management, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

Allegheny Health Network
Consolidated Balance Sheets
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Assets		
Current assets		
Cash and cash equivalents	$ 196,553	$ 137,617
Assets limited or restricted as to use	12,627	12,525
Accounts receivable		
Patient accounts, less allowance for doubtful accounts of $60,464 and $75,795, respectively	311,691	293,995
Other	50,950	63,334
Estimated third-party payor settlements	2,135	2,740
Inventory, net	53,571	50,269
Prepaid expenses and other current assets	30,245	24,593
Total current assets	657,772	585,073
Investments		
Debt securities, available-for-sale at fair value	55,830	30,344
Equity securities, available-for-sale at fair value	10,140	7,069
Board designated, restricted and other investments at fair value	397,550	395,497
Beneficial interest in perpetual trusts	224,405	219,772
Equity method investments	48,458	49,328
Property and equipment, net	1,074,835	1,062,398
Goodwill and other intangible assets, net	115,316	117,535
Other assets	104,648	106,947
Total assets	$ 2,688,954	$ 2,573,963
Liabilities and Net Assets		
Current liabilities		
Accounts payable	$ 191,950	$ 171,258
Accrued salaries and benefits	104,295	89,861
Accued expenses	48,892	49,201
Long-term debt subject to short-term remarketing	55,385	55,485
Current portion of long-term debt	14,385	10,209
Current portion of deferred revenue	23,361	21,549
Current portion of self-insurance liabilities	10,122	16,352
Other current liabilities	3,148	4,163
Total current liabilities	451,538	418,078
Accrued pension obligation	438,130	384,024
Self-insurance liabilities	161,991	137,819
Long-term debt	1,351,898	1,360,348
Deferred tax liability	2,624	5,498
Deferred revenue	30,359	30,037
Other liabilities	56,003	60,250
Total liabilities	2,492,543	2,396,054
Net assets		
Unrestricted	(100,746)	(114,500)
Unrestricted - noncontrolling interests	16,092	14,145
Total unrestricted	(84,654)	(100,355)
Temporarily restricted	23,859	25,580
Permanently restricted	257,206	252,684
Total net assets	196,411	177,909
Total liabilities and net assets	$ 2,688,954	$ 2,573,963

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Operations
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Unrestricted revenue and other support		
Patient service revenue (net of contractual allowances and discounts)	$ 2,724,421	$ 2,516,178
Provision for bad debts	(69,413)	(65,016)
Net patient service revenue	2,655,008	2,451,162
Other operating revenue	193,546	185,837
Net assets released from restriction	6,191	4,011
Total unrestricted revenue and other support	2,854,745	2,641,010
Expenses		
Salaries, wages and fringe benefits	1,550,643	1,438,205
Patient care supplies	559,765	498,194
Professional fees and purchased services	370,368	430,699
Depreciation and amortization	128,047	122,806
Other operating expenses	284,956	187,474
Total operating expenses	2,893,779	2,677,378
Operating loss	(39,034)	(36,368)
Net investment income	26,029	8,516
Change in unrealized loss on interest rate swaps	1,860	(81)
Interest expense	(30,292)	(29,584)
Income attributed to non-controlling interest	(993)	(434)
Gain on extinguishment of debt	-	7,494
Non-operating (loss) income, net	(526)	9,352
Deficit of revenue over expenses before income taxes	(42,956)	(41,105)
Income tax benefit	(2,912)	(2,100)
Deficit of revenue over expenses	$ (40,044)	$ (39,005)
Other changes in unrestricted net assets:		
Gain (loss) on qualifying derivative instruments	3,046	(4,311)
Pension liability adjustments	(63,302)	(13,404)
Change in non-controlling interest	1,948	1,347
Acquisition of joint venture	-	13,548
Acquisition of joint venture - noncontrolling interest	-	11,737
Net assets released from restriction for acquisition of equipment	1,274	893
Transfers from affiliate	108,364	106,644
Other, net	4,415	(10,045)
Decrease in unrestricted net deficit for other changes in unrestricted net assets	55,745	106,409
Decrease in unrestricted net deficit	$ 15,701	$ 67,404

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Changes in Net Assets
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Unrestricted net deficit		
Deficit of revenue over expenses	$ (40,044)	$ (39,005)
Gain (loss) on qualifying derivative instruments	3,046	(4,311)
Pension liability adjustments	(63,302)	(13,404)
Change in non-controlling interest	1,948	1,347
Acquisition of joint venture	-	13,548
Acquisition of joint venture - noncontrolling interest	-	11,737
Net assets released from restriction for acquisition of equipment	1,274	893
Transfers from affiliate	108,364	106,644
Other, net	4,415	(10,045)
Decrease in unrestricted net deficit	15,701	67,404
Temporarily restricted net assets		
Contributions	4,647	11,518
Net investment income	1,381	604
Net assets released from restriction used for:		
Operations	(6,191)	(4,011)
Acquisition of equipment	(1,274)	(893)
Other, net	(284)	(425)
(Decrease) increase in temporarily restricted net assets	(1,721)	6,793
Permanently restricted net assets		
Contributions	7	-
Net investment income (loss)	13,091	(988)
Transfer out of trusts to net investment income	(8,578)	(10,102)
Other, net	2	(480)
Increase (decrease) in permanently restricted net assets	4,522	(11,570)
Increase in net assets	18,502	62,627
Net assets		
Beginning of the year	177,909	115,282
End of the year	$ 196,411	$ 177,909

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Cash Flows
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Cash flows from operating activities		
Increase in net assets	$ 18,502	$ 62,627
Adjustments to reconcile change in net assets to net cash provided by operating activities		
Transfers from affiliate	(108,364)	(106,644)
Provision for bad debts	69,413	65,016
Depreciation and amortization	128,047	122,806
Pension liability adjustments	63,302	13,404
Noncash pension expense	3,008	8,927
Gain on extinguishment of debt	-	(7,494)
Net realized and unrealized (gains) losses on investments	(8,104)	14,306
Dividends received from equity method investments	5,656	9,245
Undistributed gains of equity method investments	(4,789)	233
Beneficial interest in perpetual trusts	(4,633)	11,374
Gain on sale of joint venture	-	(4,461)
Change in derivative instruments	(3,046)	4,311
Deferred taxes	(2,874)	(2,300)
Noncash unrestricted contributions	-	(7,499)
Restricted contributions	(4,654)	(11,518)
Assets acquired through acquisition	(1,000)	(26,531)
(Decrease) increase due to change in:		
Accounts receivable	(87,109)	(113,100)
Other receivables	12,383	7,124
Inventory, prepaids and other current assets	(2,563)	(5,476)
Other long-term assets	(17,359)	(6,777)
Accounts payable, accrued expenses and other current liablities	37,632	9,352
Accrued pension obligation	(12,205)	(61,852)
Other liabilities	18,268	25,914
Net cash provided by operating activities	99,511	987
Cash flows from investing activities		
Purchases of investments	(340,054)	(369,270)
Proceeds from sales of investments	284,084	367,924
Proceeds from maturities of investments	46,273	59,895
Purchases of property and equipment	(139,116)	(176,970)
Cash acquired in conjunction with acquisitions	-	9,507
Net cash used in investing activities	(148,813)	(108,914)
Cash flows from financing activities		
Restricted contributions	4,654	11,518
Proceeds from issuance of debt	9,348	26,473
Repayment of debt	(14,128)	(33,268)
Stock issuance to noncontrolling interest	-	700
Transfers from affiliate	108,364	106,644
Net cash provided by financing activities	108,238	112,067
Increase in cash and cash equivalents	58,936	4,140
Cash and cash equivalents		
Beginning of year	137,617	133,477
End of year	$ 196,553	$ 137,617
Supplemental disclosure of cash flow information		
Interest paid, net	$ 25,524	$ 23,421
Income taxes (recovered) paid, net	$ (650)	$ 616
Supplemental disclosure of noncash investing and financing		
Assets acquired through other payables	$ 2,519	$ 10,050
Noncash contributions	$ -	$ 7,499

The accompanying notes are an integral part of these consolidated financial statements.

(in thousands of dollars)

1. Nature of Operations

Allegheny Health Network ("AHN"), formed in 2013, is incorporated as a nonprofit corporation in the Commonwealth of Pennsylvania and is federally recognized as a 501(c)(3). Highmark Health, the sole corporate member of AHN, is a diversified health and wellness enterprise that includes: Highmark Inc. - a hospital plan corporation and professional health services plan in the Commonwealth of Pennsylvania; HM Health Solutions; and HM Health Holding Company. AHN was formed to act as the parent company of West Penn Allegheny Health System, Inc. ("WPAHS"), Jefferson Regional Medical Center ("JRMC"), and Saint Vincent Health System ("SVHS"). AHN, WPAHS, JRMC, SVHS, and its other subsidiaries and affiliates are herein referred to as the "Health Network".

AHN is a western Pennsylvania-based, patient-centered and physician-led academic healthcare system that provides charitable care and high-quality, comprehensive health care services to patients from western Pennsylvania and the adjacent regions of Ohio, West Virginia, New York and Maryland.

AHN is comprised of eight hospitals, of which one is a quaternary academic medical center and the remaining seven are tertiary/community hospitals that provide a wide array of general and advanced clinical services. AHN contains more than 250 additional healthcare sites, including surgery centers, comprehensive Health + Wellness Pavilions, and a physician organization that includes more than 2,400 employed and affiliated physicians. It also includes HMPG Inc., a for-profit holding company whose subsidiaries and affiliates include a group purchasing organization, a captive insurance company (Palladium Risk Retention Group Inc. - "Palladium"), real estate companies, a surgery center, and joint ventures that offer durable medical equipment and home infusion services, home health and hospice services. Additionally, the Health Network includes a research institute, charitable foundations and joint ventures that offer home health and hospice services among other healthcare services.

Comprehensive clinical and research programs include the areas of bone and joint care, sports medicine, cardiovascular disease, neurosurgery and neurology, women's health, cancer, emergency medicine, bariatric and metabolic disease; a complete spectrum of advanced diagnostic, medical and surgical care across all medical specialties, including primary care, trauma and burn care, general surgery, diabetes, autoimmune diseases, critical care, digestive diseases, men's health/urology, lung and esophageal diseases and rehabilitation services.

AHN offers forty-four graduate medical programs and has three medical school affiliations with Drexel University, Temple University and the Lake Erie College of Osteopathic Medicine, allowing its medical residents and fellows to receive advanced training at AHN hospitals. It also operates two nursing education programs, including the West Penn Hospital School of Nursing and the Citizens School of Nursing

2. Merger and Acquisition

Celtic Healthcare

Effective January 1, 2015, WPAHS finalized a contribution agreement with Celtic Healthcare, Inc. to create a new entity ("JV Holdco"), which consolidated each organization's home health and hospice businesses within western Pennsylvania. WPAHS has approximately a 60% equity ownership interest within the newly formed entity, which had a fair value of $25,285.

(in thousands of dollars)

3. Summary of Significant Accounting Policies

Basis of Financial Presentation

The accompanying consolidated financial statements include the accounts of the Health Network.

The consolidated financial statements are presented on the accrual basis of accounting, in accordance with accounting principles generally accepted in the United States of America ("GAAP"). All significant intercompany balances and transactions have been eliminated from the consolidated financial statements.

The Health Network uses the equity method of accounting for 50% or less owned affiliates or those affiliates for which the Health Network does not hold a controlling financial interest but may influence operating or financial decisions as well as 50% or more owned affiliates for which the Health Network does not hold a controlling financial interest.

New Accounting Pronouncements

Implemented

In July 2015, Financial Accounting Standards Board ("FASB") issued new guidance regarding the measurement of defined benefit pension plans, defined contribution pension plans, and health and welfare benefit plans, and eliminates certain related disclosures. The new guidance is effective for fiscal years beginning after December 15, 2015. The adoption of this new guidance did not have a material impact to the financial position, results of operations and cash flows of the Health Network.

In April 2015, FASB issued new guidance requiring that debt issuance costs related to a recognized debt liability (such as secured and unsecured notes, debentures, bonds, mortgage notes, equipment obligations and some accounts receivable and payable) be presented in the balance sheet as a direct deduction from the carrying amount of debt liability. Debt issuance costs related to line-of-credit arrangements are still permitted to be deferred, presented as an asset and subsequently amortized over the term of the line-of-credit arrangement. The Health Network adopted this new guidance and made certain reclassifications between other assets and debt for all periods prescribed on the balance sheet.

In August 2014, FASB issued new guidance regarding evaluation criteria about whether there is substantial doubt about an entity's ability to continue as a going concern and enhanced related disclosures. The new guidance is effective for fiscal years ending after December 15, 2016. The adoption of this new guidance did not have a material impact on the Health Network's financial position, results of operations and cash flows.

Under Evaluation

In August 2016, FASB issued new guidance regarding the presentation of financial statements of not-for-profit entities. The new guidance replaces the currently-required three classes of net assets with two classes: net assets with donor restrictions and net assets without donor restrictions, eliminates the requirement to present or disclose the indirect method reconciliation if using the direct method on the cash flow statement, and requires enhanced disclosures about governing board designations and appropriations, composition of net assets with donor restrictions, management of liquidity, expenses, methods of cost allocation, and underwater endowment funds. The new guidance is effective for fiscal years beginning after December 15, 2017. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In February 2016, FASB issued new guidance regarding the recognition of leases. The new guidance requires lessees to recognize a lease liability and a lease asset for all leases, including operating leases, with a term greater than 12 months on its balance sheet. The guidance also

expands the required quantitative and qualitative disclosures surrounding leases. The new guidance is effective for fiscal years beginning after December 15, 2019. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In January 2016, FASB issued new guidance requiring all equity investments, other than those accounted for under the equity method or those that result in the consolidation of the investee, to be measured at fair value with changes in the fair value recognized through net income. The new guidance also eliminates the requirement to disclose the fair value of financial instruments measured at amortized cost for non-public business entities. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In May 2015, FASB issued new guidance removing the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. The new guidance is effective for fiscal years beginning after December 15, 2016. The Health Network is evaluating the impact to the footnote disclosures.

In May 2014, FASB issued new guidance related to revenue recognition for contracts with customers. This new guidance removes most industry-specific revenue recognition requirements and requires that an entity recognize revenue for the transfer of goods or services to a customer at an amount that reflects the consideration to which an entity expects to be entitled in exchange for the goods or services. Insurance contracts are not covered by this guidance. The new guidance also requires additional disclosures regarding the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the adoption of this new guidance on the financial position, results of operations and cash flows.

Use of Estimates
The preparation of the Health Network's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents
The Health Network considers all highly-liquid investments with maturities of three months or less when purchased, excluding assets limited or restricted as to use, to be cash equivalents.

Accounts Receivable
In the normal course of business, the Health Network grants credit to its patients under various contractual arrangements. The Health Network carries its accounts receivable at estimated net realizable value, which reflects the impact of potential credit losses. Patient accounts receivable are written off when they are determined to be uncollectible based upon management's assessment of individual accounts. In evaluating the collectability of patient accounts receivable, the Health Network analyzes its past history and identifies trends for each of its major payor sources of revenue to estimate the appropriate allowance for doubtful collections and provision for doubtful collections. For receivables associated with services provided to both patients without insurance and patients with deductible and copayment balances due for which third-party coverage exists for part of the bill, the Health Network analyzes contractually-due amounts and provides an allowance for doubtful accounts, if necessary. For receivables associated with self-pay patients, the Health Network records an allowance for doubtful accounts in the period of service on the basis of its past experience, which indicates that many patients are unable to pay a portion of their bill for which they are financially responsible. The difference between the billed rates and the amounts actually

(in thousands of dollars)

collected after all reasonable collection efforts have been exhausted is charged off against the allowance for doubtful accounts.

The Health Network does not maintain a material allowance for doubtful accounts from third party payors, nor did it have significant write-offs from third-party payors.

The mix of net receivables from patients and payors was as follows at December 31:

	2016	2015
Medicare*	38.7%	25.9%
Medical assistance	16.1%	17.7%
Blue Cross Blue Shield payors	19.3%	30.0%
Other third-party payors	22.0%	20.8%
Self-pay patients	3.9%	5.6%
	100.0%	100.0%

* Includes Medicare Fee for Service as well as Medicare Advantage from commerial payors

Investments and Assets Limited or Restricted as to Use
Debt and equity securities classified as available-for-sale are carried at fair value (based on quoted or estimated market prices), and unrealized gains and losses are reported in unrestricted net assets, net of deferred income taxes. Premiums and discounts are amortized using the effective interest method. Realized gains and losses on debt securities are based on amortized cost. Realized gains and losses on equity securities are based on cost (specific identification method). Realized gains and losses on available-for-sale debt and equity securities are reported in net investment income in the consolidated statements of operations.

The Health Network monitors its available-for-sale investments portfolio for unrealized losses that appear to be other-than-temporary. At the time an equity security is determined to be other-than-temporarily impaired, the Health Network reduces the book value of the security to the current market value and records a realized loss in net investment income in the consolidated statements of operations.

In determining if an available-for-sale debt security is other-than-temporarily impaired, the Health Network considers whether it has intent to sell the available-for-sale debt security or whether it is more likely than not that the Health Network will be required to sell the available-for-sale debt security before recovery of its amortized cost basis, which may be at maturity. If the Health Network intends to sell the debt security or it is more likely than not that the Health Network will be required to sell the debt security before recovery of its amortized cost basis, an other-than-temporary impairment is recorded as a realized loss in net investment income in the consolidated statements of operations for the difference between fair value and amortized cost.

If the Health Network does not have the intent to sell and it does not believe that it is more likely than not that it will be required to sell the debt security before recovery of its amortized cost, the Health Network performs a detailed review to determine the underlying cause of the unrealized loss and whether an other-than-temporary impairment is warranted. At the time a debt security is determined to be other-than-temporarily impaired, the credit component of the other-than-temporary impairment is recognized in income in the consolidated statements of operations and the non-credit component of the other-than-temporary investment is recognized in the statement of changes in net assets, net of deferred income taxes.

(in thousands of dollars)

Board-designated, restricted and other investments include assets whose use is contractually limited by external parties and assets set aside by the Board of Directors ("Board") for future capital improvements or liquidity, over which the Board retains control and may at its discretion subsequently use for other purposes, as well as assets held by trustees under indenture agreements. Other investments consist primarily of marketable debt and equity securities and marketable securities maintained in a master trust fund. Investment income or loss (including realized gains and losses, interest and dividends, and unrealized gains and losses) is recorded in net investment income in the consolidated statements of operations unless restricted by donor or law. Investment income related to temporarily and permanently restricted gifts is recorded based on donor restriction as part of the corresponding net asset class in the consolidated statements of changes in net assets.

The Health Network's assets are invested in a variety of financial instruments. Accordingly, the related values as presented in the consolidated financial statements are subject to various market fluctuations, which include changes in the interest rate environment, equity markets and general economic conditions.

Beneficial Interest in Perpetual Trusts
Beneficial interest in perpetual trusts represents permanently restricted assets that are managed by donor-selected trustees and are recorded at the fair value of the underlying assets in the trusts.

Fair Value of Financial Instruments
In accordance with FASB fair value measurement guidance, financial assets and liabilities recorded at fair value in the consolidated balance sheets are categorized based upon the level inputs used to measure their fair value.

Inventory, Net
Inventory consists primarily of health care delivery-related drugs, medical supplies and surgical supplies. Inventory is stated at the lower of cost or market. Inventory cost is determined using the first-in first-out basis. Obsolescence reserves were $3,262 and $2,709 at December 31, 2016 and 2015, respectively.

Prepaid Expenses, Other Current Assets and Other Assets
Prepaid expenses, other current assets and other assets primarily include prepaid expenses, insurance recoveries, interests in net assets of foundations and 457(b) plan assets.

Property and Equipment, Net
Property and equipment is recorded at cost, net of accumulated depreciation. If a donor contributes property and equipment, it is recorded at the fair market value on the date contributed. Maintenance, repairs and minor improvements are expensed as incurred. Certain costs related to the internal development of software or software purchased for internal use are capitalized. Gains or losses on sales or disposals of property and equipment are included in operations.

Depreciation is computed under the straight-line method by annual charges to expense over the estimated useful lives of the various asset types as follows: buildings and building or land improvements, up to 40 years; leasehold improvements, lesser of lease term or useful life; office furniture and equipment, 3 to 30 years; and capitalized software, 3 to 10 years.

Property and equipment is reviewed for impairment whenever changes in circumstances indicate that the carrying value of the assets may not be recoverable. Impairment losses are recognized to the extent the carrying amount of an asset exceeds the undiscounted future cash flows expected to result from the use of the asset and its eventual disposal. There were no impairment losses recorded in either 2016 or 2015.

(in thousands of dollars)

Goodwill and Other Intangible Assets, Net
Intangible assets with finite lives are amortized using the straight-line method over their estimated lives, which range from 3 to 20 years. The Health Network has intangibles asset of $10,649 and $13,535 for the years ended December 31, 2016 and 2015, respectively. Amortization expenses related to these assets was $3,052 and $3,706 in 2016 and 2015, respectively.

Intangible assets with indefinite useful lives, including goodwill, are not amortized, but are tested for impairment at least annually and more frequently if events or changes in circumstances indicate that an asset may be impaired. If fair value is less than carrying value, the asset is adjusted to the fair value and an impairment loss is recorded in the consolidated statements of operations. Goodwill consisted of $104,667 and $104,000 at December 31, 2016 and 2015, respectively. Management tested goodwill and concluded that no impairment existed at December 31, 2016 or 2015.

Self-Insurance Liabilities
Self-insurance liabilities are based on actuarial methods and loss experience data and are considered by management to be adequate. Such liabilities are determined, in the aggregate, based on a reasonable estimation of the ultimate settlement of reported losses, including individual case estimates for reported losses plus supplemental amounts for losses incurred but not reported.

Palladium does not yet have sufficient historical loss experience to determine whether actual losses and loss adjustment expenses will reasonably conform to the assumptions used in determination of the estimated liability for losses and loss adjustment expenses. There is uncertainty associated with the loss estimates, and actual results could differ significantly from the estimates. Changes in loss and loss adjustment expense liabilities relating to prior years are recorded in the year determined.

Self-insurance liabilities are recorded at the present value of the estimated future cash flows for payments of those losses and loss adjustment expenses. The present value of those losses and loss adjustment expenses is discounted using a risk-free rate which is equivalent to the current interest rate on United States government obligations at the time of the loss and for the duration of expected payout of the loss.

Medical malpractice exposure can be subject to long settlement delays and can include large single event claims. This type of exposure has higher inherent volatility than typical insurance exposures. Palladium has insurance exposure to only report years beginning January 1, 2015. Given the immaturity of the exposures, meaningful future claim payment and case reserve activity is expected. The uncertainty of these years will decrease over time as these years mature and losses are reported.

In the normal course of business, Palladium seeks to reduce losses that may arise from risks or occurrences of an unexpected nature that may cause unfavorable underwriting results by reinsuring certain levels of risk in various areas of exposure with other insurance enterprises or reinsurers.

Other Liabilities
Other liabilities include deferred grant revenue and payor advances, asset retirement obligations related to cost associated with future asbestos removal, 457(b) plan obligations and interest rate swap liabilities.

Derivative Financial Instruments

(in thousands of dollars)

The Health Network makes limited use of derivatives, which relate primarily to interest rate swaps. The Health Network entered into multiple interest rate swap agreements that convert variable debt to a fixed rate, as well converting a fixed rate to a variable rate. The liabilities associated with the interest rate swaps are reported in other non-current liabilities in the consolidated balance sheets. Changes in the fair value of interest rate swaps deemed effective and that qualify for hedge accounting are accounted for as unrestricted net assets in the consolidated statements of changes in net assets. For those interest rate swaps that do not qualify for hedge accounting, the changes in fair value are reported in the non-operating results on the consolidated statements of operations. Specific types of loans and amounts that the Health Network hedges are determined based on prevailing market conditions and are further disclosed in Note 8.

Temporarily and Permanently Restricted Net Assets
Temporarily restricted net assets are those whose use is limited by donor-imposed stipulations that either expire with the passage of time or can be fulfilled and removed by actions of the Health Network pursuant to those stipulations. Temporarily restricted net assets are available for capital and other program expenditures.

Permanently restricted net assets are those whose use is limited by donor-imposed stipulations that neither expire with the passage of time nor can be fulfilled or otherwise removed by the actions of the Health Network. Investment earnings from permanently restricted net assets may be unrestricted or temporarily restricted for capital or operating needs depending upon the original intent of the donor.

Net assets are released from donor restrictions by incurring expenses satisfying the restricted purposes or by occurrence of other events specified by donors. Net assets released from restrictions and used for operations are recorded in net assets released from restriction. Net assets released from restriction and used for capital purposes are recorded in unrestricted net assets in the consolidated statements of changes in net assets.

Donor-Restricted Contributions
The Health Network classifies the portions of donor-restricted endowment funds of perpetual durations as permanently restricted net assets. Permanently restricted net assets are comprised of (a) the original value of the contributions made to the permanent endowment, (b) the original value of the subsequent contributions made to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with applicable donor gift instruments. Any portion of donor-restricted endowment funds that are classified as permanently restricted as appropriate in accordance with donor intent.

The Health Network considers the following factors in determining donor-restricted endowment funds are accumulated or appropriated:
(8) The duration and preservation of the fund
(9) The purposes of the organization and the donor-restricted endowment fund
(10) General economic conditions
(11) The possible effect of inflation and deflation
(12) The expected total return from income and appreciation of investments
(13) Other resources of the organization
(14) The investment policies of the organization

The Health Network's permanently restricted net assets consist of endowments managed by donor-selected trustees and endowments managed by the Health Network. Unless otherwise directed by the donor, gifts received for endowments are invested in accordance with the Health Network's investment policy. In order to preserve the real value of a donor's gift and to sustain funding consistent with donor intent, the annual appropriation rate is set to strike a reasonable balance

between long-term objectives of preserving and growing each endowment fund for the future of providing stable, annual appropriations.

Return Objectives and Risk Parameters
The Health Network has adopted endowment investment and spending policies that attempt to provide a predictable stream of funding programs supported by its endowment while seeking to maintain the purchasing power of endowment assets. Under this policy, the return objective for the endowment assets, measured over a full market cycle, shall be to maximize the return with a balanced growth emphasis based on the endowment's target allocation applied to the appropriate individual benchmarks.

Strategies Employed for Achieving Investment Objectives
To achieve its long-term rate of return objectives, the Health Network elected a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends. The investment income percentage distribution is recorded as a transfer out of trusts in permanently restricted net assets. The Health Network targets diversified asset allocation that places a greater emphasis on fixed income based investments to achieve its long-term objectives within prudent risk constraints.

Net Patient Service Revenue
Net patient service revenue is comprised of gross patient service revenues less contractual allowances, charity care and provision for bad debts. Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered at the time the service is performed and includes estimated retroactive revenue adjustments due to future audits, reviews and investigations. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known or as years are no longer subject to such audits, reviews and investigations.

The Health Network has agreements with third-party payors that provide for payments to the Health Network at amounts different from its established rates. Payment arrangements include prospectively determined rates per discharge, reimbursed costs, discounted charges, per diem payments and contracted amounts. The Health Network recognizes patient service revenues associated with services provided to patients who have third-party payor coverage on the basis of established rates for services rendered. The Health Network provides discounts to uninsured patients who do not qualify for medical assistance or charity care.

Net patient service revenue, by major payor, was as follows for the years ended December 31:

(in thousands of dollars)

	2016	2015
Medicare	$ 1,063,136	$1,010,146
Medical assistance	229,838	208,030
Blue Cross Blue Shield payors	926,535	845,187
Other third-party payors	445,512	401,086
Patients and residents	59,400	51,729
Total patient service revenue, net of contractual allowances and discounts	2,724,421	2,516,178
Less: Provision for bad debts	(69,413)	(65,016)
Total net patient service revenue	$ 2,655,008	$2,451,162

In 2016, revenue from Medicare and Blue Cross Blue Shield accounted for 39% and 34%, respectively, of total patient service revenue, net of contractual allowances and discounts. In 2015, revenue from Medicare and Blue Cross Blue Shield accounted for 40% and 34%, respectively, of total patient service revenue, net of contractual allowances and discounts. Laws and regulations governing Medicare and Medical Assistance programs are extremely complex and subject to interpretation, and there is at least a reasonable possibility that actual results could differ from those estimates. As a result, provisions for third party payor settlements and adjustments are estimated in the period the related services are provided and adjusted in future periods as additional information becomes available and as final settlements are determined as years are no longer subject to audits, reviews, and investigations.

Uncompensated Care and Community Services Benefit
The Health Network provides services to all patients regardless of ability to pay. The Health Network maintains a charity care policy under which they provide care to patients at no charge or at discounted rates, provided the patients meet the eligibility requirements stipulated in their policy. The Health Network does not pursue collection of amounts determined to qualify for charity care; therefore, charity care amounts are not recorded as revenue or deducted from gross patient service revenue in arriving at net patient service revenue.

A patient is classified as a charity patient based on income eligibility criteria as established by the Healthcare Assistance Program which is determined by presentation for care without insurance, while using an estimator of each guarantor's ability to pay. Free care is determined at 200% of Federal Poverty Guidelines, whereas discounted care for uninsured but failing charity thresholds ranges between 70% and 83% of gross charges based upon the look-back method, for each hospital. Of the Health Network's total expenses reported, an estimated $20,000 and $22,500 arose from providing services to charity patients in 2016 and 2015, respectively. The Health Network estimated these costs by applying the cost of the total direct and indirect costs of each procedure to the individual charity care cases. Patients are required to apply for the charity care discount, but often do not complete the necessary paperwork to determine if they qualify. As a result, there is a quantifiable amount of uncompensated services that would potentially be considered charity care under the policy, but rather are ultimately reflected in the provision for bad debts.

In addition to uncompensated care, the Health Network provides free and below cost services and programs for the benefit of the community. The cost of these programs is included in salaries, wages, and fringe benefits, patient care supplies, and professional fees and purchased services lines in the accompanying consolidated statements of operations.

(in thousands of dollars)

Services are also provided to beneficiaries of government-sponsored programs, including state Medical Assistance and indigent care programs. Reimbursement from these programs is often less than the cost of providing these services.

Other Operating Revenue
Other operating revenue includes grants, physician stipends, Medicare and Medicaid electronic health record ("EHR") incentive payments and other ancillary hospital services revenue such as parking, cafeteria, tuition and rent. Other operating revenue also includes the Health Network's proportionate share of affiliate earnings.

The composition of other operating revenue is as follows for the years ended December 31:

	2016	2015
Grant revenue	$ 29,623	$ 27,206
Affiliation income	29,100	30,500
Facility services	33,894	34,755
Equity method investment income	4,123	5,849
Medicare/Medicaid EHR incentives	2,213	5,468
Other miscellaneous revenue	94,593	82,059
	$ 193,546	$ 185,837

Income Taxes
AHN and some of the entities within the Health Network are tax-exempt organizations under Section 501(c)(3) of the Internal Revenue Code ("IRC") and are exempt from federal income taxes on exempt purpose income. These tax-exempt organizations are subject to federal taxes on unrelated business income under section 511 of the IRC. No such tax liability exists in 2016 or 2015, and as such, no provision for unrelated business income tax has been made in the consolidated financial statements.

Certain for-profit entities within the Health Network are subject to federal and state income taxes. Provisions for the applicable tax liabilities have been made in the consolidated financial statements. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using tax rates and laws that are expected to be in effect when the difference is reversed. The Health Network records a valuation allowance against its deferred tax assets when it determines that it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Deficit of Revenue over Expenses
The consolidated statements of operations include a deficit of revenue over expenses. Changes in unrestricted net deficit which are excluded from the deficit of revenue over expenses, consistent with industry practice, include unrealized gains and losses on available-for-sale securities, benefit plan asset and liability changes, contributions of long-lived assets (including assets acquired using contributions which by donor restriction were to be used for the purposes of acquiring such assets) and certain tax benefits.

Subsequent Events
In connection with the preparation of the consolidated financial statements, the Health Network evaluated events subsequent to the balance sheet date of December 31, 2016 through December 8, 2017, which is also the date the financial statements were available to be issued, and has determined that all material transactions have been recorded and disclosed properly.

4. Investments

(in thousands of dollars)

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2016 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 19,296	$ -	$ (380)	$ 18,916
Asset-backed and other loan-backed securities	500	-	(4)	496
Corporate and other debt securities	36,610	130	(322)	36,418
Total debt securities	56,406	130	(706)	55,830
Equity securities				
Domestic	3,219	186	(3)	3,402
Foreign	6,950	5	(217)	6,738
Total equity securities	10,169	191	(220)	10,140
Total	$ 66,575	$ 321	$ (926)	$ 65,970

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2015 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 16,131	$ -	$ (198)	$ 15,933
Asset-backed and other loan-backed securities	365	-	-	365
Corporate and other debt securities	14,280	5	(239)	14,046
Total debt securities	30,776	5	(437)	30,344
Equity securities				
Domestic	3,020	-	(107)	2,913
Foreign	4,520	-	(364)	4,156
Total equity securities	7,540	-	(471)	7,069
Total	$ 38,316	$ 5	$ (908)	$ 37,413

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2016 were as follows:

(in thousands of dollars)

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 18,416	$ (380)	$ -	$ -	$ 18,416	$ (380)
Asset-backed and other loan-backed securities	496	(4)	-	-	496	(4)
Corporate and other debt securities	24,277	(317)	242	(5)	24,519	(322)
Total debt securities	43,189	(701)	242	(5)	43,431	(706)
Equity securities						
Domestic	197	(3)	-	-	197	(3)
Foreign	4,017	(99)	1,306	(118)	5,323	(217)
Total equity securities	4,214	(102)	1,306	(118)	5,520	(220)
Total	$ 47,403	$ (803)	$ 1,548	$ (123)	$ 48,951	$ (926)

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2015 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 15,933	$ (198)	$ -	$ -	$ 15,933	$ (198)
Asset-backed and other loan-backed securities	365	-	-	-	365	-
Corporate and other debt securities	12,806	(239)	-	-	12,806	(239)
Total debt securities	29,104	(437)	-	-	29,104	(437)
Equity securities						
Domestic	2,913	(107)	-	-	2,913	(107)
Foreign	4,145	(364)	-	-	4,145	(364)
Total equity securities	7,058	(471)	-	-	7,058	(471)
Total	$ 36,162	$ (908)	$ -	$ -	$ 36,162	$ (908)

At December 31, 2016 and 2015, the Health Network held available-for-sale debt securities with gross unrealized losses of $706 and $437, respectively. Management evaluated the unrealized losses and determined that they were due primarily to volatility in the interest rate environment and market conditions. The Health Network does not intend to sell the related debt securities and it is not likely that the Health Network will be required to sell the debt securities before recovery of their amortized cost basis, which may be maturity. Therefore, management does not consider the available-for-sale debt securities to be other-than-temporarily impaired as of December 31, 2016 and 2015.

At December 31, 2016 and 2015, the Health Network held available-for-sale equity securities with gross unrealized losses of $220 and $471, respectively. Management reviews equity securities in which fair value falls below cost. In determining whether an equity security is other-than-temporarily impaired, management considers both quantitative and qualitative information. The impairment review process is subjective and considers a number of factors, including, but not limited to, the length of time and extent to which the fair value has been less than book value, the financial condition and near-term prospects of the issuer, recommendations of investment advisors, the intent and ability to hold securities for a time sufficient to allow for any anticipated recovery in value and general market conditions and industry or sector-specific factors, including forecasts of economic, market or industry trends. Management does not consider the available-for-sale equity securities to be other-than-temporarily impaired as of December 31, 2016 and 2015.

(in thousands of dollars)

The realized gains (losses) on the available-for-sale debt securities were $103 and $(46) for the years ended December 31, 2016 and 2015. There were no realized gains or losses on the available-for-sale equity securities for the years ended December 31, 2016 and 2015. There were no other-than-temporary impairments on the available-for-sale debt or equity securities for the years ended December 31, 2016 and 2015.

The amortized cost and fair value of available-for-sale debt securities at December 31, 2016 and 2015 are shown below by contractual maturity. Expected maturities could differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	2016		2015	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within one year or less	$ -	$ -	$ 5,338	$ 5,330
Due after one year and within five years	30,672	30,597	14,107	13,966
Due five years through ten years	23,248	22,764	10,966	10,683
Due after ten years	1,986	1,973	-	-
Asset-backed and other loan-backed securities	500	496	365	365
Total	$ 56,406	$ 55,830	$ 30,776	$ 30,344

Board designated, restricted and other investments consists of the following investment types at December 31:

	2016	2015
Cash and cash equivalents	$ 70,095	$ 77,562
Debt securities:		
U.S. Treasury and agency obligations	64,243	76,711
Agency mortgage-backed securities	4,833	5,309
Asset and mortgage-backed securities	5,102	7,956
Corporate and other debt securities	94,112	77,724
Total debt securities	168,290	167,700
Equity securities:		
Domestic	128,938	122,993
Foreign	42,614	39,767
Total equity securities	171,552	162,760
Common collective trust interests	240	-
Total board designated, restricted and other investments	$ 410,177	$408,022

Board designated, restricted and other investments consist of the following components at December 31:

(in thousands of dollars)

	2016	2015
Unrestricted:		
Other investments	$ 278,897	$ 278,871
Board designated:		
Capital improvements	4,110	4,110
Foundation	34,973	32,366
Debt service	5,596	5,600
Self-insurance	2,913	3,112
Grant funds and other	28,454	30,796
Total unrestricted	354,943	354,855
Temporarily restricted	22,433	20,255
Permanently restricted	32,801	32,912
Total board designated, restricted and other investments	$ 410,177	$ 408,022

The following is a summary of net investment income for the year ended December 31, 2016:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 17,722	$ 878	$ 3,658
Net realized (losses) gains on investments	(833)	(43)	2,068
Net unrealized gains on board designated, restricted and other investments	9,140	546	7,365
Total net investment income	$ 26,029	$ 1,381	$ 13,091

The following is a summary of net investment income (loss) for the year ended December 31, 2015:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 20,916	$ 948	$ 4,274
Net realized gains (losses) on investments	1,872	(19)	8,698
Net unrealized losses on board designated, restricted and other investments	(14,272)	(325)	(13,960)
Total net investment income (loss)	$ 8,516	$ 604	$ (988)

There were no other-than-temporary impairment charges on available-for-sale securities included in net realized gains (losses) on unrestricted investments for 2016 and 2015.

The recognition of unrealized gains and losses on investments that are restricted as to use are recorded directly to temporarily and permanently restricted net assets as required by donor or regulation. These investments consist primarily of equity securities, agency mortgage-backed securities, corporate debt securities and U.S. Treasury obligations. All unrealized gains and losses on marketable unrestricted board-designated and other investments are recognized in net investment income.

5. Fair Value of Financial Instruments

Input levels, as defined by Fair Value Measurement guidance, are as follows:

Level 1: Pricing inputs are based on unadjusted quoted market prices for identical financial assets or liabilities in active markets. Active markets are those in which transactions occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2: Pricing inputs include observable inputs other than Level 1 pricing inputs, such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Pricing inputs include unobservable inputs that are supported by little or no market activity and that reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

The following methods and assumptions were used to determine the fair value of each class of the following assets and liabilities recorded at fair value in the consolidated balance sheets:

Cash equivalents: Cash equivalents consist of highly liquid investments with maturities of three months or less and are designated as Level 1.

Debt securities, available-for-sale: Fair values of available-for-sale debt securities are based on quoted market prices, where available. These fair values are obtained primarily from a third party pricing service, which generally use Level 1 or Level 2 inputs, for the determination of fair value to facilitate fair value measurements and disclosures.

Equity securities, available-for-sale: Fair values of equity securities are generally designated as Level 1 and are based on quoted market prices for identical assets in active markets. For certain equity securities, quoted market prices for identical securities are not always available and the fair value is estimated by reference to similar or underlying securities for which quoted prices are available. These securities are designated Level 2.

Board-designated, restricted and other investments: Board-designated, restricted and other investments include cash equivalents, debt securities and equity securities that follow the same methods and assumptions and fair value designations described above.

Beneficial interest in participating trusts: Permanently restricted net assets consist of amounts held in perpetuity as designated by donors, including the Health Network's portion of beneficial interests in several endowments managed by donor-selected trustees. The fair value for endowments managed by donor-selected trustees are designated as Level 3 securities with the interest in these trusts based on the fair value of the underlying trust investments.

The Health Network uses a third party pricing service to obtain quoted prices for each security. The third party service provides pricing based on recent trades of the specific security or like securities, as well as a variety of valuation methodologies for those securities where an observable market price may not exist. The third party service may derive pricing for Level 2 securities from market-corroborated pricing, matrix pricing, discounted cash flow analyses and inputs such as yield curves and indices. Pricing for Level 3 securities may be obtained from investment managers for private placements.

Certain invested assets are valued at NAV as a practical expedient to fair value. The holdings of the underlying investments are measured at fair value as of the reporting date. These investments, if sold, are probable of being sold at amounts equal to net asset value per share. The underlying investments in real estate trusts are measured at fair value on a recurring basis. The underlying

(in thousands of dollars)

investments in the limited partnerships are based on the Health Network's share of the entities' undistributed earnings based on issued financial statements.

The Health Network performs an analysis of reasonableness of the prices received for fair value by monitoring month-to-month fluctuations and determining reasons for significant differences, selectively testing fair values against prices obtained from other sources, and comparing the consolidated fair value of a class of assets against an appropriate index benchmark. The Health Network did not make adjustments to the quoted market prices obtained from third party pricing services that were material to the consolidated financial statements.

The following table summarizes fair value measurements by level at December 31, 2016 for financial assets measured at fair value on a recurring basis:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Assets					
Cash and cash equivalents	$ 196,553	$ 196,553	$ -	$ -	$ -
Investments					
Debt securities, available-for-sale					
U.S. Treasury and agency obligations	18,916	18,416	500	-	-
Agency mortgage-backed securities	-	-	-	-	-
Asset-backed and other loan-backed securities	496	-	496	-	-
Corporate and other debt securities	36,418	-	36,418	-	-
Total debt securities	55,830	18,416	37,414	-	-
Equity securities, available-for-sale					
Domestic	3,403	3,403	-	-	-
Foreign	6,737	6,737	-	-	-
Total equity securities	10,140	10,140	-	-	-
Board designated, restricted and other investments					
Cash and cash equivalents	70,095	70,095	-	-	-
Debt securities					
U.S. Treasury and agency obligations	64,243	56,799	7,444	-	-
Agency mortgage-backed securities	4,833	-	4,833	-	-
Asset-backed and other loan-backed securities	5,102	-	5,102	-	-
Corporate and other debt securities	94,112	-	94,112	-	-
Equity securities					
Domestic	128,938	121,439	-	7,499	-
Foreign	42,614	42,614	-	-	-
Common collective trust interests	240	-	-	-	240
Total board designated, restricted and other investments	410,177	290,947	111,491	7,499	240
Beneficial interest in perpetual trusts	224,405	-	-	224,405	-
Total assets	**$ 897,105**	**$ 516,056**	**$ 148,905**	**$ 231,904**	**$ 240**
Liabilities					
Interest rate swaps	$ 12,265	$ -	$ 12,265	$ -	$ -

The following table summarizes fair value measurements by level at December 31, 2015 for financial assets measured at fair value on a recurring basis:

(in thousands of dollars)

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Assets					
Cash and cash equivalents	$ 137,617	$ 137,617	$ -	$ -	$ -
Investments					
Debt securities, available-for-sale					
U.S. Treasury and agency obligations	15,933	11,264	4,669	-	-
Agency mortgage-backed securities	-	-	-	-	-
Asset-backed and other loan-backed securities	365	-	365	-	-
Corporate and other debt securities	14,046	-	14,046	-	-
Total debt securities	30,344	11,264	19,080	-	-
Equity securities, available-for-sale					
Domestic	2,913	2,913	-	-	-
Foreign	4,156	4,156	-	-	-
Total equity securities	7,069	7,069	-	-	-
Board designated, restricted and other investments					
Cash and cash equivalents	77,562	77,562	-	-	-
Debt securities					
U.S. Treasury and agency obligations	76,711	52,880	23,831	-	-
Agency mortgage-backed securities	5,309	-	5,309	-	-
Asset-backed and other loan-backed securities	7,956	-	7,956	-	-
Corporate and other debt securities	77,724	-	77,724	-	-
Equity securities					
Domestic	122,993	115,494	-	7,499	-
Foreign	39,767	39,767	-	-	-
Common collective trust interests	-	-	-	-	-
Total board designated, restricted and other investments	408,022	285,703	114,820	7,499	-
Beneficial interest in perpetual trusts	219,772	-	-	219,772	-
Total assets	**$ 802,824**	**$ 441,653**	**$ 133,900**	**$ 227,271**	**$ -**
Liabilities					
Interest rate swaps	$ 17,171	$ -	$ 17,171	$ -	$ -

Transfers between levels, if any, are recorded annually as of the end of the reporting period unless, with respect to a particular issue, a significant event occurred that necessitated the transfer be reported at the date of the event.

There were no material transfers between Levels 1 and 2 during the years ended December 31, 2016 and 2015. There were no material transfers from Level 3 during the years ended December 31, 2016 and 2015.

The changes in fair value for assets measured using significant unobservable inputs (Level 3) for the years ended December 31, 2016 and 2015 were as follows:

(in thousands of dollars)

	Beneficial Interest in Perpetual Trusts	Privately Held Equity Securities	Total
Balance at January 1, 2015	$ 231,146	$ -	$ 231,146
Net unrealized losses	(13,781)	-	(13,781)
Net realized gains	12,992	-	12,992
Purchases	-	7,499	7,499
Transfers out of trusts	(10,585)	-	(10,585)
Balance at December 31, 2015	**$ 219,772**	**$ 7,499**	**$ 227,271**
Net unrealized gains	7,452	-	7,452
Net realized gains	5,759	-	5,759
Purchases	-	-	-
Transfers out of trusts	(8,578)	-	(8,578)
Balance at December 31, 2016	**$ 224,405**	**$ 7,499**	**$ 231,904**

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2016:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Common collective trust interests	240	-	Quarterly	60 Days
Total	**$ 240**	**$ -**		

Fair Value Option

The Health Network elected the fair value option for its unrestricted investments, with the exception of the available-for-sale debt and equity securities held by Palladium. At December 31, 2016 and 2015, the Health Network reported unrestricted investments of $354,943 and $354,855, respectively under the fair value option within the Board designated, restricted and other investments at fair value on the consolidated balance sheets. The Health Network has recorded unrealized gains of $9,140 and unrealized losses of $14,272 (included in net investment income on the consolidated statements of operations) for the years ended December 31, 2016 and 2015, respectively.

6. Equity Method Investments

The Health Network and its subsidiaries have ownership interests in various health-related joint ventures which were formed to reduce the costs and increase effectiveness in providing community

(in thousands of dollars)

service benefits. These include ventures which provide laboratory, ambulance, oncology and other services and are accounted for under the equity method of accounting. The accompanying consolidated balance sheets reflect equity investments as follows for December 31:

	2016		2015	
	Ownership Interest	Investment Balance	Ownership Interest	Investment Balance
Regional Cancer Center	50.0%	$ 10,009	50.0%	$ 10,316
Associated Clinical Labs	12.3%	8,827	12.2%	8,536
UPMC VNA Home Health	33.4%	8,191	33.4%	9,231
Vantage Holding Company	52.3%	6,443	52.2%	6,343
Jefferson Medical Associates	43.8%	5,055	43.8%	5,095
EmergyCare, Inc.	50.0%	2,389	50.0%	2,700
Community Blood Bank of Erie County	40.0%	1,610	40.0%	1,474
AHN Emergency Medicine Management, LLC	50.0%	1,325	50.0%	754
Other (a)	various	4,609	various	4,879
		$ 48,458		$ 49,328

(a) Consists of various individually immaterial investments of varying ownership interests (ranging from 20.7% to 50%).

Total assets, liabilities, and net assets of the equity investees were approximately $201,622, $89,026, and $112,596, respectively, at December 31 2016 and $214,402, $102,022, and $112,380, respectively, at December 31, 2015. Total revenues, expenses and net income of the equity investees was approximately $175,630, $153,771 and $21,859, respectively, for the year ended December 31, 2016 and $179,874, $161,506 and $18,368, respectively, for the year ended December 31, 2015. Differences, if any, between the carrying amount of the investment and the amount of underlying equity in net assets of the investment are, in the opinion of management, deemed to be immaterial in the aggregate.

In June 2017, JRMC divested its 33.4% ownership interest in UPMC/JRMC Home Health, L.P. (“UPMC VNA Home Health”), a home health agency in Western Pennsylvania including skilled nursing, medical-social, home health aide and physical therapy. JRMC received proceeds of $22,000 on the divestiture which resulted in the recognition of a one-time gain of $13,000.

8. Property and Equipment, Net

Property and equipment was comprised of the following at December 31:

	2016	2015
Land, buildings and leasehold improvements	$ 777,044	$ 696,717
Equipment	558,112	516,902
Capitalized software	62,717	13,751
Total depreciable assets	1,397,873	1,227,370
Less: accumulated depreciation	(425,372)	(303,473)
Net depreciable assets	972,501	923,897
Construction in progress	102,334	138,501
Property and equipment, net	$ 1,074,835	$ 1,062,398

Depreciation expense related to property and equipment amounted to $124,995 and $119,100 for 2016 and 2015, respectively.

The Health Network capitalizes interest on certain assets that require a period of time to prepare for their intended use. The amount capitalized is based on the weighted average outstanding borrowing

(in thousands of dollars)

rate. For the years ended December 31, 2016 and 2015, the Health Network capitalized $3,573 and $3,259, respectively.

7. Employee Benefit Plans

Defined Benefit Plans

The Health Network covers certain employees meeting age and service requirements through multiple non-contributory defined benefit pension plans (the "pension plans"), the West Penn Retirement Plan for Represented Employees and the West Penn Retirement Plan for Non-Represented Employees (collectively the "WPAHS pension plans"), the Jefferson Retirement Plan (the "JRMC pension plan"), and the Saint Vincent Health System Pension Plan (the "SVHS pension plan"). The JRMC and SVHS pension plans are frozen. Additionally, in March 2017, WPAHS approved a plan to freeze its Non-Represented Employees pension plan effective December 31, 2017.

The Health Network funds its pension plans according to minimum funding requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"), as amended. During 2017, the Health Network expects to contribute $43,700 to the pension plans related to the 2016 plan year and $46,240 to the pension plans related to the 2017 plan year.

The amounts recognized in the consolidated balance sheets were as follows:

	2016	2015
Accumulated benefit obligation	$ 1,262,654	$ 1,214,047
Change in benefit obligations		
Benefit obligations at beginning of year	$ 1,237,249	$ 1,300,113
Service cost	23,414	23,486
Interest cost	39,491	46,276
Participant contributions	37	40
Benefit payments	(63,955)	(37,606)
Settlement gain	-	(36,681)
Actuarial loss (gain)	46,663	(58,378)
Benefit obligations at end of year	$ 1,282,899	$ 1,237,250
Change in plan assets		
Net plan assets at beginning of year	$ 853,226	$ 875,971
Actual return on plan assets	43,257	(10,350)
Participant contributions	37	40
Employer contributions	12,204	61,852
Benefit payments	(63,955)	(37,606)
Settlement payments	-	(36,681)
Net plan assets at end of year	$ 844,769	$ 853,226
Amounts recognized in the consolidated balance sheets		
Benefit plan assets	$ -	$ -
Benefit plan liabilities	$ (438,130)	$ (384,024)
Amounts included in unrestricted net assets		
Actuarial loss	(115,310)	(52,008)
Net amounts recognized	$ (115,310)	$ (52,008)

(in thousands of dollars)

The estimated actuarial loss for the pension plans that will be amortized from net assets in 2017 is $879.

The following table provides the components of net periodic benefit cost for the years ended December 31:

	2016	2015
Service cost	$ 23,414	$ 23,486
Interest cost	39,491	46,276
Expected return on plan assets	(60,170)	(60,968)
Amortization of:		
Actuarial loss	273	133
Net periodic benefit costs	$ 3,008	$ 8,927

The Health Network's weighted-average assumptions related to the calculation of the pension benefit obligations and net periodic benefit cost for the pension and other post-retirement plans are presented in the tables below:

	2016	2015
Weighted-average assumptions		
Discount rate - benefit obligations	3.88%	4.03%
Discount rate - net periodic costs	4.05%	3.71%
Expected return on plan assets	7.28%	7.32%
Rate of compensation increase	2.88 - 7.15%	2.88 - 7.15%

The expected return on pension plan assets is developed using inflation expectations, risk factors and input from actuaries to arrive at a long-term nominal expected return for each asset class. The nominal expected return for each asset class is then weighted based on the target asset allocation to develop the expected long-term rate of return on plan assets.

The expected return on other post-retirement plan assets is developed based on historical returns and the future expectations for returns for each asset class as well as the asset allocation of the other post-retirement plan assets.

Estimated benefit payments are expected as follows:

2017	$ 120,000
2018	$ 89,000
2019	$ 89,000
2020	$ 91,000
2021	$ 91,000
2022-2026	$ 446,000

The pension plans' overall investment strategies are determined by the plans' investment committees, investment advisors and plan administrators. Overall, the goals of the Health Network are to achieve sufficient diversification of asset types, fund strategies and fund managers in order to

(in thousands of dollars)

minimize volatility and maximize returns over the long term, while still having sufficient funds to pay those benefits due in the near term.

The Health Network's pension plans primarily set an investment strategy to achieve a mix of 25% of long-duration fixed income securities meant to hedge the benefit obligations, 73% of investments for long-term growth and 2% for near-term benefit payments with a diversification of asset types, fund strategies and fund managers. The target allocations for the Health Network's plans assets are approximately 25% fixed income securities, 60% equity securities, 13% alternative investments and 2% cash equivalents. Equity securities primarily include stock investments in U.S. developed and emerging market corporations. Fixed income securities primarily include bonds of domestic and foreign companies from diversified industries, domestic mortgage-backed securities and bonds of U.S. and foreign governments and agencies. Alternative investments include investments in real estate and private equity funds that follow several different strategies.

The following table summarizes the fair value measurements by level at December 31, 2016:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Pension plan assets					
Cash and cash equivalents	$ 5	$ 5	$ -	$ -	$ -
Debt securities					
U.S. Treasury and agency obligations	70,037	65,801	4,236	-	-
Agency mortgage-backed securities	9,930	-	9,930	-	-
State and political obligations	6,015	-	6,015	-	-
Commercial mortgage-backed securities	2,203	-	2,203	-	-
Residential mortgage-backed securities	420	-	420	-	-
Asset-backed securities	12,209	-	12,209	-	-
Corporate and other debt securities	129,661	-	129,661	-	-
Total debt securities	230,475	65,801	164,674	-	-
Equity securities					
Domestic	362,191	362,191	-	-	-
Foreign	62,394	62,394	-	-	-
Total equity securities	424,585	424,585	-	-	-
Registered investment company shares	178,593	152,245	26,348	-	-
Common collective trust interests	2,649	-	2,649	-	-
Private limited partnerships	6,741	-	-	-	6,741
Total	$ 843,048	$ 642,636	$ 193,671	$ -	$ 6,741

At December 31, 2016, the fair value of pension plan assets excluded accrued interest and other receivables of $1,721.

The following table summarizes the fair value measurements by level at December 31, 2015:

(in thousands of dollars)

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Pension plan assets					
Cash and cash equivalents	$ 3,669	$ 3,669	$ -	$ -	$ -
Debt securities					
U.S. Treasury and agency obligations	78,177	78,094	83	-	-
Agency mortgage-backed securities	8,678	-	8,678	-	-
State and political obligations	7,886	-	7,886	-	-
Commercial mortgage-backed securities	-	-	-	-	-
Residential mortgage-backed securities	-	-	-	-	-
Asset-backed securities	-	-	-	-	-
Corporate and other debt securities	145,519	-	145,519	-	-
Total debt securities	240,260	78,094	162,166	-	-
Equity securities					
Domestic	205,475	205,475	-	-	-
Foreign	59,957	59,957	-	-	-
Total equity securities	265,432	265,432	-	-	-
Registered investment company shares	281,266	281,266	-	-	-
Common collective trust interests	43,424	-	43,424	-	-
Private limited partnerships	-	-	-	-	-
Total	$ 834,051	$ 628,461	$ 205,590	$ -	$ -

At December 31, 2015, the fair value of pension plan assets excluded guaranteed insurance contract assets of $20,000, carried at contract value as well as accrued expenses and other payables of $825.

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2016:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private limited partnerships	6,741	-	Quarterly	30 Days
Total	**$ 6,741**	**$ -**		

Defined Contribution Plans

The Health Network sponsors several forms of defined contribution savings plans including: 403(b), 401(a), and 401(k) plans under the Internal Revenue Code. While a number of the plans are frozen, certain plans continue to provide employer matching at various levels. The Health Network's expense associated with contributions to these savings plans was $6,969 and $6,947 for the years ended December 31, 2016 and 2015, respectively.

Deferred Compensation Plan

The Health Network sponsors multiple deferred compensations plans, for a select group of management and highly compensated employees, which are governed by Internal Revenue Code Section 457(b). Salary deferrals are subject to Code 457(b) limits. The Health Network makes no employer contributions to the plan. The related plan assets, while held in a separate trust, are recorded on the accompanying consolidated financial statements within the caption of other assets, and the offsetting liabilities recorded as of December 31, 2016 and 2015 were $27,370 and $23,908, respectively. The Health Network is not at risk for any negative changes to the market value of these assets.

8. Debt

(in thousands of dollars)

The Health Network's total debt consisted of the following at December 31:

	2016	2015
Allegheny County Hospital Development Authority Bonds	93,588	97,397
Erie County Hospital Authority Bonds	87,450	89,481
Term Loan due May 22, 2019	699,054	698,662
Highmark Inc. Notes Payable	502,794	502,794
Floating Rate Restructuring Certificates	3,973	3,973
Series 2006A Health Facilities Revenue Notes due through December 2016	-	276
Mortgage loan, due March 15, 2032, interest at 6.00%	23,187	23,635
Capital leases payable due through 2021 at varying interest rates	6,293	2,106
Mortgage and other loans due through 2021 at varying interest rates	5,329	7,718
Total debt	$1,421,668	$1,426,042
Less: Current portion	(14,385)	(10,209)
Less: Long-term debt subject to short term remarketing arrangements	(55,385)	(55,485)
Total debt, net of current portion	$1,351,898	$1,360,348

A summary of scheduled principal repayments on debt is as follows:

Years ending December 31,	
2017	$ 14,385
2018	32,764
2019	887,501
2020	11,471
2021	10,785
Thereafter	464,762
Total	$ 1,421,668

Allegheny County Hospital Development Authority (the "Authority")
JRMC issued aggregate revenue bonds of $123,335 in September 2010, July 2008, February 2007, May 2006, May 2000 and March 1998. At December 31, 2016 and 2015, JRMC had outstanding $93,588 and $97,397, respectively, Authority bonds. The Authority bonds are scheduled to mature at various dates through March 1, 2040. Interest rates ranged from 0.78% to 5.125% and 0.02% to 5.125% at December 31, 2016 and 2015, respectively. Proceeds from the Authority bonds were used primarily for various capital projects. The Authority bonds are collateralized by the general credit of the JRMC and several irrevocable lines of credit totaling $60,955 which expire at various dates through July 15, 2017. The unamortized discount was $368 and premium was $81 at December 31, 2016. The unamortized discount was $404 and premium was $121 at December 31, 2015.

JRMC is party to related interest rate swap agreements designated as fair value hedges with a highly-rated major U.S. financial institution. The interest rate swap agreements expire at various dates through 2038. In 2016 and 2015, JRMC paid $1,257 and $1,380, respectively, to the counterparty for settlement under the interest rate swap agreements. These amounts were included in interest expense in the consolidated statements of operations. JRMC recorded a liability of $5,544

and $6,909 at December 31, 2016 and 2015, respectively, in other liabilities in the consolidated balance sheets related to the swap agreements. At December 31, 2016, the notional value of these derivative instruments was $34,535.

Erie County Hospital Authority ("Erie Authority")
SVHS issued aggregate revenue bonds of $90,600 with the Series 2009 and Series 2010A issued in December 2009 and the Series 2010B issued in January 2010. At December 31, 2016 and 2015, SVHS had a total of $81,889 and $83,473, respectively, outstanding in Series 2009 and 2010 Erie Authority bonds. The Erie Authority bonds are scheduled to mature at various dates between July 1, 2020 and July 1, 2039. Interest rates ranged from 0.77% to 7.00% and 0.03% to 7.00% at December 31, 2016 and 2015, respectively. Proceeds from the Erie Authority bonds were used primarily for various capital projects and to advance the refund of previously issued bonds. The Series 2010B Erie Authority bonds are collateralized by an irrevocable line of credit that expires November 29, 2018.

The Series 2010B Erie Authority bonds are demand bonds and, while subject to long-term amortization periods, may be put to SVHS at the option of the bondholders in connection with certain remarketing dates. To the extent that bondholders may, under the terms of the debt, put their bonds within 12 months after the reporting date, the Board of Trustees of SVHS restricted cash and investments of $46,667 and $45,584 at December 31, 2016 and 2015, respectively, as a source of self-liquidity in the event the put option is enacted. SVHS had an irrevocable direct-pay letter of credit in place for the Series 2010B bonds in the amount of $55,800. Of this total, no amounts were outstanding at December 31, 2016 and 2015.

SVHS issued bonds of $8,828 in Series 2011A in August 2011 through Erie County Hospital Authority and scheduled to mature in August 2026. At December 31, 2016 and 2015, SVHS had outstanding $5,561 and $6,008, respectively, of Series 2011A Erie Authority bonds. The Series 2011A Erie Authority bonds are scheduled to mature August 18, 2026. Principal and interest are payable monthly and calculated based on 70% of the taxable interest rate, which is a floating rate of interest equal to the one-month LIBOR plus 2.75%. Interest rates were 2.36% and 2.10% at December 31, 2016 and 2015, respectively. Proceeds from the Series 2011A Erie Authority bonds were used primarily to refinance the construction loan for the new parking facility.

SVHS was party to multiple interest rate swap agreements with highly-rated major U.S. financial institutions (the "counterparties"). In 2016 and 2015, SVHS paid $1,239 and $1,324, respectively, to the counterparties for settlements under the interest rate swap agreements which were included in interest expense in the consolidated statements of operations. SVHS recorded an interest rate swap liability of $2,877 and $3,372 at December 31, 2016 and 2015, respectively, included in other liabilities in the consolidated balance sheets related to the swap agreements. The interest rate swaps did not qualify for hedge accounting, and changes in fair value are accounted for as non-operating income (expenses) in the consolidated statements of operations.

Term Loans
In May 2014, WPAHS entered into a $700,000 Term Loan credit facility ("Term Loan"). At December 31, 2016 and 2015, respectively, the carrying value was $699,054 and $698,662, net of debt issuance costs of $946 and $1,338. The interest on the Term Loan is payable monthly and is calculated based on LIBOR plus 0.75%. Interest rates were 0.97% and 1.32% at December 31, 2016 and 2015. The Term Loan is fully guaranteed by Highmark Inc. with a pledge of cash and securities. The fair value of the pledged assets held by Highmark Inc. was $855,960 and $925,120 at December 31, 2016 and 2015, respectively, which satisfied the minimum level needed to maintain the guarantee. These assets are excluded from the Health Network's consolidated balance sheets at December 31, 2016 and 2015 as they remain the assets of Highmark Inc.

WPAHS was party to a related interest rate swap agreement with a highly-rated major U.S. financial institution. The intent of the interest rate swap agreement is to hedge the interest rate risk associated with future interest payments on the Term Loan by converting the variable rate to a fixed rate of 2.34%. In 2016 and 2015, WPAHS paid $7,917 and $9,932, respectively, to the counterparty for settlements under the interest rate swap agreement. This amount was included in interest expense in the consolidated statements of operations. WPAHS recorded a liability of $3,844 and $6,890 at December 31, 2016 and 2015, respectively, in other liabilities related to the swap agreement. The interest rate swap qualifies for hedge accounting and changes in fair value are accounted for as unrestricted net assets in the consolidated statement of changes in net assets. At December 31, 2016, the notional value of the derivative instrument was $700,000.

Highmark Inc. Notes Payable

WPAHS has secured loans from Highmark Inc. of $300,000 at December 31, 2016 and 2015 with principal payments from 2023 through 2026. Interest on these notes is payable annually based on the prime rate plus 2.00% (subject to a 6.00% cap). Interest is due and payable only if earnings before interest, taxes, depreciation and amortization of WPAHS are more than $200,000 for any year. WPAHS has not recognized interest expense related to these notes.

WPAHS also has loans from Highmark Inc. of $95,250 at December 31, 2016 and 2015 with principal payments due in 2018 and 2019. Interest on these notes is payable quarterly based on the 90-day U.S. Treasury Bill plus 1.00%.

HMPG has loans from Highmark Inc. of $107,544 at December 31, 2016 and 2015 with principal payments due in 2018 and 2019. Interest on these notes is payable quarterly on the lesser of one-month LIBOR plus 3.50% or the Citibank prime rate.

Other Debt

WPAHS has outstanding Floating Rate Restructuring Certificates (“FRRCs”) of $3,973 at December 31, 2016 and 2015. The FRRCs bear interest at the floating LIBOR plus 0.25%. Payment of interest is contingent upon WPAHS achieving certain profitability thresholds and maintaining specified liquidity levels. WPAHS has never been required to make an interest payment. WPAHS has not recorded interest to date as the probability of future interest payment requirements is considered remote. In 2015, a realized gain of $7,494 was recognized related to the settlement and extinguishment of a portion of the FRRC debt. At December 31, 2016 and 2015, WPAHS was not in compliance with certain covenants; however, the remaining FRRC debt was settled and extinguished in 2017 without a material impact.

SVHS had an outstanding mortgage loan of $23,187 and $23,635 at December 31, 2016 and 2015, respectively, related to a medical office building. The mortgage note matures on March 15, 2032 and requires monthly principal and interest payments. The related medical office building is pledged as collateral on the loan and has a carrying value of $20,595 and $21,344 at December 31, 2016 and 2015, respectively.

As a result of the interest rate swap agreements previously discussed, the Health Network is subject to interest rate risk and default risk. Only cash flows related to the differential in the fixed interest rates and the variable interest rates as applied to the notional amounts of the interest rate swaps are subject to interest rate risk over the terms of the interest rate swap agreements. The notional amounts do not represent the amounts at risk; rather, they are used only as the basis for calculating the amounts due under the interest rate swap agreements.

Several of the debt agreements referred to above contain covenants, including covenants relating to such matters as indebtedness, minimum net worth and financial ratings. At December 31, 2016 and

(in thousands of dollars)

2015, the Health Network was in compliance with all debt covenants that could affect the financial position or results from operations.

The carrying amount of debt reported in the consolidated balance sheets at December 31, 2016 and 2015 was $1,421,668 and $1,426,042, respectively. Using a discounted cash flow technique that considered credit ratings, with adjustments for duration and risk profile, the Health Network determined that the fair value of its debt at December 31, 2016 and 2015 was $1,421,785 and $1,426,635, respectively.

9. Income Taxes

The components of the income tax provision were as follows for the years ended December 31:

	2016	2015
Federal		
Current	41	$ (124)
Deferred	(2,864)	(1,710)
Total Federal	(2,823)	(1,834)
State		
Current	$ 25	$ 8
Deferred	(114)	(274)
Total State	(89)	(266)
Total income tax provision	$ (2,912)	$ (2,100)

There were no foreign current or deferred provisions for the years ended December 31, 2016 and 2015.

The components of deferred income taxes were as follows at December 31:

(in thousands of dollars)

	2016	2015
Deferred tax assets		
Net unrealized gains on available-for-sale securities	$ 212	$ 316
Accrued expenses	1,825	2,297
Net operating loss carryforwards	126,489	102,823
Allowance for doubtful accounts	1,990	1,750
Investment in partnerships	5,458	1,408
Total deferred tax assets	135,974	108,594
Less: valuation allowance	(125,492)	(100,593)
Total deferred tax assets, net of valuation allowance	10,482	8,001
Deferred tax liabilities		
Goodwill and other intangibles	2,887	4,008
Benefit plan	622	-
Property and equipment	9,443	9,491
Other payables and accrued expenses	154	-
Total deferred tax liabilities	13,106	13,499
Net deferred tax liability	$ (2,624)	$ (5,498)

The realization of net deferred tax assets is dependent on the Health Network's ability to generate sufficient taxable income in future periods. The amount of deferred tax assets considered realizable, however, could change if estimates of future taxable income change.

While the majority of entities within the Health Network are not-for-profit, there are a limited number of entities organized as for-profit companies. These include HMPG and its subsidiaries as well as several physician practices consolidated within WPAHS.

At December 31, 2016, various subsidiaries and affiliates of the Health Network had state net operating loss carryforwards totaling $286,653 that expire between 2017 and 2036 and are available to offset future state taxable income of the subsidiary that generated the loss carryforward. The utilization of the state net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance given uncertainty surrounding the realizability of the carryforwards.

At December 31, 2016, the Health Network had federal net operating loss carryforwards, related to subsidiaries of $308,215, which expire in various amounts through 2036. The utilization of the federal net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance for that portion of the federal net operating loss carryforward not expected to be utilized.

A reconciliation of income tax expense recorded in the consolidated statements of operations and amounts computed at the statutory federal rate was as follows for the years ended December 31:

	2016	2015
Income taxes at statutory rate	$ (15,035)	$ (14,377)
Tax exempt income	(5,549)	(9,232)
Valuation allowance adjustments	13,018	14,680
Nondeductible compensation	4,254	5,901
Other	400	928
Total income tax benefit	$ (2,912)	$ (2,100)

(in thousands of dollars)

The Health Network has no uncertain tax positions for 2016 or 2015, respectively, and does not anticipate any uncertain tax position in 2017.

10. Temporarily and Permanently Restricted Net Assets

Temporarily restricted net assets were available for the following purposes at December 31:

	2016	2015
Clinical	$ 18,522	$ 19,741
Capital expansion	923	1,608
Health education and support	4,414	4,231
Total temporarily restricted net assets	$ 23,859	$ 25,580

Temporarily restricted net assets for capital expansion and renovation represent donations, gifts and pledges made for specific hospitals and other facilities. Similarly, temporarily restricted net assets for clinical programs, health education and other support represents donations, gifts and pledges made to support specific programs or departments at hospitals and other facilities. In 2016 and 2015, temporarily restricted net assets were released from donor restrictions by incurring expenditures satisfying the specified restricted purposes in the amount of $7,465 and $4,904, respectively.

Permanently restricted net assets at December 31, 2016 and 2015 were $257,206 and $252,684, respectively. These net assets are restricted in perpetuity. Income distributions generated from permanently restricted net assets are either classified as unrestricted or are classified as temporarily restricted based on donor-imposed restrictions. At December 31, 2016 and 2015, permanently restricted net assets consisted of endowments managed by donor-selected trustees as well as endowments managed by the Health Network.

11. Leases

Several non-cancellable operating leases, primarily for equipment and office space, were in effect at December 31, 2016. Rental expense is recognized on a straight-line basis over the lease term. Aggregate future rental commitments for all operating leases having initial or remaining non-cancellable lease terms in excess of one year are shown in the following table:

	Lease Commitments
Years ending December 31,	
2017	$ 60,268
2018	51,061
2019	42,962
2020	35,444
2021	27,682
Thereafter	150,226
Total	$ 367,643

Rent expense of $84,203 and $72,659 in 2016 and 2015, respectively, was recorded in other operating expenses in the accompanying consolidated statements of operations.

12. Insurance Coverage

(in thousands of dollars)

Professional Liability
Palladium provides medical professional liability coverage on a claims-made basis to the Health Network and its employed physicians and also on a claims-made or occurrence basis to its affiliated physicians and groups. Palladium provides general liability coverage on an occurrence basis. Defense costs with respect to medical professional liability and general liability are outside the limits and are unlimited. Overall coverage for professional liability extends to $52,000 and general liability extends to $46,000.

With respect to the primary layer of medical professional liability coverage, Palladium provides limits of $500 per occurrence, $2,500 aggregate per hospital and $500 per occurrence, $1,500 aggregate per physician to providers participating in the Pennsylvania Medical Care Availability and Reduction of Error ("MCARE") Fund, and limits of $1,000 per occurrence, $3,000 aggregate to providers and entities not participating in the MCARE Fund. The primary layer of general liability coverage affords limits of $1,000 per occurrence, $3,000 aggregate.

The excess policies written in 2015 and 2016 afford the following shared limits corresponding to the first through sixth excess layers respectively: $2,000 per occurrence, $8,000 aggregate with respect to medical professional liability; $4,000 per occurrence, $4,000 aggregate for WPAHS and $4,000 per occurrence, $4,000 aggregate all other insureds with respect to medical professional liability; $5,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability (which includes general liability, auto liability, employers' liability, helipad liability and non-owned aircraft liability); $5,000 per occurrence, $5,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $5,000 aggregate with respect to excess follow-form liability; $10,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $10,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability; $25,000 each occurrence, $25,000 aggregate with respect to excess health care liability. The excess medical professional liability coverage is claims-made and the excess-follow form liability coverage is occurrence-based. The excess health care liability coverage afforded by the sixth layer is occurrence-reported. Defense costs with respect to the excess layers are outside the limits and are unlimited.

In 2016 and 2015, Palladium ceded 100% of the underlying risk for the third through sixth excess layers to third-party, highly-rated reinsurers. Reinsurance contracts do not relieve Palladium from its obligations to participants. Additionally, failure of the reinsurers to honor their obligations could result in significant losses to Palladium.

Accordingly, Palladium continually evaluates the reinsurers' financial condition. The financial condition of third-party reinsurers is assessed by review of the reinsurers' A.M. Best rating. Palladium records an allowance for credit losses when it's believed that it will be unable to collect amounts due.

JRMC joined Palladium September 10, 2013. Prior to joining, JRMC was insured by the PACE Risk Retention Group. SVHS joined Palladium October 1, 2013. Prior to joining, SVHS was insured by Steadfast Insurance Company. WPAHS joined Palladium January 1, 2014. Prior to joining, WPAHS was insured by Community Health Alliance Reciprocal Risk Retention Group.

Additional coverage is also provided for the Health Network by the Medical Care Availability and Reduction of Error ("MCARE") Fund created by Pennsylvania Act No. 113 of 2002. Most of the Health Network's entities providing services in Pennsylvania are required to participate in the MCARE Fund. The MCARE Fund, an agency fund of the Commonwealth of Pennsylvania, provides

(in thousands of dollars)

coverage in excess of the required primary layer. The MCARE Fund exposure was capped at $500 per incident and $1,500 in aggregate for 2016 and 2015. The actuarially-computed liability to all health care providers (hospitals, physicians and others) participating in the MCARE Fund at December 31, 2016 is expected to be substantially in excess of the amount the MCARE Fund has available to pay these claims. The Health Network's annual surcharge premium for participation in the MCARE Fund was approximately $6,187 and $4,261 for 2016 and 2015, respectively which are included in the amounts charged to malpractice expense. The 2015 MCARE surcharge premium was significantly lower than 2016 due to the 2014 litigation settlement of a lawsuit brought against MCARE by the Hospital & Healthsystem Association of Pennsylvania. No provision has been made for any future MCARE Fund assessments in the accompanying consolidated financial statements as the Health Network's portion of the MCARE Fund's unfunded liability could not be reasonably estimated.

13. Functional Expenses

The Health Network provides general health care services to residents within its geographic region. Expenses related to providing these services are as follows for the years ended December 31:

	2016	2015
Healthcare services	$ 2,511,002	$ 2,368,760
General and administrative	385,633	280,451
Research	27,031	27,142
Fundraising and other	404	1,025
	$ 2,924,070	$ 2,677,378

14. Related Party Transactions

As described more fully in Note 8, there are certain outstanding loan balances with Highmark Inc. For the periods ended December 31, 2016 and 2015, the Health Network has incurred interest expense of $4,560 and $5,435, respectively, associated with the outstanding loan balances.

In the normal course of business, the Health Network has transactions with Highmark Health and its subsidiaries and affiliates.

Total net patient service revenue from insurance claims, quality incentive programs and Community Health Reinvestment grants were $1,164,687 and $1,046,687 for the years ended December 31, 2016 and 2015, respectively. Included within net patient receivable balances are related party receivables of $128,961 and $118,241 as of December 31, 2016 and 2015, respectively. Additionally, total payor advances amounted to $29,859 as of December 31, 2016 and 2015 and are reported in other long-term assets.

The Health Network was party to a multi-year agreement to ensure access to quality care to its members and provide an environment for building quality and outcome based incentive programs. In 2016 and 2015, the Health Network recognized $29,100 and $30,500, respectively, related to this agreement through other operating revenue on the statement of operations. The agreement expired on December 31, 2016.

(in thousands of dollars)

In the normal course of business, the Health Network purchases certain services and receives shared service charges and allocations. Total purchased services and shared service charges were $47,181 and $21,094 for the year ended December 31, 2016 and 2015, respectively. At December 31, 2016 and 2015, $11,883 and $4,543, respectively, were outstanding and are included in accounts payable.

The Health Network has routinely received equity transfers from a related party in support of strategic capital improvements, service-line expansions and technology enhancements. For the years ended December 31, 2016 and 2015, the Health Network received $108,364 and $106,644, respectively, in transfers recorded as additions to unrestricted net assets. The majority of these transfers were specific to an intercompany funding agreement to finance necessary capital expenditure projects with the purpose of expanding services and healthcare capabilities that will serve to benefit Highmark Inc. policyholders in the Western Pennsylvania region.

At December 31, 2016, the Health Network maintained unfunded lines of credit and affiliation agreements with Highmark Inc. of $62,164. Funding under these arrangements is subject to certain conditions including meeting certain qualifying expenditures and use of the funds.

The Health Network continues to implement a new electronic medical record system which is being financed and owned by Highmark Health. Upon implementation at certain Health Network entities, fees are incurred by the Health Network for the right to use the system in the form of an authorization agreement with Highmark Health. Right to use fees incurred under this authorization agreement were $18,853 and $5,826 for 2016 and 2015, respectively. Effective April 1, 2017, the authorization agreement with Highmark Health was terminated and a new authorization agreement executed which provided the full use of the system at no cost to the Health Network.

15. Contingencies

Participation in government-sponsored healthcare programs subjects the Health Network to a variety of federal laws and regulations and risks associated with audits conducted under these programs. These audits may occur in years subsequent to the Health Network providing the relevant services under audit. These risks may include reimbursement claims as well as potential fines and penalties. The Health Network believes, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

The Health Network is subject to various other contingencies, including legal and compliance actions and proceedings that arise in the ordinary course of its business. Due to the complex nature of these actions and proceedings, the timing of the ultimate resolution of these matters is uncertain. In the opinion of management, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

SUPPLEMENT DATED AUGUST 11, 2018 TO
PRELIMINARY OFFICIAL STATEMENT DATED JULY 31, 2018

$914,860,000*
Allegheny County Hospital Development Authority
Revenue Bonds
(Allegheny Health Network Obligated Group Issue)
Series 2018A

This Supplement, dated August 11, 2018 (the "Supplement"), to the Preliminary Official Statement dated July 31, 2018 (the "Preliminary Official Statement") with respect to the above-referenced bonds amends and supplements the Preliminary Official Statement as described below.

1. The fourth paragraph on page 16 in the front part of the Preliminary Official Statement is replaced with the following text:

> ***Replacement of Obligation No. 7 with an Obligation Issued Under a Separate Master Indenture***. The Master Indenture provides that Obligations must be surrendered by their Holders and delivered to the Master Trustee for cancellation upon satisfaction of certain requirements that include receipt of (i) a request from the Credit Group Representative requesting such surrender and delivery and stating that (A) one or more of the Obligated Group Members have become members of an obligated group under a replacement master indenture (other than the Master Indenture) (the "*Replacement Master Indenture*") and (B) an obligation or obligations under the Replacement Master Indenture are being issued (collectively, the "*Replacement Obligation*") to such Holder with the same tenor and effect as the related Obligation to be surrendered for cancellation; and (ii) certain opinions of counsel and other documents described in the Master Indenture.
>
> If the Master Trustee receives written confirmation from any one of the Rating Agencies that, following such substitution, a rating on indebtedness secured by Replacement Obligations issued pursuant to the Replacement Master Indenture (without regard to any unrelated third-party credit enhancement) will not be less than "AA-" or its equivalent (without regard to any refinement or gradation by numerical modifier, outlook or otherwise) (a "*Rating Upgrade*"), then prior to such substitution an Officer's Certificate shall be delivered to the Master Trustee certifying that, after giving effect to such substitution and assuming that the obligated group under the Replacement Master Indenture (the "*New Obligated Group*") constituted the Obligated Group under the original Master Indenture, the New Obligated Group could satisfy the Transaction Test. If the Master Trustee does not receive written confirmation of a Rating Upgrade, then prior to such substitution (a) an Officer's Certificate shall be delivered to the Master Trustee, confirming that (i) the Replacement Master Indenture includes a pledge of gross receivables substantially similar to the pledge of Gross Receivables under the original Master Indenture; (ii) after giving effect to such substitution and assuming that the New Obligated Group constituted the Obligated Group under the original Master Indenture, the New Obligated Group could satisfy the Transaction Test, (iii) affirmative and negative covenants in the Replacement Master Indenture are consistent in all material respects with the covenants summarized in APPENDIX C hereto under the captions "Against Encumbrances," "Debt Service Coverage," and "Limitation on Disposition of Assets" (as

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* Preliminary, subject to change.

the same may be amended from time to time in accordance with the provisions of the original Master Indenture), and (iv) the Mortgages, or mortgages substantially similar thereto in all material respects (as amended from time to time pursuant to the original Master Indenture), will secure obligations issued under the Replacement Master Indenture, and (b) the Master Trustee shall receive written evidence that the rating on the Bonds (without regard to any unrelated third-party credit enhancement) from any Rating Agency then rating the Bonds will not be withdrawn or reduced (without regard to any refinement or gradation by numerical modifier, outlook or otherwise) following such substitution.

See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Substitution of Master Indenture."

2. On pages C-28 and C-29, subparagraphs (a)(i) and (a)(vii) within the summary of the Master Indenture appearing under the caption "Substitution of Master Indenture" in APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – SUPPLEMENTAL MASTER INDENTURE FOR OBLIGATION NO. 7" are replaced in their entirety with the text below and a new subparagraph (a)(viii), appearing below, is added to such summary:

(i) a Request of the Credit Group Representative requesting such surrender and delivery and stating that one or more Members of the Obligated Group have become a member of an obligated group (the "New Obligated Group") under a master indenture (other than the Master Indenture) and that an obligation or obligations are being issued to the Holder under such replacement master indenture (the "Replacement Master Indenture");

_____

(vii) an Opinion of Bond Counsel to the effect that the replacement of the Obligations with the Replacement Obligations will not, in and of itself, result in the inclusion of the interest on any Related Bonds in gross income for purposes of federal income taxation; and

(viii) for so long as Obligation No. 7 is Outstanding, either:

(A) confirmation from any one of the Rating Agencies that, following such substitution, a rating on indebtedness secured by Replacement Obligations issued pursuant to the Replacement Master Indenture (without regard to any unrelated third-party credit enhancement) will not be lower than "AA-" or its equivalent (without regard to any refinement or gradation by numerical modifier, outlook or otherwise); or

(B) an Officer's Certificate confirming that the Replacement Master Indenture contains (i) a pledge of gross receivables substantially similar to the pledge of Gross Receivables under the original Master Indenture as of the date thereof; (ii) affirmative and negative covenants that are materially consistent with the covenants described herein under the captions "Against Encumbrances," "Debt Service Coverage," and "Limitation on Disposition of Assets" (as the same may be amended from time to time in accordance with the provisions of the original Master Indenture), and (iii) the Mortgages, or mortgages substantially similar thereto in all material respects (as amended from time to time pursuant to the original Master Indenture), will secure obligations issued under the New Master Indenture.

3. Financial data within the tables appearing on pages A-41 and A-42 under the tables entitled "AHN Summary Consolidated Statements of Operation" and "AHN Summary Consolidated Balance Sheets" within APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION" has been expanded to include additional detail concerning unrealized gains and losses, gain on extinguishment of debt, derivative gains

and losses, gain on sale of joint venture, investment categories, restricted and unrestricted portion of net assets, and the current and long-term components of long-term indebtedness. Such expanded tables are included herein as ATTACHMENT 1 – "A-41 (Table Including Additional Detail)" and ATTACHMENT 2 – "A-42 (Table Including Additional Detail)," respectively.

4. Audited consolidated financial information for AHN for the fiscal years ended December 31, 2016 and 2015, is added to APPENDIX B – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016", the title of which, and all references thereto, is revised to read "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016 AND DECEMBER 31, 2016 AND 2015." The additional financial information is included hereto as ATTACHMENT 3 – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015."

5. An additional sentence is added at the end of Section 11 of the Continuing Disclosure Agreement which is included as to form in the Preliminary Official Statement as APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT" on page F-6 which shall read as follows:

> In 2019, 2020 and 2021, and thereafter at its discretion, AHN will hold an annual investor call. Such investor call shall be preceded by notice posted to EMMA.

ATTACHMENT 1

AHN Summary Consolidated Statements of Operations (Dollars in thousands)*

	December 31,			June 30,	
	2015	**2016**	**2017**	**2017**	**2018**
Revenue					
Net patient service revenue	$ 2,451,162	$ 2,655,008	$ 2,887,910	$ 1,426,936	$ 1,528,422
Other operating revenue	189,848	199,737	183,452	91,985	84,123
Total revenue	2,641,010	2,854,745	3,071,362	1,518,921	1,612,545
Expenses					
Operating expenses	2,554,572	2,765,732	2,900,660	1,439,008	1,516,687
Depreciation and amortization	122,806	128,047	141,931	68,768	72,054
Total operating expenses	2,677,378	2,893,779	3,042,591	1,507,776	1,588,741
Operating (loss) income	**(36,368)**	**(39,034)**	**28,771**	**11,145**	**23,804**
Investment income	20,456	16,889	31,838	12,595	18,436
Unrealized (losses)/gains	(11,940)	9,140	9,771	8,872	(6,928)
Interest expense	(29,584)	(30,292)	(39,320)	(17,318)	(16,827)
Gain on extinguishment of debt	7,494	-	-	-	-
Derivative (losses)/gains	(81)	1,860	3,576	372	-
Gain on sale of joint venture	-	-	13,017	13,017	-
Other non-operating income (expense), net	8,918	(1,519)	1,490	(573)	(729)
Excess (deficit) of revenue over expenses, before income taxes	**(41,105)**	**(42,956)**	**49,143**	**28,110**	**17,756**
Income tax benefit	(2,100)	(2,912)	(1,960)	(334)	(296)
Excess (deficit) of revenue over expenses	**$ (39,005)**	**$ (40,044)**	**$ 51,103**	**$ 28,444**	**$ 18,052**
Earning before interest, taxes, depreciation, and amortization**	$ 111,285	$ 115,383	$ 230,394	$ 114,196	$ 106,637

* Includes entities that are not Obligated Group Members.

** "EBITDA" or "Earnings before interest, taxes, depreciation, and amortization" is not a measure of operating performance or liquidity defined by generally accepted accounting principles and may not be comparable to similarly titled measures presented by other companies.

ATTACHMENT 2

AHN Summary Consolidated Balance Sheets (Dollars in thousands)*

	2015	2016	2017	June 30, 2018
Assets				
Current assets				
Cash and cash equivalents	$ 137,617	$ 196,553	$ 220,017	$ 213,500
Patent accounts receivable	293,995	311,691	319,422	356,837
Current portion of board designated investments	12,525	12,627	-	-
Other current assets	140,936	136,901	141,648	144,369
Total current assets	585,073	657,772	681,087	714,706
Investments	270,473	296,999	318,631	417,706
Board designated investments	98,400	106,145	292,962	261,135
Restricted investments	275,259	283,721	305,710	307,955
Equity investments/other	57,878	49,518	41,526	42,151
Property and equipment, net	1,062,398	1,074,835	1,152,002	1,170,553
Other assets	224,482	219,964	221,007	223,167
Total assets	$ 2,573,963	$ 2,688,954	$ 3,012,925	$ 3,137,373
Liabilities and Net Assets				
Current liabilities	352,384	381,768	404,489	450,135
Current portion of long-term debt	65,694	69,770	10,854	5,619
Accrued pension obligation	384,024	438,130	341,676	269,564
Long-term debt	1,360,348	1,351,898	1,062,392	1,062,273
Other liabilities	233,604	250,977	249,593	260,206
Total liabilities	2,396,054	2,492,543	2,069,004	2,047,797
Unrestricted net assets	(100,355)	(84,654)	635,527	779,965
Restricted net assets	278,264	281,065	308,394	309,611
Total net assets	177,909	196,411	943,921	1,089,576
Total liabilities and net assets	$ 2,573,963	$ 2,688,954	$ 3,012,925	$ 3,137,373

* Includes entities that are not Obligated Group Members.

ATTACHMENT 3

AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF
ALLEGHENY HEALTH NETWORK
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

[SEE ATTACHED]

Allegheny Health Network

Consolidated Financial Statements
December 31, 2016 and 2015

Allegheny Health Network
Index
December 31, 2016 and 2015

Report of Independent Auditors

To the Boards of Directors of Highmark Health and Allegheny Health Network:

We have audited the accompanying consolidated financial statements of Allegheny Health Network and its subsidiaries (the "Health Network"), which comprise the consolidated balance sheets as of December 31, 2016 and 2015, and the related consolidated statements of operations, of changes in net assets and of cash flows for the years then ended.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Health Network's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Health Network's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Allegheny Health Network and its subsidiaries as of December 31, 2016 and 2015, and the results of their operations, changes in their net assets, and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

December 8, 2017

PricewaterhouseCoopers LLP, Two Commerce Square, Suite 1800, 2001 Market Street, Philadelphia, Pennsylvania 19103
T: (267) 330-3000, F: (267) 330-3300, www.pwc.com/us

Allegheny Health Network
Consolidated Balance Sheets
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Assets		
Current assets		
Cash and cash equivalents	$ 196,553	$ 137,617
Assets limited or restricted as to use	12,627	12,525
Accounts receivable		
Patient accounts, less allowance for doubtful accounts of $60,464 and $75,795, respectively	311,691	293,995
Other	50,950	63,334
Estimated third-party payor settlements	2,135	2,740
Inventory, net	53,571	50,269
Income tax recoverables	97	838
Prepaid expenses and other current assets	30,148	23,755
Total current assets	657,772	585,073
Investments		
Debt securities, available-for-sale at fair value	55,830	30,344
Equity securities, available-for-sale at fair value	10,140	7,069
Board designated, restricted and other investments at fair value	397,550	395,497
Beneficial interest in perpetual trusts	224,405	219,772
Equity method investments	48,458	49,328
Property and equipment, net	1,074,835	1,062,398
Goodwill and other intangible assets, net	115,316	117,535
Other assets	104,648	106,947
Total assets	$ 2,688,954	$ 2,573,963
Liabilities and Net Assets		
Current liabilities		
Accounts payable	$ 191,950	$ 171,258
Accrued salaries and benefits	104,295	89,861
Accued expenses	48,892	49,201
Long-term debt subject to short-term remarketing	55,385	55,485
Current portion of long-term debt	14,385	10,209
Current portion of deferred revenue	23,361	21,549
Current portion of self-insurance liabilities	10,122	16,352
Other current liabilities	3,148	4,163
Total current liabilities	451,538	418,078
Accrued pension obligation	438,130	384,024
Self-insurance liabilities	161,991	137,819
Long-term debt	1,351,898	1,360,348
Deferred tax liability	2,624	5,498
Deferred revenue	30,359	30,037
Other liabilities	56,003	60,250
Total liabilities	2,492,543	2,396,054
Net assets		
Unrestricted	(114,320)	(124,523)
Unrestricted - noncontrolling interests	29,666	24,168
Total unrestricted	(84,654)	(100,355)
Temporarily restricted	23,859	25,580
Permanently restricted	257,206	252,684
Total net assets	196,411	177,909
Total liabilities and net assets	$ 2,688,954	$ 2,573,963

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Operations
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Unrestricted revenue and other support		
Patient service revenue (net of contractual allowances and discounts)	$ 2,724,421	$ 2,516,178
Provision for bad debts	(69,413)	(65,016)
Net patient service revenue	2,655,008	2,451,162
Other operating revenue	193,546	185,837
Net assets released from restriction	6,191	4,011
Total unrestricted revenue and other support	2,854,745	2,641,010
Expenses		
Salaries, wages and fringe benefits	1,550,643	1,438,205
Patient care supplies	559,765	498,194
Professional fees and purchased services	370,368	430,699
Depreciation and amortization	128,047	122,806
Other operating expenses	284,956	187,474
Total operating expenses	2,893,779	2,677,378
Operating loss	(39,034)	(36,368)
Net investment income	26,029	8,516
Change in unrealized loss on interest rate swaps	1,860	(81)
Interest expense	(30,292)	(29,584)
Income attributed to non-controlling interest	(993)	(434)
Gain on extinguishment of debt	-	7,494
Non-operating (loss) income, net	(526)	9,352
Deficit of revenue over expenses before income taxes	(42,956)	(41,105)
Income tax benefit	(2,912)	(2,100)
Deficit of revenue over expenses	$ (40,044)	$ (39,005)
Other changes in unrestricted net assets:		
Gain (loss) on qualifying derivative instruments	3,046	(4,311)
Pension liability adjustments	(63,302)	(13,404)
Change in non-controlling interest	1,948	1,347
Acquisition of joint venture	-	13,548
Acquisition of joint venture - noncontrolling interest	-	11,737
Net assets released from restriction for acquisition of equipment	1,274	893
Transfers from affiliate	108,364	106,644
Other, net	4,415	(10,045)
Decrease in unrestricted net deficit for other changes in unrestricted net assets	55,745	106,409
Decrease in unrestricted net deficit	$ 15,701	$ 67,404

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Changes in Net Assets
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Unrestricted net deficit		
Deficit of revenue over expenses	$ (40,044)	$ (39,005)
Gain (loss) on qualifying derivative instruments	3,046	(4,311)
Pension liability adjustments	(63,302)	(13,404)
Change in non-controlling interest	1,948	1,347
Acquisition of joint venture	-	13,548
Acquisition of joint venture - noncontrolling interest	-	11,737
Net assets released from restriction for acquisition of equipment	1,274	893
Transfers from affiliate	108,364	106,644
Other, net	4,415	(10,045)
Decrease in unrestricted net deficit	15,701	67,404
Temporarily restricted net assets		
Contributions	4,647	11,518
Net investment income	1,381	604
Net assets released from restriction used for:		
Operations	(6,191)	(4,011)
Acquisition of equipment	(1,274)	(893)
Other, net	(284)	(425)
(Decrease) increase in temporarily restricted net assets	(1,721)	6,793
Permanently restricted net assets		
Contributions	7	-
Net investment income (loss)	13,091	(988)
Transfer out of trusts to net investment income	(8,578)	(10,102)
Other, net	2	(480)
Increase (decrease) in permanently restricted net assets	4,522	(11,570)
Increase in net assets	18,502	62,627
Net assets		
Beginning of the year	177,909	115,282
End of the year	$ 196,411	$ 177,909

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Cash Flows
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Cash flows from operating activities		
Increase in net assets	$ 18,502	$ 62,627
Adjustments to reconcile change in net assets to net cash provided by operating activities		
Transfers from affiliate	(108,364)	(106,644)
Provision for bad debts	69,413	65,016
Depreciation and amortization	128,047	122,806
Pension liability adjustments	63,302	13,404
Noncash pension expense	3,008	8,927
Gain on extinguishment of debt	-	(7,494)
Net realized and unrealized (gains) losses on investments	(8,104)	14,306
Dividends received from equity method investments	5,656	9,245
Undistributed gains of equity method investments	(4,789)	233
Beneficial interest in perpetual trusts	(4,633)	11,374
Gain on sale of joint venture	-	(4,461)
Change in derivative instruments	(3,046)	4,311
Deferred taxes	(2,874)	(2,300)
Noncash unrestricted contributions	-	(7,499)
Restricted contributions	(4,654)	(11,518)
Assets acquired through acquisition	(1,000)	(26,531)
(Decrease) increase due to change in:		
Accounts receivable	(87,109)	(113,100)
Other receivables	12,383	7,124
Inventory, prepaids and other current assets	(2,563)	(5,476)
Other long-term assets	(14,559)	(6,777)
Accounts payable, accrued expenses and other current liablities	37,632	9,352
Accrued pension obligation	(12,205)	(61,852)
Other liabilities	18,268	25,914
Net cash provided by operating activities	102,311	987
Cash flows from investing activities		
Purchases of investments	(344,635)	(369,270)
Proceeds from sales and maturities of investments	332,138	427,819
Purchases of property and equipment	(139,410)	(176,970)
Proceeds from sales of property and equipment	294	-
Cash acquired in conjunction with acquisitions	-	9,507
Net cash used in investing activities	(151,613)	(108,914)
Cash flows from financing activities		
Restricted contributions	4,654	11,518
Proceeds from issuance of debt	9,348	26,473
Repayment of debt	(14,128)	(33,268)
Stock issuance to noncontrolling interest	-	700
Transfers from affiliate	108,364	106,644
Net cash provided by financing activities	108,238	112,067
Increase in cash and cash equivalents	58,936	4,140
Cash and cash equivalents		
Beginning of year	137,617	133,477
End of year	$ 196,553	$ 137,617
Supplemental disclosure of cash flow information		
Interest paid, net	$ 25,524	$ 23,421
Income taxes (recovered) paid, net	$ (650)	$ 616
Supplemental disclosure of noncash investing and financing		
Assets acquired through other payables	$ 2,519	$ 10,050
Noncash contributions	$ -	$ 7,499

The accompanying notes are an integral part of these consolidated financial statements.

(in thousands of dollars)

1. Nature of Operations

Allegheny Health Network ("AHN"), formed in 2013, is incorporated as a nonprofit corporation in the Commonwealth of Pennsylvania and is federally recognized as a 501(c)(3). Highmark Health, the sole corporate member of AHN, is a diversified health and wellness enterprise that includes: Highmark Inc. - a hospital plan corporation and professional health services plan in the Commonwealth of Pennsylvania; HM Health Solutions; and HM Health Holding Company. AHN was formed to act as the parent company of West Penn Allegheny Health System, Inc. ("WPAHS"), Jefferson Regional Medical Center ("JRMC"), and Saint Vincent Health System ("SVHS"). AHN, WPAHS, JRMC, SVHS, and its other subsidiaries and affiliates are herein referred to as the "Health Network".

AHN is a western Pennsylvania-based, patient-centered and physician-led academic healthcare system that provides charitable care and high-quality, comprehensive health care services to patients from western Pennsylvania and the adjacent regions of Ohio, West Virginia, New York and Maryland.

AHN is comprised of eight hospitals, of which one is a quaternary academic medical center and the remaining seven are tertiary/community hospitals that provide a wide array of general and advanced clinical services. AHN contains more than 250 additional healthcare sites, including surgery centers, comprehensive Health + Wellness Pavilions, and a physician organization that includes more than 2,400 employed and affiliated physicians. It also includes HMPG Inc., a for-profit holding company whose subsidiaries and affiliates include a group purchasing organization, a captive insurance company (Palladium Risk Retention Group Inc. - "Palladium"), real estate companies, a surgery center, and joint ventures that offer durable medical equipment and home infusion services, home health and hospice services. Additionally, the Health Network includes a research institute, charitable foundations and joint ventures that offer home health and hospice services among other healthcare services.

Comprehensive clinical and research programs include the areas of bone and joint care, sports medicine, cardiovascular disease, neurosurgery and neurology, women's health, cancer, emergency medicine, bariatric and metabolic disease; a complete spectrum of advanced diagnostic, medical and surgical care across all medical specialties, including primary care, trauma and burn care, general surgery, diabetes, autoimmune diseases, critical care, digestive diseases, men's health/urology, lung and esophageal diseases and rehabilitation services.

AHN offers forty-four graduate medical programs and has three medical school affiliations with Drexel University, Temple University and the Lake Erie College of Osteopathic Medicine, allowing its medical residents and fellows to receive advanced training at AHN hospitals. It also operates two nursing education programs, including the West Penn Hospital School of Nursing and the Citizens School of Nursing

2. Merger and Acquisition

Celtic Healthcare

Effective January 1, 2015, WPAHS finalized a contribution agreement with Celtic Healthcare, Inc. to create a new entity ("JV Holdco"), which consolidated each organization's home health and hospice businesses within western Pennsylvania. WPAHS has approximately a 60% equity ownership interest within the newly formed entity, which had a fair value of $25,285.

(in thousands of dollars)

3. Summary of Significant Accounting Policies

Basis of Financial Presentation

The accompanying consolidated financial statements include the accounts of the Health Network.

The consolidated financial statements are presented on the accrual basis of accounting, in accordance with accounting principles generally accepted in the United States of America ("GAAP"). All significant intercompany balances and transactions have been eliminated from the consolidated financial statements.

The Health Network uses the equity method of accounting for 50% or less owned affiliates or those affiliates for which the Health Network does not hold a controlling financial interest but may influence operating or financial decisions as well as 50% or more owned affiliates for which the Health Network does not hold a controlling financial interest.

New Accounting Pronouncements

Implemented

In July 2015, Financial Accounting Standards Board ("FASB") issued new guidance regarding the measurement of defined benefit pension plans, defined contribution pension plans, and health and welfare benefit plans, and eliminates certain related disclosures. The new guidance is effective for fiscal years beginning after December 15, 2015. The adoption of this new guidance did not have a material impact to the financial position, results of operations and cash flows of the Health Network.

In April 2015, FASB issued new guidance requiring that debt issuance costs related to a recognized debt liability (such as secured and unsecured notes, debentures, bonds, mortgage notes, equipment obligations and some accounts receivable and payable) be presented in the balance sheet as a direct deduction from the carrying amount of debt liability. Debt issuance costs related to line-of-credit arrangements are still permitted to be deferred, presented as an asset and subsequently amortized over the term of the line-of-credit arrangement. The Health Network adopted this new guidance and made certain reclassifications between other assets and debt for all periods prescribed on the balance sheet.

In August 2014, FASB issued new guidance regarding evaluation criteria about whether there is substantial doubt about an entity's ability to continue as a going concern and enhanced related disclosures. The new guidance is effective for fiscal years ending after December 15, 2016. The adoption of this new guidance did not have a material impact on the Health Network's financial position, results of operations and cash flows.

Under Evaluation

In August 2016, FASB issued new guidance regarding the presentation of financial statements of not-for-profit entities. The new guidance replaces the currently-required three classes of net assets with two classes: net assets with donor restrictions and net assets without donor restrictions, eliminates the requirement to present or disclose the indirect method reconciliation if using the direct method on the cash flow statement, and requires enhanced disclosures about governing board designations and appropriations, composition of net assets with donor restrictions, management of liquidity, expenses, methods of cost allocation, and underwater endowment funds. The new guidance is effective for fiscal years beginning after December 15, 2017. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In February 2016, FASB issued new guidance regarding the recognition of leases. The new guidance requires lessees to recognize a lease liability and a lease asset for all leases, including

operating leases, with a term greater than 12 months on its balance sheet. The guidance also expands the required quantitative and qualitative disclosures surrounding leases. The new guidance is effective for fiscal years beginning after December 15, 2019. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In January 2016, FASB issued new guidance requiring all equity investments, other than those accounted for under the equity method or those that result in the consolidation of the investee, to be measured at fair value with changes in the fair value recognized through net income. The new guidance also eliminates the requirement to disclose the fair value of financial instruments measured at amortized cost for non-public business entities. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In May 2015, FASB issued new guidance removing the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. The new guidance is effective for fiscal years beginning after December 15, 2016. The Health Network is evaluating the impact to the footnote disclosures.

In May 2014, FASB issued new guidance related to revenue recognition for contracts with customers. This new guidance removes most industry-specific revenue recognition requirements and requires that an entity recognize revenue for the transfer of goods or services to a customer at an amount that reflects the consideration to which an entity expects to be entitled in exchange for the goods or services. Insurance contracts are not covered by this guidance. The new guidance also requires additional disclosures regarding the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the adoption of this new guidance on the financial position, results of operations and cash flows.

Use of Estimates
The preparation of the Health Network's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents
The Health Network considers all highly-liquid investments with maturities of three months or less when purchased, excluding assets limited or restricted as to use, to be cash equivalents.

Accounts Receivable
In the normal course of business, the Health Network grants credit to its patients under various contractual arrangements. The Health Network carries its accounts receivable at estimated net realizable value, which reflects the impact of potential credit losses. Patient accounts receivable are written off when they are determined to be uncollectible based upon management's assessment of individual accounts. In evaluating the collectability of patient accounts receivable, the Health Network analyzes its past history and identifies trends for each of its major payor sources of revenue to estimate the appropriate allowance for doubtful collections and provision for doubtful collections. For receivables associated with services provided to both patients without insurance and patients with deductible and copayment balances due for which third-party coverage exists for part of the bill, the Health Network analyzes contractually-due amounts and provides an allowance for doubtful accounts, if necessary. For receivables associated with self-pay patients, the Health Network records an allowance for doubtful accounts in the period of service on the basis of its past

(in thousands of dollars)

experience, which indicates that many patients are unable to pay a portion of their bill for which they are financially responsible. The difference between the billed rates and the amounts actually collected after all reasonable collection efforts have been exhausted is charged off against the allowance for doubtful accounts.

The Health Network does not maintain a material allowance for doubtful accounts from third party payors, nor did it have significant write-offs from third-party payors.

The mix of net receivables from patients and payors was as follows at December 31:

	2016	2015
Medicare	29.9%	25.9%
Medical assistance	16.1%	17.7%
Blue Cross Blue Shield payors	28.2%	30.0%
Other third-party payors	21.9%	20.8%
Patients and residents	3.9%	5.6%
	100.0%	100.0%

Investments and Assets Limited or Restricted as to Use
Debt and equity securities classified as available-for-sale are carried at fair value (based on quoted or estimated market prices), and unrealized gains and losses are reported in unrestricted net assets, net of deferred income taxes. Premiums and discounts are amortized using the effective interest method. Realized gains and losses on debt securities are based on amortized cost. Realized gains and losses on equity securities are based on cost (specific identification method). Realized gains and losses on available-for-sale debt and equity securities are reported in net investment income in the consolidated statements of operations.

The Health Network monitors its available-for-sale investments portfolio for unrealized losses that appear to be other-than-temporary. At the time an equity security is determined to be other-than-temporarily impaired, the Health Network reduces the book value of the security to the current market value and records a realized loss in net investment income in the consolidated statements of operations.

In determining if an available-for-sale debt security is other-than-temporarily impaired, the Health Network considers whether it has intent to sell the available-for-sale debt security or whether it is more likely than not that the Health Network will be required to sell the available-for-sale debt security before recovery of its amortized cost basis, which may be at maturity. If the Health Network intends to sell the debt security or it is more likely than not that the Health Network will be required to sell the debt security before recovery of its amortized cost basis, an other-than-temporary impairment is recorded as a realized loss in net investment income in the consolidated statements of operations for the difference between fair value and amortized cost.

If the Health Network does not have the intent to sell and it does not believe that it is more likely than not that it will be required to sell the debt security before recovery of its amortized cost, the Health Network performs a detailed review to determine the underlying cause of the unrealized loss and whether an other-than-temporary impairment is warranted. At the time a debt security is determined to be other-than-temporarily impaired, the credit component of the other-than-temporary impairment is recognized in income in the consolidated statements of operations and the non-credit component of the other-than-temporary investment is recognized in the statement of changes in net assets, net of deferred income taxes.

Board-designated, restricted and other investments include assets whose use is contractually limited by external parties and assets set aside by the Board of Directors ("Board") for future capital improvements or liquidity, over which the Board retains control and may at its discretion subsequently use for other purposes, as well as assets held by trustees under indenture agreements. Other investments consist primarily of marketable debt and equity securities and marketable securities maintained in a master trust fund. Investment income or loss (including realized gains and losses, interest and dividends, and unrealized gains and losses) is recorded in net investment income in the consolidated statements of operations unless restricted by donor or law. Investment income related to temporarily and permanently restricted gifts is recorded based on donor restriction as part of the corresponding net asset class in the consolidated statements of changes in net assets.

The Health Network's assets are invested in a variety of financial instruments. Accordingly, the related values as presented in the consolidated financial statements are subject to various market fluctuations, which include changes in the interest rate environment, equity markets and general economic conditions.

Beneficial Interest in Perpetual Trusts
Beneficial interest in perpetual trusts represents permanently restricted assets that are managed by donor-selected trustees and are recorded at the fair value of the underlying assets in the trusts.

Fair Value of Financial Instruments
In accordance with FASB fair value measurement guidance, financial assets and liabilities recorded at fair value in the consolidated balance sheets are categorized based upon the level inputs used to measure their fair value.

Inventory, Net
Inventory consists primarily of health care delivery-related drugs, medical supplies and surgical supplies. Inventory is stated at the lower of cost or market. Inventory cost is determined using the first-in first-out basis. Obsolescence reserves were $3,262 and $2,709 at December 31, 2016 and 2015, respectively.

Prepaid Expenses, Other Current Assets and Other Assets
Prepaid expenses, other current assets and other assets primarily include prepaid expenses, insurance recoveries, interests in net assets of foundations and 457(b) plan assets.

Property and Equipment, Net
Property and equipment is recorded at cost, net of accumulated depreciation. If a donor contributes property and equipment, it is recorded at the fair market value on the date contributed. Maintenance, repairs and minor improvements are expensed as incurred. Certain costs related to the internal development of software or software purchased for internal use are capitalized. Gains or losses on sales or disposals of property and equipment are included in operations.

Depreciation is computed under the straight-line method by annual charges to expense over the estimated useful lives of the various asset types as follows: buildings and building or land improvements, up to 40 years; leasehold improvements, lesser of lease term or useful life; office furniture and equipment, 3 to 30 years; and capitalized software, 3 to 10 years.

Property and equipment is reviewed for impairment whenever changes in circumstances indicate that the carrying value of the assets may not be recoverable. Impairment losses are recognized to the extent the carrying amount of an asset exceeds the undiscounted future cash flows expected to

result from the use of the asset and its eventual disposal. There were no impairment losses recorded in either 2016 or 2015.

Goodwill and Other Intangible Assets, Net
Intangible assets with finite lives are amortized using the straight-line method over their estimated lives, which range from 3 to 20 years. The Health Network has intangibles asset of $10,649 and $13,535 for the years ended December 31, 2016 and 2015, respectively. Amortization expenses related to these assets was $3,052 and $3,706 in 2016 and 2015, respectively.

Intangible assets with indefinite useful lives, including goodwill, are not amortized, but are tested for impairment at least annually and more frequently if events or changes in circumstances indicate that an asset may be impaired. If fair value is less than carrying value, the asset is adjusted to the fair value and an impairment loss is recorded in the consolidated statements of operations. Goodwill consisted of $104,667 and $104,000 at December 31, 2016 and 2015, respectively. Management tested goodwill and concluded that no impairment existed at December 31, 2016 or 2015.

Self-Insurance Liabilities
Self-insurance liabilities are based on actuarial methods and loss experience data and are considered by management to be adequate. Such liabilities are determined, in the aggregate, based on a reasonable estimation of the ultimate settlement of reported losses, including individual case estimates for reported losses plus supplemental amounts for losses incurred but not reported.

Palladium does not yet have sufficient historical loss experience to determine whether actual losses and loss adjustment expenses will reasonably conform to the assumptions used in determination of the estimated liability for losses and loss adjustment expenses. There is uncertainty associated with the loss estimates, and actual results could differ significantly from the estimates. Changes in loss and loss adjustment expense liabilities relating to prior years are recorded in the year determined.

Self-insurance liabilities are recorded at the present value of the estimated future cash flows for payments of those losses and loss adjustment expenses. The present value of those losses and loss adjustment expenses is discounted using a risk-free rate which is equivalent to the current interest rate on United States government obligations at the time of the loss and for the duration of expected payout of the loss.

Medical malpractice exposure can be subject to long settlement delays and can include large single event claims. This type of exposure has higher inherent volatility than typical insurance exposures. Palladium has insurance exposure to only report years beginning January 1, 2015. Given the immaturity of the exposures, meaningful future claim payment and case reserve activity is expected. The uncertainty of these years will decrease over time as these years mature and losses are reported.

In the normal course of business, Palladium seeks to reduce losses that may arise from risks or occurrences of an unexpected nature that may cause unfavorable underwriting results by reinsuring certain levels of risk in various areas of exposure with other insurance enterprises or reinsurers.

Other Liabilities
Other liabilities include deferred grant revenue and payor advances, asset retirement obligations related to cost associated with future asbestos removal, 457(b) plan obligations and interest rate swap liabilities.

(in thousands of dollars)

Derivative Financial Instruments
The Health Network makes limited use of derivatives, which relate primarily to interest rate swaps. The Health Network entered into multiple interest rate swap agreements that convert variable debt to a fixed rate, as well converting a fixed rate to a variable rate. The liabilities associated with the interest rate swaps are reported in other non-current liabilities in the consolidated balance sheets. Changes in the fair value of interest rate swaps deemed effective and that qualify for hedge accounting are accounted for as unrestricted net assets in the consolidated statements of changes in net assets. For those interest rate swaps that do not qualify for hedge accounting, the changes in fair value are reported in the non-operating results on the consolidated statements of operations. Specific types of loans and amounts that the Health Network hedges are determined based on prevailing market conditions and are further disclosed in Note 8.

Temporarily and Permanently Restricted Net Assets
Temporarily restricted net assets are those whose use is limited by donor-imposed stipulations that either expire with the passage of time or can be fulfilled and removed by actions of the Health Network pursuant to those stipulations. Temporarily restricted net assets are available for capital and other program expenditures.

Permanently restricted net assets are those whose use is limited by donor-imposed stipulations that neither expire with the passage of time nor can be fulfilled or otherwise removed by the actions of the Health Network. Investment earnings from permanently restricted net assets may be unrestricted or temporarily restricted for capital or operating needs depending upon the original intent of the donor.

Net assets are released from donor restrictions by incurring expenses satisfying the restricted purposes or by occurrence of other events specified by donors. Net assets released from restrictions and used for operations are recorded in net assets released from restriction. Net assets released from restriction and used for capital purposes are recorded in unrestricted net assets in the consolidated statements of changes in net assets.

Donor-Restricted Contributions
The Health Network classifies the portions of donor-restricted endowment funds of perpetual durations as permanently restricted net assets. Permanently restricted net assets are comprised of (a) the original value of the contributions made to the permanent endowment, (b) the original value of the subsequent contributions made to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with applicable donor gift instruments. Any portion of donor-restricted endowment funds that are classified as permanently restricted as appropriate in accordance with donor intent.

The Health Network considers the following factors in determining donor-restricted endowment funds are accumulated or appropriated:
(1) The duration and preservation of the fund
(2) The purposes of the organization and the donor-restricted endowment fund
(3) General economic conditions
(4) The possible effect of inflation and deflation
(5) The expected total return from income and appreciation of investments
(6) Other resources of the organization
(7) The investment policies of the organization

The Health Network's permanently restricted net assets consist of endowments managed by donor-selected trustees and endowments managed by the Health Network. Unless otherwise directed by the donor, gifts received for endowments are invested in accordance with the Health Network's

investment policy. In order to preserve the real value of a donor's gift and to sustain funding consistent with donor intent, the annual appropriation rate is set to strike a reasonable balance between long-term objectives of preserving and growing each endowment fund for the future of providing stable, annual appropriations.

Return Objectives and Risk Parameters
The Health Network has adopted endowment investment and spending policies that attempt to provide a predictable stream of funding programs supported by its endowment while seeking to maintain the purchasing power of endowment assets. Under this policy, the return objective for the endowment assets, measured over a full market cycle, shall be to maximize the return with a balanced growth emphasis based on the endowment's target allocation applied to the appropriate individual benchmarks.

Strategies Employed for Achieving Investment Objectives
To achieve its long-term rate of return objectives, the Health Network elected a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends. The investment income percentage distribution is recorded as a transfer out of trusts in permanently restricted net assets. The Health Network targets diversified asset allocation that places a greater emphasis on fixed income based investments to achieve its long-term objectives within prudent risk constraints.

Net Patient Service Revenue
Net patient service revenue is comprised of gross patient service revenues less contractual allowances, charity care and provision for bad debts. Net patient service revenue is reported at estimated net realizable amounts from patients, third-party payors and others for services rendered at the time the service is performed and includes estimated retroactive revenue adjustments due to future audits, reviews and investigations. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known or as years are no longer subject to such audits, reviews and investigations.

The Health Network has agreements with third-party payors that provide for payments to the Health Network at amounts different from its established rates. Payment arrangements include prospectively determined rates per discharge, reimbursed costs, discounted charges, per diem payments and contracted amounts. The Health Network recognizes patient service revenues associated with services provided to patients who have third-party payor coverage on the basis of established rates for services rendered. The Health Network provides discounts to uninsured patients who do not qualify for medical assistance or charity care.

(in thousands of dollars)

Net patient service revenue, by major payor, was as follows for the years ended December 31:

	2016	2015
Medicare	$ 1,063,136	$1,010,146
Medical assistance	229,838	208,030
Blue Cross Blue Shield payors	926,535	845,187
Other third-party payors	445,512	401,086
Patients and residents	59,400	51,729
Total patient service revenue, net of contractual allowances and discounts	2,724,421	2,516,178
Less: Provision for bad debts	(69,413)	(65,016)
Total net patient service revenue	$ 2,655,008	$2,451,162

In 2016, revenue from Medicare and Blue Cross Blue Shield accounted for 39% and 34%, respectively, of total patient service revenue, net of contractual allowances and discounts. In 2015, revenue from Medicare and Blue Cross Blue Shield accounted for 40% and 34%, respectively, of total patient service revenue, net of contractual allowances and discounts. Laws and regulations governing Medicare and Medical Assistance programs are extremely complex and subject to interpretation, and there is at least a reasonable possibility that actual results could differ from those estimates. As a result, provisions for third party payor settlements and adjustments are estimated in the period the related services are provided and adjusted in future periods as additional information becomes available and as final settlements are determined as years are no longer subject to audits, reviews, and investigations.

Uncompensated Care and Community Services Benefit
The Health Network provides services to all patients regardless of ability to pay. The Health Network maintains a charity care policy under which they provide care to patients at no charge or at discounted rates, provided the patients meet the eligibility requirements stipulated in their policy. The Health Network does not pursue collection of amounts determined to qualify for charity care; therefore, charity care amounts are not recorded as revenue or deducted from gross patient service revenue in arriving at net patient service revenue.

A patient is classified as a charity patient based on income eligibility criteria as established by the Healthcare Assistance Program which is determined by presentation for care without insurance, while using an estimator of each guarantor's ability to pay. Free care is determined at 200% of Federal Poverty Guidelines, whereas discounted care for uninsured but failing charity thresholds ranges between 70% and 83% of gross charges based upon the look-back method, for each hospital. Of the Health Network's total expenses reported, an estimated $20,000 and $22,500 arose from providing services to charity patients in 2016 and 2015, respectively. The Health Network estimated these costs by applying the cost of the total direct and indirect costs of each procedure to the individual charity care cases. Patients are required to apply for the charity care discount, but often do not complete the necessary paperwork to determine if they qualify. As a result, there is a quantifiable amount of uncompensated services that would potentially be considered charity care under the policy, but rather are ultimately reflected in the provision for bad debts.

In addition to uncompensated care, the Health Network provides free and below cost services and programs for the benefit of the community. The cost of these programs is included in salaries, wages, and fringe benefits, patient care supplies, and professional fees and purchased services lines in the accompanying consolidated statements of operations.

(in thousands of dollars)

Services are also provided to beneficiaries of government-sponsored programs, including state Medical Assistance and indigent care programs. Reimbursement from these programs is often less than the cost of providing these services.

Other Operating Revenue
Other operating revenue includes grants, physician stipends, Medicare and Medicaid electronic health record ("EHR") incentive payments and other ancillary hospital services revenue such as parking, cafeteria, tuition and rent. Other operating revenue also includes the Health Network's proportionate share of affiliate earnings.

The composition of other operating revenue is as follows for the years ended December 31:

	2016	2015
Grant revenue	$ 29,623	$ 27,206
Affiliation income	29,100	30,500
Facility services	33,894	34,755
Equity method investment income	4,123	5,849
Medicare/Medicaid EHR incentives	2,213	5,468
Other miscellaneous revenue	94,593	82,059
	$ 193,546	$ 185,837

Income Taxes
AHN and some of the entities within the Health Network are tax-exempt organizations under Section 501(c)(3) of the Internal Revenue Code ("IRC") and are exempt from federal income taxes on exempt purpose income. These tax-exempt organizations are subject to federal taxes on unrelated business income under section 511 of the IRC. No such tax liability exists in 2016 or 2015, and as such, no provision for unrelated business income tax has been made in the consolidated financial statements.

Certain for-profit entities within the Health Network are subject to federal and state income taxes. Provisions for the applicable tax liabilities have been made in the consolidated financial statements. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using tax rates and laws that are expected to be in effect when the difference is reversed. The Health Network records a valuation allowance against its deferred tax assets when it determines that it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Deficit of Revenue over Expenses
The consolidated statements of operations include a deficit of revenue over expenses. Changes in unrestricted net deficit which are excluded from the deficit of revenue over expenses, consistent with industry practice, include unrealized gains and losses on available-for-sale securities, benefit plan asset and liability changes, contributions of long-lived assets (including assets acquired using contributions which by donor restriction were to be used for the purposes of acquiring such assets) and certain tax benefits.

Subsequent Events
In connection with the preparation of the consolidated financial statements, the Health Network evaluated events subsequent to the balance sheet date of December 31, 2016 through December 8, 2017, which is also the date the financial statements were available to be issued, and has determined that all material transactions have been recorded and disclosed properly.

(in thousands of dollars)

4. Investments

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2016 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 19,296	$ -	$ (380)	$ 18,916
Asset-backed and other loan-backed securities	500	-	(4)	496
Corporate and other debt securities	36,610	130	(322)	36,418
Total debt securities	56,406	130	(706)	55,830
Equity securities				
Domestic	3,219	186	(3)	3,402
Foreign	6,950	5	(217)	6,738
Total equity securities	10,169	191	(220)	10,140
Total	$ 66,575	$ 321	$ (926)	$ 65,970

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2015 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 16,131	$ -	$ (198)	$ 15,933
Asset-backed and other loan-backed securities	365	-	-	365
Corporate and other debt securities	14,280	5	(239)	14,046
Total debt securities	30,776	5	(437)	30,344
Equity securities				
Domestic	3,020	-	(107)	2,913
Foreign	4,520	-	(364)	4,156
Total equity securities	7,540	-	(471)	7,069
Total	$ 38,316	$ 5	$ (908)	$ 37,413

(in thousands of dollars)

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2016 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 18,416	$ (380)	$ -	$ -	$ 18,416	$ (380)
Asset-backed and other loan-backed securities	496	(4)	-	-	496	(4)
Corporate and other debt securities	24,277	(317)	242	(5)	24,519	(322)
Total debt securities	43,189	(701)	242	(5)	43,431	(706)
Equity securities						
Domestic	197	(3)	-	-	197	(3)
Foreign	4,017	(99)	1,306	(118)	5,323	(217)
Total equity securities	4,214	(102)	1,306	(118)	5,520	(220)
Total	$ 47,403	$ (803)	$ 1,548	$ (123)	$ 48,951	$ (926)

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2015 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 15,933	$ (198)	$ -	$ -	$ 15,933	$ (198)
Asset-backed and other loan-backed securities	365	-	-	-	365	-
Corporate and other debt securities	12,806	(239)	-	-	12,806	(239)
Total debt securities	29,104	(437)	-	-	29,104	(437)
Equity securities						
Domestic	2,913	(107)	-	-	2,913	(107)
Foreign	4,145	(364)	-	-	4,145	(364)
Total equity securities	7,058	(471)	-	-	7,058	(471)
Total	$ 36,162	$ (908)	$ -	$ -	$ 36,162	$ (908)

At December 31, 2016 and 2015, the Health Network held available-for-sale debt securities with gross unrealized losses of $706 and $437, respectively. Management evaluated the unrealized losses and determined that they were due primarily to volatility in the interest rate environment and market conditions. The Health Network does not intend to sell the related debt securities and it is not likely that the Health Network will be required to sell the debt securities before recovery of their amortized cost basis, which may be maturity. Therefore, management does not consider the available-for-sale debt securities to be other-than-temporarily impaired as of December 31, 2016 and 2015.

At December 31, 2016 and 2015, the Health Network held available-for-sale equity securities with gross unrealized losses of $220 and $471, respectively. Management reviews equity securities in which fair value falls below cost. In determining whether an equity security is other-than-temporarily impaired, management considers both quantitative and qualitative information. The impairment review process is subjective and considers a number of factors, including, but not limited to, the length of time and extent to which the fair value has been less than book value, the financial condition and near-term prospects of the issuer, recommendations of investment advisors, the intent

(in thousands of dollars)

and ability to hold securities for a time sufficient to allow for any anticipated recovery in value and general market conditions and industry or sector-specific factors, including forecasts of economic, market or industry trends. Management does not consider the available-for-sale equity securities to be other-than-temporarily impaired as of December 31, 2016 and 2015.

The realized gains (losses) on the available-for-sale debt securities were $103 and $(46) for the years ended December 31, 2016 and 2015. There were no realized gains or losses on the available-for-sale equity securities for the years ended December 31, 2016 and 2015. There were no other-than-temporary impairments on the available-for-sale debt or equity securities for the years ended December 31, 2016 and 2015.

The amortized cost and fair value of available-for-sale debt securities at December 31, 2016 and 2015 are shown below by contractual maturity. Expected maturities could differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	2016		2015	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within one year or less	$ -	$ -	$ 5,338	$ 5,330
Due after one year and within five years	30,672	30,597	14,107	13,966
Due five years through ten years	23,248	22,764	10,966	10,683
Due after ten years	1,986	1,973	-	-
Asset-backed and other loan-backed securities	500	496	365	365
Total	$ 56,406	$ 55,830	$ 30,776	$ 30,344

Board designated, restricted and other investments consists of the following investment types at December 31:

	2016	2015
Cash and cash equivalents	$ 70,095	$ 77,562
Debt securities:		
U.S. Treasury and agency obligations	64,243	76,711
Agency mortgage-backed securities	4,833	5,309
Asset and mortgage-backed securities	5,102	7,956
Corporate and other debt securities	94,112	77,724
Total debt securities	168,290	167,700
Equity securities:		
Domestic	128,938	122,993
Foreign	42,614	39,767
Total equity securities	171,552	162,760
Common collective trust interests	240	-
Total board designated, restricted and other investments	$ 410,177	$408,022

(in thousands of dollars)

Board designated, restricted and other investments consist of the following components at December 31:

	2016	2015
Unrestricted:		
Other investments	$ 278,897	$ 278,871
Board designated:		
Capital improvements	4,110	4,110
Foundation	34,973	32,366
Debt service	5,596	5,600
Self-insurance	2,913	3,112
Grant funds and other	28,454	30,796
Total unrestricted	354,943	354,855
Temporarily restricted	22,433	20,255
Permanently restricted	32,801	32,912
Total board designated, restricted and other investments	$ 410,177	$ 408,022

The following is a summary of net investment income for the year ended December 31, 2016:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 17,722	$ 878	$ 3,658
Net realized (losses) gains on investments	(833)	(43)	2,068
Net unrealized gains on board designated, restricted and other investments	9,140	546	7,365
Total net investment income	$ 26,029	$ 1,381	$ 13,091

The following is a summary of net investment income (loss) for the year ended December 31, 2015:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 20,916	$ 948	$ 4,274
Net realized gains (losses) on investments	1,872	(19)	8,698
Net unrealized losses on board designated, restricted and other investments	(14,272)	(325)	(13,960)
Total net investment income (loss)	$ 8,516	$ 604	$ (988)

There were no other-than-temporary impairment charges on available-for-sale securities included in net realized gains (losses) on unrestricted investments for 2016 and 2015.

The recognition of unrealized gains and losses on investments that are restricted as to use are recorded directly to temporarily and permanently restricted net assets as required by donor or regulation. These investments consist primarily of equity securities, agency mortgage-backed securities, corporate debt securities and U.S. Treasury obligations. All unrealized gains and losses on marketable unrestricted board-designated and other investments are recognized in net investment income.

(in thousands of dollars)

5. Fair Value of Financial Instruments

Input levels, as defined by Fair Value Measurement guidance, are as follows:

Level 1: Pricing inputs are based on unadjusted quoted market prices for identical financial assets or liabilities in active markets. Active markets are those in which transactions occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2: Pricing inputs include observable inputs other than Level 1 pricing inputs, such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Pricing inputs include unobservable inputs that are supported by little or no market activity and that reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

The following methods and assumptions were used to determine the fair value of each class of the following assets and liabilities recorded at fair value in the consolidated balance sheets:

Cash equivalents: Cash equivalents consist of highly liquid investments with maturities of three months or less and are designated as Level 1.

Debt securities, available-for-sale: Fair values of available-for-sale debt securities are based on quoted market prices, where available. These fair values are obtained primarily from a third party pricing service, which generally use Level 1 or Level 2 inputs, for the determination of fair value to facilitate fair value measurements and disclosures.

Equity securities, available-for-sale: Fair values of equity securities are generally designated as Level 1 and are based on quoted market prices for identical assets in active markets. For certain equity securities, quoted market prices for identical securities are not always available and the fair value is estimated by reference to similar or underlying securities for which quoted prices are available. These securities are designated Level 2.

Board-designated, restricted and other investments: Board-designated, restricted and other investments include cash equivalents, debt securities and equity securities that follow the same methods and assumptions and fair value designations described above.

Beneficial interest in participating trusts: Permanently restricted net assets consist of amounts held in perpetuity as designated by donors, including the Health Network's portion of beneficial interests in several endowments managed by donor-selected trustees. The fair value for endowments managed by donor-selected trustees are designated as Level 3 securities with the interest in these trusts based on the fair value of the underlying trust investments.

The Health Network uses a third party pricing service to obtain quoted prices for each security. The third party service provides pricing based on recent trades of the specific security or like securities, as well as a variety of valuation methodologies for those securities where an observable market price may not exist. The third party service may derive pricing for Level 2 securities from market-corroborated pricing, matrix pricing, discounted cash flow analyses and inputs such as yield curves and indices. Pricing for Level 3 securities may be obtained from investment managers for private placements.

(in thousands of dollars)

The Health Network performs an analysis of reasonableness of the prices received for fair value by monitoring month-to-month fluctuations and determining reasons for significant differences, selectively testing fair values against prices obtained from other sources, and comparing the consolidated fair value of a class of assets against an appropriate index benchmark. The Health Network did not make adjustments to the quoted market prices obtained from third party pricing services that were material to the consolidated financial statements.

The following table summarizes fair value measurements by level at December 31, 2016 for financial assets measured at fair value on a recurring basis:

	Level 1	Level 2	Level 3	Total
Assets				
Cash and cash equivalents	$ 196,553	$ -	$ -	$ 196,553
Investments				
Debt securities, available-for-sale				
U.S. Treasury and agency obligations	18,416	500	-	18,916
Mortgage-backed securities	-	-	-	-
Asset-backed and other loan-backed securities	-	496	-	496
Corporate and other debt securities	-	36,418	-	36,418
Total debt securities	18,416	37,414	-	55,830
Equity securities, available-for-sale				
Domestic	3,402	-	-	3,402
Foreign	6,738	-	-	6,738
Total equity securities	10,140	-	-	10,140
Board designated, restricted and other investments				
Cash and cash equivalents	70,095	-	-	70,095
Debt securities:				
U.S. Treasury and agency obligations	56,799	7,444	-	64,243
Agency mortgage-backed securities	-	4,833	-	4,833
Asset-backed and other loan-backed securities	-	5,102	-	5,102
Corporate and other debt securities	-	94,112	-	94,112
Equity securities:				
Domestic	121,439	-	7,499	128,938
Foreign	42,614	-	-	42,614
Common collective trust interests	-	-	240	240
Total board designated, restricted and other investments	290,947	111,491	7,739	410,177
Beneficial interest in perpetual trusts	-	-	224,405	224,405
Total assets	**$ 516,056**	**$ 148,905**	**$ 232,144**	**$ 897,105**
Liabilities				
Interest rate swaps	$ -	$ 12,265	$ -	$ 12,265

(in thousands of dollars)

The following table summarizes fair value measurements by level at December 31, 2015 for financial assets measured at fair value on a recurring basis:

	Level 1	Level 2	Level 3	Total
Assets				
Cash and cash equivalents	$ 137,617	$ -	$ -	$ 137,617
Investments				
Debt securities, available-for-sale				
U.S. Treasury and agency obligations	11,264	4,669	-	15,933
Mortgage-backed securities	-	365	-	365
Asset-backed and other loan-backed securities	-	-	-	-
Corporate and other debt securities	-	14,046	-	14,046
Total debt securities	11,264	19,080	-	30,344
Equity securities, available-for-sale				
Domestic	2,913	-	-	2,913
Foreign	4,156	-	-	4,156
Total equity securities	7,069	-	-	7,069
Board designated, restricted and other investments				
Cash and cash equivalents	77,562	-	-	77,562
Debt securities:				
U.S. Treasury and agency obligations	52,880	23,831	-	76,711
Agency mortgage-backed securities	-	5,309	-	5,309
Asset-backed and other loan-backed securities	-	7,956	-	7,956
Corporate and other debt securities	-	77,724	-	77,724
Equity securities:				
Domestic	115,494	-	7,499	122,993
Foreign	39,767	-	-	39,767
Common collective trust interests	-	-	-	-
Total board designated, restricted and other investments	285,703	114,820	7,499	408,022
Beneficial interest in perpetual trusts	-	-	219,772	219,772
Total assets	**$ 441,653**	**$ 133,900**	**$ 227,271**	**$ 802,824**
Liabilities				
Interest rate swaps	$ -	$ 17,171	$ -	$ 17,171

Transfers between levels, if any, are recorded annually as of the end of the reporting period unless, with respect to a particular issue, a significant event occurred that necessitated the transfer be reported at the date of the event.

There were no material transfers between Levels 1 and 2 during the years ended December 31, 2016 and 2015. There were no material transfers from Level 3 during the years ended December 31, 2016 and 2015.

(in thousands of dollars)

The changes in fair value for assets measured using significant unobservable inputs (Level 3) for the years ended December 31, 2016 and 2015 were as follows:

	Beneficial Interest in Perpetual Trusts	Common Collective Interests	Privately Held Equity Securities	Total
Balance at January 1, 2015	$ 231,146	$ -	$ -	$ 231,146
Net unrealized losses	(13,781)	-	-	(13,781)
Net realized gains	12,992	-	-	12,992
Purchases	-	-	7,499	7,499
Transfers out of trusts	(10,585)	-	-	(10,585)
Balance at December 31, 2015	**$ 219,772**	**$ -**	**$ 7,499**	**$ 227,271**
Net unrealized gains	7,452	-	-	7,452
Net realized gains	5,759	7	-	5,766
Purchases	-	233	-	233
Transfers out of trusts	(8,578)	-	-	(8,578)
Balance at December 31, 2016	**$ 224,405**	**$ 240**	**$ 7,499**	**$ 232,144**

Fair Value Option

The Health Network elected the fair value option for its unrestricted investments, with the exception of the available-for-sale debt and equity securities held by Palladium. At December 31, 2016 and 2015, the Health Network reported unrestricted investments of $354,943 and $354,855, respectively under the fair value option within the Board designated, restricted and other investments at fair value on the consolidated balance sheets. The Health Network has recorded unrealized gains of $9,140 and unrealized losses of $14,272 (included in net investment income on the consolidated statements of operations) for the years ended December 31, 2016 and 2015, respectively.

6. Equity Method Investments

The Health Network and its subsidiaries have ownership interests in various health-related joint ventures which were formed to reduce the costs and increase effectiveness in providing community service benefits. These include ventures which provide laboratory, ambulance, oncology and other services and are accounted for under the equity method of accounting. The accompanying consolidated balance sheets reflect equity investments as follows for December 31:

	2016		2015	
	Ownership Interest	Investment Balance	Ownership Interest	Investment Balance
Regional Cancer Center	50.0%	$ 10,009	50.0%	$ 10,316
Associated Clinical Labs	12.3%	8,827	12.2%	8,536
UPMC VNA Home Health	33.4%	8,191	33.4%	9,231
Vantage Holding Company	52.3%	6,443	52.2%	6,343
Jefferson Medical Associates	43.8%	5,055	43.8%	5,095
EmergyCare, Inc.	50.0%	2,389	50.0%	2,700
Community Blood Bank of Erie County	40.0%	1,610	40.0%	1,474
AHN Emergency Medicine Management, LLC	50.0%	1,325	50.0%	754
Other (a)	various	4,609	various	4,879
		$ 48,458		$ 49,328

(a) Consists of various individually immaterial investments of varying ownership interests (ranging from 20.7% to 50%).

(in thousands of dollars)

Total assets, liabilities, and net assets of the equity investees were approximately $201,622, $89,026, and $112,596, respectively, at December 31 2016 and $214,402, $102,022, and $112,380, respectively, at December 31, 2015. Total revenues, expenses and net income of the equity investees was approximately $175,630, $153,771 and $21,859, respectively, for the year ended December 31, 2016 and $179,874, $161,506 and $18,368, respectively, for the year ended December 31, 2015.

Differences, if any, between the carrying amount of the investment and the amount of underlying equity in net assets of the investment are, in the opinion of management, deemed to be immaterial in the aggregate.

In June 2017, JRMC divested its 33.4% ownership interest in UPMC/JRMC Home Health, L.P. ("UPMC VNA Home Health"), a home health agency in Western Pennsylvania including skilled nursing, medical-social, home health aide and physical therapy. JRMC received proceeds of $22,000 on the divestiture which resulted in the recognition of a one-time gain of $13,000.

8. Property and Equipment, Net

Property and equipment was comprised of the following at December 31:

	2016	2015
Land, buildings and leasehold improvements	$ 779,247	$ 696,717
Office furniture and equipment	606,698	516,902
Capitalized software	11,928	13,751
Total depreciable assets	1,397,873	1,227,370
Less: accumulated depreciation	(425,372)	(303,473)
Net depreciable assets	972,501	923,897
Construction in progress	102,334	138,501
Property and equipment, net	$ 1,074,835	$ 1,062,398

Depreciation expense related to property and equipment amounted to $124,995 and $119,100 for 2016 and 2015, respectively.

The Health Network capitalizes interest on certain assets that require a period of time to prepare for their intended use. The amount capitalized is based on the weighted average outstanding borrowing rate. For the years ended December 31, 2016 and 2015, the Health Network capitalized $3,573 and $3,259, respectively.

7. Employee Benefit Plans

Defined Benefit Plans

The Health Network covers certain employees meeting age and service requirements through multiple non-contributory defined benefit pension plans (the "pension plans"), the West Penn Retirement Plan for Represented Employees and the West Penn Retirement Plan for Non-Represented Employees (collectively the "WPAHS pension plans"), the Jefferson Retirement Plan (the "JRMC pension plan"), and the Saint Vincent Health System Pension Plan (the "SVHS pension plan"). The JRMC and SVHS pension plans are frozen. Additionally, in March 2017, WPAHS approved a plan to freeze its Non-Represented Employees pension plan effective December 31, 2017.

(in thousands of dollars)

The Health Network funds its pension plans according to minimum funding requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"), as amended. During 2017, the Health Network expects to contribute $43,700 to the pension plans related to the 2016 plan year and $46,240 to the pension plans related to the 2017 plan year.

The amounts recognized in the consolidated balance sheets were as follows:

	2016	2015
Change in benefit obligations		
Benefit obligations at beginning of year	$ 1,237,249	$ 1,300,113
Service cost	23,414	23,486
Interest cost	39,491	46,276
Participant contributions	37	40
Benefit payments	(63,955)	(37,606)
Settlement gain	-	(36,681)
Actuarial loss (gain)	46,663	(58,378)
Benefit obligations at end of year	$ 1,282,899	$ 1,237,250
Change in plan assets		
Net plan assets at beginning of year	$ 853,226	$ 875,971
Actual return on plan assets	43,257	(10,350)
Participant contributions	37	40
Employer contributions	12,204	61,852
Benefit payments	(63,955)	(37,606)
Settlement payments	-	(36,681)
Net plan assets at end of year	$ 844,769	$ 853,226
Amounts recognized in the consolidated balance sheets		
Benefit plan assets	$ -	$ -
Benefit plan liabilities	$ (438,130)	$ (384,024)
Amounts included in unrestricted net assets		
Actuarial loss	(115,310)	(52,008)
Net amounts recognized	$ (115,310)	$ (52,008)

The estimated actuarial loss for the pension plans that will be amortized from net assets in 2017 is $879.

The following table provides the components of net periodic benefit cost for the years ended December 31:

	2016	2015
Service cost	$ 23,414	$ 23,486
Interest cost	39,491	46,276
Expected return on plan assets	(60,170)	(60,968)
Amortization of:		
Actuarial loss	273	133
Net periodic benefit costs	$ 3,008	$ 8,927

The Health Network's weighted-average assumptions related to the calculation of the pension benefit obligations and net periodic benefit cost for the pension and other post-retirement plans are presented in the tables below:

(in thousands of dollars)

	2016	2015
Weighted-average assumptions		
Discount rate - benefit obligations	3.88%	4.03%
Discount rate - net periodic costs	4.05%	3.71%
Expected return on plan assets	7.28%	7.32%
Rate of compensation increase	2.88 - 7.15%	2.88 - 7.15%

The expected return on pension plan assets is developed using inflation expectations, risk factors and input from actuaries to arrive at a long-term nominal expected return for each asset class. The nominal expected return for each asset class is then weighted based on the target asset allocation to develop the expected long-term rate of return on plan assets.

The expected return on other post-retirement plan assets is developed based on historical returns and the future expectations for returns for each asset class as well as the asset allocation of the other post-retirement plan assets.

Estimated benefit payments are expected as follows:

2017	$	120,000
2018	$	89,000
2019	$	89,000
2020	$	91,000
2021	$	91,000
2022-2026	$	446,000

The pension plans' overall investment strategies are determined by the plans' investment committees, investment advisors and plan administrators. Overall, the goals of the Health Network are to achieve sufficient diversification of asset types, fund strategies and fund managers in order to minimize volatility and maximize returns over the long term, while still having sufficient funds to pay those benefits due in the near term.

The Health Network's pension plans primarily set an investment strategy to achieve a mix of 25% of long-duration fixed income securities meant to hedge the benefit obligations, 73% of investments for long-term growth and 2% for near-term benefit payments with a diversification of asset types, fund strategies and fund managers. The target allocations for the Health Network's plans assets are approximately 25% fixed income securities, 60% equity securities, 13% alternative investments and 2% cash equivalents. Equity securities primarily include stock investments in U.S. developed and emerging market corporations. Fixed income securities primarily include bonds of domestic and foreign companies from diversified industries, domestic mortgage-backed securities and bonds of U.S. and foreign governments and agencies. Alternative investments include investments in real estate and private equity funds that follow several different strategies.

(in thousands of dollars)

The following table summarizes the fair value measurements by level at December 31, 2016:

	Fair Value	Level 1	Level 2	Level 3
Pension plan assets				
Cash and cash equivalents	$ 5	$ 5	$ -	$ -
Debt securities:				
U.S. Treasury and agency obligations	70,037	65,801	4,236	-
Agency mortgage-backed securities	9,930	-	9,930	-
State and political obligations	6,015	-	6,015	-
Commercial mortgage-backed securities	2,203	-	2,203	-
Residential mortgage-backed securities	420	-	420	-
Asset-backed securities	12,209	-	12,209	-
Corporate and other debt securities	129,661	-	129,661	-
Total debt securities	230,475	65,801	164,674	-
Equity securities:				
Domestic	362,191	362,191	-	-
Foreign	62,394	62,394	-	-
Total equity securities	424,585	424,585	-	-
Registered investment company shares	178,594	152,246	26,348	-
Common collective trust interests	2,648	-	2,648	-
Private limited partnerships	6,741	-	-	6,741
Total	$ 843,048	$ 642,637	$ 193,670	$ 6,741

At December 31, 2016, the fair value of pension plan assets excluded accrued interest and other receivables of $1,721.

The following table summarizes the fair value measurements by level at December 31, 2015:

	Fair Value	Level 1	Level 2	Level 3
Pension plan assets				
Cash and cash equivalents	$ 3,669	$ 3,669	$ -	$ -
Debt securities:				
U.S. Treasury and agency obligations	78,177	78,094	83	-
Agency mortgage-backed securities	8,678	-	8,678	-
State and political obligations	7,886	-	7,886	-
Corporate and other debt securities	145,519	-	145,519	-
Total debt securities	240,260	78,094	162,166	-
Equity securities:				
Domestic	205,475	205,475	-	-
Foreign	59,957	59,957	-	-
Total equity securities	265,432	265,432	-	-
Registered investment company shares	281,266	281,266	-	-
Common collective trust interests	43,424	-	43,424	-
Private limited partnerships	-	-	-	-
Total	$ 834,051	$ 628,461	$ 205,590	$ -

At December 31, 2015, the fair value of pension plan assets excluded guaranteed insurance contract assets of $20,000, carried at contract value as well as accrued expenses and other payables of $825.

(in thousands of dollars)

The changes in fair value for pension plans measured using significant unobservable inputs (Level 3) for the years ended December 31:

	2016	2015
Balance at January 1	$ -	$ -
Purchases	6,741	-
Balance at December 31	$ 6,741	$ -

Defined Contribution Plans

The Health Network sponsors several forms of defined contribution savings plans including: 403(b), 401(a), and 401(k) plans under the Internal Revenue Code. While a number of the plans are frozen, certain plans continue to provide employer matching at various levels. The Health Network's expense associated with contributions to these savings plans was $6,969 and $6,947 for the years ended December 31, 2016 and 2015, respectively.

Deferred Compensation Plan

The Health Network sponsors multiple deferred compensations plans, for a select group of management and highly compensated employees, which are governed by Internal Revenue Code Section 457(b). Salary deferrals are subject to Code 457(b) limits. The Health Network makes no employer contributions to the plan. The related plan assets, while held in a separate trust, are recorded on the accompanying consolidated financial statements within the caption of other assets, and the offsetting liabilities recorded as of December 31, 2016 and 2015 were $27,370 and $23,908, respectively. The Health Network is not at risk for any negative changes to the market value of these assets.

8. Debt

The Health Network's total debt consisted of the following at December 31:

	2016	2015
Allegheny County Hospital Development Authority Bonds	93,588	97,397
Erie County Hospital Authority Bonds	87,450	89,481
Term Loan due May 22, 2019	699,054	698,662
Highmark Inc. Notes Payable	502,794	502,794
Floating Rate Restructuring Certificates	3,973	3,973
Series 2006A Health Facilities Revenue Notes due through December 2016	-	276
Mortgage loan, due March 15, 2032, interest at 6.00%	23,187	23,635
Capital leases payable due through 2021 at varying interest rates	6,293	2,106
Mortgage and other loans due through 2021 at varying interest rates	5,329	7,718
Total debt	$ 1,421,668	$ 1,426,042
Less: Current portion	(14,385)	(10,209)
Less: Long-term debt subject to short term remarketing arrangements	(55,385)	(55,485)
Total debt, net of current portion	$ 1,351,898	$ 1,360,348

(in thousands of dollars)

A summary of scheduled principal repayments on debt is as follows:

Years ending December 31,	
2017	$ 14,385
2018	32,764
2019	887,501
2020	11,471
2021	10,785
Thereafter	464,762
Total	$ 1,421,668

Allegheny County Hospital Development Authority (the "Authority")
JRMC issued Authority bonds in September 2010, July 2008, February 2007, May 2006, May 2000 and March 1998. At December 31, 2016 and 2015, JRMC had outstanding $93,588 and $97,397, respectively, Authority bonds. The Authority bonds are scheduled to mature at various dates through March 1, 2040. Interest rates ranged from 0.78% to 5.125% and 0.02% to 5.125% at December 31, 2016 and 2015, respectively. Proceeds from the Authority bonds were used primarily for various capital projects. The Authority bonds are collateralized by the general credit of the JRMC and several irrevocable lines of credit totaling $60,955 which expire at various dates through July 15, 2017. The unamortized discount was $368 and premium was $81 at December 31, 2016. The unamortized discount was $404 and premium was $121 at December 31, 2015.

JRMC is party to related interest rate swap agreements designated as fair value hedges with a highly-rated major U.S. financial institution. The interest rate swap agreements expire at various dates through 2038. In 2016 and 2015, JRMC paid $1,257 and $1,380, respectively, to the counterparty for settlement under the interest rate swap agreements. These amounts were included in interest expense in the consolidated statements of operations. JRMC recorded a liability of $5,544 and $6,909 at December 31, 2016 and 2015, respectively, in other liabilities in the consolidated balance sheets related to the swap agreements. At December 31, 2016, the notional value of these derivative instruments was $34,535.

Erie County Hospital Authority ("Erie Authority")
SVHS issued the Series 2009 and Series 2010A in December 2009 with the Series 2010B issued in January 2010. At December 31, 2016 and 2015, SVHS had a total of $81,889 and $83,473, respectively, outstanding in Series 2009 and 2010 Erie Authority bonds. The Erie Authority bonds are scheduled to mature at various dates between July 1, 2020 and July 1, 2039. Interest rates ranged from 0.77% to 7.00% and 0.03% to 7.00% at December 31, 2016 and 2015, respectively. Proceeds from the Erie Authority bonds were used primarily for various capital projects and to advance the refund of previously issued bonds. The Series 2010B Erie Authority bonds are collateralized by an irrevocable line of credit that expires November 29, 2018. The Erie Authority bonds are partially collateralized by funds held by a trustee with a carrying value of $3,615 and $3,619 at December 31, 2016 and 2015, respectively.

The Series 2010B Erie Authority bonds are demand bonds and, while subject to long-term amortization periods, may be put to SVHS at the option of the bondholders in connection with certain remarketing dates. To the extent that bondholders may, under the terms of the debt, put their bonds within 12 months after the reporting date, the Board of Trustees of SVHS restricted cash and investments of $46,667 and $45,584 at December 31, 2016 and 2015, respectively, as a source of self-liquidity in the event the put option is enacted.

SVHS issued the Series 2011A Erie Authority bonds in August 2011. At December 31, 2016 and 2015, SVHS had outstanding $5,561 and $6,008, respectively, of Series 2011A Erie Authority bonds. The Series 2011A Erie Authority bonds are scheduled to mature August 18, 2026. Principal and interest are payable monthly and calculated based on 70% of the taxable interest rate, which is a floating rate of interest equal to the one-month LIBOR plus 2.75%. Interest rates were 2.36% and 2.10% at December 31, 2016 and 2015, respectively. Proceeds from the Series 2011A Erie Authority bonds were used primarily to refinance the construction loan for the new parking facility.

SVHS is party to multiple interest rate swap agreements with highly-rated major U.S. financial institutions (the "counterparties"). One of the interest rate swaps is designated as a cash flow hedge. The cash flow hedge synthetically converted $16,945 of the variable rate Erie Authority bonds to a fixed rate. The other two interest rate swaps meet the criteria of fair value hedges pursuant to which $17,000 and $6,056, respectively, of fixed-rate Series 2010B and Series 2011A Erie Authority bonds are converted to variable rate bonds through maturity. At December 31, 2016, the notional value of these derivative instruments was $52,381.

For the years ended December 31, 2016 and 2015, SVHS paid $1,239 and $1,324, respectively, to the counterparties for settlements under the interest rate swap agreements which were included in interest expense in the consolidated statements of operations. SVHS recorded a liability of $2,877 and $3,372 at December 31, 2016 and 2015, respectively, in other liabilities in the consolidated balance sheets related to the swap agreements. The interest rate swaps do not qualify for hedge accounting, and changes in fair value are accounted for as non-operating income (expenses) in the consolidated statements of operations.

Term Loans

In May 2014, WPAHS entered into a $700,000 Term Loan credit facility ("Term Loan"). At December 31, 2016 and 2015, respectively, the carrying value was $699,054 and $698,662, net of debt issuance costs of $946 and $1,338. The interest on the Term Loan is payable monthly and is calculated based on LIBOR plus 0.75%. Interest rates were 0.97% and 1.32% at December 31, 2016 and 2015. The Term Loan is fully guaranteed by Highmark Inc. with a pledge of cash and securities. The fair value of the pledged assets held by Highmark Inc. was $855,960 and $925,120 at December 31, 2016 and 2015, respectively, which satisfied the minimum level needed to maintain the guarantee. These assets are excluded from the Health Network's consolidated balance sheets at December 31, 2016 and 2015 as they remain the assets of Highmark Inc.

WPAHS is party to a related interest rate swap agreement designated as a cash flow hedge with a highly-rated major U.S. financial institution. The intent of the interest rate swap agreement is to hedge the interest rate risk associated with future interest payments on the Term Loan by converting the variable rate to a fixed rate of 2.34%. In 2016 and 2015, WPAHS paid $7,917 and $9,932, respectively, to the counterparty for settlements under the interest rate swap agreement. This amount was included in interest expense in the consolidated statements of operations. WPAHS recorded a liability of $3,844 and $6,890 at December 31, 2016 and 2015, respectively, in other liabilities related to the swap agreement. The interest rate swap qualifies for hedge accounting and changes in fair value are accounted for as unrestricted net assets in the consolidated statement of changes in net assets. At December 31, 2016, the notional value of the derivative instrument was $700,000.

Highmark Inc. Notes Payable

WPAHS has secured loans from Highmark Inc. of $300,000 at December 31, 2016 and 2015 with principal payments from 2023 through 2026. Interest on these notes is payable annually based on the prime rate plus 2.00% (subject to a 6.00% cap). Interest is due and payable only if earnings

before interest, taxes, depreciation and amortization of WPAHS are more than $200,000 for any year. WPAHS has not recognized interest expense related to these notes.

WPAHS also has loans from Highmark Inc. of $95,250 at December 31, 2016 and 2015 with principal payments due in 2018 and 2019. Interest on these notes is payable quarterly based on the 90-day U.S. Treasury Bill plus 1.00%.

HMPG has loans from Highmark Inc. of $107,544 at December 31, 2016 and 2015 with principal payments due in 2018 and 2019. Interest on these notes is payable quarterly on the lesser of one-month LIBOR plus 3.50% or the Citibank prime rate.

Other Debt

WPAHS has outstanding Floating Rate Restructuring Certificates ("FRRCs") of $3,973 at December 31, 2016 and 2015. The FRRCs bear interest at the floating LIBOR plus 0.25%. Payment of interest is contingent upon WPAHS achieving certain profitability thresholds and maintaining specified liquidity levels. WPAHS has never been required to make an interest payment. WPAHS has not recorded interest to date as the probability of future interest payment requirements is considered remote. In 2015, a realized gain of $7,494 was recognized related to the settlement and extinguishment of a portion of the FRRC debt. At December 31, 2016 and 2015, WPAHS was not in compliance with certain covenants; however, the remaining FRRC debt was settled and extinguished in 2017 without a material impact.

SVHS had an outstanding mortgage loan of $23,187 and $23,635 at December 31, 2016 and 2015, respectively, related to a medical office building. The mortgage note matures on March 15, 2032 and requires monthly principal and interest payments. The related medical office building is pledged as collateral on the loan and has a carrying value of $20,595 and $21,344 at December 31, 2016 and 2015, respectively.

As a result of the interest rate swap agreements previously discussed, the Health Network is subject to interest rate risk and default risk. Only cash flows related to the differential in the fixed interest rates and the variable interest rates as applied to the notional amounts of the interest rate swaps are subject to interest rate risk over the terms of the interest rate swap agreements. The notional amounts do not represent the amounts at risk; rather, they are used only as the basis for calculating the amounts due under the interest rate swap agreements.

Several of the debt agreements referred to above contain covenants, including covenants relating to such matters as indebtedness, minimum net worth and financial ratings. At December 31, 2016 and 2015, the Health Network was in compliance with all debt covenants that could affect the financial position or results from operations.

The carrying amount of debt reported in the consolidated balance sheets at December 31, 2016 and 2015 was $1,421,668 and $1,426,042, respectively. Using a discounted cash flow technique that considered credit ratings, with adjustments for duration and risk profile, the Health Network determined that the fair value of its debt at December 31, 2016 and 2015 was $1,421,785 and $1,426,635, respectively.

(in thousands of dollars)

9. Income Taxes

The components of the income tax provision were as follows for the years ended December 31:

	2016	2015
Federal		
Current	41	$ (124)
Deferred	(2,864)	(1,710)
Total Federal	(2,823)	(1,834)
State		
Current	$ 25	$ 8
Deferred	(114)	(274)
Total State	(89)	(266)
Total income tax provision	$ (2,912)	$ (2,100)

There were no foreign current or deferred provisions for the years ended December 31, 2016 and 2015.

The components of deferred income taxes were as follows at December 31:

	2016	2015
Deferred tax assets		
Net unrealized gains on available-for-sale securities	$ 212	$ 316
Accrued expenses	1,825	2,297
Net operating loss carryforwards	126,489	102,823
Allowance for doubtful accounts	1,990	1,750
Investment in partnerships	5,458	1,408
Total deferred tax assets	135,974	108,594
Less: valuation allowance	(125,492)	(100,593)
Total deferred tax assets, net of valuation allowance	10,482	8,001
Deferred tax liabilities		
Goodwill and other intangibles	2,887	4,008
Benefit plan	622	-
Property and equipment	9,443	9,491
Other payables and accrued expenses	154	-
Total deferred tax liabilities	13,106	13,499
Net deferred tax liability	$ (2,624)	$ (5,498)

The realization of net deferred tax assets is dependent on the Health Network's ability to generate sufficient taxable income in future periods. The amount of deferred tax assets considered realizable, however, could change if estimates of future taxable income change.

At December 31, 2016, various subsidiaries and affiliates of the Health Network had state net operating loss carryforwards totaling $286,653 that expire between 2017 and 2036 and are available to offset future state taxable income of the subsidiary that generated the loss carryforward. The utilization of the state net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance given uncertainty surrounding the realizability of the carryforwards.

(in thousands of dollars)

At December 31, 2016, the Health Network had federal net operating loss carryforwards, related to subsidiaries of $308,215, which expire in various amounts through 2036. The utilization of the federal net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance for that portion of the federal net operating loss carryforward not expected to be utilized.

A reconciliation of income tax expense recorded in the consolidated statements of operations and amounts computed at the statutory federal rate was as follows for the years ended December 31:

	2016	2015
Income taxes at statutory rate	$ (15,035)	$ (14,377)
Tax exempt income	(5,549)	(9,232)
Valuation allowance adjustments	13,018	14,680
Nondeductible compensation	4,254	5,901
Other	400	928
Total income tax benefit	$ (2,912)	$ (2,100)

The Health Network has no uncertain tax positions for 2016 or 2015, respectively, and does not anticipate any uncertain tax position in 2017.

10. Temporarily and Permanently Restricted Net Assets

Temporarily restricted net assets were available for the following purposes at December 31:

	2016	2015
Clinical	$ 18,522	$ 19,741
Capital expansion	923	1,608
Health education and support	4,414	4,231
Total temporarily restricted net assets	$ 23,859	$ 25,580

Temporarily restricted net assets for capital expansion and renovation represent donations, gifts and pledges made for specific hospitals and other facilities. Similarly, temporarily restricted net assets for clinical programs, health education and other support represents donations, gifts and pledges made to support specific programs or departments at hospitals and other facilities. In 2016 and 2015, temporarily restricted net assets were released from donor restrictions by incurring expenditures satisfying the specified restricted purposes in the amount of $7,465 and $4,904, respectively.

Permanently restricted net assets at December 31, 2016 and 2015 were $257,206 and $252,684, respectively. These net assets are restricted in perpetuity. Income distributions generated from permanently restricted net assets are either classified as unrestricted or are classified as temporarily restricted based on donor-imposed restrictions. At December 31, 2016 and 2015, permanently restricted net assets consisted of endowments managed by donor-selected trustees as well as endowments managed by the Health Network.

(in thousands of dollars)

11. Leases

Several non-cancellable operating leases, primarily for equipment and office space, were in effect at December 31, 2016. Rental expense is recognized on a straight-line basis over the lease term. Aggregate future rental commitments for all operating leases having initial or remaining non-cancellable lease terms in excess of one year are shown in the following table:

	Lease Commitments
Years ending December 31,	
2017	$ 60,268
2018	51,061
2019	42,962
2020	35,444
2021	27,682
Thereafter	150,226
Total	$ 367,643

Rent expense of $84,203 and $72,659 in 2016 and 2015, respectively, was recorded in other operating expenses in the accompanying consolidated statements of operations.

12. Insurance Coverage

Professional Liability

Palladium provides medical professional liability coverage on a claims-made basis to the Health Network and its employed physicians and also on a claims-made or occurrence basis to its affiliated physicians and groups. Palladium provides general liability coverage on an occurrence basis. Defense costs with respect to medical professional liability and general liability are outside the limits and are unlimited.

With respect to the primary layer of medical professional liability coverage, Palladium provides limits of $500 per occurrence, $2,500 aggregate per hospital and $500 per occurrence, $1,500 aggregate per physician to providers participating in the Pennsylvania Medical Care Availability and Reduction of Error (“MCARE”) Fund, and limits of $1,000 per occurrence, $3,000 aggregate to providers and entities not participating in the MCARE Fund. The primary layer of general liability coverage affords limits of $1,000 per occurrence, $3,000 aggregate.

The excess policies written in 2015 and 2016 afford the following shared limits corresponding to the first through sixth excess layers respectively: $2,000 per occurrence, $8,000 aggregate with respect to medical professional liability; $4,000 per occurrence, $4,000 aggregate for WPAHS and $4,000 per occurrence, $4,000 aggregate all other insureds with respect to medical professional liability; $5,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability (which includes general liability, auto liability, employers’ liability, helipad liability and non-owned aircraft liability); $5,000 per occurrence, $5,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $5,000 aggregate with respect to excess follow-form liability; $10,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $10,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability; $25,000 each occurrence, $25,000 aggregate with respect to excess health care liability. The excess medical professional liability coverage is claims-made and the excess-follow form liability coverage is occurrence-based. The excess health

(in thousands of dollars)

care liability coverage afforded by the sixth layer is occurrence-reported. Defense costs with respect to the excess layers are outside the limits and are unlimited.

Palladium ceded 100% of the underlying risk for the third excess layer in 2015 and 2016 and 95% and 100% in 2015 and 2016, respectively, of the underlying risk of the fourth through sixth excess layers to third-party, highly-rated reinsurers. Reinsurance contracts do not relieve Palladium from its obligations to participants. Additionally, failure of the reinsurers to honor their obligations could result in significant losses to Palladium.

Accordingly, Palladium continually evaluates the reinsurers' financial condition. The financial condition of third-party reinsurers is assessed by review of the reinsurers' A.M. Best rating. Palladium records an allowance for credit losses when it's believed that it will be unable to collect amounts due.

JRMC joined Palladium September 10, 2013. Prior to joining, JRMC was insured by the PACE Risk Retention Group. SVHS joined Palladium October 1, 2013. Prior to joining, SVHS was insured by Steadfast Insurance Company. WPAHS joined Palladium January 1, 2014. Prior to joining, WPAHS was insured by Community Health Alliance Reciprocal Risk Retention Group.

Additional coverage is also provided for the Health Network by the Medical Care Availability and Reduction of Error ("MCARE") Fund created by Pennsylvania Act No. 113 of 2002. Most of the Health Network's entities providing services in Pennsylvania are required to participate in the MCARE Fund. The MCARE Fund, an agency fund of the Commonwealth of Pennsylvania, provides coverage in excess of the required primary layer. The MCARE Fund exposure was capped at $500 per incident and $1,500 in aggregate for 2016 and 2015. The actuarially-computed liability to all health care providers (hospitals, physicians and others) participating in the MCARE Fund at December 31, 2016 is expected to be substantially in excess of the amount the MCARE Fund has available to pay these claims. The Health Network's annual surcharge premium for participation in the MCARE Fund was approximately $6,187 and $4,261 for 2016 and 2015, respectively which are included in the amounts charged to malpractice expense. The 2015 MCARE surcharge premium was significantly lower than 2016 due to the 2014 litigation settlement of a lawsuit brought against MCARE by the Hospital & Healthsystem Association of Pennsylvania. No provision has been made for any future MCARE Fund assessments in the accompanying consolidated financial statements as the Health Network's portion of the MCARE Fund's unfunded liability could not be reasonably estimated.

13. Functional Expenses

The Health Network provides general health care services to residents within its geographic region. Expenses related to providing these services are as follows for the years ended December 31:

	2016	2015
Healthcare services	$ 2,625,265	$ 2,368,760
General and administrative	241,079	280,451
Research	27,031	27,142
Fundraising and other	404	1,025
	$ 2,893,779	$ 2,677,378

(in thousands of dollars)

14. Related Party Transactions

As described more fully in Note 8, there are certain outstanding loan balances with Highmark Inc. For the periods ended December 31, 2016 and 2015, the Health Network has incurred interest expense of $4,560 and $5,435, respectively, associated with the outstanding loan balances.

In the normal course of business, the Health Network has transactions with Highmark Health and its subsidiaries and affiliates.

Total net patient service revenue from insurance claims, quality incentive programs and Community Health Reinvestment grants were $1,164,687 and $1,046,687 for the years ended December 31, 2016 and 2015, respectively. Included within net patient receivable balances are related party receivables of $128,961 and $118,241 as of December 31, 2016 and 2015, respectively. Additionally, total payor advances amounted to $29,859 as of December 31, 2016 and 2015 and are reported in other long-term assets.

The Health Network was party to a multi-year agreement to ensure access to quality care to its members and provide an environment for building quality and outcome based incentive programs. In 2016 and 2015, the Health Network recognized $29,100 and $30,500, respectively, related to this agreement through other operating revenue on the statement of operations. The agreement expired on December 31, 2016.

In the normal course of business, the Health Network purchases certain services and receives shared service charges and allocations. Total purchased services and shared service charges were $47,181 and $21,094 for the year ended December 31, 2016 and 2015, respectively. At December 31, 2016 and 2015, $11,883 and $4,543, respectively, were outstanding and are included in accounts payable.

The Health Network has routinely received equity transfers from a related party in support of strategic capital improvements, service-line expansions and technology enhancements. For the years ended December 31, 2016 and 2015, the Health Network received $108,364 and $106,644, respectively, in transfers recorded as additions to unrestricted net assets. The majority of these transfers were specific to an intercompany funding agreement entered into in July 2015 between the Health Network and Highmark Inc. for $175,000. The purpose of this agreement was to finance necessary capital expenditure projects with the purpose of expanding services and healthcare capabilities that will serve to benefit Highmark Inc. policyholders in the Western Pennsylvania region. At December 31, 2016, $7,961 remained available to the Health Network and was subsequently transferred to the Health Network in 2017.

At December 31, 2016, the Health Network maintained unfunded lines of credit and affiliation agreements with Highmark Inc. of $62,164. Funding under these arrangements is subject to certain conditions including meeting certain qualifying expenditures and use of the funds. Through the date of this report, $9,863 was funded under these arrangements in 2017.

The Health Network continues to implement a new electronic medical record system which is being financed and owned by Highmark Health. Upon implementation at certain Health Network entities, fees are incurred by the Health Network for the right to use the system in the form of an authorization agreement with Highmark Health. Right to use fees incurred under this authorization agreement were $18,853 and $5,826 for 2016 and 2015, respectively. Effective April 1, 2017, the authorization

agreement with Highmark Health was terminated and a new authorization agreement executed which provided the full use of the system at no cost to the Health Network.

15. Contingencies

Participation in government-sponsored healthcare programs subjects the Health Network to a variety of federal laws and regulations and risks associated with audits conducted under these programs. These audits may occur in years subsequent to the Health Network providing the relevant services under audit. These risks may include reimbursement claims as well as potential fines and penalties. The Health Network believes, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

The Health Network is subject to various other contingencies, including legal and compliance actions and proceedings that arise in the ordinary course of its business. Due to the complex nature of these actions and proceedings, the timing of the ultimate resolution of these matters is uncertain. In the opinion of management, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

PRELIMINARY OFFICIAL STATEMENT DATED JULY 31, 2018

NEW ISSUE; BOOK-ENTRY ONLY

Ratings: S&P Global Ratings 'A'
***See* "RATINGS" herein**

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority, based upon an analysis of existing laws, regulations, rulings and court decisions and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 and is exempt from present Commonwealth of Pennsylvania income taxation. In the further opinion of Bond Counsel, interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds. See "TAX MATTERS."

$914,860,000*
ALLEGHENY COUNTY HOSPITAL DEVELOPMENT AUTHORITY
Revenue Bonds
(Allegheny Health Network Obligated Group Issue)
Series 2018A

Dated: Date of Delivery **Due: As set forth on inside cover**

The Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue) Series 2018A, issued in the original principal amount of $914,860,000* (the "*Bonds*") will be limited obligations of the Allegheny County Hospital Development Authority (the "*Authority*") and will be issued under and secured by a Bond Indenture dated as of August 1, 2018 (the "*Indenture*") between the Authority and The Bank of New York Mellon Trust Company, N.A., as Bond Trustee (the "*Bond Trustee*").

The principal or redemption price of and interest on the Bonds will be payable from, and will be secured by, payments and other revenues to be received by the Authority under a Loan Agreement dated as of August 1, 2018 (the "*Loan Agreement*"), between the Authority and Allegheny Health Network (the "*Corporation*"), and any other amounts held in funds and accounts established under the Indenture (other than the Rebate Fund). Payments to be made under the Loan Agreement are evidenced and secured by Obligation No. 7 ("*Obligation No. 7*"), issued pursuant to a Supplemental Master Indenture for Obligation No. 7, dated as of August 1, 2018 (the "*Supplemental Master Indenture*"), between the Corporation, for itself and as Credit Group Representative on behalf of the Obligated Group Members, and The Bank of New York Mellon Trust Company, N.A., as Master Trustee (the "*Master Trustee*"). The Supplemental Master Indenture supplements that certain Master Trust Indenture, dated as of December 1, 2017 (the "*Master Trust Indenture*"), among the Corporation, the initial Obligated Group Members and Master Trustee (as amended and supplemented from time to time, the "*Master Indenture*").

The Bonds are issuable only as fully registered bonds and, when issued, will be registered in the name of and held by Cede & Co., as nominee for The Depository Trust Company ("*DTC*"), New York, New York. DTC will act as securities depository for the Bonds. Purchases of beneficial interests in the Bonds will be made in book-entry form, in denominations of $5,000 and integral multiples thereof. Except as herein described, purchasers will not receive certificates representing their beneficial interests in the Bonds. So long as DTC or its nominee, Cede & Co., is the registered owner of the Bonds, payments of principal or redemption price of and interest on the Bonds will be made directly to DTC or such nominee by the Bond Trustee. Disbursement of such payments to the DTC Participants is the responsibility of DTC and disbursements of such payments to the beneficial owners is the responsibility of the DTC Participants and the Indirect Participants, as more fully described herein. *See* "THE BONDS – General" and "– Use of Securities Depository" herein.

The Bonds will bear interest at the interest rates set forth on the inside front cover of this Official Statement. Interest on the Bonds will be payable on October 1, 2018 and semiannually thereafter on April 1 and October 1 of each year (each an "*Interest Payment Date*"), to the registered owner of record as of the close of business on the fifteenth day of the month immediately preceding such Interest Payment Date.

MATURITIES, AMOUNTS, INTEREST RATES, YIELDS
AND CUSIPS ARE SHOWN ON THE INSIDE COVER HEREOF

The Bonds are subject to redemption and mandatory purchase in lieu of redemption prior to maturity as described herein.

This cover and the inside cover contain information for general reference only. Investors must read the entire Official Statement, including all appendices, to obtain information essential to making an informed investment decision.

THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND ARE PAYABLE SOLELY FROM THE SOURCES REFERRED TO IN THE INDENTURE. NEITHER THE CREDIT NOR THE TAXING POWER OF THE COUNTY OF ALLEGHENY OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED FOR THE PAYMENT OF THE PRINCIPAL OR REDEMPTION PRICE, IF ANY, OF, OR INTEREST ON ANY BOND, NOR SHALL ANY BOND BE OR BE DEEMED AN OBLIGATION OF THE COUNTY OF ALLEGHENY OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF. THE AUTHORITY HAS NO TAXING POWER.

The Bonds are offered when, as and if issued and received by the Underwriters, subject to prior sale, to withdrawal or modification of the offer without notice, and to receipt of an unqualified approving legal opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel. Certain legal matters will be passed upon for the Authority by its counsel, Clark Hill PLC; for the Obligated Group Members by their counsel, Ropes & Gray LLP and Buchanan Ingersoll & Rooney PC; and for the Underwriters by their counsel, Hawkins Delafield & Wood LLP. It is anticipated that the Bonds will be available for delivery to DTC in New York, New York, on or about August __, 2018.

Citigroup **BofA Merrill Lynch**

PNC Capital Markets LLC

The date of this Official Statement is August __, 2018.

* Preliminary, subject to change.

$914,860,000*
Allegheny County Hospital Development Authority
Revenue Bonds
(Allegheny Health Network Obligated Group Issue)
Series 2018A

MATURITIES, AMOUNTS, INTEREST RATES, YIELDS AND CUSIPS

$470,110,000 Serial Bonds*

Due April 1,	Principal Amount*	Interest Rate	Yield	CUSIP†
2022	$17,995,000	%	%	
2023	18,915,000			
2024	19,880,000			
2025	20,900,000			
2026	21,975,000			
2027	23,100,000			
2028	24,285,000			
2029	25,535,000			
2030	26,845,000			
2031	28,220,000			
2032	29,660,000			
2033	31,180,000			
2034	32,780,000			
2035	34,465,000			
2036	36,235,000			
2037	38,100,000			
2038	40,040,000			

$444,750,000 Term Bonds*

$76,270,000* ____% Term Bond due April 1, 2043*, Yield _____%, CUSIP† _____
$154,935,000* ____% Term Bond due April 1, 2043*, Yield _____%, CUSIP† _____
$213,545,000* ____% Term Bond due April 1, 2047*, Yield _____%, CUSIP† _____

* Preliminary, subject to change.

† CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services ("CGS") is managed on behalf of the American Bankers Association by S&P Capital IQ. CUSIP® data herein is provided by CUSIP Global Services. This data is not intended to create a database and does not serve in any way as a substitute for the CGS database. CUSIP® numbers are provided for convenience of reference only. None of the Authority, Corporation, nor the Underwriters, or their agents or counsel, assume any responsibility for the accuracy of such numbers.

REGARDING USE OF THIS OFFICIAL STATEMENT

No dealer, broker, salesperson or other person has been authorized by the Authority, the Corporation or the Underwriters to give any information or to make any representations, other than those contained in this Official Statement, in connection with the offering of the Bonds and, if given or made, that information or representation must not be relied upon as having been authorized by any of them. This Official Statement does not constitute an offer to sell the Bonds or the solicitation of an offer to buy, nor shall there be any sale of the Bonds by any person, in any state or other jurisdiction to any person to whom it is unlawful to make an offer, solicitation or sale in that state or jurisdiction.

The Underwriters have provided the following sentence for inclusion in this Official Statement: *The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.*

This Official Statement has been approved by the Obligated Group Members, and the use and distribution of this Official Statement for the purposes described in this Official Statement have been authorized by the Authority and by the Obligated Group Members. The information under the heading "BOOK-ENTRY ONLY SYSTEM" and in APPENDIX G has been furnished by DTC. Such information is believed to be reliable but is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the Underwriters or the Obligated Group Members. All other information in this Official Statement (other than certain information furnished by the Authority under the captions "INTRODUCTORY STATEMENT – The Authority," "THE AUTHORITY" and "LITIGATION" (insofar as such statement applies to the Authority)) has been furnished by the Obligated Group Members and other sources identified herein that are believed to be reliable, but is not to be construed as a representation of the Underwriters or the Authority and is not guaranteed as to accuracy or completeness by the Authority. The information and expressions of opinion in this Official Statement are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall under any circumstances create any implication that there has been no change in the affairs of the Authority, DTC or the Obligated Group Members since the date of this Official Statement.

CUSIP numbers are included on the inside cover page of this Official Statement for the convenience of the holders and potential holders of the Bonds. None of the Authority, the Obligated Group Members, the Bond Trustee or the Underwriters takes any responsibility for the accuracy of such numbers. No assurance can be given that the CUSIP numbers for the Bonds will remain the same after the date of issuance and delivery of the Bonds.

A wide variety of other information, including financial information, concerning the Obligated Group Members is available from publications and the website of the Obligated Group Members and other sources. Any such information that is inconsistent with the information set forth in this Official Statement should be disregarded. No such information is a part of or incorporated into this Official Statement, except as expressly noted herein.

THE BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND NEITHER THE INDENTURE NOR THE MASTER TRUST INDENTURE HAS BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. THE REGISTRATION OR QUALIFICATION OF THE BONDS IN ACCORDANCE WITH APPLICABLE PROVISIONS OF LAWS OF THE STATES IN WHICH BONDS HAVE BEEN REGISTERED OR QUALIFIED AND THE EXEMPTION FROM REGISTRATION OR QUALIFICATION IN OTHER STATES CANNOT

BE REGARDED AS A RECOMMENDATION THEREOF. NONE OF THESE STATES OR ANY OF THEIR AGENCIES HAS PASSED UPON THE MERITS OF THE BONDS OR THE ACCURACY OR COMPLETENESS OF THIS OFFICIAL STATEMENT. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

IN CONNECTION WITH THE OFFERING OF THE BONDS, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS OFFERED HEREBY AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

In making an investment decision, investors must rely upon their own examination of the Corporation and the terms of the offering, including the merits and risks involved.

CAUTIONARY STATEMENT REGARDING PROJECTIONS, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS IN THIS OFFICIAL STATEMENT

Certain statements included or incorporated by reference in this Official Statement constitute projections or estimates of future events, generally known as forward-looking statements. These statements are generally identifiable by the terminology used such as "plan," "expect," "estimate," "budget" or other similar words. These forward-looking statements include, but are not limited to, the information under the caption "BONDHOLDERS' RISKS" and "REGULATION OF THE HEALTH CARE INDUSTRY" in the forepart of this Official Statement and in APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK" to this Official Statement.

The achievement of certain results or other expectations contained in such forward-looking statements involves known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Other than as may be required by law, the Obligated Group Members do not plan to issue any updates or revisions to those forward-looking statements if or when changes in their expectations, or events, conditions or circumstances on which such statements are based occur.

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OFFICIAL STATEMENT
relating to
$914,860,000*
Allegheny County Hospital Development Authority
Revenue Bonds
(Allegheny Health Network Obligated Group Issue)
Series 2018A

INTRODUCTORY STATEMENT

This Introductory Statement is subject in all respects to more complete information contained in this Official Statement. This entire Official Statement, including its appendices, should be read by any prospective purchaser of the Bonds. No person is authorized to detach this Introductory Statement from this Official Statement or otherwise to use it without this entire Official Statement, including the appendices.

Purpose

This Official Statement provides information in connection with the issuance by the Allegheny County Hospital Development Authority (the "*Authority*") of $914,860,000* aggregate principal amount of its Revenue Bonds (Allegheny Health Network Obligated Group Issue) Series 2018A Bonds (the "*Bonds*"). The Bonds will be issued under and secured by a Bond Indenture dated as of August 1, 2018 (the "*Indenture*") between the Authority and The Bank of New York Mellon Trust Company, N.A., as Bond Trustee (the "*Bond Trustee*"). The Authority will lend the proceeds of the Bonds to the Corporation (defined below) pursuant to a Loan Agreement dated as of August 1, 2018 (the "*Loan Agreement*"), the terms of which will require payment by the Corporation which, together with other monies available for such purposes, if any, will be sufficient to provide for the timely payment of the principal or redemption price of and interest on the Bonds.

Defined Terms

All terms used and not otherwise defined herein shall have the respective meanings set forth in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Definitions" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT – DEFINITIONS" hereto.

The Authority

The Allegheny County Hospital Development Authority is a body corporate and politic existing under the laws of the Commonwealth of Pennsylvania pursuant to the Municipality Authorities Act, approved June 19, 2001, P.L. 287, No. 22, as amended (the "*Act*"). *See* "THE AUTHORITY" herein.

* Preliminary, subject to change.

Allegheny Health Network and the Obligated Group

Allegheny Health Network, a nonprofit corporation organized under the laws of the Commonwealth of Pennsylvania (the "*Corporation*" or "*AHN*"), is the parent organization of a western Pennsylvania-based health care system of eight acute care hospitals (the "*Hospitals*") and affiliated providers (collectively, the "*AHN System*") that constitutes the clinical delivery component of an integrated delivery and financing system ("*IDFS*") with Highmark Health as its parent company. Highmark Health is also the parent of Highmark Inc. ("*Highmark*"), which together with certain of its subsidiaries and affiliates, constitutes the nation's third largest Blue Cross/Blue Shield insurance plan (in terms of enrolled members). While AHN is integrated with Highmark Health and its affiliates for strategic planning, budgetary, and other purposes and shares certain common management personnel, directors and committees, neither Highmark Health nor Highmark is obligated with respect to the Bonds and none of their respective assets or revenues are available to pay debt service on the Bonds.

The Allegheny Health Network Obligated Group (the "*Obligated Group*") is comprised of AHN and the following AHN subsidiaries: West Penn Allegheny Health System, Inc. (which includes Allegheny General Hospital, West Penn Hospital and Forbes Hospital); West Penn Allegheny Foundation, LLC; Jefferson Regional Medical Center; Saint Vincent Health Center; Alle-Kiski Medical Center; Canonsburg General Hospital; West Penn Hospital Foundation; Forbes Health Foundation; The Saint Vincent Foundation for Health and Human Services; Alle-Kiski Medical Center Trust; Canonsburg General Hospital Ambulance Service; Allegheny Singer Research Institute; Allegheny Clinic; Allegheny Clinic Medical Oncology; Palladium Risk Retention Group, Inc.; Saint Vincent Health System; Saint Vincent Medical Education & Research Institute, Inc.; and Saint Vincent Affiliated Physicians (each, a current "*Member*" of the Obligated Group).

Headquartered in Pittsburgh, Pennsylvania, AHN's operations are concentrated primarily in the Pennsylvania cities of Pittsburgh and Erie and their surrounding communities. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK" for a more detailed description of the Corporation and the other Obligated Group Members.

Plan of Finance

The proceeds of the Bonds will be loaned to the Corporation pursuant to the Loan Agreement for the purpose of refunding the Bonds To Be Refunded (as defined below). For a more detailed description of the application of proceeds of the Bonds, *see* "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF FUNDS" herein.

Payment of the Bonds

The Bonds are and will be limited obligations of the Authority payable solely from the Revenues and any other amounts held in any fund or account established pursuant to the Indenture (other than the Rebate Fund). The Revenues include certain payments to be made by the Corporation under the Loan Agreement or to be made by the Members of the Obligated Group on Obligation No. 7 issued under the Master Indenture (as defined below), which payments are pledged and assigned to the Bond Trustee. The Corporation's payment obligations under the Loan Agreement with respect to the Bonds are general obligations of the Corporation secured by Obligation No. 7 issued under the Master Indenture. Obligation No. 7 is a joint and several obligation of the Obligated Group Members that is secured by a security interest in the Gross Receivables of the Obligated Group Members on a parity with all other Obligations issued and outstanding from time to time under the Master Indenture (the "*Parity Obligations*"). *See* "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS – Bond Indenture, Loan Agreement

and Obligation No.7" below and APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE."

The Master Indenture

To evidence and secure the loan to be made by the Authority to the Corporation under the Loan Agreement, the Corporation will issue and deliver to the Authority Obligation No. 7 ("*Obligation No. 7*"). Obligation No. 7 will be issued pursuant to Supplemental Master Indenture for Obligation No. 7, dated as of August 1, 2018 (the "*Supplemental Master Indenture*"), between the Corporation, for itself and as Credit Group Representative on behalf of the Obligated Group Members, and The Bank of New York Mellon Trust Company, N.A., as Master Trustee (the "*Master Trustee*"). The Supplemental Master Indenture supplements that certain Master Trust Indenture, dated as of December 1, 2017 (the "*Master Trust Indenture*"), among the Corporation, the initial Obligated Group Members and the Master Trustee (as amended and supplemented from time to time, the "*Master Indenture*"). The terms of Obligation No. 7 and the Loan Agreement will require payment by the Corporation which, together with other monies available for such purposes, if any, will be sufficient to provide for the timely payment of the principal or redemption price of and interest on the Bonds.

The Master Indenture creates an Obligated Group, as described above. The obligations of the Corporation and the other Obligated Group Members to make payments on any obligation issued from time to time by the Corporation under the Master Indenture (the "*Obligations*"), including Obligation No. 7, are joint and several obligations of the Obligated Group Members that are secured by a security interest in the Gross Receivables of the Obligated Group Members on a parity with all other Obligations issued and outstanding from time to time under the Master Indenture. Obligations in addition to Obligation No. 7 may be issued from time to time in the future pursuant to the Master Indenture, and such Obligations may be secured on a parity with the Bonds. No other Obligations will be outstanding immediately following the issuance of the Bonds and the defeasance of the Bonds To Be Refunded (as such term is defined below).

The Obligated Group Members, upon compliance with the terms and conditions and for the purposes described in the Master Indenture, may incur additional Indebtedness. Such Indebtedness, if evidenced by an Obligation issued under the Master Indenture, would constitute Parity Obligations. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE." Such other Indebtedness, if not so evidenced by an Obligation issued under the Master Indenture, would constitute a debt solely of the individual Member of the Obligated Group incurring such Indebtedness (not a joint and several obligation of the entire Obligated Group) and, therefore, would not be entitled to the benefits of the Master Indenture. *See* "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS – Obligations under the Master Indenture" below and APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE."

Bondholders' Risks and Regulation of the Health Care Industry

There are risks associated with the purchase of the Bonds. For a discussion of certain risks associated with the purchase of the Bonds, *see* "BONDHOLDERS' RISKS" and "REGULATION OF THE HEALTH CARE INDUSTRY" herein.

Book-Entry Only

The Bonds, when issued, will be payable solely in book-entry form through The Depository Trust Company. *See* the information under the caption "BOOK-ENTRY ONLY SYSTEM" and in APPENDIX G – "INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM."

Continuing Disclosure

The Obligated Group has entered into a Continuing Disclosure Agreement (as defined below) with Digital Assurance Certification, L.L.C., as dissemination agent (the "*Dissemination Agent*"), to provide certain financial and operating data. *See* the information under the caption "CONTINUING DISCLOSURE" and APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

Underlying Documents

The descriptions and summaries of various documents set forth in this Official Statement (including the appendices hereto) do not purport to be comprehensive or definitive, and reference is made to each document for the complete details, terms and conditions thereof. All statements herein are qualified in their entirety by reference to each such document, copies of which may be obtained, in limited quantities, from the Bond Trustee.

THE AUTHORITY

The Allegheny County Hospital Development Authority is a public body corporate and politic, constituting a public instrumentality of the Commonwealth of Pennsylvania (the "*Commonwealth*"), created pursuant to the Act. The Authority was created in 1971. An amendment to the Authority's Articles of Incorporation was filed by the Authority with the Secretary of the Commonwealth on October 25, 2010, extending the Authority's existence for 50 years from that date. The Authority is empowered under the Act, among other things, to acquire, finance, construct, improve, maintain, own, operate, and lease, in the capacity as lessor or lessee, hospitals and health centers and other projects acquired, constructed or improved for hospital purposes. The Authority's address is One Chatham Center, Suite 900, Pittsburgh, Pennsylvania 15219. Resolutions authorizing the issuance of the Bonds have been adopted by the Authority.

The governing body of the Authority is a board consisting of up to twelve members (the "*Authority Board*") presently appointed by the Chief Executive of Allegheny County with the approval of the County Council. Members of the Authority Board are appointed for staggered terms and may be reappointed. The current members of the Authority Board are as follows:

Name	Title	Term Expires
Victor H. Diaz	Chairman	12/31/2018
John Brown, Jr.	Vice Chairman	12/31/2019
Vacant	Secretary	12/31/2020
Vacant	Treasurer	12/31/2020
Daniel C. Connolly	Member	12/31/2020
James J. Dodaro	Member	12/31/2017*
Stephanie Lynn Turman	Member	12/31/2017*

*Member's term has expired but will remain on the Board until the term has been renewed or member is replaced.

The Authority has previously issued revenue bonds and notes for various projects for entities other than the Corporation or the Obligated Group. The bond and note issues are payable from receipts

and revenues derived by the Authority from the respective entities on whose behalf the bonds or notes were issued and are secured separately and distinctly from the issues of every other entity. The Authority expects from time to time to enter into separate indentures or other agreements for projects that will provide for the issuance of bonds or notes to be secured by revenues derived from such entities.

The Authority has not prepared or assisted in the preparation of this Official Statement except for the statements under the sections captioned "INTRODUCTORY STATEMENT – The Authority," "THE AUTHORITY" and certain statements regarding the Authority within the section captioned "LITIGATION" and, except as aforesaid, the Authority is not responsible for any statements made herein, and will not participate in or otherwise be responsible for the offer, sale or distribution of the Bonds. Accordingly, except as aforesaid, the Authority disclaims responsibility for the disclosure set forth herein in connection with the offer, sale and distribution of the Bonds.

THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND ARE PAYABLE SOLELY FROM THE SOURCES REFERRED TO IN THE INDENTURE. NEITHER THE CREDIT NOR THE TAXING POWER OF THE COUNTY OF ALLEGHENY OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED FOR THE PAYMENT OF THE PRINCIPAL OR REDEMPTION PRICE, IF ANY, OF, OR INTEREST ON ANY BOND, NOR SHALL ANY BOND BE OR BE DEEMED AN OBLIGATION OF THE COUNTY OF ALLEGHENY OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF. THE AUTHORITY HAS NO TAXING POWER.

ALLEGHENY HEALTH NETWORK OBLIGATED GROUP

For information regarding AHN and the Obligated Group, *see* the information in APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK" to this Official Statement.

THE BONDS

The following is a summary of certain provisions of the Bonds. Reference is made to the Bonds and to the Indenture for a more detailed description of such provisions. The discussion herein is qualified by such reference. *See* APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE AND THE LOAN AGREEMENT." Any reference herein to the Bonds or to the Indenture or other similar documents shall be deemed to mean the Bonds or the documents related thereto, unless the context or use clearly indicates otherwise. All capitalized terms used herein but not otherwise defined shall have the meanings given to them in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" hereto.

General

The Bonds will be dated, bear interest at the interest rates and mature in the years and in the principal amounts shown on the inside cover page of this Official Statement, subject to redemption prior to maturity as hereinafter described. The Bonds are issuable only as fully registered bonds, under a book-entry system, each in the denomination of $5,000 or any integral multiple thereof.

Interest on the Bonds will be paid semiannually on April 1 and October 1 (each an "*Interest Payment Date*" for the Bonds), commencing October 1, 2018 and will be calculated on the basis of a 360-day year, composed of twelve 30-day months. Except while the Bonds are registered in the name of Cede & Co., as described below under "THE BONDS – Use of Securities Depository" below and in

APPENDIX G – "INFORMATION REGARDING BOOK-ENTRY SYSTEM," (i) the principal or Redemption Price of each Bond will be payable upon presentation and surrender thereof at the Corporate Trust Office of the Bond Trustee, and (ii) interest on each Bond will be paid to the registered Holders thereof as of the Record Date at their addresses appearing on the registration books maintained by the Bond Trustee or, upon the written request of any Holder of at least $1,000,000 in principal amount of the Bonds received by the Bond Trustee at least one Business Day prior to the Record Date, by wire transfer in immediately available funds to an account within the United States of America designation by such Bondholder. Defaulted interest will be paid to the registered Holders of the Bonds as of a Special Record Date established by the Bond Trustee in accordance with the Indenture.

Bond Register; Transfer and Exchange of Bonds

The Indenture provides with respect to the Bonds that the Bond Trustee will keep or cause to be kept sufficient books for the registration and transfer of such Bonds, which shall at all times, upon reasonable notice (during regular business hours at the location where such books are kept), be open to inspection by any Bondholder or such Bondholder's agent duly authorized in writing, the Authority or the Corporation; and, upon presentation for such purpose, the Bond Trustee shall, under such reasonable regulations as it may prescribe, register or transfer or cause to be registered or transferred, on such books, Bonds as described below.

Subject to the provisions of the Indenture summarized below under the heading "Use of Securities Depository," Bonds may be exchanged at the Corporate Trust Office of the Bond Trustee for a like aggregate principal amount of Bonds of other authorized denominations of the same maturity and interest rate. The Bond Trustee shall require the Bondholder requesting such exchange to pay any tax or other governmental charge required to be paid with respect to such exchange, and the Bond Trustee may also require the Bondholder requesting such exchange to pay a reasonable sum to cover expenses incurred by the Bond Trustee or the Authority in connection with such exchange. The Bond Trustee shall not be required to exchange (i) any Bond during the fifteen days next preceding the date on which notice of redemption of Bonds is given or (ii) any Bond called for redemption.

Subject to the provisions of the Indenture and summarized below under the heading "Use of Securities Depository," all or any portion of any Bond may, in accordance with its terms, be transferred, by the Person in whose name it is registered, in person or by such Person's duly authorized attorney, upon surrender of such Bond for cancellation, accompanied by delivery of a written instrument of transfer, duly executed in a form acceptable to the Bond Trustee, and such other documentation as the Bond Trustee may reasonably require.

Whenever all or any portion of any Bond or Bonds shall be surrendered for transfer, the Authority shall execute and the Bond Trustee shall authenticate and deliver a new Bond or Bonds, of the same maturity and interest rate and for a like aggregate principal amount of authorized denominations. The Bond Trustee shall require the Bondholder requesting such transfer to pay any tax or other governmental charge required to be paid with respect to such transfer, and the Bond Trustee may also require the Bondholder requesting such transfer to pay a reasonable sum to cover expenses incurred by the Bond Trustee or the Authority in connection with such transfer. The Bond Trustee shall not be required to transfer (i) any Bond during the fifteen days next preceding the date on which notice of redemption of Bonds is given or (ii) any Bond called for redemption.

Use of Securities Depository

(A) The Bonds shall initially be issued as provided in the Indenture and as described under the heading "THE BONDS – General" above. Registered ownership of the Bonds, or any portion thereof, may not thereafter be transferred except:

(i) To any successor to the Securities Depository (initially, The Depository Trust Company, a New York Corporation ("*DTC*")) or its nominee, or to any substitute Securities Depository designated pursuant to clause (ii) of this subsection (A) ("*substitute Securities Depository*"); provided that the successor to the Securities Depository or substitute Securities Depository shall be qualified under any applicable laws to provide the service proposed to be provided by it;

(ii) To any substitute Securities Depository designated by the Authority (at the direction of the Corporation) and not objected to by the Bond Trustee, upon (1) the resignation of the Securities Depository or its successor (or any substitute Securities Depository or its successor); or (2) a determination by the Authority (at the direction of the Corporation) that the Securities Depository or its successor (or any substitute Securities Depository or its successor) is no longer able to carry out its functions as Securities Depository; provided, that any such substitute Securities Depository shall be qualified under any applicable laws to provide the services proposed to be provided by it; or

(iii) To any Person as provided below, upon (1) the resignation of the Securities Depository (or substitute Securities Depository or its successor) from its functions as Securities Depository; *provided*, that no substitute Securities Depository which is not objected to by the Bond Trustee can be obtained or (2) a determination by the Authority (with the concurrence of the Corporation) that it is in the best interests of the Authority to remove the Securities Depository (or any substitute Securities Depository or its successor) from its functions as Securities Depository.

(B) In the case of any transfer pursuant to clause (i) or clause (ii) of subsection (A) hereof, upon receipt of the Outstanding Bonds by the Bond Trustee, together with a Certificate of the Authority to the Bond Trustee, a single new Bond for each maturity bearing interest at a particular interest rate shall be executed and delivered in the aggregate principal amount of the Bonds of such maturity then Outstanding, registered in the name of the Securities Depository or such substitute Securities Depository, or their nominees, as the case may be, all as specified in such Certificate of the Authority. In the case of any transfer pursuant to clause (iii) of subsection (A) hereof, upon receipt of the Outstanding Bonds by the Bond Trustee together with a Certificate of the Authority to the Bond Trustee, new Bonds shall be executed and delivered in such denominations numbered in consecutive order from R-1 up and registered in the names of such Person as are requested in such a Certificate of the Authority, subject to the limitations of the Indenture, provided the Bond Trustee shall not be required to deliver such new Bonds within a period less than sixty (60) days from the date of receipt of such Certificate of the Authority.

(C) If the Bonds are registered in the name of a Securities Depository as provided herein, in the case of partial redemption or an advance refunding of the Bonds evidencing all or a portion of the principal amount then Outstanding, the Securities Depository shall make an appropriate notation on the Bonds indicating the date and amounts of such reduction in principal, in form acceptable to the Bond Trustee.

(D) The Authority, the Corporation and the Bond Trustee shall be entitled to treat the Person in whose name any Bond is registered as the Bondholder thereof for all purposes of the Indenture and any

applicable laws, notwithstanding any notice to the contrary received by an officer of the Bond Trustee or the Authority; and the Authority and the Bond Trustee shall have no responsibility for transmitting payments to, communication with, notifying, or otherwise dealing with any Beneficial Owners of the Bonds. None of the Authority, the Corporation or the Bond Trustee shall have any responsibility or obligation, legal or otherwise, to the Beneficial Owners or to any other party including the Securities Depository or its successor (or substitute Securities Depository or its successor), except to the Holder of any Bond.

(E) Notwithstanding any other provision of the Indenture to the contrary, so long as all Bonds are registered in the name of any nominee of the Securities Depository, any requirement for transfer or delivery of the Bonds, with respect to redemption or otherwise, may be effectuated by providing appropriate transfer instructions to the Securities Depository.

Also *see* the information in APPENDIX G – "INFORMATION REGARDING BOOK-ENTRY SYSTEM."

REDEMPTION OF THE BONDS*

Optional Redemption

The Bonds maturing on or after April 1, 20__ are subject to redemption prior to their respective stated maturities, at the option of the Authority (which option shall be exercised upon Request of the Corporation given to the Bond Trustee at least twenty-five (25) days prior to the date fixed for redemption), from any source of available funds, as a whole or in part (in such amounts and maturities as may be specified by the Corporation, or, if the Corporation fails to specify such maturities, in inverse order of maturity), by lot within a maturity, on any date on or after _____ 1, 20__, at a Redemption Price equal to the principal amount of the Bonds called for redemption, plus accrued interest thereon (if any) to the date fixed for redemption, without premium.

Mandatory Sinking Account Redemption

The Bonds maturing on April 1, 20__ are subject to redemption prior to their stated maturity in part, by lot, on the dates and in the amounts corresponding to the respective Mandatory Sinking Account Payments set forth below, at a price equal to the principal amount thereof, together with interest accrued thereon (if any) to the date fixed for redemption, without premium:

Term Bond
Maturing April 1, 2043

Mandatory Sinking Account Payment Date (April 1,)	Mandatory Sinking Account Payment
2039	$
2040	
2041	
2042	
2043†	

† Maturity

* Preliminary, subject to change.

The Bonds maturing on April 1, 20__ are subject to redemption prior to their stated maturity in part, by lot, on the dates and in the amounts corresponding to the respective Mandatory Sinking Account Payments set forth below, at a price equal to the principal amount thereof, together with interest accrued thereon (if any) to the date fixed for redemption, without premium:

Term Bond
Maturing April 1, 2043

Mandatory Sinking Account Payment Date (April 1,)	Mandatory Sinking Account Payment
2039	$
2040	
2041	
2042	
2043†	

_____
† Maturity

The Bonds maturing on April 1, 20__ are subject to redemption prior to their stated maturity in part, by lot, on the dates and in the amounts corresponding to the respective Mandatory Sinking Account Payments set forth below, at a price equal to the principal amount thereof, together with interest accrued thereon (if any) to the date fixed for redemption, without premium:

Term Bond
Maturing April 1, 2047

Mandatory Sinking Account Payment Date (April 1,)	Mandatory Sinking Account Payment
2044	$
2045	
2046	
2047†	

_____
† Maturity

Extraordinary Optional Redemption

The Bonds are subject to redemption prior to their respective stated maturities, at the option of the Authority (which option shall be exercised upon Request of the Corporation given to the Bond Trustee at least twenty-five (25) days prior to the date fixed for redemption) in whole or in part (in such amounts and maturities as may be specified by the Corporation, or, if the Corporation fails to specify such maturities, in inverse order of maturity), by lot within a maturity, on any date, from hazard insurance or condemnation proceeds received with respect to the facilities of any of the Members and deposited in the Special Redemption Account, at a Redemption Price equal to the principal amount of the Bonds called for redemption, plus accrued interest thereon (if any) to the date fixed for redemption, without premium.

The Bonds are also subject to redemption prior to their respective stated maturities, at the option of the Authority (which option shall be exercised upon Request of the Corporation given to the Bond Trustee at least twenty-five (25) days prior to the date fixed for redemption) as a whole (but not in part) on any date at a Redemption Price equal to the principal amount of the Bonds called for redemption, plus accrued interest thereon (if any) to the date fixed for redemption, without premium, if, as a result of any

changes in the Constitution of the United States of America or any state, or legislative or administrative action or inaction by the United States of America or any state, or any agency or political subdivision thereof, or by reason of any judicial decisions, there is a good faith determination by the Corporation that (a) the Master Indenture has become void or unenforceable or impossible to perform, or (b) unreasonable burdens or excessive liabilities have been imposed on such Member, including without limitation, federal, state or other ad valorem property, income or other taxes being then imposed which were not being imposed on the Date of Issuance.

Selection of Bonds for Redemption

Whenever provision is made in the Indenture for the redemption of less than all of the Bonds of any maturity or any given portion thereof, the Bond Trustee shall select the Bonds to be redeemed, from all Bonds of such maturity subject to redemption or such given portion thereof not previously called for redemption, by lot, in any manner which the Bond Trustee in its sole discretion shall deem appropriate and fair. Bonds or portions of Bonds to be redeemed shall be in integral multiples of $5,000 and, in selecting Bonds for redemption, each Bond shall be treated as representing that number of Bonds as is obtained by dividing the principal amount of such Bond by $5,000.

Notice of Redemption

Notice of redemption shall be mailed by the Bond Trustee, not less than twenty (20) days and not more than sixty (60) days prior to the redemption date, to the respective Holders of any Bonds designated for redemption at their addresses appearing on the bond registration books of the Bond Trustee. Each notice of redemption shall state the date of such notice, the Date of Issuance, the redemption date, the Redemption Price, the place or places of redemption (including the name and appropriate address or addresses of the Bond Trustee) the maturity (including CUSIP numbers, if any), and, in the case of Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed. Each such notice shall also state that, subject to the satisfaction of any condition to the redemption and subject to prior recession, as provided herein, on said date there will become due and payable on each of said Bonds or portions thereof the Redemption Price thereof or of said specified portion of the principal amount thereof in the case of a Bond to be redeemed in part only, together with interest accrued thereon to the redemption date, and that from and after such redemption date interest thereon shall cease to accrue, and shall require that such Bonds be then surrendered.

Any notice of optional redemption hereunder may be made conditional upon the receipt of moneys or the occurrence of any other event. In the event that a notice of optional redemption contains any condition or conditions and such condition or conditions shall not have been satisfied on or prior to the date fixed for redemption, the redemption shall not be made and the Bond Trustee shall within a reasonable time thereafter give notice to the Holders to the effect that such condition or conditions were not met and such redemption was not made, such notice to be given by the Bond Trustee in the same manner as the notice of redemption was given pursuant the Indenture. Failure to redeem Bonds because a condition or conditions specified in the conditional notice of redemption have not been satisfied shall not constitute an Event of Default hereunder or a Loan Default Event under the Loan Agreement.

Any notice of optional redemption may be rescinded by written notice given by the Corporation to the Bond Trustee no later than two Business Days prior to the date specified for redemption. The Bond Trustee shall give notice of any rescission as soon thereafter as practicable to the same parties and in the same manner as the notice of redemption was given pursuant to the Indenture.

Failure by the Bond Trustee to mail notice of redemption pursuant to the Indenture to any one or more of the respective Holders of any Bonds designated for redemption shall not affect the sufficiency of the proceedings for redemption with respect to the Holders to whom such notice was mailed.

Notice of redemption of Bonds shall be given by the Bond Trustee, at the expense of the Corporation, for and on behalf of the Authority.

Partial Redemption

Upon surrender of any Bond redeemed in part only, the Authority shall execute and the Bond Trustee shall authenticate and deliver to the Holder thereof, at the expense of the Corporation, a new Bond or Bonds of authorized denominations, and of the same maturity, equal in aggregate principal amount to the unredeemed portion of the Bond surrendered.

Effect of Redemption

Notice of redemption having been duly given as provided in the Indenture, and moneys for payment of the Redemption Price of, together with interest accrued to the redemption date on, the Bonds (or portions thereof) so called for redemption being held by the Bond Trustee and, with respect to any conditional notice of redemption, such conditions as specified in the notice of redemption having occurred, on the redemption date designated in such notice, the Bonds (or portions thereof) so called for redemption shall become due and payable at the Redemption Price specified in such notice and interest accrued thereon to the redemption date, interest on the Bonds (or portions thereof) so called for redemption shall cease to accrue, said Bonds (or portions thereof) shall cease to be entitled to any benefit or security under the Indenture, and the Holders of said Bonds shall have no rights in respect thereof except to receive payment of said Redemption Price and accrued interest to the date fixed for redemption from funds held by the Bond Trustee for such payment.

Mandatory Purchase in Lieu of Redemption

Each Holder or Beneficial Owner, by purchase and acceptance of any Bond, irrevocably grants to the Corporation the option to purchase such Bond at any time such Bond is subject to optional redemption as described in the Indenture and above. Such Bond is to be purchased at a purchase price equal to the then applicable Redemption Price of such Bond, plus accrued interest thereon (if any) to the purchase date. The Corporation may only exercise such option, after the Corporation shall have delivered a Favorable Opinion of Bond Counsel to the Bond Trustee, and shall have directed the Bond Trustee to provide notice of mandatory purchase, such notice to be provided, as and to the extent applicable, in accordance with the Indenture. Bonds to be so purchased shall be selected in the same manner as Bonds called for redemption pursuant to the Indenture. On the date fixed for purchase of any Bond in lieu of redemption as described under this caption, the Corporation shall pay the purchase price of such Bond to the Bond Trustee in immediately available funds, and the Bond Trustee shall pay the same to the Holders of the Bonds being purchased against delivery thereof. No purchase of any Bond in lieu of redemption as described under this caption shall operate to extinguish the indebtedness of the Authority evidenced by such Bond. No Holder or Beneficial Owner may elect to retain a Bond subject to mandatory purchase in lieu of redemption. The Corporation may exercise its option to purchase Bonds, in whole or in part, in accordance with the Indenture, as summarized under this caption.

SOURCE OF PAYMENT AND SECURITY FOR THE BONDS

Set forth below is a narrative description of certain contractual provisions relating to the source of payment of and security for the Bonds. These provisions have been summarized and this description does not purport to be complete. Reference should be made to the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture and Obligation No. 7. Copies of the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture and Obligation No. 7 are on file with the Authority, the Bond Trustee and the Master Trustee. See also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE" for a more complete statement of the rights, duties and obligations of the parties thereto.

Bond Indenture, Loan Agreement and Obligation No. 7

The Bonds are limited obligations of the Authority, payable solely from Revenues (as defined below) and certain other amounts pledged under the Indenture for such payment. "*Revenues*" consist primarily of payments required to be made by the Corporation under the Loan Agreement, payments required to be made by the Obligated Group on Obligation No. 7 and from other funds held under the Indenture. Obligation No. 7 is a joint and several obligation of the Obligated Group Members.

In the Loan Agreement, the Corporation agrees to make payments, or cause payments to be made, at the times and in the amounts required to be paid as principal or Redemption Price of and interest on the Bonds from time to time Outstanding under the Indenture and other amounts required to be paid under the Indenture, as the same shall become due whether at maturity, upon redemption, by declaration of acceleration or otherwise.

The Authority will assign its right, title and interest in Obligation No. 7 and the Loan Agreement (except for (i) the right to receive Additional Payments or Administrative Fees and Expenses to the extent payable to the Authority and (ii) any rights of the Authority to be indemnified and to receive any amounts paid by the Corporation pursuant to particular sections of the Loan Agreement addressing application of proceeds of the Bonds, application of the Interest Account, application of the Principal Account and enforcement of the Loan Agreement and of Obligation No. 7) to the Bond Trustee.

Under certain circumstances, Obligation No. 7 may be exchanged, without the consent of any of the Holders of the Bonds, for an obligation of a different obligated group or credit group. Under certain circumstances, this could lead to the substitution of different security in the form of an obligation backed by an obligated group or credit group that is financially and operationally different from the then-existing Obligated Group or Credit Group. That new obligated group or credit group could have substantial debt outstanding that would rank on a parity basis with the obligation substituted for Obligation No. 7. *See* "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS – Master Indenture – Replacement of Obligation No. 7 with an Obligation Issued Under a Separate Master Indenture" below.

The Indenture and the Loan Agreement may be amended from time to time in certain circumstances without the consent of the Bondholders. Such amendments could be substantial and result in the modification, waiver or removal of any existing covenant or restriction contained in the Indenture or the Loan Agreement. *See* APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND LOAN AGREEMENT – BOND INDENTURE – Modification or Amendment of the Bond Indenture" and "– LOAN AGREEMENT – Amendment to the Loan Agreement."

Master Indenture

The following is a brief summary of certain of the security provisions of the Master Indenture. For a more detailed summary of the Master Indenture and the Supplemental Master Indenture, *see* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE."

The Master Indenture may be amended from time to time in certain circumstances without the consent of the holders of Outstanding Obligations or without the consent of Bondholders. Such amendments could be substantial and result in the modification, waiver or removal of any existing covenant or restriction contained in the Master Indenture. *See* also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Supplements and Amendments."

Credit Group. The Master Indenture creates the Credit Group, which is comprised of the Obligated Group Members and Designated Affiliates. **As of the Closing Date, Allegheny Health Network, West Penn Allegheny Health System, Inc. (which includes Allegheny General Hospital, West Penn Hospital and Forbes Hospital); West Penn Allegheny Foundation, LLC; Jefferson Regional Medical Center; Saint Vincent Health Center; Alle-Kiski Medical Center; Canonsburg General Hospital; West Penn Hospital Foundation; Forbes Health Foundation; The Saint Vincent Foundation for Health and Human Services; Alle-Kiski Medical Center Trust; Canonsburg General Hospital Ambulance Service; Allegheny Singer Research Institute; Allegheny Clinic; Allegheny Clinic Medical Oncology; Palladium Risk Retention Group, Inc.; Saint Vincent Health System; Saint Vincent Medical Education & Research Institute, Inc. and Saint Vincent Affiliated Physicians will be the only Obligated Group Members and there will be no Designated Affiliates.**

All Obligated Group Members are jointly and severally obligated for the amounts due on Obligations. Designated Affiliates are not obligated to make payments on Obligations. However, they may be required to transfer funds to the Credit Group Representative in amounts necessary to enable the Obligated Group Members to make payments due on Obligations. Although Designated Affiliates are not obligated to make payments on Obligations, financial covenants and ratios under the Master Indenture are based on the consolidated financial results of the Credit Group. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members." *See* also "Designated Affiliates" below.

Issuance of Obligations; Joint and Several Obligations. Under the Master Indenture, each Member of the Obligated Group authorizes to be issued from time to time Obligations or Series of Obligations, without limitation as to amount, except as provided in the Master Indenture or as may be limited by law, and subject to the terms, conditions and limitations established in the Master Indenture and in any Related Supplement. Obligations may be in any form set forth in a Related Supplement, including, but not limited to, bonds, notes, obligations, debentures, reimbursement agreements, loan agreements, guarantees, Financial Product Agreements or leases. Each Obligated Group Member jointly and severally covenants to promptly pay, or cause to be paid, all Required Payments at the place, on or before the dates and in the manner provided in the Master Indenture or in any Related Supplement or Obligation. Each Obligated Group Member further covenants to faithfully observe and perform all of the conditions, covenants and requirements of the Master Indenture, any Related Supplement and any Obligation.

Obligation No. 7 is being issued by the Corporation, as Credit Group Representative, for itself and as Credit Group Representative on behalf of the Obligated Group Members, pursuant to the Master Indenture, on parity with all Obligations issued or to be issued under the Master Indenture.

Changes to the Members of the Credit Group. Entities may be added to and withdrawn from the Credit Group from time to time. The Master Indenture imposes minimum conditions on the right of any Member of the Obligated Group or Credit Group Member to enter or withdraw from the Obligated Group or the Credit Group, respectively, at any time, or to change the status of a Member of the Obligated Group to that of a Designated Affiliate. For a description of the Obligated Group, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK." For a more detailed discussion of entry into or withdrawal from the Obligated Group or Credit Group, respectively, *see* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Membership in Obligated Group," "– Withdrawal from Obligated Group," and "– Designation of Designated Affiliates."

Designated Affiliates. Under the Master Indenture, the Corporation, as the Credit Group Representative, may designate "*Designated Affiliates*" from time to time, and may rescind any such designation at any time on the conditions set forth in the Master Indenture. In connection with such designation, the Credit Group Representative shall designate for each Designated Affiliate a Member of the Obligated Group to serve as the Controlling Member for such Designated Affiliate. So long as such Person is designated as a Designated Affiliate, the Controlling Member of such Designated Affiliate shall either (i) maintain, directly or indirectly, control of such Designated Affiliate to the extent necessary to cause such Designated Affiliate to comply with the terms of the Master Indenture, whether through the ownership of voting securities, by contract, corporate membership, reserved powers or the power to appoint corporate members, trustees or directors, or otherwise or (ii) execute and have in effect such contracts or other agreements which the Credit Group Representative and the Controlling Member, in the judgment of their respective Governing Bodies, deem sufficient for the Controlling Member to cause such Designated Affiliate to comply with the terms of the Master Indenture. As of the Closing Date, there will be no Designated Affiliates.

Designated Affiliates are not obligated to make payments on any Obligation. Each Controlling Member agrees, however, that it shall cause each of its Designated Affiliates to pay, loan or otherwise transfer to the Credit Group Representative such amounts as are necessary to enable the Obligated Group Members to comply with the provisions of the Master Indenture, subject to applicable legal or regulatory restrictions; *provided*, *however*, that nothing in the Master Indenture shall be construed to require any Controlling Member to cause its Designated Affiliate to pay, loan or otherwise transfer to the Credit Group Representative any amounts that constitute Restricted Moneys.

Security for Obligations Issued Under the Master Indenture. All Obligations Outstanding from time to time under the Master Indenture, including Obligation No. 7, are secured by security interests in the Gross Receivables of the Obligated Group Members and any future Obligated Group Members. *See* "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS − Security and Enforceability – Perfection of a Security Interest." *See* also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Gross Receivables Pledge."

Security Interests in Gross Receivables for Obligations Issued Under the Master Indenture. Each Obligated Group Member has granted to the Master Trustee a security interest in its Gross Receivables subject to Permitted Liens, to the extent the same may be pledged and a security interest granted therein under the UCC, whether now owned or hereafter acquired. *See* APPENDIX C –

"SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Gross Receivables Pledge." Any future Obligated Group Members will also be required to grant a security interest in their Gross Receivables. For purposes of the Master Indenture, "*Gross Receivables*" is defined to mean all of the accounts, chattel paper, instruments and payment intangibles (all as defined in the UCC) of each Obligated Group Member, as are now in existence or as may be hereafter acquired, and the proceeds thereof; excluding, however, (i) all the proceeds of any grant, gift, bequest, contribution or other donation (and, to the extent subject to the applicable restrictions, the investment income derived from the investment of such proceeds) specifically restricted by the donor or grantor to an object or purpose inconsistent with their use for any payment by a Member of the Obligated Group on an Obligation issued under the Master Indenture or under a Related Supplement and (ii) any income or gain and the proceeds thereof of a Member that is a captive insurance company. The security interest of the Master Trustee in the Gross Receivables is subject to certain limitations as described below in this section under the heading "Security and Enforceability – Perfection of Security Interest."

The Master Trustee's security interest in the Gross Receivables described above will be perfected, to the extent that such security interest may be so perfected, by the filing of financing statements that comply with the requirements of the UCC. Each Obligated Group Member shall file, in accordance with the requirements of the UCC, financing statements; and, from time to time thereafter, shall deliver such other documents (including, but not limited to, continuation statements as required by the UCC) as may be necessary or reasonably requested by the Master Trustee in order to perfect or maintain perfected such security interests or give public notice thereof. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Gross Receivables Pledge." *See* also "BONDHOLDERS' RISKS – Security and Enforceability – Receivables Pledge."

Mortgaged Property. Obligation No. 7 is also secured on a parity basis, up to an aggregate amount of $1 billion, by mortgage liens (collectively, the "*Mortgages*") on the sites and hospital buildings commonly known as Allegheny General Hospital, West Penn Hospital, Forbes Hospital, Alle-Kiski Medical Center and Canonsburg General Hospital (collectively, the current "*Mortgaged Property*") in favor of the Master Trustee.

Although a title search has been completed to confirm the status of title to the Mortgaged Property as of a recent date, no title insurance policy is required under the Master Indenture nor has or will any title insurance policy been obtained in respect of the Obligations or the Bonds.

The provisions of each of the Mortgages require the Obligated Group Members, at their own expense, to take all necessary action to maintain and preserve the lien and security interest of the related Mortgage as a first priority lien and security interest, subject only to Permitted Liens.

An "Event of Default" will be deemed to have occurred under any of the Mortgages if (i) an Event of Default shall have occurred under the Master Indenture; or (ii) the Obligated Group Member granting the related Mortgage shall fail to comply with any covenant, agreement or warranty contained in such Mortgage and such failure shall continue uninterrupted for a period of 30 days after the Master Trustee shall have provided notice thereof. Upon the occurrence of an Event of Default, the Master Trustee may, in addition to the legal and equitable remedies provided under the Mortgages, exercise any one or more or all, and in any order, of the remedies set forth in the Master Indenture.

Enforcement of the remedies to be provided under the Mortgages may be subject to certain requirements of notice, adjudication, legal proceedings or other requirements under applicable law which may result in delays or require judicial action to realize the practical benefit of such remedies.

Permitted Liens Under the Master Indenture. Pursuant to the Master Indenture, each Obligated Group Member agrees that it will not create or suffer to be created or permit the existence of any Lien upon Gross Receivables and Restricted Property, now owned or hereafter acquired by it, other than Permitted Liens. Permitted Liens include, but are not limited to, Liens that may be granted to secure additional Obligations and other Indebtedness. The Obligated Group may incur substantial liabilities secured by Permitted Liens. *See* the definition of "Permitted Liens" in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Definitions."

Other Master Indenture Covenants. In addition to the security and other provisions described above, the Master Indenture contains provisions, covenants and restrictions related to debt service coverage, mergers and other corporate combinations and divestitures, sales, leases or other dispositions or assets and other matters. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Debt Service Coverage," "– Merger, Consolidation, Sale or Conveyance," "– Limitation on Disposition of Assets" and "– Limitation on Indebtedness." Failure to achieve a ratio of Income Available for Debt Service to Annual Debt Service of at least 1.00:1.00 for any Fiscal Year is an event of default under the Master Indenture.

Other Outstanding Indebtedness. The Obligated Group Members have outstanding indebtedness and other obligations that are not secured by Obligations. *See* Note 8 to the financial statements included in this Official Statement as APPENDIX B – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF THE ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016" with respect to certain information concerning outstanding indebtedness.

Replacement of Obligation No. 7 with an Obligation Issued Under a Separate Master Indenture. The Master Indenture provides that Obligations must be surrendered by their Holders and delivered to the Master Trustee for cancellation upon satisfaction of certain requirements that include receipt of (i) a request from the Credit Group Representative requesting such surrender and delivery and stating that the Obligated Group Members have become members of an obligated group under a replacement master indenture (other than the Master Indenture) and that an obligation or obligations are being issued to such Holder under such replacement master indenture (the "*Replacement Master Indenture*"); (ii) a properly executed replacement obligation issued under the Replacement Master Indenture with the same tenor and effect as the related Obligation delivered for cancellation; (iii) evidence that the ratings, if any, on Indebtedness secured by Obligations issued pursuant to the Master Indenture will not be withdrawn or reduced following the substitution of the Master Indenture (without regard to any refinement or gradation by numerical modifier, outlook or otherwise); and (iv) certain opinions of counsel described in the Master Indenture. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Substitution of Master Indenture."

Security and Enforceability

Perfection of a Security Interest. Each Obligated Group Member has granted a security interest in all of its Gross Receivables, subject to Permitted Liens. The Master Indenture provides that the Master Trustee's security interest in the Gross Receivables shall be perfected, to the extent that such security interest may be so perfected, by the filing of financing statements which comply with the requirements of the UCC. It may not be possible to perfect a security interest in any manner whatsoever in certain types of Gross Receivables (e.g., certain insurance proceeds and payments under the Medicare and Medicaid

programs) prior to actual receipt by any Member. *See* also "BONDHOLDERS' RISKS – Security and Enforceability – Receivables Pledge."

Enforceability of the Master Indenture, the Loan Agreement and Obligation No. 7. The state of the insolvency, fraudulent conveyance and bankruptcy laws relating to the enforceability of guaranties or obligations issued by one corporation in favor of the creditors of another or the obligations of a Member of the Obligated Group to make debt service payments on behalf of another Member of the Obligated Group is unsettled, and the ability to enforce the Master Indenture and the Obligations against any Member of the Obligated Group that would be rendered insolvent thereby could be subject to challenge.

The legal right and practical ability of the Bond Trustee to enforce its rights and remedies against the Corporation and the Obligated Group under the Loan Agreement and related documents and of the Master Trustee to enforce its rights and remedies against the Obligated Group Members under Obligation No. 7 may be limited by laws relating to bankruptcy, insolvency, reorganization, fraudulent conveyance or moratorium and by other similar laws affecting creditors' rights. In addition, the Bond Trustee's and the Master Trustee's ability to enforce such rights will depend upon the exercise of various remedies specified by such documents which may in many instances require judicial actions that are often subject to discretion and delay or that otherwise may not be readily available or may be limited. *See* "BONDHOLDERS' RISKS – Security and Enforceability – Enforceability of the Master Indenture and Obligation No. 7."

Other Indebtedness

The Obligated Group Members may issue additional Obligations under the Master Indenture that are secured on a parity with Obligation No. 7 and the Parity Obligations by the pledge of Gross Receivables. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Limitations on Indebtedness" for a description of the conditions under which the Obligated Group Members may issue additional Obligations under the Master Indenture.

Under certain conditions set forth in the Master Indenture, in addition to incurring indebtedness represented by an Obligation, the Obligated Group Members may incur debt in the form of indebtedness incurred by the Obligated Group Members individually that is not evidenced or secured by an Obligation issued under the Master Indenture. Such borrowing may be secured by liens on Property, subject to Permitted Liens. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE" for a description of various financial covenants applicable to the Corporation and any other Obligated Group Members.

PLAN OF FINANCE

Bonds To Be Refunded*

The proceeds of the Bonds will be applied to refinance or refund the following previously issued bonds in the respective amounts shown below (collectively, the "*Bonds To Be Refunded*"):

Prior Bonds	Original Principal Amount	Outstanding Principal Amount	Redemption Date
Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017A (the "*Series 2017A Bonds*")	$300,000,000	$300,000,000	
Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017B (the "*Series 2017B Bonds*")	$250,000,000	$250,000,000	
Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017C (the "*Series 2017C Bonds*")	$250,000,000	$250,000,000	
Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017D (the "*Series 2017D Bonds*")	$200,000,000	$200,000,000	

* Preliminary, subject to change.

ESTIMATED SOURCES AND USES OF FUNDS

The sources and uses of funds relating to the issuance of the Bonds are estimated below. (All amounts are rounded to the nearest whole dollar.)

Estimated Sources of Funds

Par Amount of the Bonds .....
[Net] Original Issue [Premium/Discount] .....
Equity Contributions .....
Total Estimated Sources of Funds .....

Estimated Uses of Funds

Deposits to Redeem Bonds To Be Refunded: .....
Series 2017A Bonds .....
Series 2017B Bonds .....
Series 2017C Bonds .....
Series 2017D Bonds .....
Costs of Issuance‡ .....
Total Estimated Uses of Funds .....

‡ Includes estimated costs of issuance, including Underwriters' fee, certain fees and expenses of various legal counsel, accountants, the Bond Trustee, the Master Trustee, the rating agencies and costs of printing. All such costs of issuance will be paid from the Corporation's equity contribution.

ESTIMATED ANNUAL DEBT SERVICE REQUIREMENTS

The following table sets forth, for each fiscal year ending December 31, the amounts (rounded to the nearest whole dollar) required to be paid in such fiscal year for the payment of principal of (whether at maturity or pursuant to mandatory redemption) and interest on the Bonds.

Fiscal Year Ending December 31	Bonds Debt Service		Total Debt Service Requirements
	Principal*	Interest	
2018	-	$	$
2019	-		
2020	-		
2021	-		
2022	$ 17,995,000		
2023	18,915,000		
2024	19,880,000		
2025	20,900,000		
2026	21,975,000		
2027	23,100,000		
2028	24,285,000		
2029	25,535,000		
2030	26,845,000		
2031	28,220,000		
2032	29,660,000		
2033	31,180,000		
2034	32,780,000		
2035	34,465,000		
2036	36,235,000		
2037	38,100,000		
2038	40,040,000		
2039	42,025,000		
2040	44,035,000		
2041	46,140,000		
2042	48,345,000		
2043	50,660,000		
2044	53,180,000		
2045	55,900,000		
2046	58,760,000		
2047	45,705,000		
TOTAL	**$914,860,000**	**$**	**$**

* Preliminary, subject to change.

BONDHOLDERS' RISKS

Some of the identifiable risks which should be considered when making an investment decision regarding the Bonds are discussed below. The discussion herein of risks to the Owners (including the Beneficial Owners) of the Bonds is not intended as dispositive, comprehensive or definitive, but rather is intended to summarize certain matters which could affect payment on the Bonds. The risks discussed below should be read in conjunction with APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK" and the discussion set forth under the caption "REGULATION OF THE HEALTH CARE INDUSTRY" below. Other sections *of this Official Statement, as cited herein, should be referred to for a more detailed description of risks described in this section, which descriptions are qualified by reference to any documents discussed therein. The operations and financial condition of the Obligated Group Member (and any future Obligated Group Members) may be affected by factors other than those described in this section and* "REGULATION OF THE HEALTH CARE INDUSTRY" *below and elsewhere in this Official Statement. No assurance can be given as to the nature of such factors or the potential effects thereof on the Obligated Group Members. Copies of all such documents are available for inspection at the designated corporate trust office of the Bond Trustee.*

General

As set forth under "SOURCES OF PAYMENT AND SECURITY FOR THE BONDS," the Bonds will constitute special fund revenue bonds of the Authority and will be payable solely from Revenues and certain other amounts pledged under the Indenture for such payment. "*Revenues*" consist primarily of payments required to be made by the Corporation under the Loan Agreement, payments required to be made by the Obligated Group on Obligation No. 7 and from other funds held under the Indenture. Obligation No. 7 is a joint and several obligation of the Obligated Group Members. No representation or assurance can be made that the Obligated Group Members will realize Revenues in amounts sufficient to pay principal of and interest on the Bonds when due. The revenues and expenses of the Obligated Group Members (and any future Obligated Group Members) are subject to, among other things, the capabilities of the management of the Corporation (and any future Obligated Group Members), the confidence of physicians in management, the availability of physicians and trained support staff, changes in the population or the economic condition of the Obligated Group's service area, the level of and restrictions on federal funding of Medicare and federal and state funding of Medicaid, the imposition of government wage and price controls, the demand for the Obligated Group Members' (and any future Obligated Group Member's) services, increased competition, reduced third-party reimbursement rates or delays in payment, government regulations and licensing requirements, continued funding by the Commonwealth of Pennsylvania (the "*Commonwealth*"), future economic conditions and other conditions which are unpredictable and may not be quantifiable or determinable at this time.

The discussion herein describes risks related to certain existing federal and state laws, regulations, rules and governmental administrative policies and determinations to which the Obligated Group Members and the health care industry are subject. Several of the federal statutes and regulations described herein may be substantially modified or repealed in whole or in part. Key elements of the legislative agenda of President Trump's administration include the repeal or replacement of the Patient Protection and Affordable Care Act, as subsequently amended by the Health Care and Education Reconciliation Act of 2010 (collectively, referred to herein as the "*ACA*" and described under the heading "REGULATION OF THE HEALTH CARE INDUSTRY"), tax reform and financial services reform. As defined and described under the subheading "Tax Reform" below, tax reform legislation known as the Tax Cuts and Jobs Act was signed into law in late 2017. While attempts to repeal the entirety of the ACA have not been successful to date, a key provision of the ACA was repealed as part of the Tax Cuts and Jobs Act and additional legislative attempts to repeal or piecemeal dismantle the ACA may be introduced

in the future. The scope and effect of future legislation cannot be predicted and such future legislation could have a material adverse impact on the Obligated Group. In addition to statutory changes, regulatory changes and executive actions implemented by the Trump administration could have a material adverse impact on the Obligated Group. Accordingly, it is possible that the significant risk areas summarized under this caption "BONDHOLDERS' RISKS" will undergo significant change in the near term.

ADVERSE CONSEQUENCES ARISING FROM ONE OR MORE OF THE FOLLOWING RISKS, OR THE OCCURRENCE OF OTHER UNANTICIPATED EVENTS, COULD ADVERSELY AFFECT THE OPERATIONS OR FINANCIAL PERFORMANCE OF THE OBLIGATED GROUP MEMBERS (AND ANY FUTURE OBLIGATED GROUP MEMBERS). THIS DISCUSSION IS NOT, AND IS NOT INTENDED TO BE, EXHAUSTIVE. THE RISKS DISCUSSED BELOW SHOULD BE READ IN CONJUNCTION WITH THE DISCUSSION SET FORTH IN APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK," THE DISCUSSION APPEARING UNDER THE CAPTION "REGULATION OF THE HEALTH CARE INDUSTRY" BELOW AND THE INFORMATION APPEARING ELSEWHERE IN THIS OFFICIAL STATEMENT.

Nonprofit Health Care Environment

Each Obligated Group Member is a nonprofit corporation, and all but Palladium Risk Retention Group, Inc. is exempt from federal income taxation as an organization described in Section 501(c)(3) of the Code. As nonprofit tax-exempt organizations, the Obligated Group Members are subject to federal, state and local laws, regulations, rulings and court decisions relating to their organization and operation, including their operations for charitable purposes. At the same time, certain of the Obligated Group Members conduct large-scale complex business transactions and are large employers. There can often be a tension between the rules designed to regulate a wide range of charitable organizations and the day-to-day operations of a complex, large health care organization. Hospitals or other health care providers, such as the Obligated Group Members, may be forced to forego otherwise favorable opportunities for certain joint ventures, recruitment and other arrangements in order to maintain their tax-exempt status.

The operations and practices of nonprofit, tax-exempt health care providers are routinely challenged or criticized for inconsistency or inadequate compliance with regulatory requirements for, and societal expectations of, nonprofit tax-exempt organizations. These challenges in some cases are broader than concerns about compliance with federal and state statutes and regulations, such as Medicare and Medicaid compliance, and instead are examinations of core business practices of the health care organizations. A common theme of these challenges is that nonprofit hospitals may not confer community benefits that exceed or equal the benefit received from their tax-exempt status. Areas that have come under examination have included pricing practices, billing and collection practices, charitable care, methods of providing and reporting community benefit, executive compensation, exemption of property from real property taxation, private use of facilities financed with tax-exempt bonds and others. These challenges and questions have come from a variety of sources, including state attorneys general, the Internal Revenue Service (the "*IRS*"), labor unions, Congress, state legislatures, and patients, and in a variety of forums, including hearings, audits and litigation.

The following are some examples of the challenges and examinations facing nonprofit health care organizations. They are indicative of a greater scrutiny of the billing, collection and other business practices of these organizations, and may indicate an increasingly more difficult operating environment for health care organizations, including the Obligated Group. The challenges and examinations, and any resulting legislation, regulations, judgments, or penalties, could have a material adverse effect on the Obligated Group.

Congressional Hearings

A number of House and Senate Committees, including the House Committee on Energy and Commerce, the House Committee on Ways and Means and the Senate Finance Committee, have conducted hearings and/or investigations into issues related to nonprofit tax-exempt health care organizations. These hearings and investigations have included a nationwide investigation of hospital billing and collection practices, charity care and community benefit and prices charged to uninsured patients and possible reforms to the nonprofit sector. These hearings and investigations may result in new legislation.

Bond Examinations

The IRS has active programs auditing both the qualification of hospital organizations as Section 501(c)(3) organizations and the qualification of bonds issued for the benefit of such organizations as tax-exempt. The IRS may use detailed information required to be reported on IRS Form 990 - Return of Organizations Exempt From Income Tax ("*IRS Form 990*") for this purpose.

IRS Examination of Compensation Practices and Community Benefit

For more than a decade, the IRS has been concerned about executive compensation practices of tax-exempt hospitals. In 2004, the IRS began a new program to measure compliance by tax-exempt organizations with requirements that they not pay excessive compensation. In February 2009, the IRS issued its Hospital Compliance Project Final Report (the "*IRS Final Report*") that examined tax-exempt organizations' practices and procedures with regard to compensation and benefits paid to their officers and other defined "insiders." The IRS Final Report indicated that the IRS (1) will continue to heavily scrutinize executive compensation arrangements, practices and procedures and (2) in certain circumstances, may conduct further investigations or impose fines on tax-exempt organizations.

The IRS has also undertaken a community benefit initiative directed at hospitals. The IRS Final Report determined that the reporting of community benefit by nonprofit hospitals varied widely, both as to types of programs and expenditures classified as community benefit and the measurement of community benefits. As a result, IRS Form 990 requires detailed disclosure of compensation practices, corporate governance, loans to management and others, joint ventures and other types of transactions, political campaign activities, and other areas the IRS deems to be a compliance risk. IRS Form 990 also requires the disclosure of information on community benefit as well as reporting of information related to tax-exempt bonds, including compliance with the arbitrage rules and rules limiting private-use of bond-financed facilities, including compliance with the safe harbor guidance in connection with management contracts and research contracts. IRS Form 990 is intended to provide enhanced transparency as to the operations of exempt organizations. It is likely that the IRS will use detailed information to assist in its enhanced enforcement efforts. *See* "Risks Related to Tax-Exempt Status of Obligated Group Members – Maintenance of Tax-Exempt Status" below.

Schedule H of IRS Form 990, which hospitals and health systems must use to report their community benefit activities, has been revised to require details on how a hospital determines eligibility for free or discounted care (if the federal poverty guidelines are not used). Consistent with Section 501(r) of the Code, Schedule H now requires hospitals to describe billing and collection practices permitted under the hospital facility's policies, as well as information about the hospital's emergency medical care policy.

Litigation Relating to Billing and Collection Practices

Over the past several years, lawsuits have been filed in both federal and state courts alleging, among other things, that hospitals have failed to fulfill their obligations to provide charity care to uninsured patients and have overcharged uninsured patients. Other cases have alleged that charging patients more for services furnished in a hospital-based setting is a wrongful or deceptive practice. Some of these cases have since been dismissed by the courts and some hospitals and health systems have entered into substantial settlements. A number of cases are still pending in various courts around the country with inconsistent results and others could be filed.

Attorney General and Other State Oversight or Audits

Nonprofit corporations, including the Obligated Group Members, are subject to oversight and examination by the Pennsylvania Attorney General to ensure their charitable purposes are being carried out, that their fundraising and investment activities comply with state law and that the terms of charitable gifts are followed. In addition, the Pennsylvania state legislature may direct state executive bodies to monitor or audit levels of charity care being provided in nonprofit hospitals.

Charity Care

The legislatures of some states have attempted to pass legislation mandating charity care levels or imposing other requirements relating to charity care. From time to time Congress proposes new laws and the IRS proposes new regulations concerning the manner in which charity care is calculated or issues guidance concerning the level of charity care expected of an organization exempt from tax under section 501(c)(3) of the Code. Management of the Corporation cannot predict whether legislation, regulations, or guidance will be implemented in the future and cannot predict the affect it may have on the Obligated Group's financial condition, though such effect may be material.

Risks Related to Tax-Exempt Status of the Obligated Group Members

Maintenance of Tax-Exempt Status

Loss of tax-exempt status by an Obligated Group Member could result in loss of tax exemption of interest on the Bonds and/or other bonds (*see* "Tax-Exempt Status of Interest on the Bonds" below) and defaults in covenants regarding the Bonds or such other bonds would likely result. Such an event could also have other material adverse consequences for the Obligated Group.

The maintenance by an entity of its status as an organization described in Section 501(c)(3) of the Code is contingent upon compliance with general rules promulgated in the Code and related regulations regarding the organization and operation of tax-exempt entities, including their operation for charitable and educational purposes and their avoidance of transactions that may cause their assets to inure to the benefit of private individuals.

The IRS has announced that it intends to closely scrutinize transactions between not-for-profit corporations and for-profit entities, and in particular has issued audit guidelines for tax-exempt hospitals. As these general principles were developed primarily for public charities that do not conduct large-scale technical operations and business activities, they often do not adequately address the myriad of operations and transactions entered into by a modern health care organization. Although traditional activities of hospitals, such as medical office building leases and compensation arrangements and other contracts with physicians, have been the subject of interpretations by the IRS in the form of Private Letter Rulings, many activities have not been addressed in any official opinion, interpretation or policy of the IRS. Because the

Obligated Group Members conduct large-scale and diverse operations involving private parties, there can be no assurances that certain of their transactions would not be challenged by the IRS.

The IRS has taken the position that hospitals which are in violation of the Anti-Kickback Law may also be subject to revocation of their tax-exempt status. *See* "REGULATION OF THE HEALTH CARE INDUSTRY – Federal and State Legislation; National Health Care Reform – Medicare/Medicaid Anti-Kickback Laws" below. As a result, tax-exempt hospitals, such as those of the Obligated Group, which have, and will continue to have, extensive transactions with physicians are subject to an increased degree of scrutiny and perhaps enforcement by the IRS.

The ACA also contains requirements for tax-exempt hospitals through Section 501(r) of the Code. Final regulations under Section 501(r) of the Code provide detailed guidance relating to requirements for community health needs assessments, financial assistance policies, emergency medical care policies, limitations on charges and billing and collection practices, and also provide guidance on consequences of failure to satisfy Section 501(r) requirements. These final regulations are complex and administratively burdensome. An organization's failure to meet one or more Section 501(r) requirements could endanger the organization's Section 501(c)(3) status as of the first day of the tax year in which a failure occurs. In addition, an organization may be subject to certain excise taxes if a hospital facility fails to maintain the requirements concerning community health needs assessments.

The Taxpayers Bill of Rights 2, referred to for purposes of this Official Statement as the "*Intermediate Sanctions Law*," allows the IRS to impose "intermediate sanctions" against certain individuals in circumstances involving the violation by tax-exempt organizations of the prohibition against private inurement. Prior to the enactment of the Intermediate Sanctions Law, the only sanction available to the IRS was revocation of an organization's tax-exempt status. Intermediate sanctions may be imposed in situations in which a "disqualified person" (such as an "insider"): (i) engages in a transaction with a tax-exempt organization on other than a fair market value basis, (ii) receives unreasonable compensation from a tax-exempt organization or (iii) receives payment in an arrangement that violates the prohibition against private inurement. These transactions are referred to as "excess benefit transactions." The statute imposes excise taxes on the disqualified person and any "organization manager" who knowingly participates in an excess benefit transaction. These rules do not penalize the exempt organization itself, so there would be no direct impact on the Obligated Group or the tax status of the Bonds if an excess benefit transaction were subject to IRS enforcement, pursuant to these "intermediate sanctions" rules.

In certain cases, the IRS has imposed substantial monetary penalties and future charity care or public benefit obligations on tax-exempt hospitals in lieu of revoking their tax-exempt status, as well as requiring that certain transactions be altered, terminated or avoided in the future and/or requiring governance or management changes. These penalties and obligations are typically imposed on the tax-exempt hospital pursuant to a "closing agreement" with respect to the hospital's alleged violation of Section 501(c)(3) exemption requirements. Given the uncertainty regarding how tax-exemption requirements may be applied by the IRS, the Obligated Group Members are, and will be, at risk for incurring monetary and other liabilities imposed by the IRS through this "closing agreement" or similar process.

The IRS has periodically conducted audit and other enforcement activity regarding tax-exempt health care organizations. Certain audits are conducted by teams of revenue agents, often take years to complete and require the expenditure of significant staff time by both the IRS and the audited organization. These audits examine a wide range of possible issues, including tax-exempt bond financings, partnerships and joint ventures, unrelated business income tax, retirement plans and employee benefits, employment taxes, political contributions and other matters.

In recent years, the IRS has increased the frequency and scope of its audit and other enforcement activity regarding tax-exempt organizations. If the IRS were to find that a Member of the Obligated Group has participated in activities in violation of certain regulations or rulings, the tax-exempt status of such entity could be in jeopardy. Although the IRS has not frequently revoked the 501(c)(3) tax-exempt status of nonprofit corporations, it could do so in the future. Loss of tax-exempt status by an Obligated Group Member potentially could result in loss of tax exemption of the tax-exempt debt of the Obligated Group, and defaults in covenants regarding the tax-exempt debt and other obligations likely would be triggered. Loss of tax-exempt status also could result in substantial tax liabilities on income of the Obligated Group.

State and Local Tax Exemption

Various state and local governmental bodies in Pennsylvania have challenged the tax exempt status of health care organizations and have sought to remove the exemption of property from real estate taxes of part or all of the property of various nonprofit institutions on the grounds that a portion of such property was not being used to further the charitable purposes of such organizations or that the organizations did not provide sufficient care to indigent persons so as to warrant exemption from taxation as a charitable institution. These challenges have been based on a variety of grounds, including allegations of aggressive billing and collection practices, excessive financial margins and operations that closely resemble for-profit businesses. Several of these disputes have been determined in favor of the taxing authorities or have resulted in settlements that are not favorable to the tax exempt organization. Because of the uncertainty surrounding these local and judicial rulings, the Pennsylvania General Assembly proposed and passed a joint resolution in 2013 to amend the Constitution of the Commonwealth of Pennsylvania to allow the General Assembly to establish uniform standards and determine qualifications as institutes of public charity. Such an amendment would become effective only if approved by the voters but the amendment has never made it on the ballot.

From time to time, the real property tax exemption status of certain properties owned by Members of the Obligated Group has been challenged. In each instance, the challenge has been resolved. It is not possible to predict the scope or effect of future legislative or regulatory actions with respect to taxation of nonprofit corporations. There can be no assurance these types of challenges will not occur in the future or that changes in the laws and regulations of state or local governments will not materially adversely affect the Obligated Group by requiring payment of income, local property or other taxes.

Tax-Exempt Status of Interest on the Bonds

The Code and related regulations, rulings and policies impose a number of requirements that must be satisfied for interest on state and local obligations, such as the Bonds, to be excludable from gross income for federal income tax purposes. These requirements include limitations on the use of proceeds of the Bonds, limitations on the investment earnings of proceeds of the Bonds prior to expenditure, a requirement that certain investment earnings on proceeds of the Bonds be paid periodically to the United States, and a requirement that the Authority file an information report with the IRS. In the Tax Certificate and Agreement pertaining to the issuance of the Bonds (the "*Tax Agreement*"), the Authority and the Corporation, for itself and as Credit Group Representative on behalf of the Obligated Group Members, have covenanted to comply with such requirements. However, future failure by the Authority, the Corporation or the Obligated Group Members to fulfill their respective obligations under the Tax Agreement in connection with the Bonds may result in the inclusion of interest on such obligations and any or all of the other Bonds in gross income for federal income tax purposes, retroactively to their date of issuance. In such event, the Indenture neither contains any specific provision for mandatory acceleration of the Bonds nor provides that any additional interest will be paid to the holders of the Bonds. *See* APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE

AND THE LOAN AGREEMENT – BOND INDENTURE – Events of Default," "– Acceleration of Maturity" and "– Application of Revenues and Other Funds After Default."

IRS officials have indicated that more resources will be invested in audits of tax-exempt obligations, including the use of tax-exempt obligation proceeds, in the charitable organization sector, with specific review of private use. In addition, the IRS has from time to time sent questionnaires to several hundred nonprofit corporations that have borrowed on a tax-exempt basis, inquiring about post-issuance compliance with various requirements for maintaining the federal tax exemption of interest on their tax-exempt obligations. The questionnaire includes questions relating to the borrower's (i) record retention, which the IRS has particularly emphasized, (ii) qualified use of bond-financed property, (iii) arbitrage yield restriction and rebate requirements, (iv) debt management policies, and (v) voluntary compliance and education.

The IRS has also added schedules to IRS Form 990 that create additional reporting responsibilities. On Schedule H, hospitals and health systems must report how they provide community benefit and specify certain billing and collection practices. Schedule K requires detailed information related to all outstanding bond issues of tax-exempt borrowers, including information regarding operating, management and research contracts as well as private use compliance. Tax-exempt organizations must also complete Schedule J, which requires reporting of compensation information for the organizations' officers, directors, trustees, key employees, and other highly compensated employees. IRS reviews and audits could and may adversely affect the marketability of or the market value for the Bonds.

The opinion of Bond Counsel delivered on the date the Bonds are issued is not binding on the IRS or the courts. There is no assurance that an IRS examination of the Bonds will not adversely affect the market price for, or the marketability of, such Bonds and any such examination may cause the Obligated Group and/or the holders of the Bonds to incur significant expense.

Future Legislation Regarding Limitations or Elimination of Tax-Exempt Status

Future tax legislation, administrative actions taken by tax authorities or court decisions, whether at the federal or state level, may adversely affect the tax-exempt status of interest on the Bonds under federal or state law or otherwise prevent beneficial owners of the Bonds from realizing the full current benefit of the tax status of such interest. In addition, such legislation, administrative actions and court decisions could affect the market price or marketability of the Bonds. Prospective investors should consult with their tax advisors on the foregoing matters as they consider an investment in the Bonds.

Unrelated Business Income

In recent years, the IRS and state, county and local tax authorities have audited the operations of tax-exempt hospitals and health care systems with respect to their exempt activities and the generation of unrelated business taxable income, or "*UBTI*." Most hospitals and health care systems participate in activities that may generate UBTI. An investigation or audit could result in assessment of taxes, interest and penalties with respect to unreported UBTI and in some cases ultimately could affect the tax-exempt status of such entity, as well as the exclusion from gross income for federal income tax purposes of the interest payable on the Bonds.

Limitations on Contractual and Other Arrangements Imposed by the Internal Revenue Code

As tax-exempt organizations, the Obligated Group Members are limited with respect to the use of practice income guarantees, reduced rent on medical office space, low interest loans, joint venture programs and other means of recruiting and retaining physicians. The IRS scrutinizes a broad variety of contractual relationships commonly entered into by hospitals and has issued a detailed audit guide suggesting that field agents scrutinize numerous activities of the hospitals in an effort to determine whether any action should be taken with respect to limitations on or revocation of their tax-exempt status or assessment of additional tax. Any suspension, limitation, or revocation of the tax-exempt status of a Member of the Obligated Group or assessment of significant tax liability could have a materially adverse effect on the Obligated Group and might lead to loss of tax exemption of interest on the Bonds.

Cost of Capital

From time to time, Congress has considered and is considering revisions to the Code that may prevent or limit access to the tax-exempt debt market by borrowers such as the Obligated Group Members. Such legislation, if enacted into law, may materially increase the cost of capital to the Obligated Group Members. *See* "Tax Reform" below.

Security and Enforceability

Enforceability of the Master Indenture and Obligation No. 7

Each Obligated Group Member has made a covenant in the Master Indenture to make payments when due under the Master Indenture and on the Obligations issued under the Master Indenture, including Obligation No. 7. Obligation No. 7 is a joint and several obligation of each Obligated Group Member. The enforceability of the joint and several obligations of each Obligated Group Member is uncertain. As a consequence, the property of the Obligated Group Members that are not the beneficiaries of the proceeds of the Bonds may not be available to make such payments.

Counsel to the Obligated Group Members will deliver an opinion concurrently with the delivery of the Bonds to the effect that Obligation No. 7 is enforceable in accordance with its terms. However, such opinion will be qualified as to the joint and several obligation of the Obligated Group Members to make payments of debt service on Obligation No. 7. Such joint and several obligation may not be enforceable against an Obligated Group Member for a variety of reasons, including:

- To the extent payments on Obligation No. 7 are requested to be made from assets of such Obligated Group Member which are donor-restricted or which are subject to a direct, express or charitable trust which does not permit the use of such assets for such payments.

- If the purpose of the debt created and evidenced by Obligation No. 7 is not consistent with the charitable purposes of such Obligated Group Member, or if the debt was incurred by or issued for the benefit of an entity other than a nonprofit corporation which is exempt from federal income taxes under Sections 501(a) and 501(c)(3) of the Code and is not a "private foundation" as defined in Section 509(a) of the Code.

- To the extent payments on Obligation No. 7 would result in the cessation or discontinuation of any material portion of the health care or related services previously provided by such Obligated Group Member.

- If and to the extent payments are requested to be made pursuant to any loan violating applicable usury laws.

If the obligation of a particular Obligated Group Member to make payment on an Obligation is not enforceable, and payment is not made on such Obligation in full when due, then an Event of Default will arise under the Master Indenture.

An Obligated Group Member may not be required to make payments on or provide amounts for the payment of an Obligation, including Obligation No. 7, issued by or for the benefit of another entity if and to the extent that any such payment or transfer would render such Obligated Group Member insolvent or would conflict with or not be permitted by or would be subject to recovery for the benefit of other creditors of such Obligated Group Member under applicable fraudulent conveyance, bankruptcy, insolvency, moratorium or other similar laws affecting the enforcement of creditors' rights. There is no clear legal precedent as to whether payments on Obligations (including Obligation No. 7) by an Obligated Group Member may be voided by a trustee in bankruptcy in the event of a bankruptcy of such Obligated Group Member, or by third party creditors in an action brought pursuant to state fraudulent conveyances statutes. Under the United States Bankruptcy Code, a trustee in bankruptcy, and under state fraudulent conveyance statutes a creditor of a related guarantor, may avoid any obligation incurred by a related guarantor if, among other bases therefor, (1) the guarantor has not received fair consideration or reasonably equivalent value in exchange for the guaranty, and (2) the guaranty renders the guarantor insolvent, as defined in the United States Bankruptcy Code or state fraudulent conveyances statutes, or the guarantor is undercapitalized. Under such principles, the obligation of an Obligated Group Member to make payments on Obligations (including Obligation No. 7) that secures Related Bonds (including the Bonds) not issued for the direct benefit of such Obligated Group Member may be considered a guaranty.

Application by courts of the tests of "insolvency," "reasonably equivalent value" and "fair consideration" has resulted in a conflicting body of case law. If judicial action were brought to compel an Obligated Group Member to make a payment on an Obligation (including Obligation No. 7), a court might not enforce such payment in the event it is determined that sufficient consideration for the Member's obligation was not received, or that the incurrence of such obligation has rendered or will render the Member insolvent, or the Member is or will thereby become undercapitalized.

In addition, state courts have common law authority and authority under state statutes to terminate the existence of a nonprofit corporation or undertake supervision of its affairs on various grounds, including a finding that such corporation has insufficient assets to carry out its stated charitable purposes or has taken some action which renders it unable to carry out such purposes. Such action may arise on the court's own motion or pursuant to a petition of the state attorney general or such other persons who have interests different from those of the general public, pursuant to the common law and statutory power to enforce charitable trusts and to see to the application of their funds to their intended charitable uses.

An action to enforce a charitable trust and to see to the application of its funds could also arise if an action to enforce the obligation to make payments on an Obligation would result in the cessation or discontinuation of any material portion of the health care or related service previously provided by the Obligated Group Member from which payment is requested.

Receivables Pledge

The Master Indenture provides that each Obligated Group Member shall grant to the Master Trustee a security interest in all of its Gross Receivables, subject to Permitted Liens, and to perfect the grant of a security interest in the Gross Receivables to the extent that a security interest may be granted therein under the UCC. The Master Trustee's security interest in the Gross Receivables shall be perfected, to the extent that such security interest may be so perfected, by the filing of financing statements which comply with the requirements of the UCC. It may not be possible to perfect a security interest in any manner whatsoever in certain types of Gross Receivables (e.g., certain insurance proceeds and payments under the Medicare and Medicaid programs) prior to actual receipt of funds by any Member. The grant of a security interest in Gross Receivables may be subordinated to the interest and claims of others in several instances. Some examples of cases of subordination of prior interests and claims are (i) statutory liens, (ii) rights arising in favor of the United States of America or any agency thereof, (iii) present or future prohibitions against assignment in any federal statutes or regulations, (iv) constructive trusts, equitable liens or other rights impressed or conferred by any state or federal court in the exercise of its equitable jurisdiction, and (v) federal or state bankruptcy laws that may affect the enforceability of the Master Indenture or grant of a security interest in the Gross Receivables.

2018 Obligation and the Bonds

Certain amendments to the Master Indenture may be made without the consent of the owners of the Obligations. Certain other amendments to the Master Indenture may be made with the consent of the owners of not less than a majority of the aggregate principal amount of the outstanding Obligations. Amendments to the Master Indenture may be obtained with the consent of the owners of Obligations other than Obligation No. 7. The Bond Trustee is considered the holder of Obligation No. 7. Certain amendments to the Indenture and the Loan Agreement may be made with the consent of the owners of not less than a majority of the outstanding principal amount of the Bonds. Such amendments may adversely affect the security of owners of the Bonds or other provision of the Master Indenture. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Supplements and Amendments" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND LOAN AGREEMENT – BOND INDENTURE – Modification or Amendment of the Bond Indenture" and "– LOAN AGREEMENT – Amendment to the Loan Agreement."

Enforceability of Remedies

The remedies available to the Bond Trustee, on behalf of the beneficial owners of the Bonds, and to the beneficial owners of the Bonds upon an event of default under the Indenture or the Loan Agreement or available to the Master Trustee on behalf of holders of Obligations, including the Bond Trustee, under the Master Indenture, are in many respects dependent upon judicial actions which are often subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, including, specifically, the Bankruptcy Code, the remedies provided in the Indenture, the Master Indenture and the Loan Agreement may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the Bonds will be qualified as to the enforceability of the various legal instruments by limitations imposed by general principles of equity and by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors' generally and laws relating to fraudulent conveyances.

Bankruptcy

In the event an Obligated Group Member files for protection from creditors under the United States Bankruptcy Code, the rights and remedies of the Owners of the Bonds would be subject to various provisions of the United States Bankruptcy Code. If an Obligated Group Member were to commence a proceeding in bankruptcy, payments made by that Obligated Group Member during the 90-day period immediately preceding such commencement (or, under certain circumstances, during the preceding one-year period) may be voided as preferential transfers to the extent such payments allow the recipients thereof to receive more than they would have received in the event of the liquidation of such Obligated Group Member. Security interests and other liens granted by such Obligated Group Member to the Bond Trustee or the Master Trustee and perfected during such preference period may also be voided as preferential transfers to the extent such security interest or other lien secures obligations that arose prior to the date of such grant or perfection.

A bankruptcy filing would operate as an automatic stay of the commencement or continuation of any judicial or other proceeding against such Obligated Group Member and its property and as an automatic stay of any act or proceeding to enforce a lien upon or to otherwise exercise control over its property as well as various other actions to enforce, maintain or enhance the rights of the Bond Trustee and the Master Trustee. If the bankruptcy court so ordered, the property of such Obligated Group Member could be used for the financial rehabilitation of such Obligated Group Member despite any security interest of the Bond Trustee or the Master Trustee therein. The rights of the Bond Trustee and the Master Trustee to enforce their respective interests and other liens could be delayed during the pendency of the rehabilitation proceeding.

An Obligated Group Member could also file a plan for the adjustment of its debts in any such proceeding which could include provisions modifying or altering the rights of creditors generally, or any class of them, secured or unsecured. The plan, when confirmed by a court, binds all creditors who had notice or knowledge of the plan and, with certain exceptions, discharges all claims against the debtor to the extent provided for in the plan. No plan may be confirmed unless certain conditions are met, among which are conditions that the plan be feasible and that it shall have been accepted by each class of claims impaired thereunder. Each class of claims has accepted the plan if at least two-thirds in dollar amount and more than one-half in number of the class cast votes in its favor. Even if the plan is not so accepted, it may be confirmed if the court finds that the plan is fair and equitable with respect to each class of non-accepting creditors impaired thereunder and does not discriminate unfairly. Any such plan could adversely affect the beneficial owners of the Bonds.

In the event of bankruptcy of an Obligated Group Member, there is no assurance that certain covenants, including tax covenants, contained in the Tax Agreement, the Indenture, the Loan Agreement or the Master Indenture and certain other documents would survive. Accordingly, such Obligated Group Member, as debtor in possession, or a bankruptcy trustee could take action which might adversely affect the exclusion of interest on the Bonds from gross income for federal income tax purposes.

Under the United States Bankruptcy Code, a bankruptcy court could appoint a patient advocate, the cost of which would be an administrative expense of the estate and certain reimbursements from federal agencies could be discontinued.

In addition, the bankruptcy of a health plan or physician group that is a party to a significant managed care arrangement with one or more Obligated Group Members, or that of any significant contract payer obligated to any one or more Obligated Group Members, could have material adverse effects on the Obligated Group.

Patient Service Revenues

Net patient service revenues realized by the Obligated Group Members are derived from a variety of sources and will vary among the individual facilities owned and operated by the Obligated Group Members and also among the various market areas and regions in which such facilities are located.

A substantial portion of the net patient service revenues of the Obligated Group Members is derived from third-party payers that pay for the services provided to patients covered by third parties. These third-party payers include the federal Medicare program, the Pennsylvania Medicaid program and commercial health plans and insurers, including managed care organizations such as health maintenance organizations ("*HMOs*") and preferred provider organizations ("*PPOs*"). Many third-party payers make payments to Obligated Group Members in amounts that may not reflect the direct and indirect costs of the Obligated Group Members providing services to patients. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION – AHN Source of Revenues" for a full breakdown of payment sources.

The financial performance of the Obligated Group has been and could be in the future adversely affected by the financial position or the insolvency or bankruptcy of or other delay in receipt of payments from third-party payers that provide coverage for services to their patients.

Health care providers have been and continue to be affected significantly by changes made in the last several years in federal and state health care laws and regulations, particularly those pertaining to Medicare and Medicaid. The purpose of much of this statutory and regulatory activity has been to reduce the rate of increase in health care costs, particularly costs paid under the Medicare and Medicaid programs.

Dependence upon Commercial Third-Party Payers

For a discussion of the relationship to, and dependence of the Obligated Group on, Highmark, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY."

The Obligated Group's ability to develop and expand its services and, therefore, operating margins, is dependent upon its ability to enter into contracts with commercial third-party payers, such as managed care organizations, at competitive rates. There can be no assurance that it will be able to attract third-party payers, and where it does, no assurance that it will be able to contract with such payers on advantageous terms. The inability of the Obligated Group to contract with a sufficient number of such payers on advantageous terms would have a material adverse effect on the Obligated Group. Further, while the Obligated Group intends to control health care service utilization and increase quality, the Obligated Group cannot predict changes in utilization patterns or on health care providers. Additionally, commercial third-party payers are increasingly attempting to control health care costs through increased utilization reviews, greater enrollment in managed care programs, such as HMOs and PPOs, and directly contracting with health care facilities to provide services on a discounted basis. The trend toward consolidation among private managed care payers tends to increase their bargaining power over prices and fee structures. Other health care providers, including some with greater financial resources, greater geographic coverage or a wider range of services, may compete with the Obligated Group for opportunities with commercial insurers. For example, competitors may negotiate exclusivity provisions with certain managed care plans or otherwise restrict the ability of managed care companies to contract with Obligated Group providers. For a discussion of competition with the UPMC IDFS, *see* "– End of Consent Decree Period" and APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY."

The ACA imposes, over time, increased regulation of the industry, the use and availability of state-based exchanges in which health insurance can be purchased by certain groups and segments of the population, the extension of subsidies and tax credits for premium payments by some consumers and employers, and the imposition upon commercial insurers of certain terms and conditions that must be included in contracts with providers. Pennsylvania has opted to allow the federal government to run its health insurance exchange. In addition, the ACA imposes many new obligations on states related to health care insurance. It is unclear how the increased federal oversight of state health care may affect future state oversight or affect the Obligated Group. The effects of these changes upon the financial condition of any third-party payer that offers health care insurance, rates paid by third-party payers to providers and, thus, the revenues of the Obligated Group, and upon the operations, results of operations and financial condition of the Obligated Group cannot be predicted.

Government Regulation of the Health Care Industry

A significant portion of the revenues of the Obligated Group is derived from government reimbursement programs including, in particular, the Medicare and Medicaid programs. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION – AHN Source of Revenues" for a breakdown of payment sources including Medicare and Medicaid. As a result, the Obligated Group Members are subject to all of the federal, state and local laws and regulations related to the Medicare and Medicaid programs. In addition to the Medicare and Medicaid programs, the Obligated Group Members and the health care industry in general are subject to regulation by a number of governmental agencies which affect the provision, administration and payment of health care services on both a national and local basis. Health care providers, including the Obligated Group Members (and any future Obligated Group Members), have been and will be affected significantly by changes that have occurred in the last several years in federal and state health care laws and regulations, particularly those pertaining to Medicare and Medicaid. *See* "REGULATION OF THE HEALTH CARE INDUSTRY" below for more information regarding the Medicare and Medicaid programs and regulations relating thereto.

Value Based Care

The health care industry is under pressure from the federal and state governments and managed care plans to transition from fee for service methods of payment to "value based care." *See* "REGULATION OF THE HEALTH CARE INDUSTRY." While the Obligated Group is working closely with Highmark Health to facilitate the transition to value based care, there can be no assurance that management will be able to reduce the Obligated Group's cost structure sufficiently quickly enough to align with potentially decreased revenues from a value based care model, or that the Obligated Group will otherwise adapt to value based care incentives sufficiently quickly to maintain positive financial results.

Managed Care Organizations

For a discussion of the relationship to, and dependence of the Obligated Group on, Highmark, *see* "—Highmark, Inc. Relationship" and APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY."

Health maintenance organizations, preferred provider organizations and other managed health care systems (collectively, "*Managed Care Organizations*") are providers of health care coverage significantly different from traditional commercial insurers. Managed Care Organizations represent a broad continuum of systems generally designed to favorably affect the cost, the site and/or the utilization of health care services from a patient standpoint. As such, they include HMOs, which generally accept

uniform per-employee payments from employers and/or employees with fees based on the number of enrollees and in return agree to provide all, or substantially all, of an enrollee's health care needs, and PPOs, which generally negotiate favorable prices with providers and thus create preferred provider arrangements. Managed Care Organizations often rely upon case management analysis to reduce utilization of health care services, including discouraging an enrollee's admission to a hospital unless determined to be absolutely necessary. As Managed Care Organizations' enrollment increases, such entities also become significant purchasers of health care services from hospitals and other providers enabling negotiation of separate pricing terms and selection of health providers offering the most cost-effective services. Such case and cost management efforts on behalf of Managed Care Organizations may adversely affect utilization of the facilities and/or patient revenues of the Obligated Group.

Most Managed Care Organizations pay health care facilities or other providers, as applicable, on a discounted fee-for-service basis or on a discounted fixed rate per day of inpatient care. The discounts offered to Managed Care Organizations may result in payment at less than actual cost and the volume of patients directed to a health care facility under a Managed Care Organization's contract may vary significantly from projections. In cases where a Managed Care Organization is a major purchaser of services from a particular health care facility operated by a Member of the Obligated Group (or any future Obligated Group Members), a contract rate reduction, contract cancellations, inability to pay, failure to make prompt payment, difficulty in meeting solvency thresholds, business failure or bankruptcy of the Managed Care Organization may have a substantial negative effect on the Obligated Group's financial condition.

Some Managed Care Organizations employ a "capitation" payment method under which health care providers are paid a predetermined periodic rate for each enrollee in the Managed Care Organization who is "assigned" or otherwise directed to receive care from a particular health care provider. The health care provider may assume financial risk for the cost and scope of institutional care provided. If payment is insufficient to meet the health care provider's actual cost of care, or if utilization by such enrollees materially exceeds projections, the financial condition of the health care provider could erode rapidly and significantly. In addition to the standard Managed Care Organization risk sharing approach, private health insurance companies are increasingly adopting various additional risk sharing/cost containing measures, sometimes similar to those introduced by government payers. Health care providers may expect health care cost containment and its associated risk sharing to continue to increase in the coming years among all payers.

In recent years, a number of Managed Care Organizations have become insolvent or experienced financial pressure or cash flow issues. Such plans range in size from smaller local provider-based plans to some of the largest plans in the United States. These plans include traditional commercial insurers, as well as health maintenance organizations and preferred provider organizations. Managed Care Organizations that experience financial pressure may slow payment to providers, withhold pay entirely, or utilize claims payment methodology that systematically reduces compensation on a per claim basis. Managed Care Organizations that become insolvent may seek either federal bankruptcy or state insurance insolvency protection. Such bankruptcy or insurance insolvency protection may require that providers repay certain claims to the Managed Care Organization, or result in certain claims becoming uncollectible. It is not possible at this time to predict the future of the managed care industry in general or of specific Managed Care Organizations, or to predict what impact the state of the financial health of such organizations might have on the Obligated Group.

Often, managed care contracts are enforceable for a stated term, regardless of health care organizations losses and may require health care organizations to care for enrollees for a certain time period, regardless of whether the payer is able to pay the health care organization. Health care

organizations from time to time have disputes with Managed Care Organizations concerning payment and contract interpretation issues. Such disputes may result in mediation, arbitration or litigation.

Failure to maintain contracts could have the effect of reducing a health care organization's market share and net patient services revenues. Conversely, participation may result in lower net income if participating health care organizations are unable to adequately contain their costs. In part to reduce costs, health plans are increasingly implementing, and offering to purchasing employers, tiered provider networks, which involve classification of a plan's network providers into different tiers based on care quality and cost. With tiered benefit designs, plan enrollees are generally encouraged, through incentives or reductions in copayments or deductibles, to seek care from providers in the top tier. Classification of a health care provider in a non-preferred or lower tier by a significant payer may result in a material loss of volume.

In addition to tiered provider networks, Managed Care Organizations are also implementing narrow provider networks in which only a select group of providers participate as in-network providers. Managed Care Organizations often look at quality performance and cost in selecting providers to participate in their narrow networks. A provider's exclusion from a narrow network may result in a material loss of volume. Managed Care Organizations may offer lower reimbursement for providers in their narrow network(s) in exchange for additional volume expected from being one of a select group of network providers. This reimbursement may be insufficient to cover a network provider's cost in providing the services. The new demands of dominant health plans and other shifts in the managed care industry may also reduce patient volume and revenue. For a discussion of the dependence of the Obligated Group on Highmark and of anticipated changes to networks, products and benefit designs in the service areas of the Members of the Obligated Group, *see* "– Highmark Inc. Relationship" and APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY" and "– COMPETITIVE LANDSCAPE."

In addition, the current trend of consolidation in the health insurance industry is likely to increase the leverage of commercial insurers when negotiating rates with health care providers. Large health insurers that assume dominant positions in local markets threaten to increase health insurer concentration, reduce competition and decrease choice. If a Member of the Obligated Group were to terminate its agreement with any of the major managed care payers or not agree to terms proposed by such payers, or if the payers were to exit the regional marketplace in some or all of their product lines, it could have a significant material adverse impact on the financial condition of the Obligated Group. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION – AHN Source of Revenues" and "– COMPETITIVE LANDSCAPE."

Federal Budget

The Budget Control Act of 2011 (the "*Budget Control Act*") mandated significant reductions in federal spending for fiscal years 2012-2021, including a reduction of 2% on all Medicare payments during this period. Subsequent legislation enacted by Congress extended these reductions through 2027. There is a substantial risk that Congress could act to extend or increase these across-the-board reductions.

State and Local Budgets

The Commonwealth of Pennsylvania faces severe financial challenges, including erosion of general fund tax revenues, falling real estate values, slowing economic growth, and relatively high unemployment, each of which may continue to worsen or resist improvement over the coming years. These factors have resulted in a shortfall between revenue and spending demands.

The financial challenges facing the Commonwealth may negatively affect hospitals in a number of ways, including elimination or reduction of health care safety net programs (causing a greater number of indigent, uninsured or underinsured patients), reductions in Medicaid reimbursement rates or delays in Medicaid reimbursement payments. The financial challenges may also result in a greater number of indigent, uninsured or underinsured patients who are unable to pay for their care or access primary care facilities.

Pennsylvania has for a number of years instituted a "provider tax" on hospitals, as a result of which supplemental federal funds are made available to the state Medicaid program and, through state funding of the Medicaid program, to state hospitals. Any curtailment of federal funds related to the provider tax or any effort by Pennsylvania to maintain the provider tax without providing supplemental funding to state hospitals, including the Hospitals, could have a material adverse effect on the Obligated Group.

Economic Recovery and Credit Market Disruptions

The United States economy is unpredictable. Previous disruptions of the credit and financial markets have led to volatility in the securities markets, significant losses in investment portfolios, increased business failures and consumer and business bankruptcies and economic recession. In response to the 2008 recession, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "*Dodd-Frank Act*") was enacted in 2010. The Dodd-Frank Act included broad changes to the existing financial regulatory structure, including the creation of new federal agencies to identify and respond to the financial stability of the United States. In June 2017, the House approved a Dodd-Frank Act repeal bill, known as the Financial Choice Act, which scales back or eliminates many of the post economic crisis rules but the Financial Choice Act failed to pass in the Senate. On March 14, 2018, the Senate passed legislation that would relax restrictions on large parts of the banking industry, albeit less expansive than the Financial Choice Act. The effects of such legislative action, if eventually enacted, are unclear.

In the past, the economic climate has adversely affected the health care sector generally. Patient service revenues and inpatient volumes have not increased as historic trends would otherwise indicate. When unemployment rates were increasing nationally, increases in self-pay admissions, increased levels of bad debt and uncompensated care, reduced demand for elective procedures, and reduced availability and affordability of health insurance resulted. The economic climate also increased stresses on state budgets, potentially resulting in reductions in Medicaid payment rates or Medicaid eligibility standards and delays in payment of amounts due under Medicaid and other state or local payment programs. Any similar economic recession in the future could have similar or worse effects.

Tax Reform

On December 22, 2017, President Trump signed into law an act entitled, "H.R. 1: An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018," known as the Tax Cuts and Jobs Act (the "*Tax Cuts and Jobs Act*"). The Tax Cuts and Jobs Act lowered corporate and individual tax rates and eliminated certain tax preferences and other tax expenditures. The Tax Cuts and Jobs Act also effectively repealed (effective 2019) a key provision of the ACA known as the "individual mandate" or the "individual shared responsibility payment," which imposes a tax on individuals who do not obtain health care insurance. Such repeal of the individual mandate may result in a higher uninsured rate, which could have a materially adverse effect on the Obligated Group. In addition, the Tax Cuts and Jobs Act precludes the issuance of tax-exempt bonds to advance refund outstanding tax-exempt bonds. The Tax Cuts and Jobs Act could materially adversely effect the market price or marketability of the Bonds (and outstanding bonds of the Obligated Group) and/or availability of borrowed funds for the Obligated Group Members, particularly for capital

expenditures, as well as the operations, financial position and cash flows of the Obligated Group Members.

Licensing, Certification and Accreditation Requirements

The health care facilities of the Obligated Group Members are subject to numerous legal, regulatory, professional and private licensing, certification and accreditation requirements. These may be affected by regulatory action and policy changes by governmental and private agencies that administer Medicare, Medicaid and other third-party payment programs, as well as action by, among others, accrediting bodies such as The Joint Commission, and federal, state and local government agencies. Renewal and continuation of certain of these licenses, certifications and accreditations are based on inspections or other reviews generally conducted in the normal course of business of health facilities. Actions in any of these areas could result in a reduction in utilization, revenues or both, or the inability of the Obligated Group Members (or future Obligated Group Members) to operate all or a portion of such facilities or to bill various third-party payers, and, consequently, could materially adversely affect the Obligated Group.

Possible Staffing Shortages

In recent years, the health care industry has suffered from a scarcity of physicians in certain specialties, nurses and other qualified health care technicians and personnel. Factors underlying this trend include increased demand for trained personnel combined with an insufficient number of qualified graduates to meet the growing need, and the aging of the workforce generally. Any of these factors may be expected to intensify in the future, aggravating the shortage of physicians, nursing personnel or other qualified health care technicians and personnel. This trend could force the Obligated Group Members to pay higher than anticipated salaries to personnel as competition for such employees intensifies and, in an extreme situation, could lead to difficulty maintaining licenses to provide health care services for the facilities of the Obligated Group Members and, as a result, maintaining eligibility for reimbursement under Medicare and the various state Medicaid programs. In the event of a shortage or difficulty in the direct hire of health care personnel, the Obligated Group Members could be required to seek indirect hire of such professionals through an increased use of third-party staffing, at higher cost.

Malpractice and General Liability Insurance

In recent years, the number of malpractice and general liability suits and the dollar amount of damage recoveries have increased nationwide, resulting in substantial increases in insurance premiums. Actions alleging wrongful conduct and seeking punitive damages are often filed against hospitals. Litigation may also arise from the corporate and business activities of the Obligated Group Members, including employee-related matters, medical staff and provider network matters and denials of medical staff and provider network membership and privileges. As with professional liability, many of these risks are covered by insurance, but some are not. For example, some antitrust claims, business disputes and workers' compensation claims are not covered by insurance or other sources and, in whole or in part, may be a liability of the Obligated Group if determined or settled adversely. Claims for punitive damages may not be covered in all instances by insurance under certain state laws.

Beginning in 2008, CMS refused to reimburse hospitals for medical costs arising from certain "never events," which include specific preventable medical errors. Certain private insurers and HMOs followed suit. The occurrence of "never events" or "serious reportable events" is more likely to be publicized and may negatively affect a hospital's reputation, reducing future utilization and potentially increasing the possibility of liability claims.

Any judgments or settlements that exceed insurance coverages or self-insurance reserves could have a material adverse effect on the Obligated Group. Moreover, the Corporation is not able to predict the cost or availability of any such insurance in the future. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – OTHER SELECTED INFORMATION – Insurance Coverage."

Facility Damage

Hospitals are highly dependent on the condition and functionality of their physical facilities. Damage from natural causes, fire, deliberate acts of destruction, terrorism or various facility system failures may have a material adverse impact on hospital operations, financial conditions and results of operations, especially if insurance is inadequate to cover resulting property and business losses. The occurrences of natural disasters, including floods, earthquakes and fires may damage Obligated Group Member's facilities, interrupt utility service to facilities or otherwise impair the operation of some Obligated Group Member's facilities or the generation of revenues beyond existing insurance coverage.

Increased Competition

The Obligated Group Members face increased competition from other providers of health care that offer health care services to the population which the Obligated Group Members service, including particularly UPMC (*see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY"). UPMC has built, or has announced its intent to build, new competitive facilities in various areas served by the Obligated Group, including near Jefferson Hospital. Additional future competitive actions by UPMC or other competitors could include the construction of new, or the renovation of existing, hospitals, ambulatory surgical centers and other ambulatory care facilities, free standing emergency facilities, and private laboratory and radiological services. Any of such competitive facilities may reduce volume and revenue to Obligated Group facilities. There are also some services that could be provided by others which could be substituted for some of the revenue generating services offered by the Obligated Group Members (and any future Obligated Group Member). For example, home care, intermediate nursing care, preventive care, ambulatory care and drug and alcohol abuse programs are services that could serve as substitutes for hospital treatment. Hospitals increasingly face competition from specialty providers of care. This competition may cause hospitals to lose essential market share. Competition may be focused on services or payer classifications for which hospitals realize their highest margins, thus negatively affecting programs that are economically important to hospitals. Specialty hospitals may attract specialists as investors and may seek to treat only profitable classifications of patients, leaving full-service hospitals with higher acuity and/or lower paying patient populations. This source of competition may have a material adverse impact on hospitals, particularly if a group of a hospital's principal physician admitters curtails its use of a hospital service in favor of competing facilities. Future competition may arise from new sources not currently anticipated or prevalent. Moreover, additional quality measures and future trends toward clinical transparency may have an unanticipated impact on the Obligated Group's competitive position and patient volumes. Additionally, scientific and technological advances, new procedures, drugs and devices, preventive medicine and outpatient health care delivery may reduce utilization and revenues of hospitals in the future or otherwise lead the way to new avenues of competition.

Uncompensated Care

Hospital providers across the country continue to see a rise in uncompensated care as a result of increased unemployment or other adverse economic conditions that further increase the proportion of patients who are unable to pay fully for their cost of care. The Tax Cuts and Jobs Act's repeal of the

ACA's individual mandate is likely to increase the number of uninsured. Increases in contracted reimbursement rates may not be sufficient to fully offset the increased cost of uncompensated care.

Physician Relationships

The success of the Obligated Group Members' business depends in significant part on the number, quality, specialties, and admitting and scheduling practices of admitting physicians. Accordingly, it is essential to the Obligated Group Members' ongoing business that it attract an appropriate number of quality physicians in the specialties required to support its services and that it maintains good relationships with those physicians. A shortage of physicians, especially in primary care, could become a significant issue for health providers in the coming years.

The primary relationship between a hospital and physicians who practice in it is through the hospital's organized medical staff. Medical staff bylaws, rules and policies establish the criteria and procedures by which a physician may have his or her privileges or membership curtailed, denied or revoked. Physicians who are denied medical staff membership or certain clinical privileges, or who have membership or privileges curtailed, denied or revoked, often file legal actions against hospitals. Such action may include a wide variety of claims, some of which could result in substantial uninsured damages to a hospital. In addition, failure of the hospital governing body to adequately oversee the conduct of the medical staff may result in hospital liability to third parties. All hospitals, including those owned and operated by the Obligated Group Members, are subject to such risk.

Labor Relations and Collective Bargaining

Hospitals are large employers with a wide diversity of employees. Increasingly, employees of hospitals are becoming unionized, and many hospitals have collective bargaining agreements with one or more labor organizations. Employees subject to collective bargaining agreements may include essential nursing and technical personnel, as well as food service, maintenance and other trade personnel. Renegotiation of such agreements upon expiration may result in significant cost increases to hospitals. Employee strikes or other adverse labor actions may have an adverse impact on operations, revenue and hospital reputation. For information on the Obligated Group's unionized employees, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – OTHER SELECTED INFORMATION – Employees."

Class Actions

Hospitals, health systems and other health care providers have long been subject to a wide variety of litigation risks, including liability for care outcomes, employer liability, property and premises liability, and peer review litigation with physicians, among others. In recent years, consumer class action litigation has emerged as a potentially significant source of litigation liability for hospitals, health systems and other health care providers. These class action suits have most recently focused on hospital billing and collections practices and breaches of privacy, and they may be used for a variety of currently unanticipated causes of action. Since the subject matter of class action suits may involve uninsured risks, and since such actions often involve alleged large classes of plaintiffs, they may have material adverse consequences on hospitals and health systems in the future. *See* "– Wage and Hour Class Actions and Litigation" below.

Wage and Hour Class Actions and Litigation

Federal law and many states, including Pennsylvania, impose standards related to worker classification, eligibility and payment for overtime, liability for providing rest periods and similar

requirements. Large employers with complex workforces, such as hospitals, are susceptible to actual and alleged violations of these standards. In recent years there has been a proliferation of lawsuits over these "wage and hour" issues, often in the form of large class actions. For large employers, such as the Members of the Obligated Group, such class actions can involve multi-million dollar claims, judgments and/or settlements. A major class action decided or settled adversely to a Member of the Obligated Group could have a material adverse effect.

Action by Consumers and Purchasers of Health Care Services

Major purchasers of health care services also could take action to restrain hospital or other provider charges or charge increases. As a result of increased public scrutiny, it is also possible that the pricing strategies of hospitals may be perceived negatively by consumers, and hospitals may be forced to reduce fees for their services. Decreased utilization could result, and health care revenues may be negatively impacted. In addition, consumers and groups on behalf of consumers are increasing pressure for hospitals and other health care providers to be transparent and provide information about cost and quality of services that may affect future consumer choices about where to receive health care services.

Pension and Benefit Funds

As large employers, hospitals and health care providers may incur significant expenses to fund pension and benefit plans for employees and former employees, and to fund required workers' compensation benefits. Plans are often underfunded, or may become underfunded and funding obligations in some cases may be erratic or unanticipated and may require significant commitments of available cash needed for other purposes. For further information concerning the funded status of the Obligated Group's defined benefit plans, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – OTHER SELECTED INFORMATION – Pension/Retirement Plans" and Note 7 to the audited consolidated financial statements included as APPENDIX B – "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF THE ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016."

Audits, Exclusions, Fines, Withholds and Enforcement Actions

Health care providers participating in Medicare and Medicaid are subject to audits and retroactive audit adjustments by fiscal intermediaries under the Medicare and Medicaid programs. From an audit, a fiscal intermediary may conclude that services may not have been provided under the direct supervision of a physician (to the extent so required), that a patient should not have been characterized as an inpatient, that certain services provided prior to admission as an inpatient should not have been billed as outpatient services, or that certain required procedures or processes were not satisfied, or that certain costs were unreasonable, not allowable, not incurred or incorrectly classified. As a consequence, payments may be retroactively disallowed or recouped. Regulations also provide for withholding of payments in certain circumstances, and such withholdings could have a material adverse effect on the Obligated Group. Under certain circumstances, payments made may be determined to have been made as a consequence of improper claims subject to the federal and state statutes, subjecting the health care provider to civil or criminal sanctions. The Obligated Group Members, many of which are health care providers, are subject to all such risks. *See* the information under the heading "REGULATION OF THE HEALTH CARE INDUSTRY."

Information Systems

The ability to adequately price and bill health care services and to accurately report financial results depends on the integrity of the data stored within information systems, as well as the operability of

such systems. Information systems require an ongoing commitment of significant resources to maintain, protect and enhance existing systems and develop new systems to keep pace with continuing changes in information processing technology, evolving systems and regulatory standards. There can be no assurance that efforts to upgrade and expand information systems capabilities, protect and enhance these systems, and develop new systems to keep pace with continuing changes in information processing technology will be successful or that additional systems issues will not arise in the future.

The use of electronic media is standard for clinical operations, medical records and order entry functions. The reliance on information technology for these purposes imposes new expectations on physicians and other workforce members to be adept in using and managing electronic systems. It also introduces risks related to patient safety, and to the privacy, accessibility and preservation of health information. Technology malfunctions or failure to understand and use information systems properly could result in the dissemination of or reliance on inaccurate information, as well as in disputes with patients, physicians and other health care professionals. Health information systems may also be subject to different or higher standards or greater regulation than other information technology or the paper-based systems previously used by health care providers, which may increase the cost, complexity and risks of operations. All of these risks may have adverse consequences on hospitals and health care providers.

Future government regulation and adherence to technological advances could result in an increased need of the Obligated Group Members to implement new technology. Such implementation could be costly and is subject to cost overruns and delays in application, which could have a material adverse effect on the Obligated Group.

Cyber-Attacks

Despite the implementation of network security measures by the Obligated Group Members, their information technology systems may be vulnerable to breaches, hacker attacks, computer viruses, physical or electronic break-ins and other similar events or issues. The Federal Bureau of Investigation has expressed concern that health care systems are a prime target for such cyber-attacks due to the mandatory transition from paper records to electronic health records and a higher financial payout for medical records in the black market. Health care systems have recently been subject to such attacks. Such events or issues could lead to the inadvertent disclosure of protected health information or other confidential information, ransom attacks holding critical information hostage, or could have an adverse effect on the ability of the Obligated Group Members to provide health care services. Any breach or cyber-attack that comprises patient data could result in negative press and substantial fines or penalties for violation of HIPAA (defined below) or similar state privacy laws. *See* "REGULATION OF THE HEALTH CARE INDUSTRY" below.

Increasing Cost of Modern Technology

Technological advances in recent years have forced hospitals to acquire sophisticated and costly equipment to remain technologically current. Moreover, the growth of e-commerce may also result in a shift in the way that health care is delivered, (i.e., from remote locations). For example, physicians will be able to provide certain services over the internet and pharmaceuticals and other health services may be purchased online. If, due to financial constraints, the Obligated Group were less able to acquire new equipment required to remain technologically current, the operations and financial condition of the Obligated Group could be materially adversely affected.

Antitrust

Antitrust liability may arise in a wide variety of circumstances, including medical staff privilege disputes, contracting with commercial insurers, Managed Care Organizations and other third-party payers, physician relations, joint ventures, merger, affiliation and acquisition activities and certain pricing or salary setting activities, as well as other areas of activity. The application of the federal and state antitrust laws to health care is still evolving, and enforcement activity by federal and state agencies appears to be increasing. Violators of the antitrust laws may be subject to criminal and/or civil enforcement by federal and state agencies, as well as by private litigants in certain instances. At various times, an Obligated Group Member may be subject to an investigation or inquiry by a governmental agency charged with the enforcement of the antitrust laws, or may be subject to administrative or judicial action by a federal or state agency or a private party. Common areas of potential liability are joint action among providers with respect to third-party payer contracting and medical staff credentialing. With respect to third-party payer contracting, an Obligated Group Member (and any future Obligated Group Members) may, from time to time, be involved in joint contracting activity with hospitals, physicians or other providers. The precise degree, if any, to which this or similar joint contracting activities may expose the participants to antitrust risk is dependent on a myriad of factual matters. Physicians who are subject to adverse peer review proceedings may file federal antitrust actions against hospitals and seek treble damages. Health care providers, including the Obligated Group Members, regularly have disputes regarding credentialing and peer review, and therefore may be subject to liability in this area. In addition, health care providers occasionally indemnify medical staff members who are involved in such credentialing or peer review activities, and may, therefore, also be liable with respect to such indemnity.

Market Risk and Interest Rate Swaps

The Obligated Group Members have significant holdings in a broad range of investments. Market fluctuations have affected and will continue to affect the value of those investments and those fluctuations may be, and historically have been, material. Occasional market disruptions have exacerbated the market fluctuations and have negatively affected the investment performance over certain time periods and in some cases materially diminished the liquidity of those investments. Investment income (including both realized and unrealized gains on investments) has contributed significantly to the Obligated Group's financial results over recent years. Any diminution of liquidity of the Obligated Group's investment could also have a material adverse effect on the Obligated Group.

Interest Rate Swaps

Certain Obligated Group Members may utilize interest rate hedges, or swap agreements, to manage exposure to interest rate fluctuations. Swap agreements are subject to periodic "mark-to-market" valuations and may, at any time, have a negative value (which could be substantial) to the applicable Obligated Group Member. Changes in the market value of such swap agreements could negatively or positively impact the operating results and financial condition of the applicable Obligated Group Member, and such impact could be material. Any of the swap agreements to which an Obligated Group Member is a party may be subject to early termination upon the occurrence of certain specified events. If either the applicable Obligated Group Member or the counterparty terminates such an agreement when the agreement has a negative value to the applicable Obligated Group Member, the applicable Obligated Group Member could be obligated to make a termination payment to the applicable swap counterparty in the amount of such negative value, and such payment could be substantial and potentially materially adverse to the financial condition of the applicable Obligated Group Member. In the event of an early termination of a swap agreement, there can be no assurance that (i) the applicable Obligated Group Member will receive any termination payment payable to it by the respective swap provider, (ii) the applicable Obligated Group Member will not be obligated to or will have sufficient monies to make a

termination payment payable by it to the applicable swap provider, or (iii) the applicable Obligated Group Member will be able to obtain a replacement swap agreement with comparable terms. For information about the swap agreements to which Obligated Group Members are a party, including the termination of a swap agreement that will coincide with the refunding of the Bonds To Be Refunded, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION – Derivatives/Swaps."

Environmental Laws and Regulations

Health care providers are subject to a wide variety of federal, state and local environmental and occupational health and safety laws and regulations which address, among other things, hospital operations, facilities and properties owned or operated by hospitals. Among the type of regulatory requirements faced by hospitals are (i) air and water quality control requirements, (ii) waste management requirements, (iii) specific regulatory requirements applicable to asbestos, polychlorinated biphenyls and radioactive substances, (iv) requirements for providing notice to employees and members of the public about hazardous materials handled by or located at hospitals and (v) requirements for training employees in the proper handling and management of hazardous materials and wastes.

As the owner and operator of properties and facilities, Obligated Group Members may be subject to liability for hazardous substances that may have migrated off its properties, including remediation thereof. Typical hospital operations include, but are not limited to, in various combinations, the handling, use, storage, transportation, disposal and discharge of hazardous, infectious, toxic, radioactive, flammable and other materials, wastes, pollutants or contaminants. As such, hospital operations are particularly susceptible to the practical, financial and legal risks associated with compliance with such laws and regulations. Such risks may (i) result in damage to individuals, property or the environment, (ii) interrupt operations and increase their cost, (iii) result in legal liability, damages, injunctions or fines and (iv) result in investigations, administrative proceedings, penalties or other governmental agency actions. Obligated Group Members could encounter such risks in the future, and such risks could have a material adverse effect on the results of operations or financial condition of the Obligated Group.

Ratings

There can be no assurance that the ratings assigned to the Bonds at the time of issuance will not be lowered or withdrawn at any time, the effect of which could adversely affect the market price for and marketability of the Bonds. *See* the information under the headings "RATINGS" and "BONDHOLDERS' RISKS — Rating Based on Group Credit Profile."

Ratings Based on Group Credit Profile

The report by S&P Global Ratings ("*S&P*") that assigned an "A" rating to the Bonds (*see* "RATINGS") is expressly "based on the application of group rating methodology criteria including [S&P's] view of Highmark Health's group credit profile and AHN's core status to the group. Accordingly the [rating] is at the same level as the group credit profile." **Accordingly, the rating considers the financial results and operations of Highmark Health, Highmark and certain affiliates, not just entities that are Members of the Obligated Group. Neither Highmark Health nor Highmark (or any affiliates thereof other than the Members of the Obligated Group) has guaranteed or is otherwise liable with respect to the Bonds, and none of their respective assets or revenues have been pledged to secure the Bonds.**

Highmark Inc. Relationship

The Obligated Group's strategic plan is closely linked to the success of Highmark Health and particularly its payer subsidiary, Highmark, and its various health plans (including plans offered directly by both Highmark and its fifty percent (50%) controlled affiliate, Gateway Health Plan). *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY." The insurance marketplace is highly competitive, and there can be no assurance that Highmark will maintain its current level of enrollees or its financial standing. Any adverse event affecting Highmark Health or Highmark could adversely affect the results of the Obligated Group, and any adverse change in the results of operations, assets, or rating of Highmark Health or Highmark could, based on the S&P group rating methodology criteria in effect at the time, adversely affect the Obligated Group's rating.

The existing Consent Decrees (*see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – CONSENT DECREES AND RELATED HISTORY") involving Highmark (*see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY") and UPMC are scheduled to expire on June 30, 2019. While various agreements allowing temporary, partial continuation of coverage and enrollment have been negotiated between Highmark and certain of the UPMC hospitals, these agreements do not cover all hospitals and all plans. Management of AHN anticipates that UPMC and its affiliated managed care plans will increase the existing competition with Highmark following expiration of the Consent Decrees. Management anticipates that, among other activities, Highmark and UPMC will seek to make changes to networks, products and benefit designs, invest heavily in competing facilities, and seek to increase price competition, thus potentially disrupting historic patient volumes. In addition, changes of ownership of currently unaligned hospitals or physician groups in the Obligated Group's service areas or changes in existing professional service agreements with area hospitals could adversely affect Highmark and, accordingly, the Obligated Group. While management cannot predict the specific aspects of increased competition in its service areas, such increased competition could have a material adverse effect on Highmark and, accordingly, the Obligated Group. *See* "– Increased Competition" above.

The insurance industry is a highly regulated industry. Such regulations may be enforced in ways or change from time to time in ways that can have material adverse consequences for a health insurance company. Health insurance companies are also subject to many of the same or similar risks as other health care organizations as described in the "REGULATION OF THE HEALTH CARE INDUSTRY" section of this Official Statement.

The insurance industry is also a highly competitive industry. Health insurance companies depend significantly for revenue on enrollment by corporations and other employers in health plans to provide health care insurance coverage for employees. Large employer groups account for a substantial portion of most health insurance companies' membership base, and withdrawal by any single large employer group from a health insurance company's network could result in the loss of a material number of covered lives. Failure to maintain employer contracts generally could have the effect of reducing the benefits enrollment base and the resulting patient base of a health insurance company.

The ACA has had and could continue to have a significant impact on health insurance companies. For example, continued expansion of health insurance coverage could increase membership enrollment or change the composition of the enrolled population, potentially resulting in a capacity strain on provider networks or unanticipated service costs, as well as increased revenue. Subsidized coverage under the ACA may not generate margins similar to those health insurance companies have previously realized in the commercial markets. The ACA also instituted new requirements and restrictions on health insurance issuers, including but not limited to precluding them from imposing pre-existing condition exclusions, which can have a material adverse effect on the profitability of a health insurance company.

Further cuts in Medicare reimbursement, Medicare Advantage payments and Medicaid reimbursement could have an adverse effect on a health insurance company, including Highmark.

Oversight of Highmark by Pennsylvania Insurance Department

Highmark, as a Pennsylvania-domiciled hospital plan and professional health services plan, is subject to oversight by the Pennsylvania Insurance Department ("*PID*"), among other regulatory agencies. The PID has authority to review and/or approve certain activities of Highmark, including, but not limited to, loans to AHN or other entities in excess of $200 million outstanding at any time; forgiveness of loans to AHN or other entities in excess of certain financial thresholds; and grants or equity transfers to AHN or other entities in excess of certain financial thresholds. As a result, certain financial transactions and contractual relationships between Highmark and AHN or Obligated Group Members may be subject to prior review and/or approval by the PID, and there can be no assurance such approvals will be forthcoming for all proposed transactions or forthcoming in a timely manner. Currently, there are no loans outstanding between Highmark and AHN or its affiliates.

Risks Relating to Implementation of Strategic Plan and Significant Construction/Expansion Projects

The Obligated Group's strategic plans include expansion of access to its services, including multiple construction and other expansion projects (*see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – INFRASTRUCTURE AND CAPITAL.") Neither Highmark nor Highmark Health has any contractual obligation to fund capital or operating needs of the Obligated Group, and the ability of Highmark to loan funds or otherwise provide funding to the Obligated Group or forgive any funds so loaned is subject to limits (including, in some cases, approvals) established by the PID (*see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – HISTORY"). In addition, construction projects are often subject to construction or financing related delays or material increases in cost. Failure to have a broad array of strategically located and attractive facilities within the general time frame of the end of the Consent Decrees could cause challenges to Highmark Health's goal of encouraging enrollees to seek care at the Obligated Group's facilities when appropriate.

Market for the Bonds

Subject to prevailing market conditions, the Underwriters intend, but are not obligated, to make a market in the Bonds. There is presently no secondary market for the Bonds, and no assurance can be given that a secondary market will develop. Consequently, investors may not be able to resell the Bonds purchased should they need or wish to do so.

Affiliations, Merger, Acquisition and Divestiture

The Corporation evaluates and pursues potential acquisition, merger and affiliation candidates as part of the overall strategic planning and development process. As part of its ongoing planning and property management functions, the Corporation reviews the use, compatibility and business viability of many of the operations of the Obligated Group, and from time to time may pursue changes in the use of, or disposition of, its facilities. Likewise, the Corporation occasionally receives offers from, or conducts discussions with, third parties about the potential acquisition of operations and properties which may become subsidiaries or affiliates of the Obligated Group Members in the future, or about the potential sale of some of the operations or property which are currently conducted or owned by the Obligated Group. As a result, it is possible that the current organization and assets of the Obligated Group may change from time to time. Subject to the limitations contained in the Master Indenture, the Operating Assets of the

Obligated Group could change from time to time, and it is possible that new entities could be added to the Obligated Group in the future. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Merger, Consolidation, Sale or Conveyance."

Other Bondholders' Risks

In the future, the following factors, among others, may adversely affect the operations of health care providers, including the Obligated Group Members, or the market value of the Bonds, to an extent that cannot be determined at this time:

1. Hospitals are major employers, combining a complex mix of professional, quasi-professional, technical, clerical, housekeeping, maintenance, dietary and other types of workers in a single operation. As with all large employers, the Obligated Group bears a wide variety of risks in connection with their employees. These risks include strikes and other related work actions, contract disputes, discrimination claims, personal tort actions, work-related injuries, exposure to hazardous materials, interpersonal torts (such as between employees, between physicians or management and employees, or between employees and patients), and other risks that may flow from the relationships between employer and employee or between physicians, patients and employees. Many of these risks are not covered by insurance, and certain of them cannot be anticipated or prevented in advance. The Obligated Group Members are subject to all of the risks listed above, and such risks, alone or in combination, could have material adverse effect on the Obligated Group.

2. Scientific and technological advances, new procedures, drugs and appliances, preventive medicine, occupational health and safety and outpatient health care delivery may reduce utilization and revenues of the facilities. Technological advances in recent years have accelerated the trend toward the use by hospitals of sophisticated and costly equipment and services for diagnosis and treatment. The acquisition and operation of certain equipment or services may continue to be a significant factor in hospital utilization, but the ability of the Obligated Group Members to offer the equipment or services may be subject to the availability of equipment or specialists, governmental approval or the ability to finance these acquisitions or operations.

3. Reduced demand for the services of the Obligated Group Members that might result from decreases in population in their service area.

4. Increased unemployment or other adverse economic conditions in the service area of the Obligated Group Members which would increase the proportion of patients who are unable to pay fully, or at all, for the cost of their care.

5. Medical expense inflation, which may include increased costs for staff, supplies (including pharmaceuticals), utilities, or other necessary elements of care delivery that exceed payments available to the Obligated Group.

6. Any increase in the quantity of indigent care provided which is mandated by law or required due to increased needs of the community in order to maintain the charitable status and real estate tax exemption of the Obligated Group Members.

7. Regulatory actions which might limit the ability of the Obligated Group to undertake capital improvements to their respective facilities or to develop new institutional health services.

8. The occurrence of a flood, earthquake, or other natural disaster, or a large-scale terrorist attack that disrupts operations of the Obligated Group's facilities or increases the proportion of patients who are unable to pay fully for the cost of their care.

9. A national or localized outbreak of a highly contagious or epidemic disease.

REGULATION OF THE HEALTH CARE INDUSTRY

General Health Care Industry Factors

The Obligated Group, and the health care industry in general, are subject to regulation by a number of governmental agencies, including those which administer the Medicare and Medicaid programs, federal, state and local agencies responsible for administration of health planning programs and other federal, state and local governmental agencies. The health care industry is also affected by federal, state and local policies developed to regulate the manner in which health care is provided, administered and paid for nationally and locally. As a result, the health care industry is sensitive to legislative and regulatory changes in such programs and is affected by reductions and limitations in government spending for such programs as well as changing health care policies. The pressure to curb the rate of increase in federal spending in health care programs overall and on a per beneficiary basis is expected to increase as the U.S. population ages. Among other effects, this pressure may result in further reductions in payment rates for hospital services and increased utilization of managed care in the Medicare and Medicaid programs. In addition, Congress and other governmental agencies have focused on the provision of care to indigent and uninsured or underinsured patients, the prevention of "dumping" such patients on other hospitals in order to avoid provision of unreimbursed care, and other issues. Adoption of additional regulations in these areas could have an adverse effect on the operations and financial condition of the Obligated Group Members (and any future Obligated Group Members). Furthermore, laws promulgated by Congress and state legislatures, which regulate the manner in which health care services are provided and billed for, are increasing. As a result, the costs of complying with these laws and regulations are increasing. Some of the legislation and regulations affecting the health care industry are discussed in this section.

Federal and State Legislation; National Health Care Reform

General

A significant portion of the revenues of the Obligated Group is derived from Medicare, Medicaid and other third-party payers. For a breakdown of the sources of payment for services provided, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK" hereto.

Medicare is a federal program administered by the CMS, through Medicare Administrative Contractors. Medicare provides certain health care benefits to beneficiaries who are 65 years of age or older and other classes of individuals. Medicare Part B covers, among other things, outpatient services, certain physician services, medical supplies and durable medical equipment.

Medicaid is a federally assisted, state administered program medical assistance that provides reimbursement for a portion of the cost of caring for certain indigent persons including: parents and caretakers, relatives of children, children, pregnant women, former foster care individuals, non-citizens with medical emergencies, aged or disabled individuals not currently receiving Supplemental Security Income, and other individuals that qualify for a state's Medicaid program. Medical benefits are available under each participating state's Medicaid program, within prescribed limits, to persons meeting certain minimum income or other need requirements. The Medicaid program provides payments for medical

items and services for any person who is determined to be eligible for Medicaid assistance on the date of service. Federal and state funds support the Medicaid program. Medicaid benefits are available, within prescribed limits, to persons meeting certain minimum income or other need requirements. Payments under the Medicaid program represented a significant portion of the Obligated Group's gross patient service revenue.

Significant changes have been and will likely continue to be made in these programs, which changes could have an adverse effect on the financial condition of the Obligated Group. In addition, bills have in the past and may in the future be introduced in Congress which, if enacted, could adversely affect the operations of the Obligated Group by, for example, decreasing payment by Medicare and Medicaid and other third-party payers or limiting the ability of the physicians on the medical staff of the Obligated Group to provide services or increase services provided to patients.

The discussion herein describes risks associated with certain existing federal and state laws, regulations, rules, and governmental administrative policies and determinations to which the Obligated Group Members and the health care industry are subject. These are regularly subject to change. Additionally, because health care regulations are particularly complex, such regulations may be interpreted and enforced in a manner that is inconsistent with management of the Obligated Group's interpretation. The Obligated Group's business or financial condition could be harmed if it is alleged to have violated existing health care regulations or if it fails to comply with new or changed health care regulations. Furthermore, health care, as one of the largest industries in the United States, continues to attract much legislative interest and public attention. Further changes in the health care regulatory framework which increase the burdens on health care providers could have a material adverse effect on the Obligated Group.

Also, there can be no assurances that any current health care laws and regulations, including the ACA, will remain in their current form. There can be no assurances that any potential changes to the laws and regulations governing health care would not have a material adverse financial effect on the Obligated Group. Therefore, the following discussion should be read with the understanding that significant changes could occur in the foreseeable future in many of the statutory and regulatory matters discussed.

The Affordable Care Act (ACA)

The ACA was enacted in 2010 and was intended to address disparities in access, cost, quality and delivery of health care to United States residents. As described below, the future of the ACA is uncertain. Portions of the ACA already have been limited and nullified as a result of legislative amendments and judicial interpretations and future actions may further change its impact. The uncertainties regarding the implementation of the ACA create unpredictability for the strategic and business planning efforts of health care providers, which in itself constitutes a risk.

Nevertheless, the ACA continues to impact the delivery of health care services, the financing of health care costs, the reimbursement of health care providers and the legal obligations of health insurers, providers, employers and consumers. The ACA also has required, and continues to require, the promulgation of substantial regulations with significant effects on the health care industry and third-party payers.

One of the primary goals of the ACA was to provide or make available, or subsidize the premium costs of, health care insurance for otherwise uninsured (or underinsured) consumers who fall below certain income levels. The ACA sought to achieve that objective by a number of means, including: creating state organized insurance markets in which individuals and small employers could purchase health care insurance; providing income-based subsidies for premium costs to individuals and families;

mandating that individual consumers obtain and certain employers provide a minimum level of health care insurance; establishing insurance reforms, such as prohibiting denials of coverage for pre-existing conditions; and expanding existing public programs, such as Medicaid.

The Trump administration reduced the open enrollment period to purchase health insurance under the ACA for calendar year 2018 to a 45-day period instead of the 90-day open enrollment period in effect for prior years. The ACA also established an excise tax on certain high-cost employment based health plans. The tax originally was scheduled to take effect in 2018 but subsequent legislation has delayed its implementation until 2020.

High deductible health plans have become more common in recent years, and the ACA has encouraged the increase in high deductible health plans as the health care exchanges include a variety of plans, several of which offer lower monthly premiums in return for higher deductibles. High deductible health plans may contribute to lower inpatient volumes as patients may forgo or choose less expensive medical treatment to avoid having to pay costs under the deductible. There is also a potential concern that some patients with high deductible health plans will not be able to pay their share of medical bills under the deductible. This factor may increase bad debt expense for health care providers. Employers have implemented a variety of strategies to offset high deductibles under these plans, including offering supplemental voluntary insurance products, such as per diem hospitalization, critical illness or cancer insurance policies and/or enabling employees to contribute to health savings accounts. There are no assurances these strategies will continue.

The published legislative proposals to repeal or replace the ACA have to date focused largely on reorganizing the health exchange system created under the ACA and reorganizing the individual, corporate and public funding obligations associated with health coverage enrollment. Changes to the health insurance market, including enrollment restrictions and access to coverage, benefit design, coverage terms and reimbursement, all present financial risk to hospitals.

The ACA includes a myriad of new programs and initiatives and changes to existing programs, policies, practices and laws. Some of the specific provisions of the ACA that may affect hospital operations and revenues, including those of the Obligated Group Members, include the following:

- Reductions in annual inflation adjustments to Medicare payments.
- Expansion of many state Medicaid programs to broader populations.
- Reductions in Medicare payments to hospitals found to have an excess readmissions ratio for certain conditions. Medicare inpatient payments to those hospitals with excess readmissions compared to the national average for certain patient conditions are reduced based on a risk-adjusted measure of the hospital's readmissions performance. The maximum penalty is 3%.
- Implementation of program integrity initiations, including provider enrollment screening, enhanced oversight periods for new providers and suppliers, and enrollment moratoria in sectors identified as being at elevated risk of fraud in all public programs. The ACA also requires a broad range of providers, suppliers and physicians are required to adopt a compliance and ethics program. While the government has already increased its enforcement efforts, failure to implement certain core compliance program features may give rise to liability if an organization fails to prevent or identify improper federal health care program claims and payments.
- Reduction in Medicare payments to certain hospitals to cover conditions acquired during hospitalization and the prohibition of federal payments to states for Medicaid services related to hospital-acquired conditions.

- Implementation of a Medicare value-based purchasing program in which a percentage of Medicare inpatient payments to hospitals are tied to a hospital's performance and reporting of established quality measures.
- Reductions in federal Medicare and state Medicaid payments to hospitals that serve a disproportionate share of low-income patients, known as disproportionate share hospitals ("*DSH*") payments. On September 13, 2013, CMS issued a final rule confirming its methodology, which accounted for statewide reductions in uninsured and uncompensated care, and reduced Medicaid DSH allotments to each state under the ACA. Under this final rule, the federal share of Medicaid DSH payments was reduced by $500 million in fiscal year 2014 and $600 million in fiscal year 2015. Such reductions have been delayed several times, including under the Medicare Access and CHIP Reauthorization Act ("*MACRA*"), which extended cuts through fiscal year 2025. Most recently, the Bipartisan Budget Act of 2018 has delayed the reductions until fiscal year 2019, which October 1, 2018, but increased the magnitude of the cuts to $4 billion in fiscal year 2019 and $8 billion in the years thereafter.
- Implementation of changes applicable to charitable hospitals exempt under Section 501(c)(3) of the Code. The ACA: (i) imposed new requirements for 501(c)(3) hospitals and an excise tax for failures to meet certain of those requirements; (ii) required mandatory IRS review of the hospitals' entitlement to exemption; (iii) set new reporting requirements, including information related to community health needs assessments and audited financial statements; (iv) required hospitals to adopt and publicize a financial assistance policy that includes various specific provisions, limit charges to patients who qualify for financial assistance to the lowest amount charged to insured patients, and control the billing and collection processes to ensure that no extraordinary collection actions are taken against a patient before reasonable efforts are made to determine whether such patient qualifies for financial assistance; and (v) imposed further reporting requirements on the Secretary of the Treasury regarding charity care levels. Failure to satisfy these requirements may result in the imposition of fines and the loss of tax-exempt status.

Challenges to the ACA

The future of the ACA is uncertain. President Trump and certain Congressional leaders have included a repeal of all or a portion of the ACA in their respective legislative agendas, and Congress has introduced several bills to repeal and replace the ACA. While no full repeal bills have passed both chambers of Congress, as described below, the Tax Cuts and Jobs Act repeals a key provision of the ACA known as the "individual mandate" beginning in 2019. It is not possible to predict the effect of the individual mandate repeal on the Obligated Group or the health care industry generally. It is also not possible to predict whether the ACA will be further modified in any significant respect or wholly repealed. However, a unified administration and majority in both chambers of Congress could enact legislation, withdraw, modify or promulgate rules, regulations and policies, or make determinations affecting the health care industry and the Obligated Group Members, any of which individually or collectively could have a material adverse effect on the Obligated Group. In particular, any legal, legislative or executive action that reduces federal health care program spending, increases the number of individuals without health insurance, reduces the number of people seeking health care, or otherwise significantly alters the health care delivery system or insurance markets could have a material adverse effect on the Obligated Group.

In September 2017, the Congressional Budget Office ("*CBO*") estimated that from federal fiscal year 2018 to 2027, the number of consumers under the age of 65 with insurance coverage would grow from 242 million to 247 million but the number of uninsured consumers would also grow, from 30

million to 31 million, keeping the uninsured share of the under-65 population stable at 11%. However, a subsequent CBO report estimates that the number of people with health insurance would decrease by 4 million people in 2019 and 13 million people in 2027 with the repeal of the individual mandate. To the extent all or any of the provisions of the ACA are retained and produce the expected result, an increase in utilization of health care services by those who are currently avoiding or rationing their health care can be expected and bad debt expenses may be reduced. Associated with increased utilization will be increased variable and fixed costs of providing health care services, which may or may not be offset by increased revenues. Any benefit of an expanded Medicaid patient base will not be realized for health care providers operating in states that have chosen not to expand Medicaid. Pennsylvania has expanded Medicaid in accordance with the ACA.

Medicare Reimbursement

The Obligated Group Members depend significantly on Medicare as a source of revenue. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION – AHN Source of Revenues" hereto. Because of this dependence, additional Medicare payment reductions may have a material adverse effect on the Obligated Group. Hospitals generally are paid for inpatient and outpatient services provided to Medicare beneficiaries under a prospective payment system ("*PPS*"). Under PPS, a fixed payment is made to hospitals based on the average cost of care incurred in providing various kinds of services. Under a prospective payment system, the amount paid to the provider for an episode of care is established by federal regulation and is not related to the provider's charges or costs of providing that care. Presently, inpatient and outpatient services, skilled nursing care, and home health care are paid on the basis of a prospective payment system.

Hospital Inpatient Reimbursement

Under PPS, acute care hospitals generally are paid for inpatient services provided to Medicare beneficiaries based on established categories of treatments or conditions known as diagnosis related groups ("*DRGs*"). Hospitals also may receive outlier payments for extraordinarily costly cases that exceed a federally established condition-based threshold. DRG rates and outlier thresholds are subject to adjustment by CMS. There is no guarantee that hospital inpatient reimbursement will cover actual costs of providing services to Medicare patients. The American Taxpayer Relief Act of 2012 (the "*ATRA*") required CMS to made adjustments to the standardized DRG payment rates to recoup the $11 billion CMS claims resulted from documentation and coding changes that did not reflect actual changes in the complexity of the cases. CMS originally intended to reduce the standardized amount update percentage by 0.8% each year through fiscal year 2017. Ultimately, CMS applied a 1.5% reduction in fiscal year 2017 to recoup the remainder of the $11 billion. MACRA requires a gradual 0.5% positive adjustment for each fiscal year from 2018 through 2023. While the fiscal year 2018 adjustment was adjusted to 0.4588% by the 21st Century Cures Act, CMS has recently proposed such a 0.5% positive adjustment for fiscal year 2019.

Hospital Outpatient Reimbursement

Hospitals generally are paid for outpatient services provided to Medicare beneficiaries based on established categories of treatments or conditions known as ambulatory payment classifications ("*APC*"). The actual cost of care, including capital costs, may be more or less than the reimbursements based on APCs. There is no guarantee that hospital outpatient reimbursement will cover actual costs of providing services to Medicare patients.

Bipartisan Budget Act of 2015

The Bipartisan Budget Act of 2015 (the "*BBA 2015*") changed the reimbursement methodology for items and services furnished in certain off-campus hospital outpatient departments ("*HOPDs*"). Beginning January 1, 2017, off-campus HOPDs established on or after November 2, 2015 ("non-excepted HOPDs") are no longer eligible for payment under the hospital outpatient prospective payment system ("*OPPS*") for non-emergency services. Instead, non-emergency services performed at these facilities will be paid under the Medicare Physician Fee Schedule ("*PFS*") at a set of PFS payment rates that are specific to hospitals. Effective January 1, 2018, these hospital specific PFS rates are based on 40% of the comparable OPPS rate. For calendar year 2019, pursuant to the OPPS proposed rule issued on July 25, 2018, CMS proposes to extend this reduced rate through calendar year 2019. CMS also proposes to extend the reduced rate applicable to non-excepted off-campus HOPDs to all off-campus HOPDs. In addition, CMS has proposed that if an excepted off-campus HOPD furnishes any new type of item or service (which it did not furnish and bill for during the period November 1, 2014 through November 1, 2015, and which is identified in a CMS list of 19 families of clinic services), such items or services would be paid at the reduced rate applicable to non-excepted off-campus HOPDs. The reimbursement changes implemented under Section 603 and the recent CMS reimbursement proposals for calendar year 2019 threaten to further reduce revenues to hospital off campus HOPDs.

Section 340B Drug Pricing Program

Hospitals that serve a high percentage of low income patients are eligible for reduced pricing on certain covered outpatient drugs through the 340B program ("*340B Program*"). This program contributed materially to the Obligated Group's operating income in 2017. President Trump's 2018 budget proposed reforms to the 340B Program. In addition to imposing unspecified reporting requirements on the use of 340B proceeds, the President's budget would further change hospitals' Medicare reimbursement for 340B drugs by requiring a minimum level of charity care for hospitals to receive a payment adjustment related to uncompensated care. No details or numbers were provided as part of the 2018 budget proposal.

CMS's calendar year 2018 final OPPS rule, issued on November 13, 2017, substantially reduced Medicare Part B reimbursement for 340B Program drugs paid to hospitals and ASCs. Beginning January 1, 2018, CMS reimbursement for certain separately payable drugs or biologicals that are acquired through the 340B Program by a hospital paid under the OPPS (and not excepted from the payment adjustment policy) is the average sales price ("*ASP*") of the drug or biological minus 22.5 percent. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – FINANCIAL AND OPERATING INFORMATION – Management's Discussion and Analysis – June 30, 2018 compared to June 30, 2017." In calendar year 2018, rural sole community hospitals, children's hospitals, and PPS-exempt cancer hospitals are excepted from the 340B payment adjustment. In the calendar year 2019 OPPS proposed rule, CMS is proposing to extend the policy to pay ASP minus 22.5% for 340B-acquired drugs when those drugs are furnished by non-excepted off campus HOPDs. While the previous OPPS rule implementing the payment reduction is the subject of litigation, to date the Medicare Part B payment reduction remains in full force and effect. In July 2017, the American Hospital Association, Association of American Medical Colleges, and America's Essential Hospitals announced that they expect to refile in district court their lawsuit challenging the reductions for many hospitals in the 340B program, following a federal appeals court ruling dismissing the case for lack of presentment.

A decrease in reimbursement for 340B Program drugs or loss of discount procurement opportunities could have an adverse effect on certain members of the Obligated Group. Congress is considering further changes to the 340B Program and the regulatory environment for the 340B Program remains uncertain. Any reduction in eligibility for, or other further changes to, the 340B Program generally could have a materially adverse effect on the Obligated Group.

Medical Education Payments

Medicare currently pays for a portion of the costs of medical education at hospitals that have teaching programs. These payments are vulnerable to reduction or elimination. The direct and indirect medical education reimbursement programs have repeatedly emerged as targets in the legislative efforts to reduce the federal budget deficit. There can be no assurance that medical education payments will remain at current levels.

Medicare DSH Payments

The Obligated Group includes two hospitals currently considered DSH hospitals: West Penn Hospital and Saint Vincent Hospital. The Medicare DSH payment is a percentage add-on to the standardized payment per discharge under the Medicare PPS for the operating costs of inpatient hospital services. There are two methods for determining qualification for Medicare DSH payments and the amount of payments. The first, most common, method is based on a hospitals disproportionate patient percentage, which considers the proportion of patients eligible for Medicaid but not Medicare Part A and the proportion of Medicare Part A patients who are also entitled to supplemental security ("*SSI*") benefits. The second method is based on a hospital's percentage of revenues attributable to State and local funding (excluding Medicaid and Medicare revenues) for low-income patient care.

The ACA provides for a reduction in Medicare DSH payments, which took effect on October 1, 2013. Instead of the amount that would otherwise be paid as the DSH adjustment, hospitals receive 25% of the amount they would have previously received. The remainder, equal to 75% of what otherwise would have been paid as Medicare DSH, becomes available for an uncompensated care payment after the amount is reduced for changes in the percentage of individuals who are uninsured. CMS is currently using uncompensated care costs reported on Worksheet S-10 in combination with insured low income days (the sum of Medicaid days and Medicare SSI days) to develop hospital uncompensated care payments. Each hospital eligible for Medicare DSH payments receives an uncompensated care payment based on its relative share of total uncompensated care costs and low income days reported by Medicare DSHs.

Medicare DSH payments will decrease as the number of uninsured decreases. Congress may make changes to the budget in the future and CMS may change its methodology for calculating uncompensated care costs and other elements of the DSH payment in the future. There can be no assurance that the current level of Medicare DSH reimbursement will continue in the future.

Value-Based Payments

The ACA has increased the use of value based payments to incentivize providers to control costs and provide better quality care. These models can seek both vertical and longitudinal alignment of health care providers and payers and can require providers to share in upside and/or downside financial risk. Current models include bundled payment models and accountable care/population health models. Bundled payment models establish a budgeted payment to cover the entire cost of an episode of care (e.g., a hip or knee replacement). Examples of bundled payment models include, among others, Bundled Payments for Care Improvement ("*BPCI*") Initiative models 2, 3 and 4 (set to expire September 30, 2018); BPCI Advanced; Comprehensive Care for Joint Replacement; and the Oncology Care Model. Population health models incentivize providers to maintain or improve quality while reducing cost through shared savings or shared loss arrangements. Population health models usually involve a form of capitated payment, which is a per patient payment for the cost of care over a set period of time. Population health models include the Medicare Shared Savings Program ("*MSSP*") and Next Generation Accountable Care Organization ("*ACO*") model.

CMS has encouraged the use of alternative payment models and it is generally anticipated that CMS will continue to experiment with additional alternative payment models. Additionally, private payers are moving toward value-based purchasing and alternative payment models. Value-based and other alternative payment model initiatives tying health care provider reimbursement to quality, efficiency, or patient outcome measures will increasingly affect health care provider operations and may negatively impact revenues if the provider is unable to meet targeted measures.

In 2015, CMS set a goal of tying 50% of traditional Medicare payments to quality or value through alternative payment models such as accountable care organizations, bundled payment arrangements or integrated care demonstrations by the end of 2018. While CMS has since stated that it is no longer aiming for these Obama-era goals, it continues to propose new payment models and evaluate the impact of existing ones, which has led to some confusion in the industry.

Physician Payments

Payment for physician fees is covered under Medicare Part B. Under Part B, physician services are reimbursed in an amount equal to the lesser of actual charges or the amount determined under a fee schedule known as the "resource-based relative value scale" ("*RBRVS*"). RBRVS sets a relative value for each physician service; that value is then multiplied by a geographic adjustment factor and a nationally-uniform conversion factor to determine the amount Medicare will pay for each service.

In April 2015, MACRA established the Quality Payment Program ("*QPP*"), which repealed the sustainable growth rate methodology for updates to the Medicare PFS, changed the way that Medicare rewards clinicians for services, streamlined existing quality and value programs, and provided for bonus payments to physicians and other clinicians for participating in certain payment models. The QPP provides incentive payments to eligible clinicians participating in Medicare Part B through two tracks: the Merit-based Incentive Payment System ("*MIPS*") and Advanced Alternative Payment Models ("*Advanced APMs*"). In 2016, CMS released final regulations implementing the QPP. The PFS was scheduled to increase by 0.5% annually from July 2015 through 2018. The Bipartisan Budget Act of 2018 reduced the annual PFS increase in 2019 to 0.25%. The PFS will then remain at the same reimbursement level (0.0% increase) for five years (2020-2025). Beginning in 2026, the PFS will be increased either by (i) 0.25% annually for providers participating in MIPS, or (ii) 0.75% annually for providers participating in Alternative Payment Models.

MIPS, which is the "default track" under MACRA, provides eligible clinicians with an adjustment to their Medicare Part B reimbursement based on performance in four categories: Quality, Promoting Interoperability, Improvement Activities and Cost. MIPS combines into a single program aspects of CMS's prior quality and value programs, including the Physician Quality Reporting System, Medicare Electronic Health Records Incentive Program, and the Physician Value-Based Payment Modifier. MIPS eligible clinicians include physicians, physician assistants, nurse practitioners, clinical nurse specialists and certified registered nurse anesthetists. 2017 was the first MIPS performance period. CMS will score and weight the data reported for performance year 2017 and then apply a performance adjustment in the 2019 payment year.

Advanced APMs are alternative payment models ("*APMs*") that use certified electronic health record technology, provide for payment for covered professional services based on quality measures comparable to those in the quality performance category under MIPS, and either require that participating APM entities bear risk for financial losses of more than a nominal amount under the APM or be a type of Medical Home Model. Eligible clinicians who meet threshold Medicare participation levels in their Advanced APMs may be entitled to incentive payments.

The QPP and other federal delivery reform initiatives evidence a rapid volume-value shift within Medicare and could present challenges for certain of the Obligated Group Members and the employed or contracted clinicians with whom the Obligated Group Members partner to deliver care. The new quality reporting programs may negatively impact the reimbursement amounts received by the Obligated Group for the cost of providing physician services.

Current or new legislation that reduces Medicare payments could adversely affect the Obligated Group. There is no assurance that the Obligated Group will be paid amounts that will reflect adequately its costs incurred in providing inpatient hospital services to Medicare beneficiaries, as well as any changes in the cost of providing health care or in the cost of health care technology being made available to Medicare beneficiaries. The ultimate effect on the Obligated Group will depend on its ability to control costs involved in providing inpatient hospital services.

Medicare Trust Funds

Two trust funds are maintained as part of the Medicare Program. Hospital Insurance ("HI") or Medicare Part A, helps to pay for hospital, home health, skilled nursing facility, and hospice care for the aged and disabled and is financed primarily by payroll taxes paid by workers and employers. The Medicare Board of Trustees' annual report to Congress in June 2018 indicated that the HI Trust Fund is not financed adequately and is projected to be exhausted in 2026. The other trust fund and various other components of the Medicare Program also have significant funding challenges. The trustees recommended that Congress and the executive branch work closely together with a sense of urgency to address the depletion of the HI Trust Fund and the projected growth in hospital and other expenditures. Accordingly, it is likely that statutory and regulatory attempts to contain increases in Medicare costs will continue in the future.

Medicaid Reimbursement

Payments made to health care providers under the Medicaid program are subject to changes as a result of federal or state legislative and administrative actions, including further changes in the methods for calculating payments, the amount of payments that will be made for covered services and the types of services that will be covered under the program. Such changes have occurred in the past and may continue to occur in the future, particularly in response to federal and state budgetary constraints coupled with increased costs for covered services.

Hospitals participating in the Medicaid program are subject to numerous requirements and regulations under the program. Failure to remain in compliance with any program requirements may subject the Medicaid provider to civil and/or criminal penalties, including fines and suspension or expulsion from the program, preventing the provider from receiving any funds under the Medicaid program. Noncompliance with Medicaid requirements, and suspension or exclusion from the Medicaid program, can also be a basis for mandatory or permissive suspension or exclusion from the Medicare program.

Significant changes have been and may be made in the Medicaid program which could have a material adverse effect on the Obligated Group. For example, under Medicaid, the federal government provides limited funding to states that have medical assistance programs that meet federal standards, and the ACA provides significantly enhanced federal funding for states to expand their Medicaid program to virtually all non-elderly, non-disabled adults with incomes up to 138% of the federal poverty level. Attempts to balance or reduce the federal and state budgets by decreasing funding of Medicaid may negatively impact spending for Medicaid and other state health care programs spending. Health care providers have been affected significantly in the last several years by changes to federal and state health

care laws and regulations, particularly those pertaining to Medicaid. The purpose of much of this statutory and regulatory activity has been to contain the rate of increase in health care costs, particularly costs paid under the Medicaid program. Diverse and complex mechanisms to limit the amount of money paid to health care providers under the Medicaid program have been enacted, and may have a material adverse effect on the Obligated Group.

State Medicaid programs often pay hospitals and other health care providers at levels that are substantially below the actual cost of the care provided. Medicaid is jointly funded by states and the federal government, and adverse economic conditions that reduce state revenues or changes to the federal government's methodology for funding state Medicaid programs may result in lower funding levels and/or payment delays. This could have a material adverse effect on the Obligated Group.

Children's Health Insurance Program

The Children's Health Insurance Program ("*CHIP*") is a federally funded insurance program for families that are financially ineligible for Medicaid, but cannot afford commercial health insurance. CMS administers CHIP, but each state creates its own program based upon minimum federal guidelines. CHIP insurance is provided through private health plans contracting with the state. Each state must periodically submit its CHIP plan to CMS for review to determine if it meets the federal requirements. If it does not meet the federal requirements, a state can lose its federal funding for the program.

From time to time, Congress and/or the President may seek to expand, reduce or fail to authorize CHIP. The ACA authorized an extension of the CHIP program through September 30, 2015. MACRA extended the CHIP program through September 30, 2017. President Trump signed a six-year reauthorization of CHIP into law on January 22, 2018. On February 9, 2018, Congress voted to extend CHIP for an additional four years, effectively extending CHIP through 2027.

Pennsylvania Medicaid Program

The Pennsylvania Department of Human Services ("*PADHS*") administers the Medicaid program in the Commonwealth.

In July 2010, the Medical Assistance Payment Modernization Act (Act 49) ("*Act 49*") was enacted. Act 49 was designed to address the fact that Medical Assistance has historically paid low rates to Pennsylvania hospitals, about 75 cents for each dollar a hospital spent on inpatient care and about 54 cents for each dollar spent on outpatient care. Because Medical Assistance has not paid adequate rates, other health insurers were left to make up the shortfall left by Medical Assistance's lower payment rates, having the effect of creating a hidden tax on citizens through higher insurance premiums.

Act 49 modernized Pennsylvania's inpatient fee for service hospital payment system by establishing a uniform base rate for all hospitals using the then-current cost information, and makes adjustments for differences in regional labor costs, teaching programs, and Medical Assistance volume. Act 49 also establishes enhanced hospital payments through the state's Medical Assistance managed care program, and secures additional matching Medicaid funds through the establishment of the Quality Care Assessment ("*QCA*"). The QCA is a tax on hospital net patient revenues that allows the state to access additional federal dollars. Act 40 of 2018, enacted on June 22, 2018, reauthorized the QCA through June 30, 2023 and changed the single rate on net inpatient revenue to a bifurcated rate split between net inpatient revenue and net outpatient revenue. Act 49 also replaced the current clinical classification system with a new clinical classification system (APR-DRG) in which payments more accurately reflect the levels of service and patient needs unique to Medical Assistance patients. For fiscal year 2019, the

inpatient rate is 2.98% and the outpatient rate is 1.55%. For fiscal years 2020 through 2023, the inpatient and outpatient rates increase to 3.32% and 1.73% respectively.

Pennsylvania's Medicaid Plan ("*HealthChoices*") requires Medicaid recipients in certain regions of the Commonwealth to enroll in managed care plans. Medicaid recipients receive physical health services through one managed care organization and behavioral health services through another managed care organization. HealthChoices' programs attempt to negotiate lower fee schedules with their contracted health care providers. There can be no assurance that the Obligated Group Members will continue to be successful in contracting with the assigned managed care organizations or that the reimbursements from these managed care organizations will be sufficient to cover the costs of delivering care to Pennsylvania's Medicaid recipients going forward. One of Highmark's affiliates is a Medicaid plan.

Medicare/Medicaid Conditions of Participation

Certain health care facilities must comply with standards called "*Conditions of Participation*" in order to be eligible for Medicare and Medicaid reimbursement. Under Medicare rules, hospitals accredited by an approved accrediting organization (such as The Joint Commission) are deemed to meet most of the Conditions of Participation. However, CMS may request that the state agency responsible for licensing hospitals, on behalf of CMS, conduct a "sample validation survey" of a hospital to determine whether it is complying with the Medicare or Medicaid Conditions of Participation. Failure to maintain The Joint Commission accreditation or to otherwise comply with the Conditions of Participation could have a material adverse effect on the Obligated Group.

Audits, Fines, Withholds and Enforcement Actions

The DOJ, the Federal Bureau of Investigation and the Office of the Inspector General ("*OIG*") of the U.S. Department of Health and Human Services ("*DHHS*") have been conducting investigations and audits of the billing practices of many health care providers. The Obligated Group Members may be required to undergo such audits by one or more of these agencies and may be required to make payments to resolve any such audits. It is possible that any such payments may be substantial and could have a material adverse effect on the Obligated Group.

In addition, the Health Insurance Portability and Accountability Act of 1996 ("*HIPAA*") also added provisions that prohibit certain types of manipulative Medicare billing practices. These include improperly coding (for billing purposes) services rendered in order to claim a higher level of reimbursement and billing for the provision of services or items that were not medically necessary. HIPAA also increases the legal risk of provider billing and increases the risk that a Medicare provider will be the subject of a fraud investigation.

The federal Medicaid Integrity Program was created by the Deficit Reduction Act in 2005. The Medicaid Integrity Program was the first federal program established to combat fraud and abuse in the state Medicaid programs. Congress determined a federal program was necessary due to the substantial variations in state Medicaid enforcement efforts. The Medicaid Integrity Program's enforcement efforts support existing state Medicaid Fraud Control Units. Federal Medicaid Integrity Contractors ("*MICs*") are classified into Review MICs, Audit MICs and Educational MICs. Review MICs perform review audits generally to determine trends and patterns of aberrant Medicaid billing practices through data mining. Audit MICs perform post-payment reviews of individual providers through desk and field audits. The Educational MICs are responsible for developing and carrying out a variety of education activities to increase and improve Medicaid enforcement efforts by state government. Once a Medicaid overpayment is identified, the state has one year to recover or attempt to recover the overpayment from the provider

before adjustment is made in the federal payment to the state on account of such overpayment; *provided*, *however*, in the case of fraud, if the state is unable to recover the overpayment from the provider within the one year period because there has not been a final determination of the amount of the overpayment under an administrative or judicial process (as applicable), including as a result of judgment being under appeal, no adjustment shall be made in the federal payment to the state before the date that is 30 days after the final judgment is made.

Medicare and Medicaid audits may result in reduced reimbursement or repayment obligations related to past alleged overpayments and may also delay Medicare or Medicaid payments to providers pending resolution of the appeals process. The ACA explicitly gives DHHS the authority to suspend Medicare and Medicaid payments to a provider or supplier during a pending investigation of fraud. The ACA also amended certain provisions of the FCA (as defined below) to include retention of overpayments as a false claim. The 2016 Medicare Overpayments Final Rule confirms that a provider or supplier must report and return an overpayment by the later of 60 days after the overpayment was identified, or the date the corresponding cost report is due, if applicable. The provider or supplier is also required to describe in writing the reason for the overpayment. Overpayments must be reported and returned only if a provider or supplier identifies the overpayment within six years of the date the overpayment was received.

RAC Audits

CMS has implemented a Recovery Audit Contractor ("*RAC*") program on a nationwide basis pursuant to which CMS contracts with private contractors to conduct pre- and post-payment reviews to detect and correct improper payments in the fee-for-service Medicare program. The ACA expands the RAC program's scope to include managed Medicare plans and Medicaid claims. CMS also employs contractors to perform post-payment audits of Medicaid claims and identify overpayments. These programs tend to result in retroactively reduced payment and higher administration costs to hospitals.

Exclusions from Medicare or Medicaid Participation

The government must exclude from Medicare/Medicaid program participation a health care provider that is convicted of a criminal offense relating to the delivery of any item or service reimbursed under Medicare or a state health care program, any criminal offense relating to patient neglect or abuse in connection with the delivery of health care, fraud against any federal, state or locally financed health care program or an offense relating to the illegal manufacture, distribution, prescription or dispensing of a controlled substance. The government also may exclude individuals or entities under certain other circumstances, such as an unrelated conviction of fraud or other financial misconduct relating either to the delivery of health care in general or to participation in a federal, state or local government program. Exclusion from the Medicare/Medicaid program means that a health care provider would be decertified and no program payments can be made. Any exclusion of an Obligated Group Member that is a health care provider could result in a material adverse effect on the Obligated Group.

Administrative Enforcement

Administrative regulations may require less proof of a violation than do criminal laws and thus, health care providers may have a higher risk of imposition of monetary penalties as a result of an administrative enforcement action.

Enforcement Activity

Enforcement activity against health care providers has increased and enforcement authorities have adopted aggressive approaches. In the current regulatory climate, it is anticipated that many hospitals and physician groups will be subject to an audit, investigation or other enforcement action regarding the health care fraud laws mentioned above.

Enforcement actions may pertain to not only deliberate violations, but also frequently relate to violations resulting from actions of which management is unaware, from mistakes or from circumstances where the individual participants do not know that their conduct is in violation of law. Enforcement actions may extend to conduct that occurred in the past. The government may seek a wide array of penalties, including withholding essential payments under the Medicare or Medicaid programs or exclusion from those programs.

Enforcement authorities are often in a position to compel settlements by providers charged with or being investigated for false claims violations by withholding or threatening to withhold Medicare, Medicaid and/or similar payments and/or by instituting criminal action. In addition, the cost of defending such an action, the time and management attention consumed, and the facts of a case may dictate settlement. Therefore, regardless of the merits of a particular case, a provider could experience materially adverse settlement costs, as well as materially adverse costs associated with implementation of any settlement agreement. Prolonged and publicized investigations could be damaging to the reputation and business of a provider, regardless of outcome.

Certain acts or transactions may result in violation or alleged violation of a number of the federal health care fraud laws described below and therefore, penalties or settlement amounts often are compounded. Generally, these risks are not covered by insurance. Enforcement actions may involve multiple providers in a health system, as the government often extends enforcement actions regarding health care fraud to other providers in the same organization. Therefore, Medicare fraud related risks identified as being materially adverse as to a provider could have a materially adverse effect on a health system taken as a whole.

Review of Outlier Payments

CMS is reviewing health care providers that are receiving large proportions of their Medicare revenues from outlier payments. Health care providers found to have obtained inappropriately high outlier payments will be subject to further investigation by the CMS Program Integrity Unit and potentially the OIG.

Patient Records and Confidentiality

HIPAA, as amended by the HITECH Act (discussed below), protects the privacy and security of individually identifiable health information through regulations on Standards for Privacy of Individually Identifiable Health Information (the Privacy Rule), Security Standards for the Protection of Electronic Protected Health Information (the Security Rule), Standards for Notification in the Case of Breach of Unsecured Protected Health Information comprising (the Breach Notification Rule), and Rules for Compliance and Investigations, Impositions of Civil Monetary Penalties, and Procedures for Hearings (the Enforcement Rule), (the Privacy Rule, the Security Rules, the Breach Notification Rule, and the Enforcement Rule are collectively referred to as the "*HIPAA Rules*").

The American Recovery and Reinvestment Act of 2009 ("*ARRA*") includes several provisions that were intended to provide financial relief to the health care sector, including a requirement that states

promptly reimburse health care providers under the Medicaid system and subsidiary to the recently unemployed for health care insurance premium costs. The Health Information Technology for Economic and Clinical Health Act (the "*HITECH Act*"), enacted as part of the ARRA, established a framework for the implementation of a nationally-based information technology platform, including incentive payments that commenced in 2011 to eligible health care providers to encourage implementation of health information technology and "meaningful use" of certified electronic health record technology ("*CEHRT*").

The HIPAA Rules, developed through successive waves of the administrative rulemaking process, are extensive and complex. Violations of HIPAA can result in civil monetary penalties and criminal penalties. Provisions of the HITECH Act amend HIPAA by (i) increasing the maximum civil monetary penalties for violations of HIPAA, (ii) granting limited enforcement authority of HIPAA to state attorneys general, (iii) extending the reach of HIPAA beyond "covered entities," to include "business associates" of covered entities, (iv) imposing a breach notification requirement on HIPAA covered entities and business associates, (v) limiting certain uses and disclosures of individually identifiable health information, (vi) restricting covered entities' marketing communications, and (vii) permitting the imposition of civil monetary penalties for a HIPAA violation even if an entity did not know and would not, by exercising reasonable diligence, have known of a violation. Civil monetary penalties for violations of HIPAA now range from $100 to a maximum $55,910 per violation and/or imprisonment, depending on the violator's degree of intent and the extent of the harm resulting from the violation. The maximum civil monetary penalty for violations of the same HIPAA provision in a calendar year cannot exceed $1,677,299. A state attorney general may bring civil action to protect the interests of one or more of residents of the state who has or is threatened or adversely affected by any person who violates HIPAA. A state attorney general may enjoin further violations by a defendant or obtain damages up to $25,000, in addition to an award of attorney fees. The HITECH Act also requires the DHHS Office for Civil Rights ("*OCR*") to conduct periodic audits of covered entity and business associate compliance with the HIPAA Rules.

The Breach Notification Rule requires the notification of each individual whose unsecured protected health information has been, or is reasonably believed to have been accessed, acquired, used, or disclosed as a result of such breach. If a breach involves more than 500 residents prominent media outlets must be notified. In addition, the Secretary of DHHS must be notified promptly following the discovery of a breach involving 500 or more individuals and annually for breaches involving fewer than 500 individuals. The reporting of such breaches may lead to an investigation by OCR during which OCR could discover other HIPAA violations that may result in fines other penalties.

In recent years, OCR has enhanced its enforcement efforts that include civil monetary penalties and settlement agreements with some related payments reaching into the multimillion dollar range. Further, OCR is initiating an auditing process to evaluate compliance with HIPAA. It is expected that the audits will expose many health care providers and their vendors to enforcement actions under HIPAA.

Security Breaches and Unauthorized Releases of Personal Information

Federal, state and local authorities are increasingly focused on the importance of protecting the confidentiality of individuals' personal information, including patient health information. In addition to the data breach disclosure requirements of HIPAA, many states have enacted laws requiring businesses to notify individuals of security breaches that result in the unauthorized release of personal information. In some states, notification requirements may be triggered even where information has not been used or disclosed, but rather has been inappropriately accessed. State consumer protection laws may also provide the basis for legal action for privacy and security breaches and frequently, unlike HIPAA, authorize a private right of action. In particular, the public nature of security breaches exposes health organizations

to increased risk of individual or class action lawsuits from patients or other affected persons, in addition to government enforcement. Failure to comply with restrictions on patient privacy or to maintain robust information security safeguards, including taking steps to ensure that contractors who have access to sensitive patient information maintain the confidentiality of such information, could consequently damage a health care provider's reputation and materially adversely affect business operations.

Civil and Criminal Fraud and Abuse Laws and Enforcement

The federal Civil Monetary Penalties Law ("*CMP Law*") provides for administrative sanctions against health care providers for a broad range of billing and other abuses. For example, penalties may be imposed for the knowing presentation of claims that are (i) incorrectly coded for payment, (ii) for services that are known to be medically unnecessary, (iii) for services furnished by an excluded party, or (iv) otherwise false. An entity that offers remuneration to an individual that the entity knows is likely to induce the individual to receive care from a particular provider may also be fined. Under the ACA, Congress amended the CMP Law to authorize civil monetary penalties for a number of additional activities, including (i) knowingly making or using a false record or statement material to a false or fraudulent claim for payment, (ii) failing to grant the OIG timely access for audits, investigations, or evaluations, and (iii) failing to report and return a known overpayment within statutory time limits. The CMP Law authorizes imposition of civil monetary penalties, adjusted yearly for inflation, currently ranging from $20,000 to $100,000 for each item or service improperly claimed and each instance of prohibited conduct. Health care providers may be found liable under the CMP Law even when they did not have actual knowledge of the impropriety of the claim. It is sufficient that the provider "should have known" that the claim was false, and ignorance of the Medicare regulations is no defense.

False Claims Act

The federal False Claims Act ("*FCA*") makes it illegal to knowingly submit or present a false, fictitious or fraudulent claim to the federal government (*e.g.*, the Medicare or Medicaid programs) for payment or approval for payment for which the federal government provides, or reimburses at least some portion of the requested money or property. Because the term "knowingly" is defined broadly under the law to include not only actual knowledge but also deliberate ignorance or reckless disregard of the facts, the FCA can be used to punish a wide range of conduct. The ACA amended the FCA by expanding the number of activities that are subject to civil monetary penalties to include, among other things, failure to report and return known overpayments within statutory limits. FCA investigations and cases have become common in the health care field and may cover a range of activity from submission of intentionally inflated billings, to highly technical billing infractions, to allegations of inadequate care. The FCA provides for potentially severe penalties. In June 2016, the DOJ issued a rule that more than doubled civil monetary penalties under the FCA. These increases took effect on August 1, 2016 and apply to FCA violations after November 2, 2015. The penalty amounts are adjusted no later than January 15 of each year to reflect changes in the inflation rate. As of the date of this Official Statement, any person who acts in violation of the FCA is liable for a civil penalty ranging from $11,181 to $22,363 per claim, plus three times the amount of damages sustained by the government. As a result, violation or alleged violation of the FCA frequently results in settlements that require multi-million dollar payments and costly corporate integrity agreements.

The FCA also permits individuals to initiate civil actions on behalf of the government in lawsuits called "qui tam" actions. Qui tam plaintiffs, or "whistleblowers," can share in the damages recovered by the federal government or recover independently if the government does not participate. The FCA has become one of the federal government's primary weapons against health care fraud and suspected fraud. FCA violations or alleged violations could lead to settlements, fines, exclusion or reputation damage that could have a material adverse effect on a hospital and other health care providers. Some regulators and

whistleblowers have asserted that claims submitted to governmental payers that do not comply fully with regulations or guidelines come within the scope of the FCA.

In June 2016, the United States Supreme Court announced its decision in *Universal Health Services, Inc. v. United States ex rel. Escobar*, No. 15-7 (I.S. June 16, 2016). Prior to Escobar, lower courts had split on the issue of whether the FCA extended to so-called "implied certification" of compliance with laws, and whether such compliance was limited to express conditions of payment or extended to conditions of participation. The United States Supreme Court affirmed the theory of "implied certification" and rejected the distinction between conditions of payment and conditions of participation for these purposes, ruling that the relevant inquiry is whether the alleged noncompliance, if known to the government, would have in fact been material to the government's determination as to whether to pay the claim. There is considerable uncertainty as to the application of the Escobar holding, but depending on how it is interpreted by the lower courts, it could result in an expanded scope of potential FCA liability for noncompliance with applicable laws, regulations and subregulatory guidance.

Under the ACA, the FCA has been expanded to include overpayments that are discovered by a health care provider and are not promptly refunded to the applicable federal health care program, even if the claims relating to the overpayment were initially submitted without any knowledge that they were false. The 2016 Medicare Overpayments Final Rule, which took effect on March 14, 2016, requires that providers report and return identified overpayments by the later of 60 days after identification, or the date the corresponding cost report is due, if applicable. If the overpayment is not so reported and returned, it becomes an "obligation" under the FCA. This expansion of the FCA exposes hospitals and other health care providers to liability under the FCA for a considerably broader range of claims than in the past. CMS clarified that the 60-day timeframe for report and return begins when either reasonable diligence is completed (including determination of the overpayment amount) or on the day the person received credible information of a potential overpayment (if the person failed to conduct reasonable diligence and the person in fact received an overpayment). Failure to report and return overpayments as described herein may result in false claims liability. That same final rule also established a six-year lookback period, meaning overpayments must be reported and returned only if a person identifies the overpayment within six years of the date the overpayment was received.

Medicare/Medicaid Anti-Kickback Laws

The federal "Anti-Kickback Law" is a criminal statute that prohibits anyone from soliciting, receiving, offering or paying any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in return for a referral of a patient (or to induce a referral) or the ordering or recommending of the purchase (or lease) of any item or service that is paid by any federal or state health care program. The Anti-Kickback Law applies to many common health care transactions between persons and entities with which a hospital does business, including hospital-physician joint ventures, medical director agreements, physician recruitment agreements, physician office leases and other transactions. The ACA amended the Anti-Kickback Law to provide explicitly that a claim that includes items or services resulting from a violation of the Anti-Kickback Law constitutes a false or fraudulent claim for purposes of the FCA. Another amendment provides that an Anti-Kickback Law violation may be established without showing that an individual knew of the statute's proscriptions or acted with specific intent to violate the Anti-Kickback Law, but only that the conduct was generally unlawful. The new standards could significantly expand criminal and civil fraud exposure for transactions and arrangements where there is no intent to violate the Anti-Kickback Law.

The Anti-Kickback Law can be prosecuted either criminally or civilly. A criminal violation may be prosecuted as a felony, subject to a fine of up to $25,000 for each act (which may be each item or each bill sent to a federal program), imprisonment and exclusion from the Medicare and Medicaid programs,

any of which would have a significant detrimental effect on the financial stability of any health care provider. In addition, civil monetary penalties of $50,000 per item or service in noncompliance (which may be each item or each bill sent to a federal program). Increasingly, the federal government and qui tam relators are prosecuting violations of the Anti-Kickback Law under the FCA, based on the argument that claims resulting from an illegal kickback arrangement are also false claims for FCA purposes. *See* the discussion under the subheading "False Claims Act" above. The IRS has taken the position that hospitals that are in violation of the Anti-Kickback Law may also be subject to revocation of their tax-exempt status.

Medicare/Medicaid Anti-Referral Laws

The Ethics in Patient Referrals Act of 1989 ("*Stark I*"), as amended in the Omnibus Budget Reconciliation Act of 1993 and subsequently amended ("*Stark II*") (collectively, the "*Stark Law*"), prohibits the referral of Medicare patients for certain designated health services (including inpatient and outpatient hospital services, clinical laboratory services, and radiology and other imaging services) to entities with which the referring physician (or an immediate family member) has a financial relationship unless that relationship fits within an exception to the Stark Law. It also prohibits a hospital, or other provider, furnishing the designated health services from billing Medicare, or any other government health care program for services performed pursuant to a prohibited referral. The government does not need to prove that the entity knew that the referral was prohibited to establish a Stark Law violation. If certain substantive and technical requirements of an applicable exception are not satisfied, an ordinary business arrangement or contract between hospitals and physicians can violate the Stark Law, thus triggering the prohibition on referrals and billing. All providers of designated health services with physician relationships have some exposure to liability under the Stark Law.

Penalties for violation of the Stark Law include denial of payment, recoupment, refunds of amounts paid in violation of the law, exclusion from the Medicare or Medicaid program, and substantial civil monetary penalties (which are inflation-adjusted and, as of the most recent adjustment, are up to $24,253 per service, $161,692 for each arrangement or scheme intended to circumvent or to violate the statute, or $19,246 per day for false reporting or failure to report certain information required under the law). Violation of the Stark Law may also provide the basis for a claim under the FCA.

Medicare may deny payment for all services performed by a provider based on a prohibited referral, and a hospital that has billed for prohibited services is obligated to refund the amounts collected from the Medicare program or to make a self-disclosure to CMS under its Self-Referral Disclosure Protocol. As a result, even relatively minor, technical violations of the Stark Law may trigger substantial refund obligations. Moreover, where there are "knowing" violations of the Stark Law, the government may seek substantial civil monetary penalties under FCA, and in some cases, a hospital may be excluded from the Medicare and Medicaid programs. Potential repayments to CMS, settlements, fines or exclusion for a Stark Law violation or alleged violation could have a material adverse effect on a hospital and other health care providers. Increasingly, the federal government is prosecuting Stark Law violations under the FCA, based on the argument that claims resulting from an illegal referral arrangement are also false claims for FCA purposes. *See* the discussion under the subheading "False Claims Act" above. The DOJ and others have asserted that Medicaid referrals in which a non-excepted financial arrangement exists under the Stark Law also create FCA exposure, and have had some success with these arguments in certain courts.

State "Fraud" and "False Claims" Laws

Although the Stark Law only applies to Medicare, a number of states have passed similar statutes pursuant to which similar types of prohibitions are made applicable to all other health plans or third-party

payers. Pennsylvania currently has a disclosure law, Act 1988-66, that requires an osteopathic physician referring a patient for health-related services (tests, pharmaceuticals, appliances or devices) to a facility or entity in which the physician has an ownership interest to disclose that interest prior to making the referral, and to notify the patient of the patient's freedom to choose an alternate provider. Ownership interests include proprietary or beneficial interests through which the physician earns or has the potential to earn income, or which produce a direct or indirect economic benefit. The Pennsylvania General Assembly has introduced a state self-referral law in various sessions but has not yet adopted such legislation. However, should the state legislature choose to enact a state self-referral law in the future, the Obligated Group and its providers will be required to comply.

EMTALA

The Emergency Medical Treatment and Labor Act ("*EMTALA*") is a federal civil statute that requires Medicare-participating hospitals with an emergency department to conduct a medical screening examination to determine the presence or absence of an emergency medical condition and to provide treatment sufficient to stabilize such emergency medical condition before discharging or transferring the patient. A hospital that violates EMTALA is subject to civil penalties of up to $104,826 per offense and termination of its Medicare provider agreement. EMTALA also provides for a limited private right of action against hospitals, and as a result a hospital could be subject to claims for personal injury where an individual suffers harm as result of an EMTALA violation.

Over the last few years, the federal government has increased its enforcement of EMTALA. Failure to comply with the law can result in exclusion from the Medicare and/or Medicaid programs, as well as civil and criminal penalties. In addition, a hospital may be held liable to a patient who suffered injuries as a result of a violation of EMTALA and may be liable to the receiving hospital for financial losses suffered as a result of a transfer in violation of EMTALA. Substantial failure of an Obligated Group Member to meet its responsibilities under EMTALA could have a materially adversely effect on the Obligated Group. Outpatient facilities that are included as part of a hospital by virtue of a provider-based status designation are required to adhere to EMTALA's requirements, regardless of whether they are located on or away from the hospital's main campus.

Any sanctions imposed as a result of an EMTALA violation could have a material adverse effect on the Obligated Group.

Increased Enforcement Affecting Academic Research

In addition to increasing enforcement of laws governing payment and reimbursement, the federal government has also stepped up enforcement of laws and regulations governing the conduct of clinical trials at hospitals. DHHS elevated and strengthened its Office for Human Research Protections, one of the agencies with the responsibility for monitoring federally funded research. The Food and Drug Administration ("*FDA*") also has authority over the conduct of clinical trials performed in hospitals when these trials are conducted on behalf of sponsors seeking FDA approval to market the drug or device that is the subject of the research. These agencies' enforcement powers range from substantial fines and penalties to exclusion of researchers and suspension or termination of entire research programs.

Other Pennsylvania Department of Human Services Funding

As a result of the national class action tobacco settlement, PADHS has created an uncompensated care pool to provide grants to hospitals that meet certain levels of uncompensated care. PADHS began funding these grants in 2002. There can be no assurance that this resource will be available at current levels, if at all, in the future.

Additional State Regulation

Medical Care Availability and the Reduction of Error Act

In March 2002, the Commonwealth of Pennsylvania enacted the Medical Care Availability and Reduction of Error Act (the "*Mcare Act*"). The Mcare Act includes significant patient safety initiatives, professional liability tort reforms, professional liability insurance reforms, and administrative requirements that impose numerous burdens on health care providers in the Commonwealth.

Under the Mcare Act, hospitals are required to develop and implement patient safety plans, appoint patient safety officers, form patient safety committees, and engage in mandatory reporting of serious events, incidents, and infrastructure failures in the hospital. Furthermore, hospitals are required to provide written notice to patients affected by serious events. Hospitals, ambulatory surgical centers, and birth centers are subject to administrative fines of $1,000 per day for failure to comply with the patient safety requirements of the Mcare Act. The administrative provisions under the Mcare Act require physicians in the Commonwealth to report to the appropriate licensing board each time they are named in a lawsuit, and provide for additional civil penalties of up to $10,000 for violations of the Mcare Act by licensees.

The Mcare Act also eliminated the Pennsylvania Medical Professional Liability Catastrophe Loss Fund (the "*CAT Fund*") and established the Medical Care Availability and Reduction of Error Fund (the "*Mcare Fund*"). The liabilities of the CAT Fund, which were estimated at over two billion dollars, were transferred into the Mcare Fund and were to be paid through the imposition of annual assessments on health care providers in the Commonwealth until all liabilities were satisfied. The Mcare Fund provides coverage for professional liability claims in excess of a basic limit of insurance, and participation in the Mcare Fund is mandatory for licensed health care providers. The administrative and financial burdens imposed on health care providers by the Mcare Act are substantial, and there can be no assurance that compliance with the Mcare Act will not have a material adverse effect on the Obligated Group Members. Continued funding of the Mcare program is uncertain.

LITIGATION

There is no litigation of any nature pending or threatened against the Authority, the Corporation or any member of the Obligated Group at the date of this Official Statement to restrain or enjoin the issuance, sale, execution or delivery of the Bonds, or in any way contesting or affecting the validity of the Bonds or any proceedings of the Authority, the Corporation or the other Obligated Group Members taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or the security provided for the payment of the Bonds or the existing powers of the Authority, the Corporation or the other Obligated Group Members. For a discussion of pending self-disclosures affecting the Members of the Obligated Group, *see* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK – LITIGATION AND REGULATORY MATTERS AFFECTING THE SYSTEM."

TAX MATTERS

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "*Code*") and is exempt from present Commonwealth of Pennsylvania income taxation. Bond Counsel is of the further opinion that interest on the Bonds is not a specific preference item for

purposes of the federal alternative minimum tax. A complete copy of the proposed form of opinion of Bond Counsel is set forth in APPENDIX E.

To the extent the issue price of any maturity of the Bonds is less than the amount to be paid at maturity of such Bonds (excluding amounts stated to be interest and payable at least annually over the term of such Bonds), the difference constitutes "original issue discount," the accrual of which, to the extent properly allocable to each Beneficial Owner thereof, is treated as interest on the Bonds which is excluded from gross income for federal income tax purposes. For this purpose, the issue price of a particular maturity of the Bonds is the first price at which a substantial amount of such maturity of the Bonds is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). The original issue discount with respect to any maturity of the Bonds accrues daily over the term to maturity of such Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such Bonds. Beneficial Owners of the Bonds should consult their own tax advisors with respect to the tax consequences of ownership of Bonds with original issue discount, including the treatment of Beneficial Owners who do not purchase such Bonds in the original offering to the public at the first price at which a substantial amount of such Bonds is sold to the public.

Bonds purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) ("*Premium Bonds*") will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of bonds, like the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and a Beneficial Owner's basis in a Premium Bond, will be reduced by the amount of amortizable bond premium properly allocable to such Beneficial Owner. Beneficial Owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Bonds. The Authority, the Corporation, and the AHN Affiliates (as defined below) have made certain representations and covenanted to comply with certain restrictions, conditions and requirements designed to ensure that interest on the Bonds will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these covenants may result in interest on the Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the Bonds. The opinion of Bond Counsel assumes the accuracy of these representations and compliance with these covenants. Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring), or any other matters coming to Bond Counsel's attention after the date of issuance of the Bonds may adversely affect the value of, or the tax status of interest on, the Bonds. Accordingly, the opinion of Bond Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

In addition, Bond Counsel has relied, among other things, on the opinion of Ropes & Gray LLP, Counsel to the Corporation and each of West Penn Allegheny Health System, Inc., Jefferson Regional Medical Center, Saint Vincent Health Center, Alle-Kiski Medical Center, Canonsburg General Hospital, West Penn Hospital Foundation, Allegheny Singer Research Institute, Allegheny Clinic, and Saint Vincent Medical Education & Research Institute Inc. (together, the "*AHN Affiliates*") regarding the current qualification of the Corporation and each AHN Affiliate as an organization described in Section 501(c)(3) of the Code. Such opinion is subject to a number of qualifications and limitations. Bond

Counsel has also relied upon representations of the Corporation and the AHN Affiliates concerning the Corporation's and each AHN Affiliate's "unrelated trade or business" activities as defined in Section 513(a) of the Code. Neither Bond Counsel nor Ropes & Gray LLP has given any opinion or assurance concerning Section 513(a) of the Code and neither Bond Counsel nor Ropes & Gray LLP can give or has given any opinion or assurance about the future activities of the Corporation or the AHN Affiliates, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the resulting changes in enforcement thereof by the Internal Revenue Service ("*IRS*") . Failure of the Corporation or any of the AHN Affiliates to be organized and operated in accordance with the Internal Revenue Service's requirements for the maintenance of its respective status as an organization described in Section 501(c)(3) of the Code, or to operate the facilities refinanced by the Bonds in a manner that is substantially related to its respective charitable purpose under Section 513(a) of the Code, may result in interest payable with respect to the Bonds being included in federal gross income, possibly from the date of the original issuance of the Bonds.

Although Bond Counsel is of the opinion that interest on the Bonds is excluded from gross income for federal income tax purposes and is exempt from present Commonwealth of Pennsylvania income taxation, the ownership or disposition of, or the accrual or receipt of amounts treated as interest on, the Bonds may otherwise affect a Beneficial Owner's federal, state or local tax liability. The nature and extent of these other tax consequences depends upon the particular tax status of the Beneficial Owner or the Beneficial Owner's other items of income or deduction. Bond Counsel expresses no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Bonds to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent Beneficial Owners from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such legislative proposals or clarification of the Code or court decisions may also affect, perhaps significantly, the market price for, or marketability of, the Bonds. Prospective purchasers of the Bonds should consult their own tax advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation, as to which Bond Counsel is expected to express no opinion.

The opinion of Bond Counsel is based on current legal authority, covers certain matters not directly addressed by such authorities, and represents Bond Counsel's judgment as to the proper treatment of the Bonds for federal income tax purposes. It is not binding on the IRS or the courts. Furthermore, Bond Counsel cannot give and has not given any opinion or assurance about the future activities of the Authority, the Corporation or any AHN Affiliate, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The Authority, the Corporation and the AHN Affiliates have covenanted, however, to comply with the requirements of the Code, although the Authority's obligation to comply with the requirements of the Code is dependent in part upon actions of the Corporation and is contingent upon indemnification of the Authority's expenses therefor.

Bond Counsel's engagement with respect to the Bonds ends with the issuance of the Bonds, and, unless separately engaged, Bond Counsel is not obligated to defend the Authority, the Corporation or the Beneficial Owners regarding the tax-exempt status of the Bonds in the event of an audit examination by the IRS. In addition, successful defense of an audit examination by the IRS will require participation by the Authority and the Corporation, and the Authority is not obligated to incur expenses to defend an audit examination unless its expenses are paid or reimbursed by the Corporation. Under current procedures, parties other than the Authority, the Corporation and their appointed counsel, including the Beneficial Owners, would have little, if any, right to participate in the audit examination process. Moreover,

because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the Authority or the Corporation legitimately disagrees, may not be practicable. Any action of the IRS, including but not limited to selection of the Bonds for audit, or the course or result of such audit, or an audit of bonds presenting similar tax issues, may affect the market price for, or the marketability of, the Bonds, and may cause the Authority, the Corporation or Beneficial Owners to incur significant expense.

CONTINUING DISCLOSURE

In connection with the issuance of the Bonds, the Corporation will enter into a continuing disclosure agreement (the "*Continuing Disclosure Agreement"*) with Digital Assurance Certification, L.L.C., acting as dissemination agent (the "*Dissemination Agent*"). Pursuant to the Continuing Disclosure Agreement, the Corporation, for the benefit of Holders and Beneficial Owners of the Bonds, will agree to provide to the Dissemination Agent (1) certain financial information and operating data relating to the Obligated Group not later than each May 30 immediately following the end of each Fiscal Year (the "*Annual Report*"), commencing May 30, 2019 for the report relating to the Fiscal Year ending December 31, 2018, (2) not later than each May 30, August 29, November 29 and March 30 after the end of each of the Corporation's fiscal quarters (ending March 31, June 30, September 30 and December 31, respectively), commencing with the report for the fiscal quarter ending September 30, 2018, the unaudited quarterly financial statements of the Members for such fiscal quarter (a "*Quarterly Report*"), and (3) notices of the occurrence of certain enumerated events. The Annual Reports, the Quarterly Reports and the notices of enumerated events will be filed by the Dissemination Agent, on behalf of the Corporation, with the Electronic Municipal Market Access System ("*EMMA*") of the Municipal Securities Rulemaking Board. *See* APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

The Corporation has undertaken all responsibilities for any continuing disclosure to Holders of the Bonds, as described above, and the Authority shall have no liability to the Holders of the Bonds or any other Person with respect to Rule 15c2-12 (the "*Rule*") promulgated under the Securities Exchange Act of 1934 by the Securities and Exchange Commission. Additionally, the covenants described above have been made in order to assist the Underwriters in complying with the Rule.

Failure by the Corporation to comply with the provisions of the Continuing Disclosure Agreement will not constitute an event of default under the Master Indenture, the Indenture or the Loan Agreement and Holders and beneficial owners of the Bonds are limited to the remedies described in APPENDIX F – "FORM OF CONTINUING DISCLOSURE AGREEMENT." Any failure by the Corporation to comply with the provisions of the Continuing Disclosure Agreement are required to be reported in accordance with the Rule and are required to be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the Bonds in the secondary market. Consequently, any such failure may adversely affect the transferability and liquidity of the Bonds and their market price.

Prior bonds issued for the benefit of Saint Vincent Health Center ("*SVHC*") and Jefferson Regional Medical Center ("*JRMC*"), each of which is an Obligated Group Member, were subject to continuing disclosure undertakings in order to comply with the Rule (collectively, the "*Prior Undertakings*"). Certain operating and financial information required by the Prior Undertakings to be filed on or before specified dates was not timely filed or, in certain instances, did not include all required information. Although SVHC and JRMC are Obligated Group Members, pursuant to the Continuing Disclosure Agreement, the Corporation has undertaken all prospective responsibilities for continuing disclosure with respect to the Bonds, including filing information that includes or relates to other Obligated Group Members.

UNDERWRITING

Citigroup Global Markets Inc., for itself and as representative on behalf of Merrill Lynch, Pierce, Fenner & Smith Incorporated and PNC Capital Markets LLC (collectively, the "*Underwriters*"), has agreed to purchase the Bonds at a price equal to $_____ (which is the aggregate principal amount of Bonds, [plus/less] a [net] original issue [premium/discount] of $_____) pursuant to a Bond Purchase Agreement entered into by and among the Authority, the Underwriters and the Corporation (the "*Bond Purchase Agreement*"). The Bond Purchase Agreement provides that the Underwriters will purchase all of the Bonds, if any are purchased, and will receive a fee of $ _____. The obligation of the Underwriters to accept delivery of the Bonds is subject to various conditions contained in the Bond Purchase Agreement.

The Underwriters intend to offer the Bonds to the public initially at the offering prices set forth on the inside of the cover page of this Official Statement, which may subsequently change without any requirement of prior notice. The Underwriters reserve the right to join with dealers (including dealers depositing the Bonds into investment trusts) at prices lower than the initial public offering prices.

Citigroup Global Markets Inc., an underwriter of the Bonds, has entered into a retail distribution agreement with Fidelity Capital Markets, a division of National Financial Services LLC (together with its affiliates, "*Fidelity*"). Under this distribution agreement, Citigroup Global Markets Inc. may distribute municipal securities to retail investors at the original issue price through Fidelity. As part of this arrangement, Citigroup Global Markets Inc. will compensate Fidelity for its selling efforts with respect to the Bonds.

PNC Capital Markets LLC, one of the underwriters of the Bonds, may offer to sell to its affiliate, PNC Investments, LLC ("*PNCI*"), securities in PNC Capital Markets LLC's inventory for resale to PNCI's customers, including securities such as the Bonds. PNC Capital Markets LLC may share with PNCI a portion of the fee or commission paid PNC Capital Markets LLC if any Bonds are sold to customers of PNCI.

The Corporation has agreed to indemnify the Underwriters and the Authority against certain civil liabilities, including certain liabilities arising out of incorrect statements or information in this Official Statement.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Underwriters and their respective affiliates may have, from time to time, performed and may in the future perform, various investment banking services for the Authority, the Corporation and/or an affiliate of the Corporation, for which they may have received or will receive customary fees and expenses. In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority, the Corporation and/or an affiliate of the Corporation.

FINANCIAL ADVISOR

Ponder & Co. has served as financial advisor to the Corporation in connection with the offering of the Bonds. Ponder & Co. is not obligated to undertake, and has not undertaken, an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. Ponder & Co. is an independent advisory firm and is not engaged in the business of underwriting or distributing municipal securities or other public securities.

INDEPENDENT ACCOUNTANTS

The consolidated financial statements as of 2017 and 2016 and for each of the two years in the period ended December 31, 2017, included in this Official Statement, have been audited by PricewaterhouseCoopers LLP, independent accountants, as stated in their report appearing herein.

RATINGS

The Bonds have been assigned a rating of "A" (stable outlook), by S&P Global Ratings, a division of S&P Global Inc. ("*S&P*"), based upon S&P's application of group rating methodology criteria, including S&P's view of Highmark Health's group credit profile and AHN's core status to the group. The Highmark Health group credit profile includes Highmark, Highmark Health and AHN. As noted in this Official Statement, neither Highmark Health nor Highmark is obligated with respect to the Bonds and none of their respective assets or revenues are available to pay debt service on the Bonds. *See* APPENDIX A – "INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK" for a more detailed description of the Corporation and the other Obligated Group Members.

This rating reflects only the views of S&P. A rating is not a recommendation to buy, sell or hold securities. There is no assurance that the rating will remain in effect for any given period of time or that a rating will not be revised downward or withdrawn entirely by the rating agency providing the same if, in its judgment, circumstances so warrant. Any such downward revision or withdrawal of the rating for the Bonds may have an adverse effect on the market price of such Bonds.

CERTAIN RELATIONSHIPS

PNC Capital Markets LLC and PNC Bank, National Association ("*PNC Bank*") are both indirect, wholly-owned subsidiaries of PNC Financial Services Group, Inc. PNC Bank has provided debt financing to the Corporation and currently holds debt of the Corporation in the approximate amount of $225,000,000, some or all of which debt will be purchased and retired by the Corporation with the proceeds of the Bonds. Such outstanding indebtedness is on parity with other indebtedness held by other lenders under the Master Indenture, and any amounts of such debt that remain outstanding following the issuance of the Bonds will be on parity with the Bonds and will be cross defaulted with the Bonds. PNC Bank has and may have other banking and financial relationships, including credit and treasury management relationships with the Corporation. PNC Capital Markets LLC is a broker dealer, registered with the Securities and Exchange Commission, and is not a bank. It is an underwriter of the Bonds and may have other financial relationships with the Corporation.

LEGAL MATTERS

The validity of the Bonds and certain other legal matters are subject to the approving opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority. A complete copy of the proposed

form of Bond Counsel opinion is contained in APPENDIX E hereto. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Certain legal matters will be passed upon for the Authority by its counsel, Clark Hill PLC; for the Obligated Group Members by their counsel, Ropes & Gray LLP and Buchanan Ingersoll & Rooney PC; and for the Underwriters by their counsel, Hawkins Delafield & Wood LLP.

OTHER MATTERS

The Corporation has furnished all information herein relating to the Corporation. The Authority has furnished only the information included herein under the captions "INTRODUCTORY STATEMENT – The Authority," "THE AUTHORITY" and "LITIGATION" (insofar as such statement applies to the Authority). The Depository Trust Company has furnished only the information included herein under the caption "THE BONDS – Book-Entry-Only System" and APPENDIX G – INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM. Any statements herein involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact.

The foregoing descriptions of provisions of the Bonds, the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture and Obligation No. 7, the summaries of certain provisions of certain documents included in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" hereto, and all references to other materials not purported to be quoted in full, are only brief outlines of some of the provisions thereof and do not purport to summarize or describe all other provisions thereof. For a complete statement of the provisions of the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture and Obligation No. 7, reference is made to the documents in their entireties, copies of which are available for inspection at the principal corporate trust office in Pittsburgh, Pennsylvania of the Bond Trustee.

The attached Appendices A through G are integral parts of this Official Statement and should be read in their entirety together with the foregoing.

The circulation of this Official Statement has been duly authorized by the Authority and the execution, delivery and circulation of this Official Statement has been approved by the Corporation for itself and on behalf of the other Obligated Group Members.

ALLEGHENY COUNTY HOSPITAL DEVELOPMENT AUTHORITY

By: _____
Victor H. Diaz
Chairman

APPROVED:

ALLEGHENY HEALTH NETWORK

By: _____
Jeffrey T. Crudele
Chief Financial Officer and Treasurer

APPENDIX A

INFORMATION CONCERNING ALLEGHENY HEALTH NETWORK

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OVERVIEW OF ALLEGHENY HEALTH NETWORK

The following information is provided by Allegheny Health Network ("AHN") in connection with the issuance of the Bonds. Except as otherwise specified or as the context may require, all financial and statistical information is derived from internal records of AHN and refers to the results of operations of AHN on a consolidated basis (including applicable results of operations of the Non-Obligated Group, as defined below), and all references to years are to the fiscal years of AHN ending December 31.

AHN is the parent organization of a system of eight acute care hospitals (the "Hospitals") and affiliated providers (collectively, the "AHN System") in western Pennsylvania that constitutes the clinical delivery component of an integrated delivery and financing system ("IDFS"), with Highmark Health as its parent company. Highmark Health is also the parent of Highmark Inc. ("Highmark"), which together with its subsidiaries and controlled affiliates constitute the nation's third largest Blue Cross Blue Shield insurance plan (based on 2017 member revenues). The current Obligated Group Members, as defined in the forepart of this Official Statement, include AHN and 18 AHN affiliates described below under the heading "OBLIGATED GROUP." While AHN is integrated with Highmark Health and its affiliates for strategic planning, budgetary, and other purposes and shares certain common management personnel, directors, and committees (see "HIGHMARK HEALTH INTEGRATED DELIVERY SYSTEM" and "OBLIGATED GROUP - Governance"), neither Highmark Health nor Highmark is part of the Obligated Group and neither is obligated with respect to the Bonds, and none of their assets or revenues is pledged to pay debt service on the Bonds.

Headquartered in Pittsburgh, AHN's operations are concentrated primarily in the Pennsylvania cities of Pittsburgh and Erie and their surrounding communities. The AHN System is a patient-centered and physician-led academic healthcare system that provides comprehensive healthcare services to patients in western Pennsylvania and the adjacent regions of Ohio, West Virginia, New York and Maryland. With approximately 19,700 total employees and 1,500 volunteers, AHN operates eight acute care hospitals with more than 2,200 beds in quaternary, tertiary and community facilities, eight ambulatory surgical centers, six urgent care centers, and four Health + Wellness Pavilions ("H+WPs"). The AHN System employs more than 1,200 physicians who provide a variety of primary and specialty care at more than 250 healthcare sites throughout the region. AHN is affiliated with three medical schools and currently educates more than 500 residents each year in 46 accredited residency programs. AHN also controls a research institute and four charitable foundations and a trust that support certain Hospitals within the AHN System. AHN provides an array of post-acute care services, primarily under joint venture arrangements, including durable medical equipment, home infusion services and home health and hospice services. AHN also owns and operates a group purchasing organization that supports 87 members (which include AHN entities) in the region, a captive insurance company, and a clinically integrated network ("CIN"), among other businesses.

In 2017, AHN's consolidated total operating revenue was $3.1 billion, 90% of which was attributable to the Obligated Group. The Hospitals recorded more than 87,000 inpatient admissions, 1.3 million outpatient visits, 285,000 emergency room visits and 7,400 newborn deliveries in 2017. Also during 2017, AHN's physicians provided 2 million patient office visits, including 155,000 same-day appointments, and the Hospitals and ambulatory surgery centers combined performed nearly 104,000 surgeries.

In addition, AHN-affiliated physicians provide services to or on behalf of 28 other hospitals throughout the western Pennsylvania region. For example, AHN's hospital emergency rooms are staffed by physicians provided through an AHN joint venture that also provides emergency room physician services to eight other non-AHN affiliated hospitals in the region. Many other clinical services, including specialty coverage services, are provided by AHN affiliates in nearby hospitals and geographies.

HIGHMARK HEALTH INTEGRATED DELIVERY SYSTEM

AHN's sole member is Highmark Health, a diversified nonprofit health and wellness enterprise that includes the following entities, among others, in addition to AHN: Highmark and its subsidiaries and controlled affiliates, which operate a number of Blue Cross and/or Blue Shield health insurance plans, and HM Health Solutions Inc. ("HMHS"), a company that delivers information technology, data center hosting, infrastructure management and other business solutions to health plan payers. **Neither Highmark Health nor Highmark is obligated with respect to the Bonds, and none of their assets or revenues is available to pay debt service on the Bonds.**

IDFS are groups of commonly controlled corporations that provide both healthcare delivery and healthcare insurance products, typically in an effort to enhance efficiency, promote quality and reduce costs. Highmark Health is the second largest IDFS in the country as measured by its 2017 consolidated revenues of $18.3 billion, which generated $1.1 billion of excess revenue over expenses for 2017. As of December 31, 2017, Highmark Health had $7.9 billion of cash and investments and $6.5 billion of net assets. It has over 40,000 employees throughout the enterprise (including AHN). Highmark, along with its Pennsylvania, West Virginia and Delaware subsidiaries and controlled affiliates, is the third-largest Blue Cross Blue Shield-plan organization in the United States in terms of enrolled members, with 4.6 million members, and is the largest private payer in Pennsylvania, West Virginia, and Delaware as of December 31, 2017. HMHS services 13 health plans, including Highmark, with approximately 10 million members on its information system platform.

As discussed in further detail under the heading "AHN 2020 FOCUS FIVE STRATEGY," AHN and Highmark Health have a shared strategic goal of transforming the current model of healthcare delivery by putting patients first and implementing a clinician-led transformation of care. AHN has adopted a value-based model that its management believes will contribute to a more sustainable health system for western Pennsylvania residents. This model promotes participation by healthcare providers within AHN and those participating in AHN's CIN—Physician Partners of Western PA, LLC ("PPWPA")—to use the most cost-effective venue for care, and to adhere to evidence-based standards of care in order to deliver improved outcomes.

Highmark Health and AHN participate in collaborative strategic and operational processes to carry out this plan to transform the delivery of healthcare. From data analysis to capital allocation, all major decisions are assessed for their impact on AHN, Highmark and the IDFS. Additionally, AHN's capital allocation process is collaborative with Highmark Health and Highmark. As a result, AHN has made capital and operating investments funded by Highmark that promote the success of the IDFS and strengthen AHN's ability to serve Highmark's members, customers and AHN's patients. Highmark's ability to fund AHN's capital investments is subject to ongoing regulatory restrictions, including restrictions imposed by the Pennsylvania Insurance Department (the "PID") (see "HISTORY"). AHN is also able to achieve efficiencies and cost savings through its use of shared services with Highmark Health, including marketing, legal, information technology, payroll and human resources.

In summary, key elements of what management considers to be AHN's value proposition, which are described throughout this Appendix A, include:

1. ***Economic Scale***: Highmark Health is the diversified parent company of AHN and Highmark, and AHN itself has more than $3 billion in revenues, a large employed physician base, and provides care to a significant number of western Pennsylvania residents.
2. ***Advanced IDFS***: Highmark Health operates AHN and Highmark with what management believes is one of the most closely integrated levels of payer/provider integration in the country.

3. ***Value-Based Model***: Management believes that Highmark Health's integrated approach eliminates key economic barriers to value-based success and allows AHN to succeed as a lower cost, high quality provider.
4. ***Reduced Operating Risk Profile***: Management believes that AHN's size and scale and integrated position within the IDFS (compared to smaller size and scale delivery systems not part of an IDFS) reduce AHN's operating risk.
5. ***Core Component of the IDFS***: AHN's status as the core provider system in the IDFS makes its continued success essential to Highmark Health's overall strategy.

HISTORY

AHN began operations in 2013 as the sole member of West Penn Allegheny Health System, Inc. ("WPAHS") and various other providers following entry of the Approving Order described below. WPAHS was, at that time, the second largest healthcare provider system in western Pennsylvania controlling five acute care hospitals, physician organizations, a research institute, outpatient centers, three charitable foundations and one trust. WPAHS was experiencing significant financial challenges. WPAHS's principal competitor was the University of Pittsburgh Medical Center System ("UPMC"). In April 2013, pursuant to an approving determination and order (the "Approving Order") issued by the PID, Highmark took action to preserve WPAHS's financial stability by organizing an IDFS and providing direct financial support to WPAHS. As a result of the Approving Order, Highmark and its subsidiaries became controlled affiliates under a new ultimate parent entity, Highmark Health. Simultaneously, Highmark Health became the sole member of the newly organized AHN, and AHN became the sole member of WPAHS and Jefferson Regional Medical Center ("Jefferson"), located in greater Pittsburgh, and its subsidiaries, which had entered into an affiliation agreement with Highmark in March 2013. In July 2013, AHN became the sole member of Saint Vincent Health System and Saint Vincent Health Center, a two-hospital health system located primarily in the Erie, Pennsylvania area and its subsidiaries (collectively "SVH"). Combining these three legacy acute care systems resulted in the core provider footprint of the eight Hospitals (and other providers) that constitute AHN today. Thus, the AHN System became the clinical delivery system affiliate of Highmark, providing an alternative, along with the remaining independent local community hospitals, to UPMC for the over 1.4 million enrollees in Highmark's various health plans in western Pennsylvania, as well as enrollees covered by other insurers, Medicaid enrollees, and seniors in the Medicare program. (See the chart below, captioned "AHN ORGANIZATIONAL STRUCTURE", for a depiction of the current major components of the AHN System.)

Since 2013, Highmark Health, Highmark and AHN have worked together to improve the operations and financial position of AHN, to develop as an IDFS, and to adopt a value-based approach that AHN management believes is the core strategy for its long-term success in the marketplace. The Highmark Health IDFS strategy has been focused, among other things, on redesigning the delivery of care and re-investing in AHN to increase access for Highmark members. In the process, Highmark Health, Highmark and AHN have worked to establish western Pennsylvania as a hub for healthcare transformation and investment while offering western Pennsylvania employers, policyholders, and patients in the communities served by AHN a value-based alternative to the traditional system of fee-for-service driven care.

During 2017, 51% of AHN hospital net patient service revenue was derived from Highmark and its subsidiaries and affiliates. Currently, a significant amount of Highmark provider expenditures are made at AHN facilities. Management believes that AHN's cost structure is a key differentiator in western Pennsylvania, driving IDFS cost savings and making AHN attractive to payers. Management also

believes that AHN's cost structure helps to ensure its execution of value-based reimbursement models that motivate performance and reward providers for the value created by the Highmark Health IDFS.

AHN and Highmark Health jointly track their level of integration and financial interdependence by measuring the "percent of wallet" (i.e., healthcare dollar expenditures) by each Highmark enrollee at AHN facilities and other providers compared to the healthcare dollar expenditures by those enrollees at non-AHN facilities and providers. AHN's percent of healthcare dollar expenditures has grown from 17% in 2014 to 31% in 2018 for Highmark members living in the greater Pittsburgh area while, based on Highmark claims data, UPMC's percent has declined from 29% to 15% during the same period. A shared strategic goal of AHN and Highmark Health is to increase the percent of Highmark healthcare expenditures spent at AHN facilities over time. Achieving this goal is intended to both ensure AHN's financial growth and reduce the average expenditure per enrollee for Highmark, thus providing better value and more coordinated care to Highmark's enrollees and their employers.

The PID's Approving Order permits Highmark and its related Pennsylvania-domiciled insurance company subsidiaries (collectively, the "Domestic Insurers") to provide financial support to AHN and AHN's subsidiaries and affiliates under specified conditions. Those conditions set limits on the amount of financial support that may be provided, above which the PID's express approval is required. The forms of financial support subject to the Approving Order are broadly defined and encompass, among other things, direct and indirect donations of funds and other property, loans and guaranties, acquisitions of assets, and other financial or contractual relationships, but exclude transactions in the ordinary and usual course of business. The Approving Order was modified in July 2017 to reduce the PID's involvement in the review and approval of the Domestic Insurers' provision of financial support to AHN and its subsidiaries. Under the Approving Order, as modified, Highmark and/or the other Domestic Insurers may provide financial support to AHN and/or its subsidiaries or affiliates without PID approval so long as the aggregate amount of support provided in any calendar year does not exceed ten percent (10%) of Highmark's surplus and Highmark's risk-based capital level is not, or as a result of the support is not likely, to be reduced to 525% or less. The conditions, as modified, also specifically require PID approval for any intercompany loans from the Domestic Insurers to AHN or its subsidiaries if at any time the amount of such loans is or would be greater than $200 million in the aggregate. Transactions between or among the Domestic Insurers and AHN and its subsidiaries and affiliates also are subject to the Pennsylvania Insurance Holding Company Act (the "Holding Company Act"), which conditions the ability of the Domestic Insurers to enter into arrangements with affiliated organizations, including, in the Domestic Insurers' case, AHN and its subsidiaries. Such arrangements include sales, purchases or exchanges of assets, loans or extensions of credit, in each case meeting certain materiality standards, and management agreements, services contracts, guarantees and cost sharing arrangements, regardless of materiality, all of which require 30-days' prior notice to the PID and opportunity for the PID to review and disapprove. No separate request for approval is required under the Approving Order if notice of a transaction is provided under the Holding Company Act. Since 2013, Highmark has provided in excess of $1.7 billion of financial support to AHN and its subsidiaries and affiliates pursuant to the Approving Order. (See "INFRASTRUCTURE AND CAPITAL – Hospital Infrastructure Updates and Service Expansions.").

CONSENT DECREES AND RELATED HISTORY

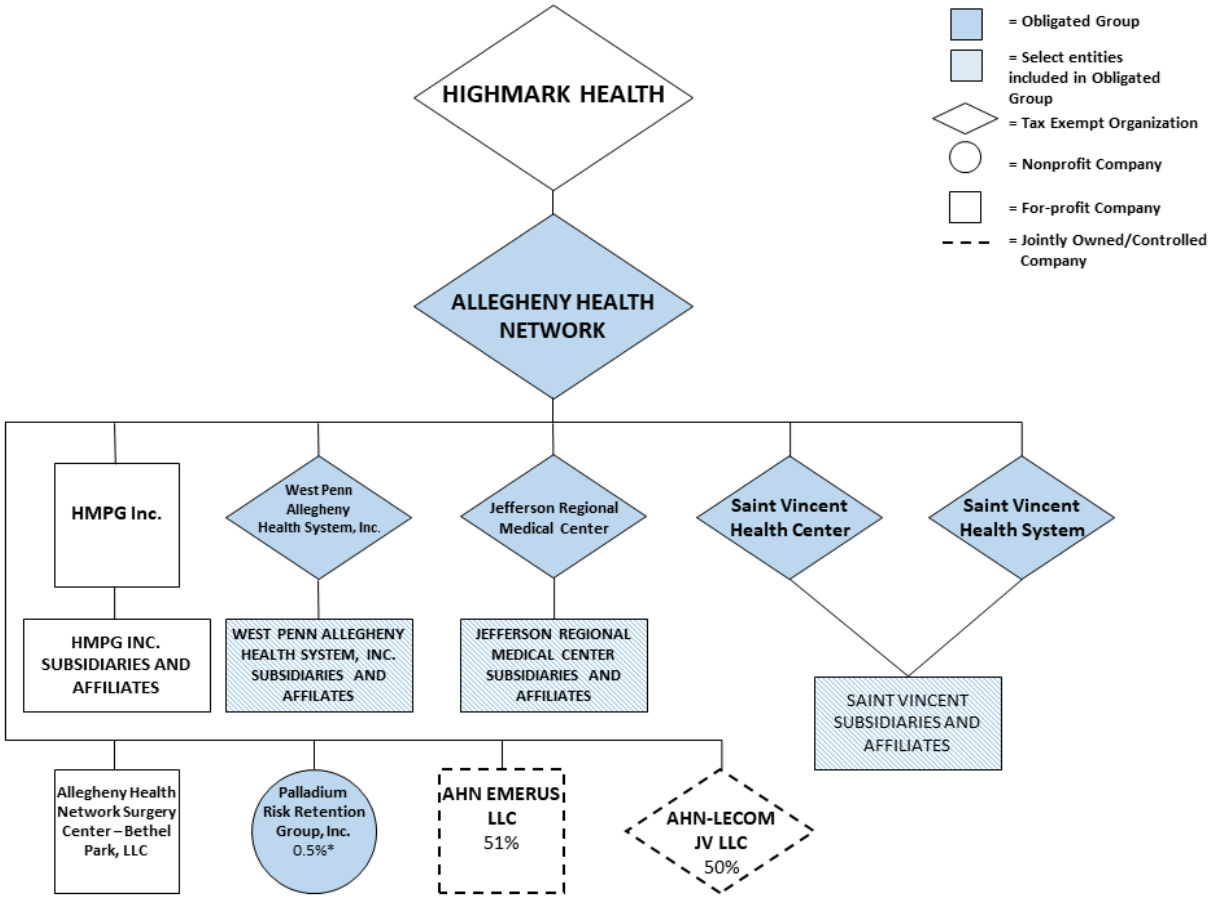
Upon Highmark's announcement that it was planning to affiliate with WPAHS, thus building an IDFS that would compete directly with UPMC's IDFS, UPMC notified Highmark of its plans to terminate most of its facility contracts covering Highmark indemnity and managed care members, effective July 1, 2012 (with one-year continuation of care for certain patients). Highmark and UPMC then entered into a mediated agreement facilitated by the Office of the Governor of the Commonwealth of Pennsylvania (the "Governor's Office") to extend those contracts until December 31, 2014. On June 27,

2014, UPMC and Highmark entered into parallel Consent Decrees facilitated by the Governor's Office and the Office of the Pennsylvania Attorney General (the "Consent Decrees"). The Consent Decrees provide continued access for Highmark members to UPMC hospitals on an in-network basis in a number of circumstances, including emergency and trauma care, protection for vulnerable populations, including seniors, Medicare Advantage, Medicaid and CHIP members, cancer care, care at enumerated exception hospitals (which are typically those in communities where there is only one hospital), access to unique services available only at UPMC, access to care outside the Pittsburgh area and care for Highmark members in the midst of a course of treatment at UPMC.

The Consent Decrees will terminate on June 30, 2019, thereby terminating in-network access for Highmark indemnity and managed care members (non-Medicare Advantage) at certain UPMC hospitals in Allegheny County and UPMC Hamot Hospital in Erie, Pennsylvania. The relevant UPMC hospitals in Allegheny County that will be out of network are UPMC Shadyside, UPMC Montefiore, UPMC Presbyterian, Magee-Womens Hospital of UPMC, UPMC Mercy, UPMC Passavant (which includes campuses in McCandless Township and Cranberry Township, Pennsylvania), UPMC McKeesport, UPMC East, and UPMC St. Margaret. In 2018, UPMC provided notice to Highmark that it was terminating its Medicare Advantage facility contracts with Highmark with respect to the same UPMC hospitals in Allegheny County noted above and UPMC Hamot in Erie, Pennsylvania, effective December 31, 2018 (with a six-month run-out for care until June 30, 2019). Highmark members also will no longer have access to the UPMC Hillman Cancer Center, effective as of June 30, 2019.

In December 2017, Highmark and UPMC entered into a binding term sheet to address certain aspects of their relationship after the expiration of the Consent Decrees. The parties agreed to five-year extensions to current contracts with certain UPMC hospitals (which are typically those in communities with only one hospital), specified cancer centers, and certain ancillary providers (such as home health, hospice, skilled nursing and rehabilitation providers). UPMC and Highmark also agreed to continue in-network access for five years at UPMC facilities for certain designated transplant services (live donor liver, small bowel, heart-lung and lung). Highmark continues to have contracts in place with two specialty UPMC hospitals, Children's Hospital of Pittsburgh of UPMC (through June 2022) and the Western Psychiatric Institute and Clinic of UPMC (through June 2024). For a further discussion of shared strategic planning by AHN and Highmark Health for operational changes, including planned facility expansion in anticipation of the expiration of the Consent Decrees, see "AHN 2020 FOCUS FIVE STRATEGY."

AHN ORGANIZATIONAL STRUCTURE



*Palladium Risk Retention Group, Inc. is also owned by Highmark Health and other AHN subsidiaries.

OBLIGATED GROUP

The Master Trust Indenture ("MTI") provides for the issuance of debt obligations by the Obligated Group Members. While the MTI provides for certain additional parties to become Obligated Group Members in the future or existing Obligated Group Members to withdraw, there are no current plans to add or withdraw Obligated Group Members. Only the Obligated Group Members are obligated to make payments with respect to the Bonds. For a discussion of conditions to add or withdraw Obligated Group Members, see "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND SUPPLEMENTAL MASTER INDENTURE – MASTER INDENTURE – Particular Covenants of the Members – Membership in Obligated Group" in Appendix C. As of December 31, 2017, the Obligated Group accounted for approximately 90% of the consolidated total operating revenue and approximately 90% of the consolidated total assets of AHN and its consolidated subsidiaries.

The Obligated Group currently consists of AHN and the subsidiaries of AHN listed in the chart below, which categorizes the subsidiaries based on the nature of their operations. For descriptions of the Hospitals, see "FACILITIES."

Hospitals & Physician Organizations	Research & Education & Other	Foundations
Allegheny Clinic	Allegheny Singer Research Institute	Alle-Kiski Medical Center Trust
Allegheny Clinic Medical Oncology	Canonsburg General Hospital Ambulance Service	Forbes Health Foundation
Alle-Kiski Medical Center	Palladium Risk Retention Group, Inc.	The Saint Vincent Foundation for Health & Human Services
Canonsburg General Hospital	West Penn Allegheny Foundation, LLC.	West Penn Hospital Foundation
Jefferson Regional Medical Center		
Saint Vincent Affiliated Physicians		
Saint Vincent Health Center		
Saint Vincent Health System		
Saint Vincent Medical Education and Research Institute, Inc.		
West Penn Allegheny Health System, Inc. (which includes Allegheny General Hospital, West Penn Hospital and Forbes Hospital)		

Those entities included in the audited consolidated financial statements of AHN that are not Obligated Group Members (the "Non-Obligated Group") consist primarily of for-profit joint ventures and the group purchasing organization and distribution center. The Non-Obligated Group also includes certain entities that are in the process of being dissolved, are dormant, or perform activities that are ancillary to the overall operations of AHN.

Governance

The AHN Board of Directors is comprised of nine directors from western Pennsylvania and Erie and including the President and Chief Executive Officer of Highmark Health (the "Highmark Health CEO"). Six of the AHN Board members (including the Highmark Health CEO) are also members of the 12-member Highmark Health Board. A majority of each Board is made up of "independent" directors, as required by the IRS for organizations qualified as tax exempt under Section 501(c)(3) of the Internal Revenue Code.

The Board of Directors of Highmark Health is comprised of 12 directors from western, central and northeast Pennsylvania and including the Highmark Health CEO.

The Boards of AHN and Highmark Health meet jointly and at least quarterly. All Board members of AHN and Highmark Health complete an annual conflict of interest form regarding their

independent status, as well as to determine whether they have any financial interest or business relationship that could affect their ability to act in the best interest of AHN or Highmark Health, as the case may be.

The Board of Highmark Health has the following standing board committees, which also serve as the corresponding committees on behalf of the AHN Board:

Personnel and Compensation Committee, which oversees, among other things, the selection and performance of the Highmark Health CEO and other corporate officers, as well as their compensation;

Audit and Compliance Committee, which oversees, among other things, the corporate compliance program and the internal audit system and accounting and financial controls of the companies;

Corporate Governance and Nominating Committee, which, among other things, recommends candidates for election to the Boards of Directors of the companies; and

Investment Committee, which, among other things, assists the Boards of Directors of AHN and Highmark Health in reviewing investment policies, transactions, and returns generated from the investments of Highmark Health and its affiliates, including AHN.

Highmark Health, as the sole member of AHN, exercises certain reserve powers over the operations of AHN, including: the authority to elect the directors of AHN; to amend the articles and bylaws or change the mission or structure of AHN; to engage in material transactions such as mergers, sales, or borrowings; to form, invest in or dissolve material subsidiaries, partnerships or joint ventures; to approve capital plans or budgets or strategic plans; and to select and appoint AHN's auditors.

Under its bylaws, AHN has the right to make recommendations to Highmark Health with respect to actions by Highmark Health, but Highmark Health is not required to adopt such recommendations. Highmark Health also exercises similar reserve powers on an indirect basis over the Hospital corporations, including the WPAHS hospitals, Jefferson and SVH, as well as certain of their subsidiaries. In addition, WPAHS, Jefferson and SVH have legacy reserve powers over many of their direct subsidiary corporations, which in some cases they have delegated to AHN.

Board of Directors

The governing body of AHN is its Board of Directors. The members of the Board of Directors serve three-year terms without compensation, up to a maximum number of terms. The current members of the Board, their principal occupations and terms are set forth below:

Name	Occupation	Term Expires
David A. Blandino, M.D., Chair	Family Physician East Liberty Family Health Center Clinical Associate Professor of Family Medicine University of Pittsburgh School of Medicine	2019
James G. Graham*	Executive Vice President, Head of Domestic and Global Treasury Management PNC Financial Services Group	2019
Joseph C. Guyaux*	Chairman of the Board of Directors of Highmark Health Retired Executive, PNC Bank	2020
David L. Holmberg	President & Chief Executive Officer Highmark Health	2021
David J. Malone	President & Chief Executive Officer Gateway Financial	2019
Joseph A. Macerelli, Esq.	Attorney Burns White LLC	2019
David M. Matter	Chief Executive Officer, Retired and Chairman of the Executive Committee Oxford Development Company	2019
Michael Redlawsk	General Partner The Westminster Group	2019
Victor A. Roque	Retired President Duquesne Light	2019

*PNC Bank provides commercial loans to AHN affiliates and is the lead bank for the holders of the 2017 Bonds.

Executive Leadership

The following individuals are responsible for the day-to-day management of the operations of AHN:

Primary Officers:

CYNTHIA D. HUNDORFEAN, CHIEF EXECUTIVE OFFICER AND PRESIDENT, Age 61

Cynthia Hundorfean joined AHN in 2016 and is the Chief Executive Officer and President of AHN. Ms. Hundorfean joined AHN from the Cleveland Clinic, where she had served as chief administrative officer since 2005. In that role, she was responsible for overseeing a $5.5 billion clinical operations budget.

Ms. Hundorfean serves on the Boards of Directors of the United Way of Southwestern Pennsylvania, the Crohn's & Colitis Foundation (western Pennsylvania/West Virginia Chapter), as well as the Hospital & Healthsystem Association of Pennsylvania.

Ms. Hundorfean is a member of the Medical Group Management Association. She received her Executive Master of Business Administration from Case Western Reserve University, and a Bachelor of Science in Healthcare Management from David N. Myers College.

JEFFREY T. CRUDELE, CHIEF FINANCIAL OFFICER AND TREASURER, Age 57

Jeffrey Crudele joined AHN in 2015 and is the Chief Financial Officer of AHN. Prior to his current role, Mr. Crudele was President of Hospital Data Solutions. Mr. Crudele began his career in public accounting with Ernst & Young. He spent 13 years with HCA in senior executive roles. HCA is the largest operator of hospitals in the United States and the country's largest publicly traded health provider.

Mr. Crudele holds a Bachelor of Business Administration from Florida Atlantic University in Boca Raton and is a CPA in Florida (inactive). He received the 2014 Distinguished Alumnus Award from the Florida Atlantic University College of Business. In 2017, he was named as a "CFO of The Year" by the Pittsburgh Business Times.

JACQUELINE M. BAUER, GENERAL COUNSEL, CHIEF ADMINISTRATIVE OFFICER, CORPORATE SECRETARY, Age 53

Jacqueline Bauer joined AHN in 2013 and serves as the chief legal counsel for AHN. Additionally, she oversees regulatory and government affairs for AHN. She serves as secretary of the Board of Directors of AHN and of the Hospital and foundation boards within AHN.

Previously, Ms. Bauer served as counsel in the Highmark law department for 18 years and worked for the law firm of Kirkpatrick & Lockhart (now known as K&L Gates) for five years. She has a law degree from the University of Pittsburgh School of Law and received her undergraduate degree from Washington and Jefferson College, where she currently serves on the Board of Trustees.

JAMES J. BENEDICT, CHIEF OPERATING OFFICER, Age 53

James Benedict joined AHN in 2016 and serves as the Chief Operating Officer of AHN. Mr. Benedict came to AHN in 2016 from TeamHealth, where he served as the Executive Vice President of Anesthesia for U.S. operations from 2015 to 2016, responsible for the strategic, financial, and operational

management of a team of healthcare professionals providing primarily anesthesia services to more than 100 hospitals and ambulatory surgical locations nationwide. Prior to that time, Mr. Benedict served in senior executive roles at University Hospitals and the Cleveland Clinic in both the domestic and international markets.

Mr. Benedict received his undergraduate degree from Baldwin Wallace University in Berea, Ohio, a Master's degree in Accountancy from Cleveland State University, and his Juris Doctorate degree from The Cleveland Marshall College of Law. He is a non-practicing certified public accountant in Ohio, is admitted to the Ohio Bar, and is a Fellow in the American College of Healthcare Executives.

BRIAN M. PARKER, MD, CHIEF MEDICAL AND QUALITY OFFICER, Age 51

Brian M. Parker, MD joined AHN in 2017 and is the Chief Medical and Quality Officer for AHN. Prior to joining AHN, Dr. Parker served as Chair, Medical Legal and Clinical Risk Management Committee at the Cleveland Clinic for 10 years.

Dr. Parker received both his undergraduate and medical degrees from the State University of New York at Buffalo, and completed both his anesthesiology residency and liver transplantation fellowship training at the University of Pittsburgh. His professional affiliations include membership on the American Society of Anesthesiologists, the Society for Ambulatory Anesthesia, the Pennsylvania Society of Anesthesiologists, and the International Liver Transplantation Society.

CLAIRE M. ZANGERLE, DNP, MSN, MBA, RN, NEA-BC, CHIEF NURSE EXECUTIVE, Age 54

Claire Zangerle joined AHN in 2016 and is responsible for the practice of nursing across the continuum of care for AHN.

Before coming to AHN in 2016, Dr. Zangerle served for eight years as the Chief Executive Officer of the Visiting Nurse Association ("VNA") of Ohio, the state's largest independent nonprofit home health and hospice provider. Prior to the VNA, she served for 13 years in various capacities at the Cleveland Clinic in Cleveland, Ohio. Most recently, she served as Chief Nursing Officer and Chair of the Nursing Institute at the Cleveland Clinic.

Dr. Zangerle earned a Bachelor of Science in Exercise Physiology from Texas A&M University, an Associate Degree in Nursing from Houston Baptist University, a Master of Business Administration from Lake Erie College, a Master of Science in Nursing from Kent State University, and a Doctor of Nursing Practice from Texas Christian University.

In 2017, Dr. Zangerle was elected to the Board of Trustees of the American Hospital Association ("AHA") for a three-year term beginning in 2018. She serves as President of the Southwest Pennsylvania Organization of Nurse Leaders and is a board member of the Pennsylvania Organization of Nurse Leaders. She also serves on the board of the Nightingale Awards of Pennsylvania, Robert Morris University College of Nursing and Sciences Board of Visitors and United Way Women's Leadership Council of Pittsburgh.

DONALD M. WHITING, MD, PRESIDENT, ALLEGHENY CLINIC, Age 60

Donald Whiting, MD, became the President of AHN's physician organization, the Allegheny Clinic, in 2017. He continues to be the Chair of AHN's Neuroscience Institute.

Previously, he served as Vice-Chair of Allegheny General Hospital's ("AGH") Department of Neurosurgery and Co-Director of AGH's Division of Functional Neurosurgery and Neurosurgery Spine Bio-Mechanics Lab.

Dr. Whiting received his undergraduate degree at Grinnell College in Iowa, earned a Master of Science in Physiology at Georgetown University, and was awarded his medical degree from Jefferson Medical College of Thomas Jefferson University in Philadelphia. Dr. Whiting completed a neurosurgical residency at The Cleveland Clinic and a neurotrauma fellowship at AGH.

A professor of Neurosurgery at Drexel University College of Medicine ("Drexel") and Fellow of the American College of Surgeons, Dr. Whiting is a member of several professional and scientific organizations, including the Congress of Neurological Surgeons, the American Association of Neurological Surgeons, and the American Society of Stereotactic and Functional Neurosurgery.

Awards and Recognition

Over the years, AHN, the Hospitals, programs and physician practices have been recognized for their quality, safety, innovation and capabilities. AHN and its affiliate entities have received the following awards, among others:

AARP Magazine: AARP recognized AGH in 2013 as one of the nation's healthcare safety "superstars," one of just 65 in the nation.

American Heart Association/American Stroke Association: In 2017, five of the Hospitals received national "Get with the Guidelines" recognition for their commitment and success in delivering evidence-based care for stroke patients.

American Hospital Association: In 2017, AGH, Forbes Hospital ("Forbes"), SVH, and West Penn Hospital ("WPH"), all part of AHN, were recognized as "Most Wired 2017 winners" by the American Hospital Association's Health Forum.

American Hospital Association: In 2017, AHA's "Mission: Lifeline®" STEMI Recognition Program named SVH in Erie a "Mission: Lifeline" Receiving Center Silver STEMI Award winner.

American Hospital Association: In 2017, AGH and Jefferson earned spots on the Target: Heart Failure Honor Roll, an AHA care improvement initiative.

American Medical Group Association: In 2016, AHN's Premier Medical Associates received the American Medical Group Association's Acclaim Award.

American Nurses Credentialing Center: WPH received Magnet Recognition© in 2006, 2011, and 2017.

Becker's Hospital Review: AGH was recognized on the Becker's Hospital Review (1) list of "100 Hospitals with Great Orthopedic Programs" for 2012, (2) list of "100 Hospitals with Great Heart Programs" in 2013, and (3) list of "100 Hospitals with Great Women's Health Programs" in 2014.

Healthgrades: AHN's Allegheny Valley Hospital ("AVH"), Forbes, and SVH were three of the five hospitals in Pennsylvania named to receive Healthgrade's 2014 Distinguished Hospital Award for Clinical Excellence, an honor that places these hospitals among the top 5% in the U.S.

Pittsburgh Post-Gazette: Premier Medical Associates was named a Top Workplace by the Pittsburgh Post-Gazette in 2012, 2014, 2015, 2016, and 2017.

Quantros: As of 2018, AGH was rated among the Top 10% of hospitals in the nation for Medical Excellence in Women's Health, and was rated the No. 1 hospital in western Pennsylvania for Patient Safety in Overall Medical Care, Cardiac Care, Heart Attack Treatment, Major Neuro-Surgery, Organ Transplants, Pulmonary Care, Stroke Care, Heart Transplant, Kidney Transplant and Trauma Care. Market claims are based on CareChex® 2018 Composite Quality Scores and Ratings for acute care hospitals serving the combined statistical area (CSA) of Pittsburgh-New Castle-Weirton.

Quantros: As of 2018, WPH was rated the No. 1 hospital in western Pennsylvania for Medical Excellence in Bariatric Surgery, and was rated among the Top 10% of hospitals in the nation for Medical Excellence in Stroke Care. Market claims are based on CareChex® 2018 Composite Quality Scores and Rating for acute care hospitals serving the combined statistical area of Pittsburgh-New Castle-Weirton.

Quantros: As of 2018, Forbes was rated the No.1 hospital in western Pennsylvania for Medical Excellence in Major Neuro-Surgery. Market claims are based on CareChex® 2018 Composite Quality Scores and Rating for acute care hospitals serving the combined statistical area of Pittsburgh-New Castle-Weirton.

Quantros: In 2017, AGH was ranked No.1 in western Pennsylvania for overall organ transplant quality, according to Quantros Inc.'s 2017 CareChex® National Quality Rating Database for 2013-2015. The market claim is based on the CareChex 2017 Composite Quality Scores and Ratings for acute care hospitals serving the combined statistical area of Pittsburgh-New Castle-Weirton.

Scientific Registry of Transplant Recipients: In 2014**,** AGH's heart and liver transplant programs were noted for achieving the region's best one- and three-year survival rates, according to reporting in the Scientific Registry of Transplant Recipients.

U.S. News and World Report: WPH received U.S. News' highest honor in 2013-2014 and 2016 for the quality of its women's health program, earning a top 50 national designation in gynecology. In 2014-2015, WPH was recognized as a high performer in cancer, geriatrics, gynecology, nephrology, neurology & neurosurgery and urology. In, 2013-2014, WPH was also named a high performer in cancer, diabetes & endocrinology, geriatrics, and other clinical categories.

U.S. News and World Report: The 2014-2015 Best Hospitals Guide recognized AGH as a high performer in 10 clinical specialties, including orthopaedic surgery, gastroenterology & GI surgery, cancer, diabetes & endocrinology, cardiac surgery, and others. In 2013-2014, AGH was recognized as a top performer in 12 clinical specialties.

U.S. News and World Report: The 2014-2015 Best Hospitals Guide recognized Forbes as high-performing in cancer, gastroenterology and GI surgery, geriatrics, neurology and neurosurgery, orthopaedic surgery, pulmonology and urology. In 2013-2014, Forbes was ranked as high-performing in gastroenterology, geriatrics, neurology & neurosurgery, pulmonology and urology.

U.S. News and World Report: The 2014-2015 Best Hospitals Guide recognized SVH as a high performer in gastroenterology & GI surgery, geriatrics, nephrology, neurology & neurosurgery and pulmonology. In 2013-2014, SVH was designated as a high performer in cardiology & heart surgery, gastroenterology & GI surgery, geriatrics, nephrology, neurology & neurosurgery and pulmonology.

AHN 2020 FOCUS FIVE STRATEGY

AHN develops its strategic plan in conjunction with Highmark Health and expresses its strategic approach using the "Focus Five," a strategy first developed and implemented in 2015.

2020 Focus Five Strategy

Customer Value Creation – Deliver services of equal or better quality with superior access and experience, all at a lower total per member per month cost to the end-customer. AHN, working with Highmark Health, seeks to differentiate its offerings by measuring "value" as determined based on Highmark Health's "Value Equation" (shown below). Management of AHN believes that the core elements in this equation drive healthcare customer behavior. These core elements are represented in equation format to reinforce the idea that access, experience, and outcomes need to be proportional to the cost of delivery to deliver value. For example, if experience and access are high, customers are expected to be willing to pay a higher price for that value. Similarly, if the perception of those same elements is undifferentiated from competitors, a provider must deliver equal or lower cost to be competitive.

$$\text{Value} = \frac{\text{Access} + \text{Differentiated Experience} + \text{Outcomes (Quality and Safety)}}{\text{Cost}}$$

Sustainable Growth – Close gaps relative to UPMC and transition Highmark members to AHN through execution of physician, service line, geographic and care delivery strategies. As part of its planning for the expiration of the Consent Decrees, AHN has been building its network capabilities by recruiting physicians, expanding access points and improving current facilities. In addition, AHN has worked with Highmark Health and Highmark to educate western Pennsylvania consumers on AHN's network and clinical capabilities. AHN, Highmark Health, and Highmark have worked together to ensure positive patient experiences as Highmark members transition their care from UPMC to AHN clinicians and facilities.

Clinician-led Care Delivery Transformation – Lead the development and AHN scaling of new care models for episodes and conditions that align to the clinical, emotional, psychological, and social needs of the patient. The plans adopted by AHN and Highmark Health are based on a belief that the future of value delivery rests with bottom-up innovation in care delivery. AHN's management team seeks to innovate by aligning service delivery with the way that patients experience the healthcare system, and that is evidence-based and led by clinicians. AHN, Highmark Health and Highmark are working together to develop clinician-led changes in the way care is delivered to ensure that the entire IDFS is collectively and collaboratively executing on a shared view of "right care, right place and right time." AHN management believes that this integrated approach, the leadership provided by AHN clinicians in the process, and the development of the CIN model are all foundational elements needed to accelerate local development of the value-based approach.

Core Business Performance – Restore and continuously improve the core systems, infrastructure, and processes necessary for economic sustainability. Core performance of the business enterprise remains integral to financial stability and the achievement of the long-term objectives of the strategic plan and the value-based model. In the five years since the inception of AHN, AHN has installed Epic at most locations, providing a common electronic medical record platform. This common electronic medical record is needed to streamline and achieve a variety of operating and strategic initiatives, including the transition of Highmark members from UPMC to AHN, enhancement of clinical efficiency, and the development of advanced chronic care models. In addition, management has worked to revitalize a number of fundamental systems and processes, affecting revenue cycle, human resources, procurement and labor management.

Execution – Create a clinician-led organization that embraces the core enterprise behaviors. Management believes that a significant strength of AHN is the depth and commitment of its clinical staff, and that this strength needs to be cultivated so that it can be put to broader use in a clinician-led environment.

Along with the structural and human capital changes that have occurred since 2013, AHN has focused on evolving the culture at AHN in a way that aligns with both a clinician-led philosophy and the four core behaviors that Highmark Health has adopted across all business units. These core behaviors were identified by the executive leadership team of Highmark Health so as to drive consistency and performance across the integrated enterprise while preserving the individual cultures of each business unit. Highmark Health and AHN have worked with Gallup Inc. to more clearly define and measure each behavior, as shown on the following page.

CLINICAL TRANSFORMATION

AHN and Highmark Health have launched a clinical transformation effort drawing on all elements of the Highmark Health enterprise that is intended to redesign the care model with an enhanced patient orientation. Clinical transformation teams, led by clinicians, but supported by a broad coalition of payer, reimbursement, product, information technology, analytic, process engineer, and strategy resources, are working to design new models of care for major patient episodes and conditions. AHN and Highmark Health are also building models to use when caring for more complex populations and delivering community-based care in a multi-specialty practice. Moreover, by building clinician-led, patient-focused care models (including reimbursement structures), AHN management is supporting the expansion of these competencies across AHN and PPWPA, and is affording Highmark Health the opportunity to apply these learnings across its network outside of western Pennsylvania.

Information Technology

AHN is nearing the end of a multi-year implementation of its Epic electronic health records system, scheduled to be completed for the Hospitals in 2018 and across the remainder of its physician groups and clinics by late 2019. By choosing Epic, AHN will have a single patient health records system across substantially all of its provider sites. To date, Epic has been implemented at most clinical practices and six of AHN's hospitals. The remaining two hospitals are scheduled to convert to Epic in the fall of 2018. The Epic system includes the MyChart patient portal, which allows patients to access personal and family health information, message their doctors, attend e-visits, complete questionnaires, and conduct video visits with clinicians. As of June 30, 2018, more than 252,000 AHN patients have signed up to use MyChart accounts. Other innovative services that have been implemented by AHN include video visits, e-visits, and multi-disciplinary tele-health services. Through these initiatives, AHN is seeking to improve patient experience built on a standard platform accessible by all clinicians and patients, to increase access, and improve care alignment and patient satisfaction. Implementation of Epic has, thus far, been accomplished with limited disruption of AHN's normal revenue cycles.

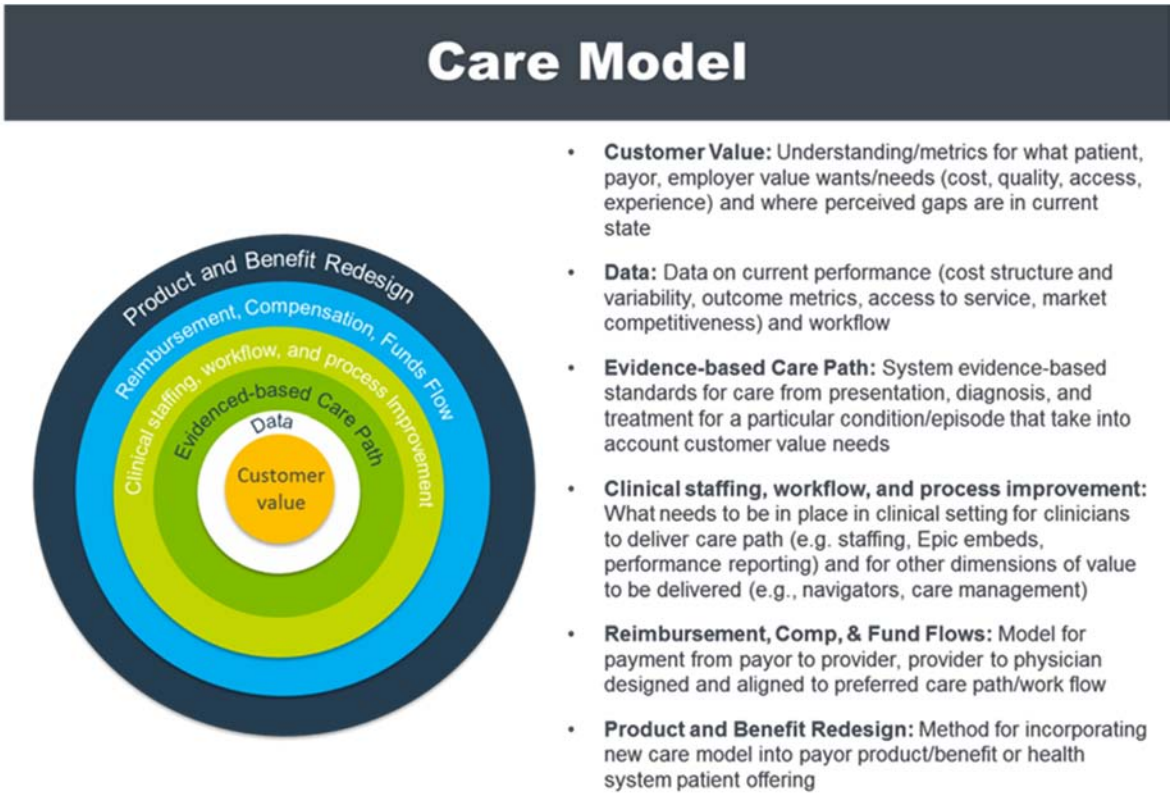
Patient Access

AHN is in the process of executing its strategy to enhance patient access to its services, programs and physician practices. One example is the organization's same-day appointments program for both primary and specialty care, which was the first such service in western Pennsylvania. Since establishing the program in 2016, more than 278,000 same-day appointments have been scheduled across the AHN System, approximately 20% of which have been new patient appointments. Additionally, the AHN System's full service call center received more than 1.4 million calls in 2017, an increase of 31% since 2016. The addition of onsite clinical expertise through the use of registered nurses (placed in specialty pods) to field patient calls has helped to support this growth.

Other similar initiatives to enhance access include a newly launched Cancer Answers Help line staffed by oncology nurses (which is averaging 104 calls per week). This service is available 24 hours a day, seven days a week. To improve the alignment with independent physicians and enhance access to AHN for patients, AHN has established a clinician-led One Call Transfer Center (the "Center"). The Center expedites patient transfers from outlying hospitals and physician practices. In 2017, the Center received over 15,000 referral calls (an 8% increase from 2016) and transitioned the majority of those patients to AHN facilities or providers.

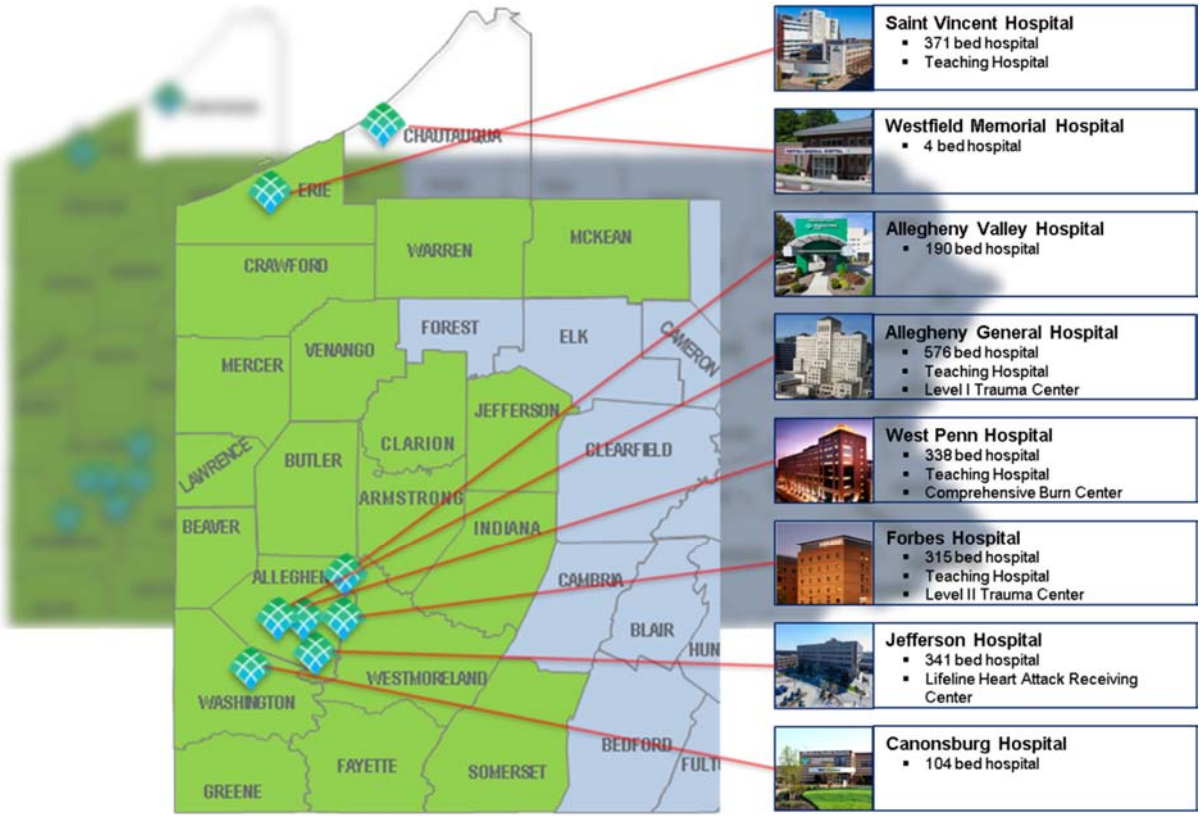
Care Model

Management of AHN acknowledges that the clinical transformation effort aimed at redesigning the provision of care for specific clinical episodes or conditions is ambitious. Those elements are outlined in the following graphic.



FACILITIES AND RELATED SERVICES

MAP*



*AHN and LECOM Health, an academic health system that includes Lake Erie College of Osteopathic Medicine ("LECOM"), are in negotiations with Warren General Hospital ("WGH") regarding an Affiliation Agreement. See "FACILITIES - Pending Affiliation Arrangement with WGH." WGH is not depicted on the map.

FACILITIES

The following chart sets forth the licensed bed count for each of the Hospitals.

Licensed Beds by Type As of June 30, 2018								
Bed Classification	Allegheny General Hospital	Allegheny Valley Hospital	Canonsburg General Hospital	Forbes Hospital	Jefferson Hospital	Saint Vincent Hospital*	West Penn Hospital	*Total*
Medical/Surgical	178	62	80	137	54	128	72	**711**
Obstetric						27	39	**66**
OB/GYN				14	7			**21**
Labor/Delivery				10	8	10	23	**51**
Neonatal Intensive Care ("NICU") - Level 2				4	3		5	**12**
NICU - Level 3						21	40	**61**
Pediatric	8				32	13	16	**69**
CCU	24			8			16	**48**
ICU	112		8	20		20	20	**180**
ICU/CCU Mixed		16		18	30	20		**84**
Telemetry	254	55		47	163	64	49	**632**
Psychiatric - Adult		22		37	24	28		**111**
Psychiatric - Geriatric		18				10		**28**
Rehabilitation		17	16	20	20	31	24	**128**
Burn							14	**14**
Other						3	20	**23**
Total	**576**	**190**	**104**	**315**	**341**	**375**	**338**	**2,239**

* Count includes Westfield Memorial Hospital, which operates in western New York, with four additional licensed beds.

AGH

Since 1886, AGH, based in Pittsburgh's North Side, has served western Pennsylvania and parts of West Virginia, Ohio and Maryland. AGH has 576 licensed beds and is AHN's flagship hospital, primary teaching hospital, and its quaternary care facility, offering advanced specialties such as organ transplantation, neurosurgery, surgical oncology and cardiovascular surgery. AGH is also a Level I Trauma Center, and its LifeFlight aeromedical service, established in 1978, has completed more than 70,000 missions and provides medical transport services. In addition to organ transplantation and other advanced specialties, AGH offers access to an array of medical, surgical, behavioral and pediatric services.

AVH

Since 1909, AVH, based in Natrona Heights, Pennsylvania, has served the northeast communities of Allegheny, Butler, Westmoreland and Armstrong Counties. AVH has 190 licensed beds and also provides inpatient rehabilitation and a number of outpatient services, including radiology, laboratory,

medical oncology and hematology, and an urgent care center. In 2017, AVH was rated in the top 10% nationally for Medical Excellence in Cardiac Care, Heart Attack Treatment, and Pulmonary Care for 2018 by CareChex®, an information service of Quantros, Inc. AVH offers access to an array of medical, surgical, and behavioral health services.

Canonsburg General Hospital ("Canonsburg")

Since 1904, Canonsburg, based in Canonsburg, Pennsylvania, has served the communities of northern Washington and southern Allegheny counties. Canonsburg has 104 licensed beds and features an active ambulatory care center, emergency services, acute inpatient rehabilitation, and a women's center. Canonsburg General Hospital is rated among the Top 10% of hospitals in the nation for Patient Safety in General Surgery and Gastrointestinal Care for 2018 by CareChex®, an information service of Quantros, Inc. Canonsburg offers an array of medical and surgical services.

Forbes

Since 1978, Forbes has been providing care for the communities of eastern Allegheny County and Westmoreland County. Forbes is a 315 licensed bed hospital facility based in Monroeville, Pennsylvania. Forbes features the only Level II trauma center in the eastern suburbs of Pittsburgh, a cardiovascular surgery program, comprehensive obstetrics and gynecology service including a Level II NICU and advanced neuro and orthopaedic surgery among its clinical offerings. New services include an integrated cancer center scheduled to open in March 2019 with advanced care and imaging along with a perioperative center expansion. In addition to its trauma center and these specialty services, Forbes offers access to an array of medical, surgical, and behavioral health services.

Jefferson

Since 1977, Jefferson has been providing care for the communities of south Allegheny County and the Monongahela community. The 341 licensed bed hospital facility based in Jefferson Hills, Pennsylvania, provides an array of healthcare services, including medical, surgical, behavioral health services, and labor and delivery. Its facilities include a cardiovascular institute, a women and infants center, an orthopaedic institute, a sleep disorders center and a wound care center. Jefferson was the first hospital in Pennsylvania to be designated by the American Hospital Association as a Lifeline: Heart Attack Receiving Center and is rated the No. 1 hospital in western Pennsylvania for medical excellence in major cardiac surgery by CareChex®, an information service of Quantros, Inc. In 2014, Jefferson Hospital was the first hospital to open a new obstetric unit in Pennsylvania in over 30 years.

SVH

Since 1875, SVH has provided care to northwestern Pennsylvania and the adjacent areas of New York and Ohio. Founded by the Sisters of St. Joseph, SVH is a 371 licensed bed academic medical center providing inpatient, outpatient and emergency care services. SVS includes a cardiovascular institute, a women and infants center, an orthopaedic institute, a chest diseases center, a sleep disorders center, and an ambulatory surgery center. Additionally, Westfield Memorial Hospital, an affiliate of SVH with 4 licensed beds, has provided healthcare to residents of western New York for more than half a century. SVH offers access to an array of medical, surgical and behavioral health services.

WPH

Since 1848, WPH has provided care to Pittsburgh and its surrounding communities. WPH is a 338 licensed bed academic medical center including advanced obstetrical and newborn care programs, and a Level III neonatal intensive care unit. WPH was the first hospital in western Pennsylvania to earn

Magnet Recognition® status from the American Nurses Credentialing Center. WPH is also home to the West Penn Burn Center, the only facility of its kind in the region certified to treat both pediatric and adult burn patients. In addition to its burn center, NICU, and other specialty services, WPH offers access to an array of medical, surgical, and pediatric services.

Pending Affiliation Arrangement with WGH

Pursuant to a pending Affiliation Agreement, AHN proposes to obtain, through a 50/50 joint venture with an affiliate of LECOM Health ("AHN/LECOM JV"), a 45% membership interest in WGH. WGH is an 87 licensed bed nonprofit acute care hospital operating in Warren, Pennsylvania. Upon satisfaction of the conditions to closing, the AHN/LECOM JV will make a contribution to WGH, assume a 45% membership interest in WGH, and will hold seats on the Board of Directors of WGH, representing the right to control 45% of the voting power. The AHN/LECOM JV will also hold certain reserve powers over WGH. The AHN/LECOM JV has agreed to provide a line of credit to WGH and has a call option, subject to certain financial triggers, to become the sole member of WGH. AHN believes that a stronger and closer relationship with WGH will allow AHN and WGH to move more rapidly to achieve a value-based reimbursement system in the northwestern Pennsylvania region (a region that includes SVH). WGH will join the AHN CIN as part of the affiliation. There can be no assurance that the affiliation with WGH will be completed as currently contemplated.

Outpatient Care Facilities

In addition to over 250 clinical offices, AHN owns and operates four large, multi-specialty H+WPs (two in Allegheny County, one in Washington County, and one in Erie County); six urgent care clinics (three in Allegheny County, one in Westmoreland County and two in Erie County); and eight hospital-based and free-standing surgery centers (six in Allegheny County, one in Washington County and one in Erie County).

Regulatory Accreditations

AHN hospitals and facilities hold a variety of licenses and accreditations from various organizations. The Hospitals (other than Westfield Memorial Hospital) are licensed by the Pennsylvania Department of Health, Division of Acute and Ambulatory Care and are accredited by The Joint Commission and by the College of American Pathologists for pathology and pulmonary labs. AHN is accredited as an Integrated Network Cancer Program through the American College of Surgeons Commission by the Surgeon's Commission on Cancer. In addition, AGH has Joint Commission certification in heart failure, Ventricular Assist Devices and comprehensive stroke and is an accredited organ transplant center by the Centers for Medicare & Medicaid Services ("CMS") and United Network for Organ Sharing. WPH, Forbes, Jefferson and SVH have Joint Commission certification as primary stroke programs. The Pennsylvania Trauma Systems Foundation grants accreditation to AGH and Forbes for their trauma programs; and the Emergency Medical Service Institute has certified AGH's LifeFlight air ambulance program. Jefferson has Joint Commission certification for its hip and knees program. WPH holds accreditations from the American Society for Metabolic and Bariatric Surgery and American College of Surgeons for its bariatric program, the Foundation for Accreditation of Cellular Therapy for its cell transplantation program and the American Association of Neuromuscular and Electrodiagnostic Medicine for its Neurodiagnostic Lab. WPH is also a certified adult and pediatric burn center through the American Burn Association.

MEDICAL INSTITUTES AND PHYSICIANS

In 2017, AHN began implementing a new "institute" model consisting of a clinical, matrix-based organizational structure to support increased operational and financial collaboration between the

Hospitals and their physician leaders. The model groups similar clinical disciplines together and strategically aligns them across the AHN System to achieve synergies and enhance patient outcomes. This new model is intended to provide several advantages as it evolves, including:

- More active physician engagement and leadership
- Enhanced collaboration with facilities to ensure goal alignment
- A holistic focus across institutes and facilities delivering optimal care throughout the entire AHN System
- Improved clinical outcomes through more effective and efficient care delivery
- An improved system for sharing best practices and introducing new techniques
- Increased visibility for leadership into the profitability of programs, locations and overall institute performance
- Shared program and facility financials, allowing management to identify clinical linkages and investment opportunities

In this new model, patient care is organized under nine AHN System institutes, which includes an additional four "cross institutes" that support care across all of the disciplines. Selected highlights regarding the institutes are set forth below.

AHN Cancer Institute

AHN's Cancer Institute (the "Cancer Institute") provides cancer care at more than 20 clinical locations (both AHN and non-AHN sites) through multidisciplinary teams of physicians. The Cancer Institute treats over 10,000 patients annually in western Pennsylvania, West Virginia, and Ohio. Examples of Cancer Institute initiatives include (1) use by AHN oncologists of the GammaPod breast system – one of five in the world – as part of an international clinical consortium and (2) use of robotic surgery for lung cancer.

AHN Cardiovascular Institute

The AHN Cardiovascular Institute ("AHNCVI") provides care for patients with heart disease and access to a comprehensive, multidisciplinary team of specialists, innovative therapies and clinical trials. The physicians of the AHNCVI were among the first in the nation to perform trans-catheter aortic valve replacement, replacing defective aortic heart valves via a minimally invasive catheter procedure. They also played an instrumental role in the development of left ventricular assist devices, which are mechanical pumps that are surgically implanted to assist weakened heart muscles. Additionally, AHN's Women's Heart Center, the first heart center of its kind in Allegheny County, treats complex cardiovascular conditions for adult women of all ages.

This Institute also includes the Esophageal & Lung Institute**,** which offers new treatments through advanced robotic and minimally invasive surgeries.

AHN Medicine Institute

AHN's Medicine Institute is a collaboration of 14 sub-specialties. This Institute also includes two disease-based institutes: the Autoimmunity Institute and the Bariatric and Metabolic Institute.

The Autoimmunity Institute provides comprehensive care to patients suffering from a wide range of autoimmune diseases.

The Bariatric and Metabolic Institute deploys a multi-disciplinary team offering both surgical and non-surgical weight loss solutions for patients.

AHN Neuroscience Institute

AHN's Neuroscience Institute provides care for complex brain, spine, or neurological conditions. AHN's neurosurgeons have developed surgeries and treatment advancements that lead to improved care for patients experiencing the symptoms of Parkinson's disease, trigeminal neuralgia, stroke complications, and congenital spinal conditions. AHN's Cahouet Center for Comprehensive Parkinson's Care, created in 2016 in partnership with the Parkinson Foundation Western Pennsylvania, is designed to help patients with Parkinson's disease and their families coordinate the clinical and support services they require in a more convenient setting.

AHN Orthopaedic Institute

AHN's Orthopaedic Institute's multidisciplinary team of surgeons, physicians, nurses, physician assistants and rehabilitation specialists collaborate to develop a coordinated treatment plan specifically designed for each patient, specializing in pediatric orthopaedics, joint replacement, orthopaedic surgery, spinal surgery, and sports medicine. AHN's sports medicine team is the official medical provider for the Pittsburgh Pirates and the Pittsburgh Riverhounds, and has been designated as an Official U.S. Olympic Regional Medical Center.

AHN Primary Care Institute

Under the Primary Care Institute ("PCI"), AHN primary care providers are moving to team-based care and population health management with a special emphasis on chronic disease management and risk intervention. PCI focuses on wellness promotion, health maintenance, outcomes measurement and patient education in order to prevent chronic illness and related co-morbidities.

AHN Psychiatry & Behavioral Health Institute

AHN's Psychiatry & Behavioral Health Institute, including the Center for Traumatic Stress in Children and Adolescents, is developing and researching evidence-based, trauma-focused treatments for children and adolescents.

AHN Surgical Institute

The physicians of the Surgical Institute perform a variety of surgical procedures, including minimally invasive surgery for gastrointestinal, bariatric, urinary, and gallbladder patients, and hepatobiliary surgery. AHN has an active robotic colorectal surgical program. In addition, the Institute includes a transplant program that offers heart, kidney, pancreas and liver transplantation services, with a legacy of transplantation care and innovation that dates to the 1980s. In 2016, the AHN Heart Transplant Institute ranked among the top 25 programs in the country, according to the Scientific Registry of Transplant Recipients, the official national database of organ transplantation statistics.

Women's & Children's Institute

AHN's Women's and Children's Institute treats patients through every life stage at more than 50 women's health office locations. Services covered include, among others, prevention and wellness, labor and delivery services, advanced gynecologic surgeries, midlife care, specialized cardiovascular treatments, breast cancer diagnostic and therapeutic capabilities, menopause and osteoporosis therapies,

and clinical trials and advanced therapies for gynecologic cancer. Last year, AHN's hospitals delivered more than 7,400 newborns.

Cross Institutes

In addition to the clinical institutes listed above, there are four Cross Institutes that provide/support care across all the disciplines: Imaging Institute, Anesthesiology Institute, Pathology Institute, and Emergency Services Institute.

PPWPA - CIN

AHN is the sole member of PPWPA, which operates as a CIN. PPWPA was formed in January 2017 with the overarching objectives of developing regional partnerships among physicians who are committed to improving the quality and efficiency of care delivered to patients and developing a scalable platform that allows regional physicians to prepare for success as the payment and reimbursement environment evolves further into value-based models.

PPWPA is committed to a physician-led governance structure and has structured its Board of Managers so that physicians hold the majority of voting positions, including both AHN employed and independent physicians. PPWPA has more than 2,400 providers, spanning 14 counties in western Pennsylvania.

In 2017, PPWPA entered into a value-based, shared savings agreement with Highmark for approximately 160,000 attributed lives. In 2018, PPWPA was awarded a three-year contract with CMS for the Medicare Shared Savings Program Track 1 for approximately 36,000 attributed Medicare beneficiaries. Additionally, PPWPA and its physician participants collaborate closely with the Hospitals around common initiatives to improve patient care, reduce variation and waste, and provide seamless transitions of care across all settings. Examples include readmission reduction, care model implementation and coordination of care transitions. These value-based activities may result in shared savings earned among the participating providers.

AHN Research Institute

Allegheny Singer Research Institute, which now does business as the Allegheny Health Network Research Institute ("AHNRI"), offers access to new drug therapies and surgical procedures and has expertise with devices and wearable technologies that help reduce the impact of chronic disease. AHNRI partners with industry, government, academia, and health systems across the region to work toward a series of common goals: discovering cures, developing the next clinical "best practices," improving the health of patients, and advancing the science of medicine.

Medical research across all of AHN's programs is a critical component of the organization's mission. AHNRI coordinates private and federally funded interdisciplinary programs designed to better understand, treat and prevent disease. AHN's Hospitals are frequently involved in clinical trials that address, among others, breast, prostate and bowel cancer, burn and traumatic injuries, gene therapy, cardiovascular disease, leukemia and lymphoma, autoimmune diseases, and neurological diseases. There are more than 150 clinical trials that are actively recruiting patients.

PHYSICIAN ORGANIZATION AND MEDICAL STAFF

As of June 30, 2018, AHN had over 1,200 employed physicians and over 700 employed physician extenders in its physician organizations, the largest of which is the Allegheny Clinic. Since the

formation of AHN, it has added hundreds of primary care physicians, specialists and surgeons to its physician organization, covering over 100 specialties and subspecialties.

Medical Staff by Status

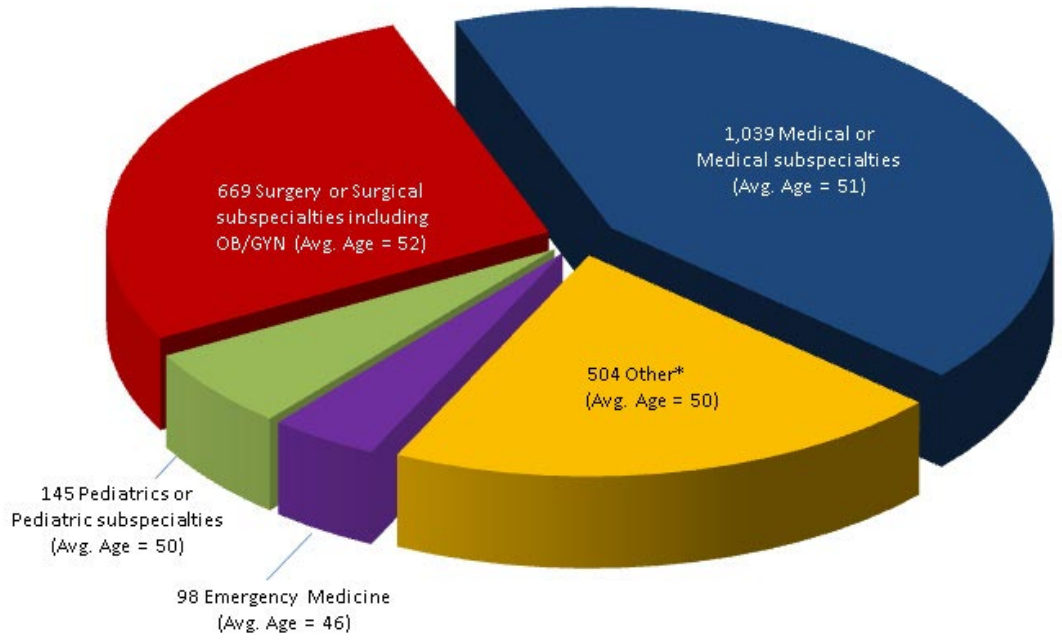
	Physicians	Extenders**	Total Clinicians
Employed*	1,244	725	1,969
Affiliated	1,211	290	1,501
Total Providers	2,455	1,015	3,470

*Employed physician count includes 98 contracted Emergency Medicine physicians through an AHN joint venture.

**Extenders include non-physician professionals such as registered nurses practicing in an extended role or other licensed professionals, including Physician Assistants, Certified Registered Nurse Practitioners, Certified Registered Nurse Anesthetists and Certified Nurse Midwives.

As of June 30, 2018, AHN had 2,455 physicians, psychologists, dentists and other medical specialists on its medical staff, which include employed and independent physicians. The following chart prepared from AHN internal records provides information relating to the medical staff as of June 30, 2018.

AHN's Physician Staff by Specialties



*Other includes, among others, anatomic and clinical pathology, anesthesiology, diagnostic radiology, emergency medicine, pain medicine, physical medicine and rehabilitation, psychiatry, psychology and radiation oncology.

GRADUATE MEDICAL EDUCATION AND AFFILIATIONS

GME

The AHN Medical Education Consortium ("Consortium"), established in 2015 and accredited by the Accreditation Council on Graduate Medical Education, oversees the residency and fellowship training programs of AHN. The Consortium sponsors programs based at AHN's four teaching facilities, AGH, WPH, Forbes, and SVH, along with 39 additional participating non-AHN sites. During the 2017 academic year, the program trained 515 residents and fellows in 46 specialties through more than 550 teaching faculty. The program includes advanced subspecialty residency training programs such as advanced heart failure and transplant surgery, as well as fellowships in critical care and vascular surgery. The program has received national and regional first and second place recognitions for its scholarly activities related to peer review articles and presentations.

Affiliations

AHN has medical school affiliations with the Lewis Katz School of Medicine at Temple University, Drexel and LECOM. AHN provides clinical education to more than 375 third and fourth year medical students of these educational institutions.

Nursing Schools

AHN affiliates operate two hospital-based schools of nursing: West Penn School of Nursing associated with WPH and The Citizens School of Nursing associated with AVH. Combined, these nursing schools train more than 250 students each calendar year. A significant number of graduating students accept employment within AHN facilities.

OTHER ANCILLARY SERVICES

Joint Venture Investments

AHN has entered into operating agreements with various organizations to support the continuum of care for patients. AHN's investments in individual entities range from non-controlling interests, generally less than 50% ownership, to controlling interests in excess of 50% ownership. AHN's controlling joint venture investments are primarily strategic in nature and constitute entities providing home health and community care services, emergency department physician staffing, durable medical equipment and malpractice insurance coverage for physicians.

AHN's joint ventures play a role in expanding patient access to healthcare at the home and in the community. The home health and community care joint ventures provide post-acute services primarily related to home healthcare services, hospice services and the provision of durable medical equipment. The joint ventures also work regularly with an outside network of skilled nursing, long-term care, and other post-acute care providers with a goal of ensuring that AHN patients have access to the full post-acute continuum of care.

In October 2017, AHN and Emerus Investment Company IX, LLC entered into an operating agreement to form a new joint venture, AHN Emerus LLC ("AHN Emerus"), to own, build, finance, invest in and manage neighborhood hospitals within western Pennsylvania. Emerus is the nation's largest operator of this new hospital format, which is generally smaller and more efficient than many existing neighborhood hospitals. These hospitals typically house an assortment of onsite clinical services, including an emergency department, 10-12 inpatient beds for observation and short-stay use, 8-10 emergency room bays, diagnostic care, primary and specialty care, and other complementary services.

Unlike standalone emergency departments or urgent care centers, these facilities are fully licensed hospitals that are open 24 hours a day, seven days a week and are able to accommodate some patients who require inpatient services. AHN management believes that the addition of these facilities will strategically expand the AHN access footprint while benefiting the surrounding communities, including AHN patients and Highmark customers. The neighborhood hospital concept is designed to provide better access to high quality care combined with a more efficient cost structure to deliver those services. Emerus Management Company, LLC (an affiliate of Emerus Investment Company IX, LLC), will provide certain management services under a long-term management contract.

Foundations and Other Philanthropic Efforts

AHN also has a number of affiliated philanthropic organizations, including the Alle-Kiski Medical Center Trust, Forbes Health Foundation, Suburban Health Foundation, Saint Vincent Foundation for Health and Human Services and West Penn Hospital Foundation. The Alle-Kiski Medical Center Trust and these foundations (excluding Suburban Health Foundation) are Obligated Group Members, and hold primarily donor restricted and other philanthropic assets.

The AHN Development Office also supports patient-centered care through donor-centered philanthropy. This is accomplished by collaborating with healthcare providers, patients, and the community to help fund the advancement of high-quality care, research, and education. The AHN Development operation includes a comprehensive annual fund, special events, and a major gift program focused on securing philanthropic support from individuals, corporations and foundations. In 2017, AHN secured more than $20 million in voluntary support (which includes $11 million generated from current year fundraising activities) from more than 3,300 donors, with 61% of gifts coming from individuals.

Group Purchaser

Provider PPI LLC and its subsidiaries (collectively, "Group Purchaser") were formed in April 2012, to aggregate, spend, and achieve savings through contracting at both the national and local levels for healthcare related items and services, including contracting for physician preference items. AHN recognizes savings as a result of the purchasing power of the group purchasing organization. Today, Group Purchaser provides services to 87 member organizations, which include AHN entities. Group Purchaser also operates a distribution center with capacity to accommodate bulk purchasing, custom surgical pack preparation, and the delivery of supplies. Through supply chain management, Group Purchaser benefits AHN by optimizing purchasing, inventory management, warehousing, distribution, receiving, and customer service.

INFRASTRUCTURE AND CAPITAL

Since the formation of AHN, Highmark Health and AHN have been working collaboratively to enhance the infrastructure of AHN and its ability to provide care in anticipation of the expiration of the Consent Decrees.

Hospital Infrastructure Upgrades and Service Expansions

Since inception, Highmark has invested more than $1.7 billion in the AHN System to help accelerate and solidify AHN's position as the provider core of the Highmark Health IDFS. Of the $1.7 billion, approximately $1.2 billion (inclusive of the investment in Epic) was used to fund certain capital expenditures and represents over 90% of AHN's capital investments since inception. Management of AHN believes that these investments have helped reposition AHN in the marketplace.

Some of the more prominent infrastructure and service expansion projects that have been completed during this period include the following:

Implementation of Epic. The Epic electronic medical record system has been implemented at six of the eight Hospitals at a cost of $242 million, with the remaining two Hospital conversions scheduled for the fall of 2018 for an additional investment estimated at $28 million, of which approximately $16 million has been made through June 30, 2018. Nearly all of the employed physician base has been converted to the Epic system, and the majority of the ambulatory sites are converted, with the remaining sites scheduled for conversion later in 2018. The Epic installation was funded by Highmark Health, and AHN has a perpetual license to use the Epic software through an agreement with Highmark Health at no ongoing cost to AHN for the software.

48-bed Critical Care/Telemetry Unit for Cardiovascular Patients at AGH. In 2016, AGH opened a new unit that provides cardiovascular patients with access to 48 private beds, including 24 critical care beds and a 24-bed monitored telemetry unit. Located on the 11th floor of AGH's Snyder Pavilion, the $26 million project was part of an initiative to improve and modernize the infrastructure of the hospital and further advance its capabilities as AHN's flagship quaternary medical center.

Women's Care. In 2014, AHN opened a new Women and Infants Center at Jefferson Hospital to better serve women and families living south of Pittsburgh. In 2017, the obstetrical and maternity unit at Jefferson delivered more than 980 babies. Additionally, in 2015, AHN renovated and expanded the obstetrics facilities at WPH, including a 33-bed postpartum unit. In 2016, AHN expanded its labor and delivery unit at Forbes.

Four Health + Wellness Pavilions. AHN's H+WPs are large, multi-specialty clinical locations. Designed with the patient in mind, the H+WPs provide convenience and enhanced patient experience by co-locating a variety of interrelated clinical and surgical services in order to accommodate the majority of a patient's or family's health and wellness needs all in one place.

To date, AHN has opened H+WPs in Wexford, Erie, Bethel Park, and Peters Township. The largest and most expansive is located in Wexford, which is a northern suburb of Pittsburgh. The facility includes an ambulatory surgery center, physician offices, diagnostic and imaging services, and a Visionworks optical clinic. Similar H+WPs were opened in Bethel Park and Peters Township, both located in suburbs south of Pittsburgh, and include an outpatient surgery center, physician offices and imaging and laboratory services, along with physical and occupational rehabilitation and therapy services. The fourth H+WP is located in Erie, Pennsylvania.

The AHN Sports Complex at Cool Springs. The sports complex is a multi-sport facility specializing in orthopaedic care and sports medicine. The facility features three partitioned, multi-purpose, fully turfed fields, two regulation hardwood basketball courts and four volleyball courts, as well as a membership fitness center for the community. The sports complex also houses an array of AHN orthopaedic and sports medicine services, with a particular focus on advanced sports performance training, physical therapy and orthopaedic care.

The Cahouet Center for Comprehensive Parkinson's Care. The Cahouet Center is designed to help patients with Parkinson's disease and their families more seamlessly access and coordinate the clinical and support services they require. The Cahouet Center combines AHN's specialized medical expertise with the resources of the Pittsburgh-based Parkinson Foundation for the benefit of those in western Pennsylvania who are living with Parkinson's.

Alexis Joy D'Achille Center for Women's Behavioral Health. The Alexis Joy D'Achille Center, a facility in western Pennsylvania for women suffering from pregnancy-related depression, opened in

autumn 2017. The Center houses an array of services currently offered to women who are in need of treatment for perinatal depression, encompassing postpartum depression and depression during pregnancy. It is one of the few centers in the U.S. to provide a range of treatments, including therapy, an intensive outpatient program for women in need of a higher level of care, and a partial hospitalization program for women suffering from more severe forms of postpartum depression.

Center for Pediatric Orthopaedic Care. In 2017, AHN opened its new Pediatric Orthopaedic Institute, a dedicated center which provides a multi-disciplinary program for children, adolescents and teenagers who suffer from orthopaedic and neuromuscular conditions, including those who sustain injuries that require same-day care. Staffed by board-certified physicians and orthopaedic surgeons (as well as other health professionals), the institute features various specialty centers of care dedicated to the diagnosis and treatment of neuromusculoskeletal injuries and conditions.

Radiology Upgrades and Replacements. Upgrades and replacements of computerized tomography ("CT"), magnetic resonance imaging ("MRI") and other imaging technology have been completed in various units across AHN.

Various Other Capital Improvements

Other capital improvements include a new cardiac intensive care unit ("ICU") at WPH, a new extended hours oncology clinic at WPH, a new islet cell isolation lab for pancreatic disease treatment at AGH and completion of a new 20-bed trauma ICU and a new patient elevator tower at Forbes. Installation of Mako robotic technology for hip and knee replacements was completed at SVH, AGH, Forbes and WPH, along with development of a new Orthopaedic Institute at SVH. AHN opened a new Center for Surgical Arts training facility at AGH for residents, fellows and attending surgeons. AVH opened a new 17-bed inpatient rehabilitation unit and built a new 14-bed orthopaedic and neurosurgical unit. A surgical suite construction project was completed at Jefferson that features a minimally-invasive, peripheral vascular suite and minimally-invasive suites for orthopaedics and general surgery, as well as a robotics program. Construction was also completed on a new cancer center at Jefferson that offers enhanced technologies in medical and radiation oncology services.

Major Strategic Capital Investments Announced and Underway

$***200 million Investment in the Cancer Institute.*** Building on AHN's legacy as a provider of cancer care, AHN and Highmark Health announced plans in 2017 to invest more than $200 million over several years to further enhance access to oncology services in the western Pennsylvania region. The investment includes construction of an academic cancer institute facility on the AGH campus and construction of five additional community-based cancer treatment centers across western Pennsylvania. These new facilities will complement the existing cancer capabilities and infrastructure within the AHN Cancer Institute. Planning and early construction activities are underway related to these projects. Complementing this facility expansion is an affiliation with Johns Hopkins Medicine ("Johns Hopkins"). Under the contractual affiliation with Johns Hopkins, AHN patients have enhanced access to more than 500 cancer clinical trials.

$115 million Investment in Erie and SVH. In early 2016, AHN, Highmark Health and SVH announced a $115 million, multi-phased capital investment plan for SVH that will enhance the hospital's capabilities, expand its capacity to meet the evolving health needs of the community, and facilitate a patient-centered care model focused on quality, convenience and service excellence. Plans include construction of a new emergency department and operating room suites in a new structure on the hospital campus. A new Women's Center as well as select floor and room renovations and other mechanical upgrades are included in the project. As part of the investment in the Cancer Institute mentioned above, a new cancer center is scheduled for completion on the SVH campus. In addition, construction is underway

on a new urgent care center that will geographically complement the existing urgent care center in Erie. Ground-breaking for the initial phase of these projects occurred in May 2017.

Joint Venture Partnership with Emerus to Operate Four Neighborhood Hospitals. In October 2017, AHN and Emerus announced a new joint venture partnership to construct and operate neighborhood hospitals in western Pennsylvania. Each of these neighborhood hospitals is expected to include a full-service emergency department, associated lab and imaging modalities, a small number of inpatient beds (generally 10-12), and, in some cases, an attached medical office capable of housing primary care physicians and community-based specialties. These types of facilities typically require lower capital investment than larger hospitals and are designed to be patient-friendly with a value-based focus. The partners are finalizing plans for these locations in western Pennsylvania. Completion of such facilities is subject to further review by the Pennsylvania Department of Health, but they are expected to open in the fall/winter of 2019. The joint venture is more specifically described above under the heading "Other Ancillary Services."

Construction of a Full Service Hospital in Wexford. In October 2017, AHN announced plans to construct and operate a 160-bed full-service hospital in Wexford on the campus of the existing Wexford H+WP. Initial plans contemplate placing 110 beds in operation, with the ability to expand up to a 160-bed capacity. The hospital will be designed to complement the existing H+WP on the Wexford campus. AHN currently expects to break ground on the construction in August of 2018, and the facility is expected to be operational in late 2021.

Expansion of Perioperative Center and New Electrophysiology and Gastroenterology Labs at Forbes. In October 2017, AHN announced plans to expand and enhance Forbes' existing perioperative, gastroenterology and postoperative surgical recovery units to better accommodate the hospital's growing surgical program and patient volumes. Forbes recently broke ground on its new Perioperative Center, which will double the capacity of this post-surgical care unit and increase Forbes' capacity to perform cardiac procedures. As part of this project, Forbes intends to replace its existing electrophysiology and gastroenterology laboratories.

Renovation of the Neonatal Intensive Care Unit ("NICU") at West Penn. In October 2017, AHN announced plans to expand and modernize the West Penn NICU. West Penn delivers over 4,000 newborns each year. Plans for the project call for expansion of the current NICU from 40 to 63 beds and a complete redesign of the NICU area to accommodate the latest technologies and design trends in NICU care.

Renovation and Expansion of the Jefferson Emergency Room. In October 2017, AHN announced plans to move forward with an expansion and renovation of Jefferson's emergency room. More than 50,000 emergency visits occurred at Jefferson in 2017. The plans for the new emergency room include larger waiting areas and advanced technologies to help caregivers triage, diagnose and treat patients more effectively and efficiently. Work on the project began early in 2018.

Over the next three years, management anticipates spending approximately $1.3 billion on capital needs for the projects outlined above and other capital projects. Major funding sources are expected to be cash flow from AHN operating and investing activities, existing bond construction fund balances and potential equity transfers from Highmark. Failure to generate sufficient funds and/or receive adequate funding from Highmark to pay for future capital projects could have a material adverse effect on the Obligated Group. For a discussion of limitations imposed by the PID and law on Highmark's ability to transfer capital to AHN, see "HISTORY."

COMMUNITY BENEFITS

AHN and its tax-exempt subsidiary facilities support an array of charitable services to the community by providing subsidized healthcare; sponsoring community events (health fairs, cancer screenings, walks, educational seminars, and support groups); and making charitable donations. The services benefit children and teens, adults and seniors, patients and their families, and the community at large. In 2017 and 2016, AHN reported community benefits valued at $107.2 million and $102.2 million, respectively, which includes, among other things, the unfunded portion of Medicaid costs.

The following is a sampling of some of AHN's contributions to the community and its commitment to provide a wide range of quality health services to all who seek AHN's care, but is not a total account of all of AHN's charitable activities.

AHN Positive Health Clinic

The Positive Health Clinic is a comprehensive HIV primary care clinic providing care to HIV-positive persons. Its support staff includes physicians, nurses, medical assistants, social workers, behavioral health therapists, psychiatrists and patient advocates. The team treats more than 750 patients each year and has experience with all aspects of HIV management, providing a wide range of primary and specialized HIV care, regardless of an individual's medical insurance coverage or ability to pay. Services and programs include: comprehensive HIV care, rapid HIV testing and counseling and partner testing, medication adherence counseling and pharmacy support, gynecologic care, nutritional assessment and counseling by a registered dietitian, treatment for persons co-infected with HIV and Hepatitis C, smoking cessation programs, mental health assessment, counseling and psychiatric support, and case-management for non-medical needs. The staff assists with financial or social issues that may interfere with the provision of medical care. AHN also provides financial support to a regional AIDS-prevention partnership, the goal of which is to end new HIV infections in Allegheny County, Pennsylvania by 2020.

Braddock Urgent Care

In 2015, AHN opened the Braddock Urgent Care Center, subsidizing healthcare access for the underserved in the Braddock community, a suburb of Pittsburgh, by providing care on a charitable basis and serving a significant share of Medicare and Medicaid patients. With the help of a grant from Highmark, AHN has launched a community health improvement plan, intended to educate and improve outcomes for Braddock-area residents in four key areas: behavioral health, including substance abuse and mental health disorders; cancer, particularly of the prostate, lung, colon or breast; chronic disease, with a focus on asthma and diabetes, and maternal and child health, with a particular focus on sexually transmitted disease prevention. The AHN urgent care center was built following the closure of Braddock's community hospital, which had been the primary jobs source and healthcare access point for Braddock residents. The AHN urgent care center is staffed by board-certified physicians, registered nurses, medical assistants and radiology technicians, and is equipped with 12 patient exam rooms and diagnostic capabilities, such as x-ray imaging and blood work.

Medical Respite Program

In 2016, AHN established a new medical respite program that provides itinerant patients recovering from illnesses with a safe place to recuperate and receive ongoing non-acute care and support following a hospital stay. When it opened, it was the first medical respite program to be established in the Pittsburgh region according to the Medical Respite Program Directory of the National Health Care for the Homeless Council. The medical respite program first addresses the patients' primary needs for safe temporary housing and nutrition (through partnerships with local homeless services facilities located in downtown Pittsburgh); then follows up with patients' health needs with visits from AHN healthcare

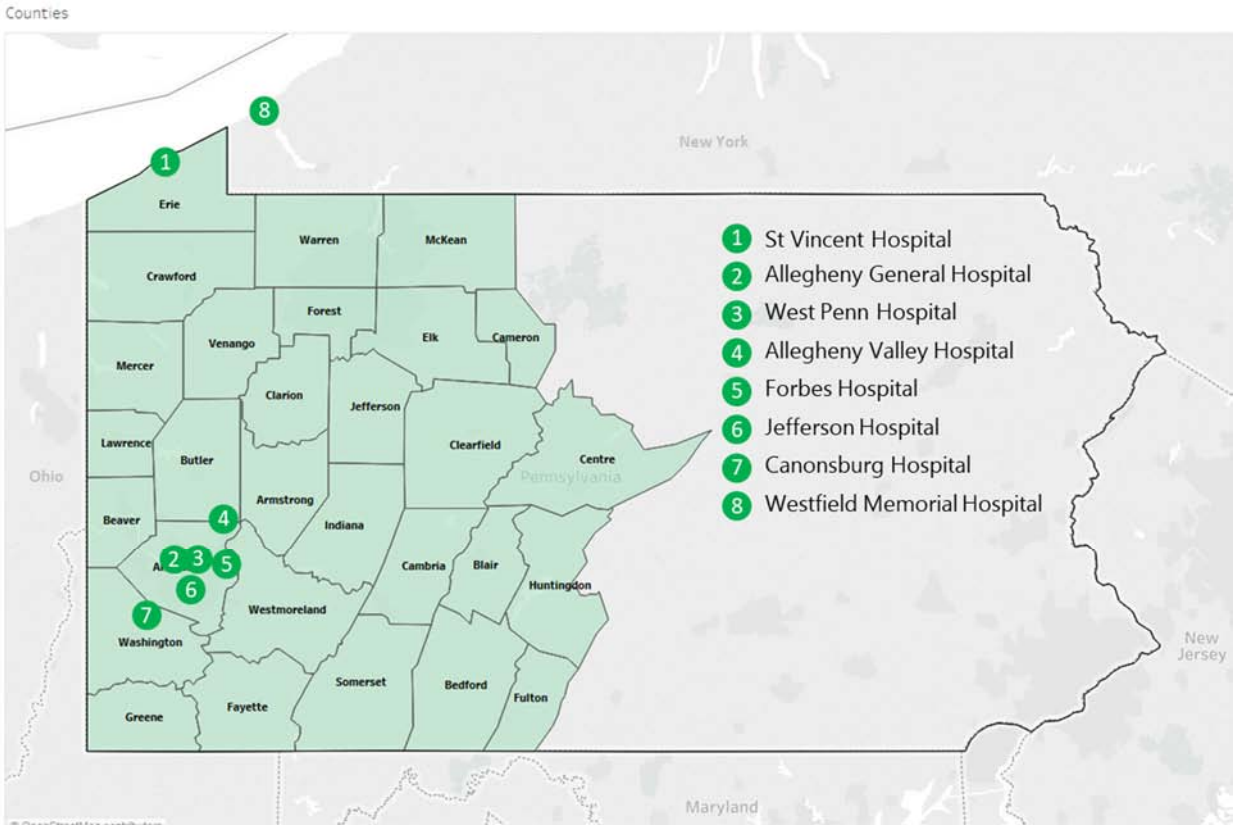
professionals (AHN's Center for Inclusion Health and Healthcare@Home programs). Through this model, the program helps provide healthcare and social stability for at-risk patient populations, while lowering the risk of re-hospitalizations.

Perinatal Hope

In 2016, AHN launched its Perinatal Hope program, a medical home care model for mothers-to-be who are addicted to drugs. The program provides treatment that puts the mother and baby on track for a more hopeful future. Perinatal Hope is an all-inclusive program for maternal addiction that combines obstetrical care, drug and alcohol therapy and medication-assisted treatment into one clinic visit. Perinatal Hope is supported in part by grants from the March of Dimes Foundation – Western Pennsylvania, the Highmark Foundation, and the Jewish Women's Foundation of Greater Pittsburgh.

WESTERN PENNSYLVANIA SERVICE AREAS

The following service area analysis is based on patients residing in western Pennsylvania, defined as the 29 counties indicated in the map below for purposes of this discussion. That area includes Pittsburgh, the largest city in western Pennsylvania and the second largest city in the Commonwealth, and Erie, the largest city in northwestern Pennsylvania and the fourth largest city in the Commonwealth, according to the 2010 U.S. Census. Erie is approximately halfway between the cities of Buffalo, New York, and Cleveland, Ohio, and is located due north of Pittsburgh. Erie's manufacturing sector remains prominent in the local economy, while healthcare, higher education, technology, service industries and tourism are emerging as significant economic drivers. The population of Erie is approximately 100,000 according to estimates of the 2016 U.S. Census Bureau.



The 10-county greater Pittsburgh area is home to more than 2.5 million people according to estimates of the 2016 U.S. Bureau of Labor Statistics, a labor force of more than 1.3 million according to the U.S. Bureau of Labor Statistics, 18 colleges and universities according to the Pittsburgh Regional Alliance, and 49 companies with revenues exceeding $1 billion annually in September 2016, also according to the Pittsburgh Regional Alliance.

As of 2018, the region is home to seven Fortune 500 companies (Kraft Heinz, PNC Financial Services Group Inc., PPG, United States Steel Corp., Alcoa Corporation, Wesco International, and Dick's Sporting Goods Inc.).

AHN Service Areas

For purposes of the following discussion, individual hospital service areas are defined by the geographies—specifically the zip codes—that directly surround each location. The hospital service areas were combined into a single unduplicated set of zip codes for all AHN hospitals to define a system-wide service area. AHN inpatient volumes (measured using inpatient discharges and data from the Pennsylvania Heath Care Cost Containment Council) by zip code that comprise approximately 75% of AHN's overall inpatient volumes are defined as the Primary Service Area ("PSA") zip codes. Similarly, adding those zip codes that cumulatively represent the next 15% of AHN's overall inpatient volumes define the Secondary Service Area ("SSA"). The sum of AHN's volume in the primary and secondary service areas represents 90% of AHN's volume. The related overall inpatient volumes (serviced by all providers) generated from those same zip codes comprise the overall available patient base and were the basis for calculating AHN's share of inpatient discharge volumes.

Population Trends

The following tables show current estimated and projected demographics for the PSA and SSA compared to state and national projections.

	Estimated 2017	Projected 2022	Change	% Change 2017-2022
Southwestern PA				
Total Population	1,794,794	1,775,493	(19,301)	-1.1%
Households Count	788,399	810,161	21,762	2.8%
Median Age	42.0	42.3	0.3	0.7%
Median Household Income	61,074	71,714	10,640	17.4%
Unemployment Rate	5.4%	5.5%	0.1%	
Northwestern PA				
Total Population	1,034,895	1,014,417	(20,478)	-2.0%
Households Count	429,127	440,501	11,374	2.7%
Median Age	41.9	42.1	0.2	0.5%
Median Household Income	50,366	59,331	8,965	17.8%
Unemployment Rate	6.1%	6.0%	-0.1%	
Pennsylvania				
Total Population	12,803,429	12,863,021	59,592	0.5%
Households Count	5,172,698	5,338,783	166,085	3.2%
Median Age	40.0	40.4	0.4	1.0%
Median Household Income	65,859	73,877	8,018	12.2%
Unemployment Rate	5.2%	5.2%	0.0%	
United States of America				
Total Population	324,271,629	337,704,256	13,432,627	4.1%
Households Count	124,491,927	130,810,409	6,318,482	5.1%
Median Age	37.7	38.4	0.7	1.9%
Median Household Income	64,030	75,162	11,132	17.4%
Unemployment Rate	4.7%	4.7%	0.0%	

Source: Advisory Board.

Inpatient Discharge Share in Primary Service Area

Since 2014, AHN has increased its inpatient discharge share in the combined PSAs from 27.3% (2014) to 28.9% (Q2 2017).

	2014	2015	2016	6 months, ended June 30, 2016	6 months, ended June 30, 2017
Southwestern PA					
AHN Volume	50,421	51,770	52,456	26,189	25,691
Total Volume	173,947	170,979	169,171	85,084	81,302
AHN Share	29.0%	30.3%	31.0%	30.8%	31.6%
Northwestern PA					
AHN Volume	15,171	14,587	14,472	7,405	7,069
Total Volume	66,665	65,462	65,764	33,140	32,021
AHN Share	22.8%	22.3%	22.0%	22.3%	22.1%
TOTAL AHN					
AHN Volume	65,592	66,357	66,928	33,594	32,760
Total Volume	240,612	236,441	234,935	118,224	113,323
AHN Share	27.3%	28.1%	28.5%	28.4%	28.9%

Excludes patients age < 19

Source: Advisory Board.

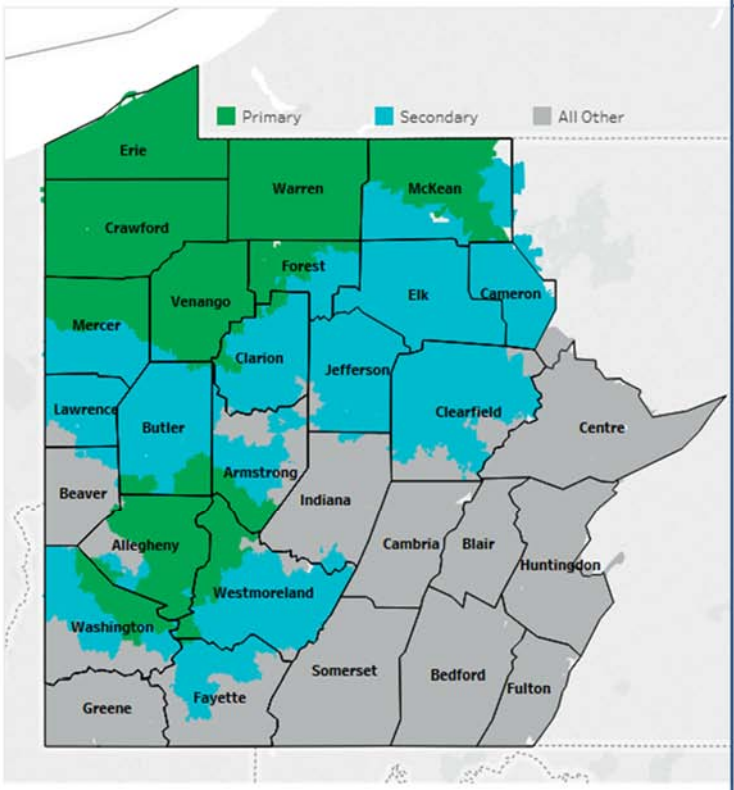
Management attributes this growth in discharge volume and share to successful implementation of its strategic initiatives including but not limited to access initiatives, such as same-day appointments, video visits, expanded program capacity, the continual attraction of physicians to AHN, implementation of Epic, the integrated electronic health record and Highmark membership transition in advance of the expiration of the Consent Decrees.

COMPETITIVE LANDSCAPE

AHN competes on the basis of many factors, including but not limited to ease of access to quality care, the ability to attract and retain quality physicians, skilled clinical personnel and other healthcare professionals, location of its facilities, breadth of services, technology offered, quality and condition of the facilities and prices charged.

As discussed above, AHN's PSAs and SSAs account for approximately 75% and 15%, respectively, of the total inpatient discharge volume. The map below shows the western Pennsylvania region, and the shading represents AHN's PSA and SSA. The accompanying table to the right of the map on the following page includes all of the acute care hospitals in counties within AHN's PSA or SSA.

List of Hospitals in Western PA Counties in PSA and SSA
UPMC Facilities | AHN Facilities



List of Hospitals in Western PA Counties in PSA and SSA
UPMC Facilities | AHN Facilities

ERIE
- St. Vincent
- UPMC Hamot
- Lecom: Corry
- Lecom: Millcreek

CRAWFORD
- Titusville
- Meadville Medical Center

WARREN
- Warren General

MCKEAN
- Bradford Regional

MERCER
- Grove City
- Sharon Regional
- UPMC Horizon

VENANGO
- UPMC Northwest

CLARION
- Clarion Hospital

JEFFERSON
- Penn Highland

CLEARFIELD
- Punxatawney

ARMSTRONG
- Armstrong County Hospital

BUTLER
- Butler Health System
- UPMC Passavant Cranberry

LAWRENCE
- Ellwood City
- UPMC Jameson

BEAVER
- Heritage Valley

ALLEGHENY
- Allegheny General
- Allegheny Valley
- Canonsburg Hospital
- Children's Hospital UPMC
- Forbes Hospital
- Heritage Valley Sewickley
- Jefferson Hospital
- Magee Women's of UPMC
- Ohio Valley
- West Penn Hospital
- St. Clair Hospital
- UPMC East
- UPMC McKeesport
- UPMC Mercy
- UPMC Passavant
- UPMC Presbyterian/Shadyside
- UPMC St. Margaret
- Western Psych

WASHINGTON
- Warren General

WESTMORELAND
- Excela Latrobe
- Excela Frick
- Excela Westmoreland

FAYETTE
- Uniontown Hospital

ELK
- Penn Highlands

CLEARFIELD
- Penn Highlands

On the map above, the two largest counties with one or more AHN hospitals are Erie County and Allegheny County. In both of those counties, AHN's primary competitor is UPMC.

Other Hospitals Operating within AHN's PSA

Allegheny County is the most populous county in western Pennsylvania. Within that county, the primary competitors are UPMC, Heritage Valley Health System and St. Clair Hospital.

UPMC

According to its website, UPMC has over 30 academic, community, and specialty hospitals, 11 of which are within Allegheny County. UPMC's flagship hospital, UPMC Presbyterian, includes Level I adult and pediatric trauma centers. UPMC also has over 600 clinical locations including skilled nursing, outpatient sites, and doctors' offices. UPMC reported health products membership of 1.4 million enrollees as of March 31, 2018, excluding behavioral health enrollees.

UPMC is also an IDFS with an insurance services division and a closely affiliated academic partner, the University of Pittsburgh. For further discussion of UPMC, see "HISTORY."

Heritage Valley Health System

According to its website, Heritage Valley Health System offers a range of medical, surgical and diagnostic services at its two hospitals, Heritage Valley Sewickley and Heritage Valley Beaver, which have an aggregate of 461 beds. It also has a network of 60 physician offices and 18 community satellite facilities located to the north and west of the city of Pittsburgh.

St. Clair Hospital

According to its website, St. Clair Hospital is an independent community hospital located approximately 6 miles south of Pittsburgh. In addition to its 329-bed acute care medical center, St. Clair Hospital offers healthcare services at five outpatient centers.

The following chart includes core statistics for AHN and its principal competitors in the PSA and SSA.

Statistics of Other Hospitals Operating within AHN's PSA

	Beds* (Active/Total)	Annual Admissions	Occupancy Rates
Allegheny Health Network			
Allegheny General Hospital	524 / 576	24,235	65.6%
Allegheny Valley Hospital	110 / 228	5,583	64.8%
Canonsburg Hospital	104 / 104	2,290	43.5%
Forbes Hospital	298 / 315	13,948	66.8%
Jefferson Hospital	341 / 341	15,745	52.8%
West Penn Hospital	259 / 317	12,000	65.0%
Saint Vincent Hospital	371 / 371	14,116	46.8%
Subtotal AHN	2,007 / 2,252	87,917	59.2% (weighted)
Excela Health			
Frick Hospital	33 / 33	2,240	69.9%
Latrobe Hospital	113 / 172	6,810	62.5%
Westmoreland Hospital	270 / 373	15,156	70.0%
Subtotal Excela Health	416 / 578	24,206	68.0% (weighted)

	Beds* (Active/Total)	Annual Admissions	Occupancy Rates
Heritage Valley Health System			
Heritage Valley Beaver	285/285	13,455	55.8%
Heritage Valley Sewickley	176/176	7,966	50.2%
Heritage Valley Subtotal	461/461	21,421	53.6% (weighted)
LECOM Health			
Corry Memorial	20 / 20	571	34.3%
Millcreek Community Hospital	144 / 144	4,752	48.5%
LECOM Subtotal	164 / 164	5,323	46.7% (weighted)
St. Clair Hospital	301/328	16,302	60.3%
UPMC			
UPMC Presbyterian Shadyside	1,461/1,577	59,438	79.8%
Magee Womens of UPMC	321/383	18,199	73.2%
UPMC Mercy	453/495	19,040	70.2%
UPMC St. Margaret	206/248	11,445	77.8%
UPMC Passavant	286/423	15,526	75.8%
UPMC McKeesport	181/222	7,436	66.4%
UPMC East	155/155	7,989	68.3%
UPMC Hamot	319/423	20,573	75.1%
UPMC Subtotal	3,382/3,926	159,646	75.7% (weighted)

Source: 2016 Pennsylvania Department of Health Hospital Questionnaire (the "Questionnaire"). Data are reported on an admission basis in the Questionnaire and therefore there may be differences between the admission data presented here and the discharge data contained in the chart entitled, "Utilization" under the heading "Financial and Operating Data." AHN admission information is based on internally published financial statement statistics for same period.

* Bed counts for AHN as listed in the above table differ slightly from the current bed counts listed in the chart titled "Licensed Beds by Type" under "FACILITIES," based on changes that occurred after the survey date used to gather the above information.

FINANCIAL AND OPERATING INFORMATION

The summary historical financial information contained in this section should be read in conjunction with the audited consolidated financial statements for the years ended December 31, 2016 and 2017, and the related notes to the audited consolidated financial statements, which are set forth in Appendix B to this Official Statement.

The summary statements of operations and balance sheets for the years ended December 31, 2015, 2016 and 2017 shown in the tables on the following pages have been derived from the audited consolidated financial statements of AHN. In 2017, the Obligated Group represented 90% of total revenues and approximately 90% of total assets of AHN and its consolidated subsidiaries. Interim unaudited results for the six-month periods ended June 30, 2017 and 2018 were derived from AHN's books and records and include, in the opinion of management, all adjustments necessary for the fair presentation thereof. Financial performance for the six months ended June 30, 2018 may not be indicative of the results for the full fiscal year ending December 31, 2018.

Utilization

AHN utilization statistics are set forth in the following table and reflect the historical results for 2015 through 2017 and interim results for the six-month periods ended June 30, 2017 and June 30, 2018.

	December 31,			June 30,	
	2015	**2016**	**2017**	**2017**	**2018**
Discharges	86,117	87,211	87,461	44,653	43,690
Observation Cases	30,929	30,432	29,891	14,788	16,258
Total Discharges and Observation Cases	117,046	117,643	117,352	59,441	59,948
Patient Days	428,464	430,284	448,479	227,893	222,031
Average Length of Stay (Medical Acute Days only)	4.59	4.53	4.76	4.73	4.79
Case-mix index (all payer)	1.79	1.84	1.84	1.82	1.88
Outpatient Registrations*	1,356,023	1,388,147	1,357,191	690,333	659,974
Emergency Department Visits	295,193	294,590	285,056	144,634	139,475
Inpatient Surgeries	29,557	30,317	29,490	15,054	14,876
Outpatient Surgeries	55,158	54,874	53,831	27,006	27,251
Ambulatory Surgical Cases**	13,091	18,796	20,611	10,192	11,354
Total Surgical Cases	97,806	103,987	103,932	52,252	53,481

* Effective March 1, 2017, the method of recording outpatient registrations was modified to improve the patient experience by eliminating multiple registrations for certain services.

** Freestanding locations only.

AHN Source of Revenues

The table below sets forth the sources of net patient revenue from the Hospitals for the years ended December 31, 2015 through 2017.

Description	2015	2016	2017
Highmark Commercial	33.8%	34.7%	34.8%
Highmark Medicaid*	2.5%	2.4%	2.4%
Highmark Medicare	13.7%	14.7%	13.8%
Highmark Subtotal	**50.0%**	**51.8%**	**51.0%**
Other Commercial	12.7%	13.0%	13.0%
Other Medicaid	6.7%	6.9%	6.7%
Medicare fee for service	19.7%	17.8%	17.6%
Other Medicare	8.1%	7.4%	8.6%
Other	2.8%	3.1%	3.1%
Other Subtotal	**50.0%**	**48.2%**	**49.0%**
Total	**100.0%**	**100.0%**	**100.0%**
Total Commercial	**46.5%**	**47.7%**	**47.8%**
Total Government	**50.7%**	**49.2%**	**49.1%**

*Includes products provided by Gateway Health Plan, an affiliate of Highmark.

The following table sets forth a summary of the Operations of AHN for the years 2015 through 2017.

AHN Summary Consolidated Statements of Operations (Dollars in thousands)*

	December 31,			June 30,	
	2015	**2016**	**2017**	**2017**	**2018**
Revenue					
Net patient service revenue	$ 2,451,162	$ 2,655,008	$ 2,887,910	$ 1,426,936	$ 1,528,422
Other operating revenue	189,848	199,737	183,452	91,985	84,123
Total revenue	2,641,010	2,854,745	3,071,362	1,518,921	1,612,545
Expenses					
Operating expenses	2,554,572	2,765,732	2,900,660	1,439,008	1,516,687
Depreciation and amortization	122,806	128,047	141,931	68,768	72,054
Total operating expenses	2,677,378	2,893,779	3,042,591	1,507,776	1,588,741
Operating income (loss)	**(36,368)**	**(39,034)**	**28,771**	**11,145**	**23,804**
Investment income	8,516	26,029	41,609	21,467	11,508
Interest expense	(29,584)	(30,292)	(39,320)	(17,318)	(16,827)
Other non-operating income (expense), net	16,331	341	18,083	12,816	(729)
Excess (deficit) of revenue over expenses, before income taxes	**(41,105)**	**(42,956)**	**49,143**	**28,110**	**17,756**
Income tax benefit	(2,100)	(2,912)	(1,960)	(334)	(296)
Excess (deficit) of revenue over expenses	**$ (39,005)**	**$ (40,044)**	**$ 51,103**	**$ 28,444**	**$ 18,052**
Earnings before interest, taxes, depreciation, and amortization**	$111,285	$115,383	$230,394	$114,196	$106,637

* Includes entities that are not Obligated Group Members.

** "EBITDA" or "Earnings before interest, taxes, depreciation, and amortization" is not a measure of operating performance or liquidity defined by generally accepted accounting principles and may not be comparable to similarly titled measures presented by other companies.

AHN Summary Consolidated Balance Sheets (Dollars in thousands)*

	2015	2016	2017	June 30, 2018
Assets				
Current assets				
Cash and cash equivalents	$ 137,617	$ 196,553	$ 220,017	$ 213,500
Patent accounts receivable	293,995	311,691	319,422	356,837
Other current assets	153,461	149,528	141,648	144,369
Total current assets	585,073	657,772	681,087	714,706
Investments	702,010	736,383	958,829	1,028,947
Property and equipment, net	1,062,398	1,074,835	1,152,002	1,170,553
Other assets	224,482	219,964	221,007	223,167
Total assets	$ 2,573,963	$ 2,688,954	$ 3,012,925	$ 3,137,373
Liabilities and Net Assets				
Current liabilities**	$ 418,078	$ 451,538	$ 415,343	$ 455,754
Accrued pension obligation	384,024	438,130	341,676	269,564
Long-term debt	1,360,348	1,351,898	1,062,392	1,062,273
Other liabilities	233,604	250,977	249,593	260,206
Total liabilities	2,396,054	2,492,543	2,069,004	2,047,797
Total net assets	177,909	196,411	943,921	1,089,576
Total liabilities and net assets	$ 2,573,963	$ 2,688,954	$ 3,012,925	$ 3,137,373

* Includes entities that are not Obligated Group Members.

** Current portion of long-term debt is included in current liabilities.

Management's Discussion and Analysis

Overview

In 2017, AHN achieved an excess of revenue over expenses of $51.1 million, improving by $91.1 million over 2016 results. Similarly, operating income was $28.8 million in 2017, an improvement of $67.8 million over 2016 results. Additionally, earnings before interest, taxes, depreciation, and amortization (a non-GAAP measure of earnings and related cash flow ("EBITDA")) were $230.4 million, an increase of $115.0 million over 2016. In 2016 and 2015, AHN experienced operating losses and a deficit of revenue over expenses as it continued to make investments pursuant to the IDFS strategy and transition to a value- based system. It should be noted that EBITDA and days cash on hand, operating expense per day, and debt service coverage ratio (referenced under "Financial Ratios" below) are not measures of operating performance or liquidity defined by generally accepted accounting principles and may not be comparable to similarly titled measures presented by other companies.

2017 Compared to 2016

AHN's operating loss of $39.0 million in 2016 improved to operating income of $28.8 million in 2017. For the same period, the deficit of revenue over expenses of $40.0 million improved to an excess of

revenue over expenses of $51.1 million. In 2017, AHN recognized a $13.0 million one-time gain on the sale of a joint venture in 2017.

Inpatient volumes, as measured by the combined total of discharges and observations, remained flat in 2017 at 117,352 compared to 117,643 in 2016. During the same period, ambulatory surgery center volume grew from 18,796 cases in 2016 to 20,611 in 2017. Management attributes 2017 financial results to a number of factors. In 2017, the results of a concerted effort referred to as "Project Sunshine," which targeted over 85 performance improvement initiatives, contributed to a reduced cost structure and enhanced revenue cycle performance. Project Sunshine focused on a broad base of activities that included revenue cycle management, supply chain management, labor management and various other expenses and revenue initiatives. In addition, the implementation of Epic allowed for better care coordination as AHN improved its revenue cycle process. AHN also benefited from certain payer negotiations as it continued to improve its ability to meet payer quality benchmarks and incentives.

In 2017, AHN expended $218.0 million on capital expenditures, including infrastructure replacement, equipment upgrades, expansion of various programs, and the addition of several new ambulatory access points across AHN facilities. In the fourth quarter of 2017, AHN and Highmark Health announced plans to invest an additional $700 million in new hospital construction and existing hospital expansion and renovation projects over the next several years. See "INFRASTRUCTURE AND CAPITAL" and "FACILITIES."

2016 Compared to 2015

AHN's operating loss increased from $36.4 million in 2015 to $39.0 million in 2016. For the same period, the deficit of revenue over expenses increased from $39.0 million to $40.0 million. Management attributes the results in 2016 to the ramp-up period for the execution of the IDFS strategy and AHN's transition to a value-based system.

June 30, 2018 compared to June 30, 2017

For the six-month period ended June 30, 2018, AHN recorded an excess of revenue over expenses of $18.1 million compared to $28.4 million for the same period in the prior year, a year-over-year decrease of $10.3 million for the interim period, driven by a $13.0 million one-time gain on sale of joint venture for the period ended June 30, 2017. For the same period in 2018, income from operations was $23.8 million compared to an operating income of $11.1 million for the comparable 2017 period, a year over year improvement of $12.7 million. EBITDA was $106.6 million for the six-month period ended June 30, 2018 versus EBITDA of $114.2 million for the same period in the prior year, a year over year decrease of $7.6 million. When the one-time gain on the sale of the joint venture is excluded from 2017 interim results, 2018 EBITDA results increased $5.4 million in the interim period. During the first six months of 2018, AHN recorded other positive operating results compared to the prior year period despite the negative impact of two items. AHN experienced a $9.0 million reduction in net revenue related to a CMS-mandated reduction in the fee schedule for 340(B) pharmaceutical billings. (See forepart of this Official Statement – "BONDHOLDERS' RISKS.") This change became effective for Medicare patients beginning January 1, 2018. In addition, AHN adopted a new defined contribution savings plan that became effective January 1, 2018, increasing benefit costs by approximately $9.0 million compared to the prior period. This strategy is consistent with AHN's transition away from defined benefit plan structures, and the matching features of the plan resulted in significant participation during the six-month period ended June 30, 2018. See "OTHER SELECTED INFORMATION - Pension/Retirement Plans."

Investments by Highmark

Since inception, Highmark has invested more than $1.7 billion in AHN and its Hospitals to help accelerate and solidify AHN's position as the provider core of the Highmark Health IDFS. This support has historically been provided in a number of forms. Highmark funded the $258 million Epic investment, and the software is recorded as an asset of Highmark Health. AHN enjoys use of the software at no cost

under a right to use agreement. $524 million was provided through various loans that were, in the aggregate, forgiven in December 2017 as part of the comprehensive debt refinancing which occurred at that time. An additional $947 million in support was transferred in other transactions. Of the $1.7 billion, approximately $1.2 billion (inclusive of the investment in Epic) was used to fund certain capital expenditures at AHN. Management believes that the investments by Highmark have enabled AHN to accelerate its strategic capabilities in a relatively short period of time. As described above in "HISTORY," in July 2017, the PID revised certain restrictions applicable to Highmark's ability to transfer funds to AHN, other Highmark affiliates and unrelated third parties. Highmark's ability to transfer funds to AHN remains subject to certain restrictions (see "HISTORY"); Highmark is not an obligor or guarantor of the Bonds and none of its assets or revenues is pledged to secure the Bonds.

Cash and Liquidity

From 2015 to 2017, AHN days cash on hand grew from 73 to 103. (Note that days cash on hand is not a measure of operating performance or liquidity as defined by generally accepted accounting principles and may not be comparable to similarly titled measures presented by other companies.) During the three-year period, management has improved liquidity, consolidated and reduced total debt, and reduced unfunded pension obligations. In addition, management expects that changes to the defined benefit pension program will improve cash flow requirements related to the defined benefit plans in 2018. See "OTHER SELECTED INFORMATION - Pension/Retirement Plans." Unfunded pension obligations totaled $438.1 million as of December 31, 2016 and were reduced by $96.4 million to $341.7 million as of December 31, 2017. As of June 30, 2018, unfunded pension obligations were further reduced by $72.1 million to $269.6 million.

Financial Ratios

The following table sets forth a summary of cash and investments as of the dates indicated.

AHN Days Cash on Hand (Dollars in thousands)*

	2015	2016	2017
Cash and cash equivalents	$ 137,617	$ 196,553	$ 220,017
Investments	270,473	296,999	318,631
Board designated**	110,925	118,772	292,962
Total cash on hand	$ 519,015	$ 612,324	$ 831,610
Operating expenses	$ 2,677,378	$ 2,893,779	$ 3,042,591
Add: Interest expense	29,584	30,292	39,320
Less: Depreciation and amortization	(122,806)	(128,047)	(141,931)
Total	$ 2,584,156	$ 2,796,024	$ 2,939,980
Days in period	365	366	365
Operating expense per day	$ 7,080	$ 7,639	$ 8,055
Days cash on hand* **	**73**	**80**	**103**

* Includes entities that are not Obligated Group Members.

** Board designated for 2017 includes $194 million of project funds from the Series 2017 bond financing.

*** For the purposes of calculating Days Cash on Hand, investments included in the calculation noted above consist only of unrestricted amounts.

The following table sets forth the consolidated net revenues available to pay debt service and the extent to which such consolidated net revenues would provide coverage for the annual debt as of the dates indicated.

AHN Debt Service Coverage Ratio (Dollars in thousands)*

	2015	2016	2017
Net income (loss)	$ (39,005)	$ (40,044)	$ 51,103
Add: Depreciation and amortization	122,806	128,047	141,931
Add: Interest expense	29,584	30,292	39,320
Add: Unrealized losses	11,940	-	-
Less: Income tax benefit	(2,100)	(2,912)	(1,960)
Gain on extinguishment of debt	(7,494)	-	-
Add/Less: Derivative losses/(gains)	81	(1,860)	(3,576)
Gain on sale of joint venture	-	-	(13,017)
Total	**$ 115,812**	**$ 113,523**	**$ 213,801**
Debt service requirement	62,852	44,420	44,373
Debt service coverage ratio	**1.84**	**2.56**	**4.82**
Pro forma debt service requirement**			$63,031
Pro forma debt service coverage ratio**			**3.39**

* Includes entities that are not Obligated Group Members.

** Preliminary and subject to change. Estimated based on assumed market rates. Excludes other miscellaneous debt not secured under the Master Trust Indenture.

The following table sets forth the capitalization for the years indicated below.

Debt-to-Capitalization (Dollars in thousands)*

	December 31,		
	2015	2016	2017
Long-term debt including current portion and capital leases	$ 1,426,042	$ 1,421,668	$ 1,073,246
Unrestricted net assets	(100,355)	(84,654)	635,527
Total capitalization	**$ 1,325,687**	**$ 1,337,014**	**$ 1,708,773**
Debt-to-Capitalization	**108%**	**106%**	**63%**

* Includes entities that are not Obligated Group Members.

Derivatives/Swaps

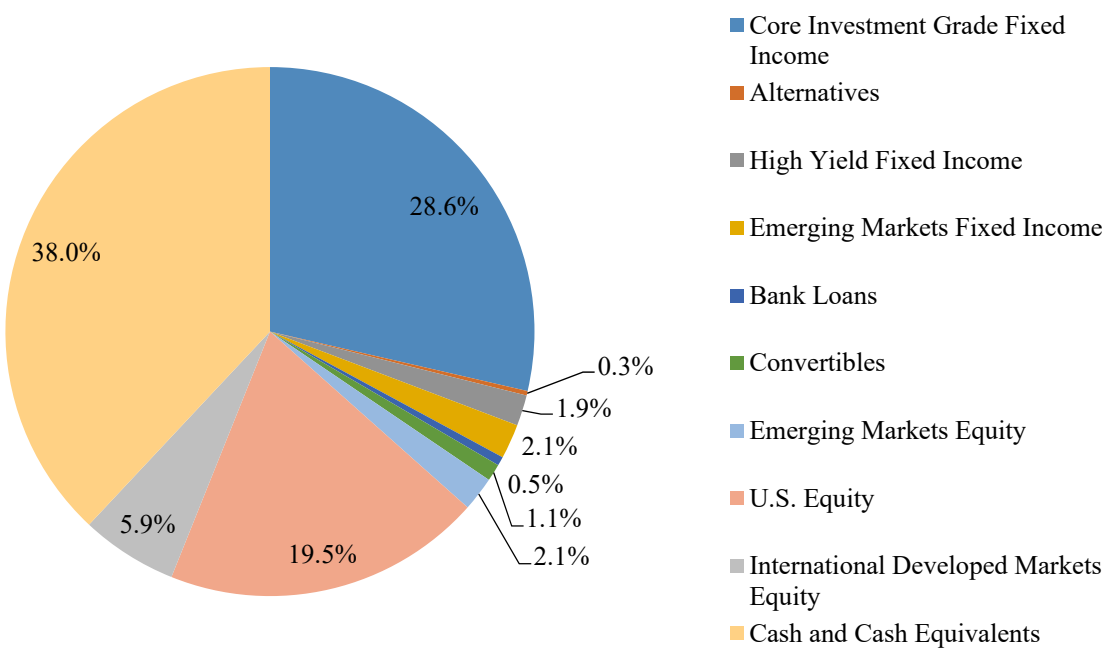
AHN makes limited use of derivatives, which primarily relate to interest rate swap agreements in which AHN agrees to exchange various combinations of fixed and/or variable interest rates based on agreed upon notional amounts. AHN's Board of Directors approves each derivative contract, with additional oversight provided by the Treasury Services staff of Highmark Health. On April 3, 2018, AHN entered into an interest rate swap agreement to convert variable debt to a fixed rate with an A category rated major U.S. financial institution. This agreement terminates on April 1, 2021. AHN intends to terminate the outstanding swap agreement as part of the refunding of the existing bonds. AHN accounts for derivative and hedging activities at fair value on the balance sheet. Derivative instruments designated in a hedge relationship to mitigate exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. Cash flow hedges are accounted for by recording the fair value of the derivative instrument on the balance sheet as either other non-current asset or liability, with a corresponding amount recorded in unrestricted net assets. At June 30, 2018, the notional value of the debt subject to an interest rate swap was $550 million. At June 30, 2018, AHN recorded an asset of $1.9 million in other assets in the consolidated balance sheet related to the swap agreement.

Investment Management

AHN has funds for working capital and certain long-term investment portfolios, including restricted investments, unrestricted investments and project funds. The restricted assets include donor-restricted assets and participating trusts over which AHN has limited control. The Investment Committee of the Highmark Health Board of Directors is responsible for oversight of the portfolios, approving the investment policy, and appointing and removing investment managers, custodians, investment consultants and other related service providers. The Committee meets regularly to review the asset allocation and performance for the portfolios. Highmark Health's Treasury Services management and staff oversee and manage the cash and investment portfolios of the enterprise. External investment consultants are utilized to provide professional investment analysis and guidance, and to assist in evaluating performance.

As stated in AHN's investment policy, the primary objective for investing the unrestricted assets of AHN is to maximize the total rate of return on investment funds consistent with policy guidelines and an acceptable level of risk, given the financial condition and liquidity needs of AHN. In achieving this goal, the emphasis is on diversification, safety of principal and a high level of marketability.

Investment Allocation as of June 30, 2018



OTHER SELECTED INFORMATION

Employees

AHN is one of the region's largest employers with more than 19,700 employees. As AHN invests in its facilities and clinical systems, it also is investing in its workforce with ongoing efforts to further enhance AHN's competitiveness across all job sectors. During 2017, total salaries, wages and fringe benefits represented 54% of total revenues.

As of April 30, 2018, 4,183, or 21%, of AHN's employees were covered by collective bargaining agreements, with various unions such as Service Employees International Union representing 3,629, or 87% of such employees; Automotive Chauffeurs, Parts, Garage, Office Clerical, Airline, Healthcare, Petroleum Industry, Produce, Bakery and Industrial Workers within Western Pennsylvania and Joint Council No. 40, Teamsters Local No. 926 representing 409 or 10%; International Union of Operating Engineers representing 108, or 3%; and Pennsylvania Professional Fire Fighters Association representing 37, or 1%, of employees covered by a collective bargaining agreement. AGH has the highest concentration of employees covered by collective bargaining agreements with 2,901 employees, followed by AVH with 580 employees and Jefferson with 409 employees. Management has found AHN's historical relationship with the unions to be satisfactory. AHN has never experienced work stoppages due to strikes or related labor matters.

Pension/Retirement Plans

AHN sponsors several forms of defined contribution savings plans including: 403(b), 401(a), and 401(k) plans under the Internal Revenue Code, as well as deferred compensation plans for a select group of management and highly compensated employees under Internal Revenue Code Section 457(b). AHN continues to transition its workforce away from defined benefit pension plans. Currently, only union-represented employees remain active in defined benefit pension plans.

The WPAHS non-represented (for employees not represented by a union) defined benefit pension plan was frozen effective December 31, 2017, freezing the plan to new entrants and ceasing future benefit accruals. The Jefferson Regional Medical Center and Saint Vincent Health Center defined benefit pension plans were previously frozen effective December 31, 2009 and June 30, 2013, respectively. These frozen plans represent 91% of the total pension obligation of AHN. The remaining defined benefit pension plan is the WPAHS "represented" pension plan which covers employees governed by numerous collective bargaining agreements, discussed above. Ongoing retirement benefits for the participants in frozen pension plans are provided prospectively through their participation in a defined contribution savings plan.

AHN funds the pension plans in accordance with minimum funding requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"). The unfunded pension obligations for AHN at December 31, 2017 were $341.7 million, a decline from $438.1 million at December 31, 2016, or 22%. The unfunded pension obligations were further reduced to $269.6 million as of June 30, 2018. As of December 31, 2017, the aggregate measure of funding for all defined benefit plans combined was 75%.

More information about the employee benefit plans, including investment activities, is included in note 7 to AHN's audited consolidated financial statements included in Appendix B to the Official Statement.

Insurance Coverage

Medical professional and general liability insurance is provided to AHN and its employed physicians by Palladium Risk Retention Group Inc. ("Palladium"), a Vermont-based captive insurance company that is 99.5% owned by AHN and its subsidiaries. Palladium was organized in 2013 and is authorized to provide medical malpractice and general liability coverage in Pennsylvania and New York. Palladium currently insures approximately 3,000 physicians and all of the Hospitals. Palladium is a risk retention group developed by AHN to insure the medical professional and general liability exposures of AHN and select independent healthcare providers located primarily in western Pennsylvania. All coverage provided through Palladium is retrospectively rated, such that the members of AHN may be entitled to receive retrospective premium credits or be obligated to pay retrospective premium assessments, depending on loss experience. Overall aggregate coverage for professional liability extends to $52 million and general liability extends to $46 million, per claim year. Palladium commercially reinsures its professional liability exposures in excess of $7 million and its general liability exposures in excess of $1 million.

Claims are reserved based on individual case evaluations and are continually reviewed and adjusted as necessary as experience develops and new information becomes known. An independent actuarial analysis is also used to estimate reserves for claims incurred but not reported.

Palladium's members participate in programs intended to enhance patient safety through sharing risk management experiences and lessons. Palladium sponsors quality initiatives and programs focused on high-risk areas in order to eliminate, reduce and contain losses. Palladium maintains tiers of professional and general liability protection with coverage supported through partnerships with highly-rated commercial carriers to ensure comprehensive coverage. The members guide and actively participate in claims decision making.

Prior to establishing Palladium, the Obligated Group Members obtained malpractice insurance coverage through other insurance companies, one of which WPAHS held an ownership interest in (the "Legacy Insurer"). The Legacy Insurer is in the process of winding down operations and is not receiving additional premiums from insured entities. As a result, if the Legacy Insurer has insufficient reserves to

cover claims for any of the insureds, there could be inadequate funds for other insureds, including potentially WPAHS and certain of its subsidiaries.

AHN is insured for Directors and Officers and Employment Practices Liability under the Highmark Health enterprise-wide program. This program provides coverage for claims made against a director or officer for a wrongful act while he or she is active in the capacity of a director or officer of AHN, subject to certain terms, limits, conditions, and exclusions. It covers all persons elected or appointed as directors or officers. Entities and employees are also insureds. The Employment Practices Liability coverage is for claims arising from any actual or alleged wrongful failure to employ or promote, wrongful discipline, sexual or workplace harassment, or alleged discrimination. The program provides overall limits of $100 million subject to a $3 million per claim retention.

AHN carries "All-Risk" Property insurance, which is commercially insured. The policy covers all real property, personal property, and electronic data processing equipment on a replacement cost basis, subject to certain terms, limits, conditions, and exclusions. The policy also provides business income and extra expense coverage that may be used to pay for certain income losses and expenses incurred to continue operations elsewhere in the event of loss. The policy has a $1 billion blanket limit of liability subject to a $250,000 per claim deductible. Additionally, AHN's earthquake coverage limit is $250 million in the aggregate, and AHN's flood coverage limit is $100 million in the aggregate.

AHN maintains Cyber Liability insurance that provides coverage for, among other things, damages and expenses related to privacy liability, network security liability, multimedia liability, non-compliance with payment card industry data security standards, and non-physical business interruption. The policy is commercially insured with liability limits of $30 million per claim and in the aggregate subject to a $500,000 per claim retention.

Affiliation, Joint Venture, and Similar Transactions

The Obligated Group Members evaluate potential affiliation, joint venture, and similar transactions as opportunities for such may arise. Any such transaction would be completed in compliance with the covenants in the Master Trust Indenture.

LITIGATION AND REGULATORY MATTERS AFFECTING THE SYSTEM

AHN is subject to numerous known and unknown risks which could have a material adverse effect on its business, financial condition and results of operations.

There are various medical malpractice claims, both threatened and pending, against AHN. Based on actuarial estimates, management is of the opinion that existing funding levels and retained coverage limits will adequately cover those potential liability exposures. In addition, there are various claims, both threatened and pending, against AHN not involving claims of professional liability. Management is of the opinion that the final disposition of those claims will not have a material adverse effect upon the ability of AHN to pay debt service on the Bonds.

More information about the insurance coverage is included in note 12 to AHN's audited consolidated financial statements included in Appendix B to the Official Statement.

From time to time, the Hospitals and AHN physicians, like other health systems, identify, remediate, and disclose to government agencies potential healthcare related noncompliance issues. One such disclosure resulted from AHN's due diligence process prior to affiliating with SVH. SVH identified and in 2014 self-reported to CMS various matters concerning compliance with healthcare regulations and sought admission to the voluntary disclosure self-reporting program. To date, SVH has not received any

response to its filing. The timing for resolution of pending disclosures and the payment obligations associated with resolution are determined by the government agencies, and therefore unknown to AHN as this time.

AHN is not aware of any other significant pending matters involving AHN, such as investigations of billing practices, audits, withholds and other regulatory issues that management believes would be likely to adversely affect AHN's ability to pay debt service on the Bonds.

NEW ACCOUNTING PRONOUNCEMENT

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" and has subsequently issued supplemental and/or clarifying ASUs (collectively "ASC 606"). Insurance contracts are not covered by this guidance—ASC 606 outlines a five-step framework that intends to clarify the principles for recognizing revenue and eliminate industry specific guidance. In addition, ASC 606 revises current disclosure requirements in an effort to help financial statement users better understand the nature, amount, timing, and uncertainty of revenue that is recognized. AHN will be considered a conduit bond obligor upon issuance of the Bonds, and thus, will be required to apply ASC 606 in its interim and annual financials in 2018. ASC 606 may be applied retrospectively to each period presented or on a modified retrospective basis, with the cumulative effect recognized as of the date of adoption. AHN currently expects to adopt ASC 606 utilizing the modified retrospective basis with a portfolio approach for assessing revenue recognition. AHN has assessed the impact this guidance may have on its consolidated financial statements by analyzing its current portfolio of third-party payer contracts, including a review of historical accounting policies and practices to identify potential differences in applying the new guidance. Such amounts have not yet been fully quantified. Additionally, AHN does not expect this standard to have a material impact on other operating revenue. Management has also evaluated the nature and amount of available data to use in assessing implementation of ASC 606. Under ASC 606, substantially all amounts that were previously presented as provision for bad debts will be considered an implicit price concession in determining net patient service revenue. Amounts considered to be provision for bad debts under ASC 606 will be presented as a component of total operating expenses within the consolidated statements of operations.

APPENDIX B

AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF ALLEGHENY HEALTH NETWORK FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

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Allegheny Health Network

Consolidated Financial Statements
December 31, 2017 and 2016

Allegheny Health Network
Index
December 31, 2017 and 2016

Report of Independent Auditors

To the Boards of Directors of Highmark Health and Allegheny Health Network:

We have audited the accompanying consolidated financial statements of Allegheny Health Network and its subsidiaries (the "Health Network"), which comprise the consolidated balance sheets as of December 31, 2017 and 2016, and the related consolidated statements of operations, of changes in net assets and of cash flows for the years then ended.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Health Network's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Health Network's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Allegheny Health Network and its subsidiaries as of December 31, 2017 and 2016, and the results of their operations, changes in their net assets and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

March 28, 2018

Allegheny Health Network
Consolidated Balance Sheets
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Assets		
Current assets		
Cash and cash equivalents	$ 220,017	$ 196,553
Assets limited or restricted as to use	-	12,627
Accounts receivable		
Patient accounts, less allowance for doubtful accounts of $47,176 and $60,464, respectively	319,422	311,691
Other	52,735	50,950
Inventory, net	59,152	53,571
Estimated third-party payor settlements	2,194	2,135
Prepaid expenses and other current assets	27,567	30,245
Total current assets	681,087	657,772
Investments		
Debt securities, available-for-sale at fair value	69,802	55,830
Equity securities, available-for-sale at fair value	11,535	10,140
Board designated, restricted and other investments at fair value	585,865	397,550
Beneficial interest in perpetual trusts	251,177	224,405
Equity method investments	40,450	48,458
Property and equipment, net	1,152,002	1,074,835
Goodwill and other intangible assets, net	114,565	115,316
Other assets	106,442	104,648
Total assets	$ 3,012,925	$ 2,688,954
Liabilities and Net Assets		
Current liabilities		
Accounts payable	$ 192,719	$ 191,950
Accrued salaries and benefits	122,945	104,295
Accued expenses	49,899	48,892
Long-term debt subject to short-term remarketing	-	55,385
Current portion of long-term debt	10,854	14,385
Current portion of deferred revenue	26,357	23,361
Current portion of self-insurance liabilities	10,999	10,122
Other current liabilities	1,570	3,148
Total current liabilities	415,343	451,538
Accrued pension obligation	341,676	438,130
Self-insurance liabilities	167,074	161,991
Long-term debt	1,062,392	1,351,898
Deferred tax liability, net	625	2,624
Deferred revenue	30,395	30,359
Other liabilities	51,499	56,003
Total liabilities	2,069,004	2,492,543
Net assets		
Unrestricted	619,372	(100,746)
Unrestricted - noncontrolling interests	16,155	16,092
Total unrestricted	635,527	(84,654)
Temporarily restricted	22,810	23,859
Permanently restricted	285,584	257,206
Total net assets	943,921	196,411
Total liabilities and net assets	$ 3,012,925	$ 2,688,954

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Operations
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Unrestricted revenue and other support		
Patient service revenue (net of contractual allowances and discounts)	$ 2,938,577	$ 2,724,421
Provision for bad debts	(50,667)	(69,413)
Net patient service revenue	2,887,910	2,655,008
Other operating revenue	179,249	193,546
Net assets released from restriction	4,203	6,191
Total unrestricted revenue and other support	3,071,362	2,854,745
Expenses		
Salaries, wages and fringe benefits	1,647,241	1,550,643
Patient care supplies	606,405	559,765
Professional fees and purchased services	394,851	370,368
Depreciation and amortization	141,931	128,047
Other operating expenses	252,163	284,956
Total operating expenses	3,042,591	2,893,779
Operating income (loss)	28,771	(39,034)
Net investment income	41,609	26,029
Gain on interest rate swaps	3,576	1,860
Interest expense	(39,320)	(30,292)
Loss (income) attributed to non-controlling interest	234	(993)
Gain on sale of joint venture	13,017	-
Non-operating income (expense), net	1,256	(526)
Excess (deficit) of revenue over expenses before income taxes	49,143	(42,956)
Income tax benefit	(1,960)	(2,912)
Excess (deficit) of revenue over expenses	$ 51,103	$ (40,044)
Other changes in unrestricted net assets:		
Gain on qualifying derivative instruments	3,844	3,046
Pension liability adjustments	8,325	(63,302)
Change in non-controlling interest	63	1,948
Net assets released from restriction for acquisition of equipment	809	1,274
Transfers from affiliate	657,728	108,364
Other, net	(1,691)	4,415
Increase in unrestricted net assets for other changes in unrestricted net assets	669,078	55,745
Increase in unrestricted net assets	$ 720,181	$ 15,701

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Changes in Net Assets
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Unrestricted net assets		
Excess (deficit) of revenue over expenses	$ 51,103	$ (40,044)
Gain on qualifying derivative instruments	3,844	3,046
Pension liability adjustments	8,325	(63,302)
Change in non-controlling interest	63	1,948
Net assets released from restriction for acquisition of equipment	809	1,274
Transfers from affiliate	657,728	108,364
Other, net	(1,691)	4,415
Increase in unrestricted net assets	720,181	15,701
Temporarily restricted net assets		
Contributions	2,644	4,647
Net investment income	2,437	1,381
Net assets released from restriction used for:		
Operations	(4,203)	(6,191)
Acquisition of equipment	(809)	(1,274)
Other, net	(1,118)	(284)
Decrease in temporarily restricted net assets	(1,049)	(1,721)
Permanently restricted net assets		
Contributions	841	7
Net investment income	36,471	13,091
Transfer out of trusts to net investment income	(9,046)	(8,578)
Other, net	112	2
Increase in permanently restricted net assets	28,378	4,522
Increase in net assets	747,510	18,502
Net assets		
Beginning of the year	196,411	177,909
End of the year	$ 943,921	$ 196,411

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Cash flows from operating activities		
Increase in net assets	$ 747,510	$ 18,502
Adjustments to reconcile change in net assets to net cash provided by operating activities		
Transfers from affiliate	(134,034)	(108,364)
Debt forgiveness transfers	(523,694)	-
Provision for bad debts	50,667	69,413
Depreciation and amortization	141,931	128,047
Pension liability adjustments	(8,325)	63,302
Noncash pension expense	1,798	3,008
Net realized and unrealized gain on investments	(24,512)	(8,104)
Dividends received from equity method investments	4,534	5,656
Undistributed gains of equity method investments	(5,537)	(4,789)
Beneficial interest in perpetual trusts	(26,772)	(4,633)
Gain on sale of joint venture	(13,017)	-
Change in derivative instruments	(3,844)	(3,046)
Deferred taxes	(1,998)	(2,874)
Restricted contributions	(3,485)	(4,654)
Assets acquired through acquisition	-	(1,000)
(Decrease) increase due to change in:		
Accounts receivable	(58,397)	(87,109)
Other receivables	(1,785)	12,383
Inventory, prepaids and other current assets	(5,362)	(2,563)
Other long-term assets	9,713	(17,359)
Accounts payable, accrued expenses and other current liablities	(2,654)	37,632
Accrued pension obligation	(89,927)	(12,205)
Other liabilities	6,931	18,268
Net cash provided by operating activities	59,741	99,511
Cash flows from investing activities		
Purchases of investments	(712,626)	(340,054)
Proceeds from sales of investments	495,396	284,084
Proceeds from maturities of investments	40,869	46,273
Proceeds from sale of joint venture	22,030	-
Purchases of property and equipment	(140,130)	(139,116)
Net cash used in investing activities	(294,461)	(148,813)
Cash flows from financing activities		
Restricted contributions	3,485	4,654
Proceeds from issuance of debt	1,023,828	9,348
Repayment of debt	(895,431)	(14,128)
Debt issuance costs	(7,732)	-
Transfers from affiliate	134,034	108,364
Net cash provided by financing activities	258,184	108,238
Increase in cash and cash equivalents	23,464	58,936
Cash and cash equivalents		
Beginning of year	196,553	137,617
End of year	$ 220,017	$ 196,553

The accompanying notes are an integral part of these consolidated financial statements.

Allegheny Health Network
Consolidated Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in thousands of dollars)

	2017	2016
Supplemental disclosure of cash flow information		
Interest paid, net	$ 34,429	$ 25,524
Income taxes paid (recovered), net	$ 223	$ (650)
Supplemental disclosure of noncash investing and financing		
Assets acquired through other payables	$ 23,543	$ (2,519)
Assets acquired through financing	$ 54,308	$ -
Noncash debt forgiveness	$ (523,694)	$ -

The accompanying notes are an integral part of these consolidated financial statements.

(in thousands of dollars)

1. Nature of Operations

Allegheny Health Network ("AHN"), formed in 2013, is incorporated as a nonprofit corporation in the Commonwealth of Pennsylvania and is federally recognized as a 501(c)(3). Highmark Health, the sole corporate member of AHN, is a diversified health and wellness enterprise that includes: Highmark Inc. - a hospital plan corporation and professional health services plan in the Commonwealth of Pennsylvania; HM Health Solutions Inc.; and HM Health Holdings Company. AHN was formed to act as the parent company of West Penn Allegheny Health System, Inc. ("WPAHS"), Jefferson Regional Medical Center ("JRMC"), and Saint Vincent Health Center and Saint Vincent Health System, collectively "SVHS". AHN, WPAHS, JRMC, SVHS, and their other subsidiaries and consolidated affiliates are herein referred to as the "Health Network".

AHN is a western Pennsylvania-based, patient-centered and clinician-led academic healthcare system that provides charitable care and high-quality, comprehensive health care services to patients from western Pennsylvania and the adjacent regions of Ohio, West Virginia, New York, and Maryland.

AHN is comprised of eight hospitals, of which one is a quaternary academic medical center and seven are tertiary/community hospitals that provide a wide array of general and advanced clinical services. AHN is also home to more than 250 additional healthcare sites, including surgery centers, comprehensive Health + Wellness Pavilions and physician practices; and a physician organization that includes more than 2,400 employed and affiliated physicians. It also includes HMPG Inc., a for-profit holding company whose subsidiaries and affiliates include a group purchasing organization, a captive insurance company (Palladium Risk Retention Group Inc. - "Palladium"), real estate companies, a surgery center. The Health Network also includes joint ventures that offer durable medical equipment, home infusion services, home health and hospice services. In 2017, the Health Network formed Physician Partners of Western PA LLC, a clinically integrated network, as a subsidiary of HMPG Inc. Additionally, the Health Network operates a research institute and charitable foundations.

The Health Network provides a comprehensive array of advanced clinical and research programs across all medical specialties, including orthopedic surgery and sports medicine, cardiology and cardiovascular surgery, neurosurgery and neurology, women's health, cancer, emergency medicine, trauma and burn care, bariatric and metabolic disease, primary care, psychiatric care, general surgery, diabetes, autoimmune diseases, critical care, digestive diseases, men's health/urology, lung and esophageal diseases, rehabilitation services and a complete spectrum of diagnostic care.

AHN offers forty-four graduate medical programs and has three medical school affiliations with Drexel University, Temple University and the Lake Erie College of Osteopathic Medicine, allowing medical residents and fellows to receive advanced training at AHN hospitals. The Health Network also operates two nursing education programs, including the West Penn Hospital School of Nursing and the Citizens School of Nursing.

In 2017, AHN entered into an agreement with an Emerus affiliate to form a joint venture ("Emerus JV") for the purpose of constructing and operating multiple neighborhood hospital facilities in the Health Network's service area. AHN maintains an ownership of 51% in the Emerus JV and includes the Emerus JV in its consolidated financial statements. Operations for this entity have not yet commenced.

2. Summary of Significant Accounting Policies

Basis of Financial Presentation

The accompanying consolidated financial statements include the accounts of the Health Network.

The consolidated financial statements are presented on the accrual basis of accounting, in accordance with accounting principles generally accepted in the United States of America ("GAAP"). All significant

intercompany balances and transactions have been eliminated from the consolidated financial statements.

The Health Network uses the equity method of accounting for 50% or less owned affiliates or those affiliates for which the Health Network does not hold a controlling financial interest but may influence operating or financial decisions as well as 50% or more owned affiliates for which the Health Network does not hold a controlling financial interest.

Reclassifications
The Health Network has reclassified certain amounts relating to its prior period results to conform to its current period presentation. These reclassifications have not changed the results of operations of prior periods.

New Accounting Pronouncements

Implemented
In January 2017, Financial Accounting Standards Board ("FASB") issued new guidance eliminating step 2 from the goodwill impairment test. The new guidance is effective for fiscal years beginning after December 15, 2021. The Health Network elected to early adopt the guidance for the current reporting period, which is permitted. The early adoption of this new guidance did not materially impact the financial position, results of operations and cash flows of the Health Network.

In March 2016, FASB issued new guidance to simplify the accounting for equity method investments by eliminating the requirement that an entity retroactively adopt the equity method if an investment qualifies for use of the equity method as a result of an increase in the level of ownership. The new guidance is effective for fiscal years beginning after December 15, 2016. The adoption of this new guidance did not impact the financial position, results of operations and cash flows of the Health Network.

In May 2015, FASB issued new guidance removing the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. In addition, the new guidance requires the disclosure of information that helps users of its financial statements to understand the nature and risks of the investments and whether the investments, if sold, are probable of being sold at amounts different from net asset value per share. The Health Network adopted this new guidance and has included additional disclosures in the Fair Value of Financial Instruments footnote (see Note 4).

Under Evaluation
In March 2017, FASB issued new guidance regarding the presentation of net periodic pension and postretirement benefit costs. The new guidance requires an entity to disaggregate the service cost component from the other components of net benefit cost and is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on its results of operations.

In August 2016, FASB issued new guidance regarding the presentation of financial statements of not-for-profit entities. The new guidance replaces the currently-required three classes of net assets with two classes (net assets with donor restrictions and net assets without donor restrictions), eliminates the requirement to present or disclose the indirect method reconciliation if using the direct method on the cash flow statement, and requires enhanced disclosures about governing board designations and appropriations, composition of net assets with donor restrictions, management of liquidity, expenses, methods of cost allocation, and underwater endowment funds. The new guidance is effective for fiscal years beginning after December 15, 2017. This guidance will not have a material impact on the financial position, results of operations and cash flows.

(in thousands of dollars)

In August 2016, FASB issued new guidance to reduce existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The guidance addresses the following cash flow issues: debt prepayment or debt extinguishment costs, settlement of zero-coupon debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims and corporate owned life insurance policies, distributions received from equity method investees, beneficial interest in securitization transactions, and separately identifiable cash flows and application of the predominance principle. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on the statement of cash flows.

In February 2016, FASB issued new guidance regarding the recognition of leases. The new guidance requires lessees to recognize a lease liability and a lease asset for all leases, including operating leases, with a term greater than 12 months on its balance sheet. The guidance also expands the required quantitative and qualitative disclosures surrounding leases. The new guidance is effective for fiscal years beginning after December 15, 2019. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In January 2016, FASB issued new guidance requiring all equity investments, other than those accounted for under the equity method or those that result in the consolidation of the investee, to be measured at fair value with changes in the fair value recognized through net income. The new guidance also eliminates the requirement to disclose the fair value of financial instruments measured at amortized cost for entities that are not public business entities. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the new guidance on the financial position, results of operations and cash flows.

In May 2014, FASB issued new guidance related to revenue recognition for contracts with customers. This new guidance removes most industry-specific revenue recognition requirements and requires that an entity recognize revenue for the transfer of goods or services to a customer at an amount that reflects the consideration to which an entity expects to be entitled in exchange for the goods or services. Insurance contracts are not covered by this guidance. The new guidance also requires additional disclosures regarding the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts. The new guidance is effective for fiscal years beginning after December 15, 2018. The Health Network is evaluating the impact of the adoption of this new guidance on the financial position, results of operations and cash flows.

Use of Estimates
The preparation of the Health Network's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents
The Health Network considers all highly-liquid investments with maturities of three months or less when purchased, excluding assets limited or restricted as to use, to be cash equivalents.

Revenue and Accounts Receivable
Revenues consist primarily of net patient service revenues that are recorded based upon established billing rates less contractual allowances and discounts. Revenues are recorded during the period the health care services are provided, based upon the estimated amounts due from the patients and third-party payers. Third-party payers include federal and state agencies (under the Medicare and Medicaid programs), managed care health plans and commercial insurance companies (including plans offered through the health insurance exchanges), and employers. Estimates of contractual allowances are based upon the payment terms specified in the related contractual agreements. Contractual payment

(in thousands of dollars)

terms are generally based upon predetermined rates per diagnosis, per diem rates or discounted fee-for-service rates. Revenues related to uninsured patients and uninsured copayment and deductible amounts for patients who have health care coverage may have discounts applied (uninsured discounts and contractual discounts). The Health Network also records a provision for bad debts (based primarily on historical collection experience) related to uninsured accounts to record net self-pay revenues at the estimated amounts expected to be collected. An additional provision for bad debts is recorded based upon the age of the patient account. The allowance for uncollectible accounts is assessed by management on a regular basis by review of past write-off experience and expected net collections. The difference between billed rates and the amounts actually collected after all reasonable collection efforts have been exhausted is charged off against the allowance for doubtful accounts.

Net patient service revenue, by major payor, was as follows for the years ended December 31:

	2017	2016
Medicare*	$ 1,175,272	$1,063,136
Medical assistance	225,856	229,838
Blue Cross Blue Shield payors	1,023,204	926,535
Other third-party payors	472,946	445,512
Self-pay patients	41,299	59,400
Total patient service revenue, net of contractual allowances and discounts	2,938,577	2,724,421
Less: Provision for bad debts	(50,667)	(69,413)
Total net patient service revenue	$ 2,887,910	$2,655,008

* Includes Medicare Fee for Service as well as Medicare Advantage from commerical payors

In 2017, revenue from Medicare and Blue Cross Blue Shield accounted for 40% and 35%, respectively, of total patient service revenue, net of contractual allowances and discounts. In 2016, revenue from Medicare and Blue Cross Blue Shield accounted for 39% and 34%, respectively, of total patient service revenue, net of contractual allowances and discounts. Laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation. As a result, there is at least a reasonable possibility recorded estimates will change by a material amount. Estimated reimbursement amounts are adjusted in subsequent periods as cost reports are prepared and filed and as final settlements are determined (in relation to certain government programs, primarily Medicare, this is generally referred to as the “cost report” filing and settlement process).

The mix of net receivables from patients and payors was as follows at December 31:

	2017	2016
Medicare*	37.7%	38.7%
Medical assistance	16.3%	16.1%
Blue Cross Blue Shield payors	19.0%	19.3%
Other third-party payors	24.2%	22.0%
Self-pay patients	2.8%	3.9%
	100.0%	100.0%

* Includes Medicare Fee for Service as well as Medicare Advantage from commerical payors

(in thousands of dollars)

Investments and Assets Limited or Restricted as to Use
Debt and equity securities classified as available-for-sale are carried at fair value (based on quoted or estimated market prices), and unrealized gains and losses are reported in unrestricted net assets, net of deferred income taxes. Premiums and discounts are amortized using the effective interest method. Realized gains and losses on debt securities are based on amortized cost. Realized gains and losses on equity securities are based on cost (specific identification method). Realized gains and losses on available-for-sale debt and equity securities are reported in net investment income in the consolidated statements of operations.

The Health Network monitors its available-for-sale investments portfolio for unrealized losses that appear to be other-than-temporary. At the time an equity security is determined to be other-than-temporarily impaired, the Health Network reduces the book value of the security to the current market value and records a realized loss in net investment income in the consolidated statements of operations.

In determining if an available-for-sale debt security is other-than-temporarily impaired, the Health Network considers whether it has intent to sell the available-for-sale debt security or whether it is more likely than not that the Health Network will be required to sell the available-for-sale debt security before recovery of its amortized cost basis, which may be at maturity. If the Health Network intends to sell the debt security or it is more likely than not that the Health Network will be required to sell the debt security before recovery of its amortized cost basis, an other-than-temporary impairment is recorded as a realized loss in net investment income in the consolidated statements of operations for the difference between fair value and amortized cost.

If the Health Network does not have the intent to sell and it does not believe that it is more likely than not that it will be required to sell the debt security before recovery of its amortized cost, the Health Network performs a detailed review to determine the underlying cause of the unrealized loss and whether an other-than-temporary impairment is warranted. At the time a debt security is determined to be other-than-temporarily impaired, the credit component of the other-than-temporary impairment is recognized in income in the consolidated statements of operations and the non-credit component of the other-than-temporary impairment is recognized in the statement of changes in net assets, net of deferred income taxes.

Board designated and restricted investments include assets whose use is contractually limited by external parties, assets set aside by the Board of Directors ("Board") for future capital improvements or liquidity, over which the Board retains control and may at its discretion subsequently use for other purposes, as well as assets held by trustees under indenture agreements. Other investments consist primarily of marketable debt and equity securities and marketable securities maintained in a master trust fund. Investment income or loss (including realized gains and losses, interest and dividends, and unrealized gains and losses) is recorded in net investment income in the consolidated statements of operations unless restricted by donor or law. Investment income related to temporarily and permanently restricted gifts is recorded based on donor restriction as part of the corresponding net asset class in the consolidated statements of changes in net assets.

The Health Network's assets are invested in a variety of financial instruments. Accordingly, the related values as presented in the consolidated financial statements are subject to various market fluctuations, which include changes in the interest rate environment, equity markets and general economic conditions.

Beneficial Interest in Perpetual Trusts
Beneficial interest in perpetual trusts represents permanently restricted assets that are managed by donor-selected trustees and are recorded at the fair value of the underlying assets in the trusts.

(in thousands of dollars)

Fair Value of Financial Instruments
In accordance with FASB fair value measurement guidance, financial assets and liabilities recorded at fair value in the consolidated balance sheets are categorized based upon the level inputs used to measure their fair value.

Inventory, Net
Inventory consists primarily of health care delivery-related drugs, medical supplies and surgical supplies. Inventory is stated at the lower of cost or market. Inventory cost is determined using the first-in first-out basis. Obsolescence reserves were $2,477 and $3,262 at December 31, 2017 and 2016, respectively.

Prepaid Expenses, Other Current Assets and Other Assets
Prepaid expenses, other current assets and other assets primarily include prepaid expenses, insurance recoveries, interests in net assets of foundations and 457(b) plan assets.

Property and Equipment, Net
Property and equipment is recorded at cost, net of accumulated depreciation. If a donor contributes property and equipment, it is recorded at the fair market value on the date contributed. Maintenance, repairs and minor improvements are expensed as incurred. Certain costs related to the internal development of software or software purchased for internal use are capitalized. Gains or losses on sales or disposals of property and equipment are included in operations.

Depreciation is computed under the straight-line method by annual charges to expense over the estimated useful lives of the various asset types as follows: buildings and building or land improvements, up to 40 years; leasehold improvements, lesser of lease term or useful life; office furniture and equipment, 3 to 30 years; and capitalized software, 3 to 10 years.

Property and equipment is reviewed for impairment whenever changes in circumstances indicate that the carrying value of the assets may not be recoverable. Impairment losses are recognized to the extent the carrying amount of an asset exceeds the undiscounted future cash flows expected to result from the use of the asset and its eventual disposal (step 1). If the carrying amount of a long-lived asset (asset group) is not recoverable, an impairment loss is recognized if the carrying amount exceeds the fair value (step 2). There were no impairment losses recorded in either 2017 or 2016.

Goodwill and Other Intangible Assets, Net
Intangible assets with finite lives are amortized using the straight-line method over their estimated lives, which range from 3 to 20 years. The Health Network has intangible assets of $9,898 and $10,649 for the years ended December 31, 2017 and 2016, respectively. Amortization expenses related to these assets were $1,063 and $3,052 in 2017 and 2016, respectively.

Intangible assets with indefinite useful lives, including goodwill, are not amortized, but are tested for impairment at least annually and more frequently if events or changes in circumstances indicate that an asset may be impaired. If fair value is less than carrying value, the asset is adjusted to the fair value and an impairment loss is recorded in the consolidated statements of operations. Goodwill consisted of $104,667 at December 31, 2017 and 2016. Management tested goodwill as of December 31, 2017 and 2016 and concluded that no impairment existed.

Self-Insurance Liabilities
Self-insurance liabilities are based on actuarial methods and loss experience data and are considered by management to be adequate. Such liabilities are determined, in the aggregate, based on a reasonable estimation of the ultimate settlement of reported losses, including individual case estimates for reported losses plus supplemental amounts for losses incurred but not reported.

Palladium, as further discussed in Note 12, provides medical professional and general liability coverage. Palladium has begun to accumulate sufficient historical loss experience to determine whether actual losses and loss adjustment expenses will reasonably conform to the assumptions used in determination of the estimated liability for losses and loss adjustment expenses. There is uncertainty associated with the loss estimates, and actual results could differ significantly from the estimates. Changes in loss and loss adjustment expense liabilities relating to prior years are recorded in the year determined.

Self-insurance liabilities are recorded at the present value of the estimated future cash flows for payments of those losses and loss adjustment expenses. The present value of those losses and loss adjustment expenses is discounted using a risk-free rate which is equivalent to the current interest rate on United States government obligations at the time of the loss and for the duration of expected payout of the loss.

Medical malpractice exposure can be subject to long settlement delays and can include large single event claims. This type of exposure has higher inherent volatility than typical insurance exposures. Palladium has insurance exposure to only report years beginning January 1, 2015. Given the immaturity of the exposures, meaningful future claim payment and case reserve activity is expected. The uncertainty of these years will decrease over time as these years mature and losses are reported.

In the normal course of business, Palladium seeks to reduce losses that may arise from risks or occurrences of an unexpected nature that may cause unfavorable underwriting results by reinsuring certain levels of risk in various areas of exposure with other insurance enterprises or reinsurers.

Other Liabilities
Other liabilities include among other things, deferred grant revenue, payor advances, 457(b) plan obligations and interest rate swap liabilities.

Derivative Financial Instruments
The Health Network makes limited use of derivatives, which relate primarily to interest rate swaps. The Health Network entered into multiple interest rate swap agreements that convert variable debt to a fixed rate, as well as converting a fixed rate to a variable rate. The liabilities associated with the interest rate swaps are reported in other non-current liabilities in the consolidated balance sheets. Changes in the fair value of interest rate swaps deemed effective and that qualify for hedge accounting are accounted for as unrestricted net assets in the consolidated statements of changes in net assets. For those interest rate swaps that do not qualify for hedge accounting, the changes in fair value are reported as a separate line item in non-operating expense on the consolidated statements of operations. Specific types of loans and amounts that the Health Network hedges are determined based on prevailing market conditions and are further disclosed in Note 8.

Temporarily and Permanently Restricted Net Assets
Temporarily restricted net assets are those whose use is limited by donor-imposed stipulations that either expire with the passage of time or can be fulfilled and removed by actions of the Health Network pursuant to those stipulations. Temporarily restricted net assets are available for capital and other program expenditures.

Permanently restricted net assets are those whose use is limited by donor-imposed stipulations that neither expire with the passage of time nor can be fulfilled or otherwise removed by the actions of the Health Network. Investment earnings from permanently restricted net assets may be unrestricted or temporarily restricted for capital or operating needs depending upon the original intent of the donor.

(in thousands of dollars)

Net assets are released from donor restrictions by incurring expenses satisfying the restricted purposes or by occurrence of other events specified by donors. Net assets released from restrictions and used for operations are recorded in net assets released from restriction. Net assets released from restriction and used for capital purposes are recorded in unrestricted net assets in the consolidated statements of changes in net assets.

Donor-Restricted Contributions
The Health Network classifies the portions of donor-restricted endowment funds of perpetual durations as permanently restricted net assets. Permanently restricted net assets are comprised of (a) the original value of the contributions made to the permanent endowment, (b) the original value of the subsequent contributions made to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with applicable donor gift instruments. Any portion of donor-restricted endowment funds that are not classified as permanently restricted are appropriated in accordance with donor intent.

The Health Network considers the following factors in determining if donor-restricted endowment funds are accumulated or appropriated:

(1) The duration and preservation of the fund
(2) The purposes of the organization and the donor-restricted endowment fund
(3) General economic conditions
(4) The possible effect of inflation and deflation
(5) The expected total return from income and appreciation of investments
(6) Other resources of the organization
(7) The investment policies of the organization

The Health Network's permanently restricted net assets consist of endowments managed by donor-selected trustees and endowments managed by the Health Network. Unless otherwise directed by the donor, gifts received for endowments are invested in accordance with the Health Network's investment policy. In order to preserve the real value of a donor's gift and to sustain funding consistent with donor intent, the annual appropriation rate is set to strike a reasonable balance between long-term objectives of preserving and growing each endowment fund for the future of providing stable, annual appropriations.

Return Objectives and Risk Parameters
The Health Network has adopted endowment investment and spending policies that attempt to provide a predictable stream of funding programs supported by its endowment while seeking to maintain the purchasing power of endowment assets. Under this policy, the return objective for the endowment assets, measured over a full market cycle, shall be to maximize the return with a balanced growth emphasis based on the endowment's target allocation applied to the appropriate individual benchmarks.

Strategies Employed for Achieving Investment Objectives
To achieve its long-term rate of return objectives, the Health Network elected a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends). The investment income percentage distribution is recorded as a transfer out of trusts in permanently restricted net assets. The Health Network targets diversified asset allocation that places a greater emphasis on fixed income based investments to achieve its long-term objectives within prudent risk constraints.

Uncompensated Care and Community Services Benefit
The Health Network offers medical care to all patients, including those who may have difficulty paying for services due to limited income. Consistent with its mission to deliver compassionate, high quality, affordable healthcare services and to advocate for those who are poor and disenfranchised, the Health

(in thousands of dollars)

Network strives to ensure that the financial capacity of people who need healthcare services does not prevent them from seeking or receiving care. The Health Network provides, without discrimination, care for emergency medical conditions or other medically necessary care to individuals regardless of their eligibility for financial assistance or for government assistance. These individuals are not to be charged more than the amounts generally billed to individuals covered by insurance.

The Health Network's financial assistance policy defines the income eligibility criteria, the type of financial assistance, and the services that are included and excluded under its policy. The policy sets forth the procedure by which a patient shall apply for financial assistance, sometimes referred to as charity care. If the patient and/or guarantor's income is at or under 200% of the Federal Poverty Guidelines, all patient liability balances will be forgiven at 100%, whereas discounted care for uninsured but failing charity thresholds ranges between 70% and 83% of gross charges based upon the look-back method. The Health Network does not pursue collection of amounts determined to qualify for charity care; therefore, charity care amounts are not recorded as net patient service revenue.

Of the Health Network's total expenses reported, an estimated $24,000 and $20,000 arose from providing services to charity patients in 2017 and 2016, respectively. The Health Network estimated these costs by applying the cost of the total direct and indirect costs of each procedure to the individual charity care cases. Patients are required to apply for the charity care discount, but often do not complete the necessary paperwork to determine if they qualify. As a result, certain uncompensated services that would potentially be considered charity care under the policy, instead are ultimately reflected in the provision for bad debts.

In addition to uncompensated care, the Health Network provides free and below cost services and programs for the benefit of the community. The cost of these programs is included in salaries, wages, and fringe benefits, patient care supplies, and professional fees and purchased services lines in the accompanying consolidated statements of operations.

Services are also provided to beneficiaries of government-sponsored programs, including state Medical Assistance and indigent care programs. Reimbursement from these programs is often less than the cost of providing these services.

Other Operating Revenue
Other operating revenue includes among other things, grants, Medicare and Medicaid electronic health record ("EHR") incentive payments and other ancillary hospital services revenue such as parking, cafeteria, tuition and rent. Other operating revenue also includes the Health Network's proportionate share of affiliate earnings.

The composition of other operating revenue is as follows for the years ended December 31:

	2017	2016
Grant revenue	$ 38,562	$ 29,623
Affiliation income	-	29,100
Facility services	37,458	33,894
Equity method investment income	4,713	4,123
Medicare/Medicaid EHR incentives	1,473	2,213
Other miscellaneous revenue	97,043	94,593
	$ 179,249	$ 193,546

(in thousands of dollars)

Income Taxes
AHN and some of the entities within the Health Network are tax-exempt organizations under Section 501(c)(3) of the Internal Revenue Code ("IRC") and are exempt from federal income taxes on exempt purpose income. These tax-exempt organizations are subject to federal taxes on unrelated business income under section 511 of the IRC. No such tax liability exists in 2017 or 2016, and as such, no provision for unrelated business income tax has been made in the consolidated financial statements.

Certain for-profit entities within the Health Network are subject to federal and state income taxes. Provisions for the applicable tax liabilities have been made in the consolidated financial statements. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using tax rates and laws that are expected to be in effect when the difference is reversed. The Health Network records a valuation allowance against its deferred tax assets when it determines that it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Excess (Deficit) of Revenue over Expenses
The consolidated statements of operations include an excess (deficit) of revenue over expenses. Changes in unrestricted net assets (deficit) which are excluded from the excess (deficit) of revenue over expenses, consistent with industry practice, include unrealized gains and losses on available-for-sale securities, benefit plan asset and liability changes, contributions of long-lived assets (including assets acquired using contributions which by donor restriction were to be used for the purposes of acquiring such assets), gain on qualifying derivative instruments, change in non-controlling interests and certain tax benefits.

Subsequent Events
In connection with the preparation of the consolidated financial statements, the Health Network evaluated events subsequent to the balance sheet date of December 31, 2017 through March 28, 2018, which is also the date the financial statements were available to be issued, and has determined that all material transactions have been recorded and disclosed properly.

3. Investments

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2017 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 28,223	$ 2	$ (489)	$ 27,736
Agency mortgage-backed securities	1,468	-	(23)	1,445
Asset-backed and other loan-backed securities	500	-	(4)	496
Corporate and other debt securities	40,232	184	(291)	40,125
Total debt securities	70,423	186	(807)	69,802
Equity securities				
Domestic	3,219	835	-	4,054
Foreign	7,165	316	-	7,481
Total equity securities	10,384	1,151	-	11,535
Total	$ 80,807	$ 1,337	$ (807)	$ 81,337

(in thousands of dollars)

The cost or amortized cost, gross unrealized gains and losses and fair value of investments in debt and equity securities classified as available-for-sale at December 31, 2016 were as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities				
U.S. Treasury and agency obligations	$ 19,296	$ -	$ (380)	$ 18,916
Asset-backed and other loan-backed securities	500	-	(4)	496
Corporate and other debt securities	36,610	130	(322)	36,418
Total debt securities	56,406	130	(706)	55,830
Equity securities				
Domestic	3,219	186	(3)	3,402
Foreign	6,950	5	(217)	6,738
Total equity securities	10,169	191	(220)	10,140
Total	$ 66,575	$ 321	$ (926)	$ 65,970

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2017 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 10,855	$ (126)	$ 16,378	$ (363)	$ 27,233	$ (489)
Agency mortgage-backed securities	1,445	(23)	-	-	1,445	(23)
Asset-backed and other loan-backed securities	-	-	496	(4)	496	(4)
Corporate and other debt securities	19,986	(140)	10,067	(151)	30,053	(291)
Total debt securities	32,286	(289)	26,941	(518)	59,227	(807)
Equity securities						
Domestic	-	-	-	-	-	-
Foreign	96	-	-	-	96	-
Total equity securities	96	-	-	-	96	-
Total	$ 32,382	$ (289)	$ 26,941	$ (518)	$ 59,323	$ (807)

(in thousands of dollars)

The gross unrealized losses and fair value of debt and equity investments classified as available-for-sale securities by investment category and length of time an individual security was in a continuous unrealized loss position at December 31, 2016 were as follows:

	Less than 12 months		12 months or greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Debt securities						
U.S. Treasury and agency obligations	$ 18,416	$ (380)	$ -	$ -	$ 18,416	$ (380)
Asset-backed and other loan-backed securities	496	(4)	-	-	496	(4)
Corporate and other debt securities	24,277	(317)	242	(5)	24,519	(322)
Total debt securities	43,189	(701)	242	(5)	43,431	(706)
Equity securities						
Domestic	197	(3)	-	-	197	(3)
Foreign	4,017	(99)	1,306	(118)	5,323	(217)
Total equity securities	4,214	(102)	1,306	(118)	5,520	(220)
Total	$ 47,403	$ (803)	$ 1,548	$ (123)	$ 48,951	$ (926)

At December 31, 2017 and 2016, the Health Network held available-for-sale debt securities with gross unrealized losses of $807 and $706, respectively. Management evaluated the unrealized losses and determined that they were due primarily to volatility in the interest rate environment and market conditions. The Health Network does not intend to sell the related debt securities and it is not likely that the Health Network will be required to sell the debt securities before recovery of their amortized cost basis, which may be maturity. Therefore, management does not consider the available-for-sale debt securities to be other-than-temporarily impaired as of December 31, 2017 and 2016.

At December 31, 2017 and 2016, the Health Network held available-for-sale equity securities with gross unrealized losses of $0 and $220, respectively. Management reviews equity securities in which fair value falls below cost. In determining whether an equity security is other-than-temporarily impaired, management considers both quantitative and qualitative information. The impairment review process is subjective and considers a number of factors, including, but not limited to, the length of time and extent to which the fair value has been less than book value, the financial condition and near-term prospects of the issuer, recommendations of investment advisors, the intent and ability to hold securities for a time sufficient to allow for any anticipated recovery in value and general market conditions and industry or sector-specific factors, including forecasts of economic, market or industry trends. Management does not consider the available-for-sale equity securities to be other-than-temporarily impaired as of December 31, 2017 and 2016.

The realized (losses) gains on the available-for-sale debt securities were $(23) and $103 for the years ended December 31, 2017 and 2016. There were no realized gains or losses on the available-for-sale equity securities for the years ended December 31, 2017 and 2016. There were no other-than-temporary impairments on the available-for-sale debt or equity securities for the years ended December 31, 2017 and 2016.

(in thousands of dollars)

The amortized cost and fair value of available-for-sale debt securities at December 31, 2017 and 2016 are shown below by contractual maturity. Expected maturities could differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	2017		2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within one year or less	$ 8,492	$ 8,484	$ -	$ -
Due after one year and within five years	37,213	36,912	30,672	30,597
Due five years through ten years	21,773	21,434	23,248	22,764
Due after ten years	977	1,031	1,986	1,973
Asset-backed and other loan-backed securities	1,968	1,941	500	496
Total	$ 70,423	$ 69,802	$ 56,406	$ 55,830

Board designated, restricted and other investments consist of the following investments at December 31:

	2017	2016
Cash and cash equivalents	$ 249,354	$ 70,095
Debt securities		
U.S. Treasury and agency obligations	99,713	64,243
Agency mortgage-backed securities	3,732	4,833
Asset and mortgage-backed securities	2,198	5,102
Corporate and other debt securities	61,188	94,112
Total debt securities	166,831	168,290
Equity securities		
Domestic	100,708	128,938
Foreign	68,710	42,614
Total equity securities	169,418	171,552
Common collective trust interests	262	240
Total board designated, restricted and other investments	$ 585,865	$410,177

(in thousands of dollars)

Board designated, restricted and other investments consist of the following components at December 31:

	2017	2016
Unrestricted		
Other investments	$ 271,300	$ 278,897
Board designated		
Capital improvements	-	4,110
Foundation	35,335	34,973
Capital project funds	194,556	-
Debt service	-	5,596
Self-insurance	807	2,913
Grant funds and other	29,336	28,454
Total unrestricted	531,334	354,943
Temporarily restricted	20,057	22,433
Permanently restricted	34,474	32,801
Total board designated, restricted and other investments	$ 585,865	$ 410,177

The following is a summary of net investment income for the year ended December 31, 2017:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 19,744	$ 1,239	$ 3,910
Net realized gains on investments	12,094	2,031	9,353
Net unrealized gains (losses) on board designated, restricted and other investments	9,771	(833)	23,208
Total net investment income	$ 41,609	$ 2,437	$ 36,471

The following is a summary of net investment income for the year ended December 31, 2016:

	Unrestricted	Temporarily Restricted	Permanently Restricted
Interest and dividends	$ 17,722	$ 878	$ 3,658
Net realized (losses) gains on investments	(833)	(43)	2,068
Net unrealized gains on board designated, restricted and other investments	9,140	546	7,365
Total net investment income	$ 26,029	$ 1,381	$ 13,091

There were no other-than-temporary impairment charges on available-for-sale securities included in net realized gains (losses) on unrestricted investments for 2017 and 2016.

The recognition of unrealized gains and losses on investments that are restricted as to use are recorded directly to temporarily and permanently restricted net assets as required by donor or regulation. These investments consist primarily of equity securities, agency mortgage-backed securities, corporate debt securities and U.S. Treasury obligations. All unrealized gains and losses on marketable unrestricted board-designated and other investments are recognized in net investment income.

(in thousands of dollars)

4. Fair Value of Financial Instruments

Input levels, as defined by Fair Value Measurement guidance, are as follows:

Level 1: Pricing inputs are based on unadjusted quoted market prices for identical financial assets or liabilities in active markets. Active markets are those in which transactions occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2: Pricing inputs include observable inputs other than Level 1 pricing inputs, such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Pricing inputs include unobservable inputs that are supported by little or no market activity and that reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

The following methods and assumptions were used to determine the fair value of each class of the following assets and liabilities recorded at fair value in the consolidated balance sheets:

Cash equivalents: Cash equivalents consist of highly liquid investments with maturities of three months or less and are designated as Level 1.

Debt securities, available-for-sale: Fair values of available-for-sale debt securities are based on quoted market prices, where available. These fair values are obtained primarily from a third party pricing service, which generally use Level 1 or Level 2 inputs, for the determination of fair value to facilitate fair value measurements and disclosures.

Equity securities, available-for-sale: Fair values of equity securities are generally designated as Level 1 and are based on quoted market prices for identical assets in active markets. For certain equity securities, quoted market prices for identical securities are not always available and the fair value is estimated by reference to similar or underlying securities for which quoted prices are available. These securities are designated Level 2.

Board designated, restricted and other investments: Board-designated, restricted and other investments include cash equivalents, debt securities and equity securities that follow the same methods and assumptions and fair value designations described above.

Beneficial interest in participating trusts: Permanently restricted net assets consist of amounts held in perpetuity as designated by donors, including the Health Network's portion of beneficial interests in several endowments managed by donor-selected trustees. The fair value for endowments managed by donor-selected trustees are designated as Level 3 securities with the interest in these trusts based on the fair value of the underlying trust investments.

The Health Network uses a third party pricing service to obtain quoted prices for each security. The third party service provides pricing based on recent trades of the specific security or like securities, as well as a variety of valuation methodologies for those securities where an observable market price may not exist. The third party service may derive pricing for Level 2 securities from market-corroborated pricing, matrix pricing, discounted cash flow analyses and inputs such as yield curves and indices. Pricing for Level 3 securities may be obtained from investment managers for private placements.

Certain invested assets are valued at NAV as a practical expedient to fair value. The holdings of the underlying investments are measured at fair value as of the reporting date. These investments, if sold, are probable of being sold at amounts equal to net asset value per share. The underlying investments in real estate trusts are measured at fair value on a recurring basis. The underlying investments in the

(in thousands of dollars)

limited partnerships are based on the Health Network's share of the entities' undistributed earnings based on issued financial statements.

The Health Network performs an analysis of reasonableness of the prices received for fair value by monitoring month-to-month fluctuations and determining reasons for significant differences, selectively testing fair values against prices obtained from other sources, and comparing the consolidated fair value of a class of assets against an appropriate index benchmark. The Health Network did not make adjustments to the quoted market prices obtained from third party pricing services that were material to the consolidated financial statements.

The following table summarizes fair value measurements by level at December 31, 2017 for financial assets measured at fair value on a recurring basis:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Assets					
Cash and cash equivalents	$ 220,017	$ 220,017	$ -	$ -	$ -
Investments					
Debt securities, available-for-sale					
U.S. Treasury and agency obligations	27,736	24,177	3,559	-	-
Agency mortgage-backed securities	1,445	-	1,445	-	-
Asset-backed and other loan-backed securities	496	-	496	-	-
Corporate and other debt securities	40,125	-	40,125	-	-
Total debt securities	69,802	24,177	45,625	-	-
Equity securities, available-for-sale					
Domestic	4,055	4,055	-	-	-
Foreign	7,480	7,480	-	-	-
Total equity securities	11,535	11,535	-	-	-
Board designated, restricted and other investments					
Cash and cash equivalents	249,355	249,355	-	-	-
Debt securities					
U.S. Treasury and agency obligations	99,713	49,263	50,450	-	-
Agency mortgage-backed securities	3,732	-	3,732	-	-
Asset-backed and other loan-backed securities	2,198	-	2,198	-	-
Corporate and other debt securities	61,188	-	61,188	-	-
Equity securities					
Domestic	100,707	93,208	-	7,499	-
Foreign	68,710	68,710	-	-	-
Common collective trust interests	262	-	-	-	262
Total board designated, restricted and other investments	585,865	460,536	117,568	7,499	262
Beneficial interest in perpetual trusts	251,177	-	-	251,177	-
Total assets	**$ 1,138,396**	**$ 716,265**	**$ 163,193**	**$ 258,676**	**$ 262**
Liabilities					
Interest rate swaps	$ -	$ -	$ -	$ -	$ -

(in thousands of dollars)

The following table summarizes fair value measurements by level at December 31, 2016 for financial assets measured at fair value on a recurring basis:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Assets					
Cash and cash equivalents	$ 196,553	$ 196,553	$ -	$ -	$ -
Investments					
Debt securities, available-for-sale					
U.S. Treasury and agency obligations	18,916	18,416	500	-	-
Agency mortgage-backed securities	-	-	-	-	-
Asset-backed and other loan-backed securities	496	-	496	-	-
Corporate and other debt securities	36,418	-	36,418	-	-
Total debt securities	55,830	18,416	37,414	-	-
Equity securities, available-for-sale					
Domestic	3,403	3,403	-	-	-
Foreign	6,737	6,737	-	-	-
Total equity securities	10,140	10,140	-	-	-
Board designated, restricted and other investments					
Cash and cash equivalents	70,095	70,095	-	-	-
Debt securities					
U.S. Treasury and agency obligations	64,243	56,799	7,444	-	-
Agency mortgage-backed securities	4,833	-	4,833	-	-
Asset-backed and other loan-backed securities	5,102	-	5,102	-	-
Corporate and other debt securities	94,112	-	94,112	-	-
Equity securities					
Domestic	128,938	121,439	-	7,499	-
Foreign	42,614	42,614	-	-	-
Common collective trust interests	240	-	-	-	240
Total board designated, restricted and other investments	410,177	290,947	111,491	7,499	240
Beneficial interest in perpetual trusts	224,405	-	-	224,405	-
Total assets	**$ 897,105**	**$ 516,056**	**$ 148,905**	**$ 231,904**	**$ 240**
Liabilities					
Interest rate swaps	$ 12,265	$ -	$ 12,265	$ -	$ -

Transfers between levels, if any, are recorded annually as of the end of the reporting period unless, with respect to a particular issue, a significant event occurred that necessitated the transfer be reported at the date of the event.

There were no material transfers between Levels 1 and 2 during the years ended December 31, 2017 and 2016. There were no material transfers from Level 3 during the years ended December 31, 2017 and 2016.

(in thousands of dollars)

The changes in fair value for assets measured using significant unobservable inputs (Level 3) for the years ended December 31, 2017 and 2016 were as follows:

	Beneficial Interest in Perpetual Trusts	Privately Held Equity Securities	Total
Balance at January 1, 2016	**$ 219,772**	**$ 7,499**	**$ 227,271**
Net unrealized gains	7,452	-	7,452
Net realized gains	5,759	-	5,759
Purchases	-	-	-
Transfers out of trusts	(8,578)	-	(8,578)
Balance at December 31, 2016	**$ 224,405**	**$ 7,499**	**$ 231,904**
Net unrealized gains	20,315	-	20,315
Net realized gains	15,503	-	15,503
Purchases	-	-	-
Transfers out of trusts	(9,046)	-	(9,046)
Balance at December 31, 2017	**$ 251,177**	**$ 7,499**	**$ 258,676**

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2017:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Common collective trust interests	262	-	Quarterly	60 Days
Total	**$ 262**	**$ -**		

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2016:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Common collective trust interests	240	-	Quarterly	60 Days
Total	**$ 240**	**$ -**		

Fair Value Option

The Health Network elected the fair value option for its unrestricted investments, with the exception of the available-for-sale debt and equity securities held by Palladium. At December 31, 2017 and 2016, the Health Network reported unrestricted investments of $531,334 and $354,943, respectively under the fair value option within the Board designated, restricted and other investments at fair value on the consolidated balance sheets. The Health Network has recorded unrealized gains of $9,771 and $9,140 (included in net investment income on the consolidated statements of operations) for the years ended December 31, 2017 and 2016, respectively.

(in thousands of dollars)

5. Equity Method Investments

The Health Network and its subsidiaries have ownership interests in various health-related ventures which were formed to reduce the costs and increase effectiveness in providing community service benefits. These include ventures which provide laboratory, ambulance, oncology and other services and are accounted for under the equity method of accounting. The accompanying consolidated balance sheets reflect equity investments as follows for December 31:

	2017		2016	
	Ownership Interest	Investment Balance	Ownership Interest	Investment Balance
Regional Cancer Center	50.0%	$ 9,696	50.0%	$ 10,009
Associated Clinical Labs	12.3%	8,615	12.3%	8,827
UPMC VNA Home Health	0.0%	-	33.4%	8,191
Vantage Holding Company	52.3%	6,310	52.3%	6,443
Jefferson Medical Associates	43.8%	5,069	43.8%	5,055
EmergyCare, Inc.	50.0%	2,787	50.0%	2,389
Community Blood Bank of Erie County	40.0%	1,568	40.0%	1,610
AHN Emergency Medicine Management, LLC	50.0%	1,843	50.0%	1,325
Other (a)	various	4,562	various	4,609
		$ 40,450		$ 48,458

(a) Consists of various individually immaterial investments of varying ownership interests (ranging from 20.7% to 50%).

Total assets, liabilities, and net assets of the equity investees were approximately $164,714, $79,032, and $85,682, respectively, at December 31, 2017 and $201,622, $89,026, and $112,596, respectively, at December 31, 2016. Total revenues, expenses and net income of the equity investees was approximately $179,965, $158,818 and $21,147, respectively, for the year ended December 31, 2017 and $175,630, $153,771 and $21,859, respectively, for the year ended December 31, 2016.

Differences, if any, between the carrying amount of the investment and the amount of underlying equity in net assets of the investment are, in the opinion of management, deemed to be immaterial in the aggregate.

In June 2017, JRMC divested its 33.4% ownership interest in UPMC/JRMC Home Health, L.P. ("UPMC VNA Home Health"), a home health agency in Western Pennsylvania providing skilled nursing, medical-social, home health aide and physical therapy. JRMC received proceeds of $22,030 on the divestiture which resulted in the recognition of a one-time gain of $13,017 reported on the consolidated statement of operations as non-operating activity.

(in thousands of dollars)

6. Property and Equipment, Net

Property and equipment was comprised of the following at December 31:

	2017	2016
Land, buildings and leasehold improvements	$ 882,425	$ 777,044
Equipment	672,900	558,112
Capitalized software	79,251	62,717
Total depreciable assets	1,634,576	1,397,873
Less: accumulated depreciation	(559,496)	(425,372)
Net depreciable assets	1,075,080	972,501
Construction in progress	76,922	102,334
Property and equipment, net	$ 1,152,002	$ 1,074,835

Depreciation expense amounted to $140,868 and $124,995 for 2017 and 2016, respectively.

Included in total depreciable assets is $62,523 of assets recorded under a capital lease with accumulated amortization of $13,161 at December 31, 2017. The assets primarily relate to a capital lease for parking garages and a medical office building adjacent to one of the Health Network's hospitals.

The Health Network capitalizes interest on certain assets that require a period of time to prepare for their intended use. The amount capitalized is based on the weighted average outstanding borrowing rate. For the years ended December 31, 2017 and 2016, the Health Network capitalized $696 and $3,573, respectively.

7. Employee Benefit Plans

Defined Benefit Plans

The Health Network covers certain employees meeting age and service requirements through multiple non-contributory defined benefit pension plans (the "pension plans"), the Retirement Plan for Eligible Represented Employees of West Penn Allegheny Health System and the Retirement Plan for Eligible Non-Represented Employees of West Penn Allegheny Health System (collectively the "WPAHS pension plans"), the Jefferson Retirement Plan (the "JRMC pension plan"), and the Saint Vincent Health System Pension Plan (the "SVHS pension plan"). The JRMC and SVHS pension plans are frozen. In 2017, WPAHS froze the Retirement Plan for Eligible Non-Represented Employees of West Penn Allegheny Health System effective December 31, 2017.

The Health Network funds its pension plans according to minimum funding requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"), as amended. During 2018, the Health Network expects to contribute $29,100 to the pension plans related to the 2017 plan year and $26,000 to the pension plans related to the 2018 plan year.

(in thousands of dollars)

The amounts recognized in the consolidated balance sheets were as follows:

	2017	2016
Accumulated benefit obligation	$ 1,341,619	$ 1,262,654
Change in benefit obligations		
Benefit obligations at beginning of year	$ 1,282,899	$ 1,237,249
Service cost	23,626	23,414
Interest cost	39,149	39,491
Participant contributions	22	37
Benefit payments	(61,178)	(63,955)
Curtailment gain	(13,336)	-
Actuarial loss	73,831	46,663
Benefit obligations at end of year	$ 1,345,013	$ 1,282,899
Change in plan assets		
Net plan assets at beginning of year	$ 844,769	$ 853,226
Actual return on plan assets	129,797	43,257
Participant contributions	22	37
Employer contributions	89,927	12,204
Benefit payments	(61,178)	(63,955)
Settlement payments	-	-
Net plan assets at end of year	$ 1,003,337	$ 844,769
Amounts recognized in the consolidated balance sheets		
Benefit plan liabilities	$ (341,676)	$ (438,130)
Amounts included in unrestricted net assets		
Actuarial loss	(106,985)	(115,310)
Net amounts recognized	$ (106,985)	$ (115,310)

The estimated actuarial loss for the pension plans that will be amortized from net assets in 2018 is $1,278.

The following table provides the components of net periodic benefit cost for the years ended December 31:

	2017	2016
Service cost	$ 23,626	$ 23,414
Interest cost	39,149	39,491
Expected return on plan assets	(61,861)	(60,170)
Amortization of:		
Actuarial loss	884	273
Net periodic benefit costs	$ 1,798	$ 3,008

(in thousands of dollars)

The Health Network's weighted-average assumptions related to the calculation of the pension benefit obligations and net periodic benefit cost for the pension and other post-retirement plans are presented in the tables below:

	2017	2016
Weighted-average assumptions		
Discount rate - benefit obligations	3.44%	3.88%
Discount rate - net periodic costs	3.88%	4.05%
Expected return on plan assets	7.27%	7.28%
Rate of compensation increase	2.45 - 6.09%	2.88 - 7.15%

The expected return on pension plan assets is developed using inflation expectations, risk factors and input from actuaries to arrive at a long-term nominal expected return for each asset class. The nominal expected return for each asset class is then weighted based on the target asset allocation to develop the expected long-term rate of return on plan assets.

The expected return on other post-retirement plan assets is developed based on historical returns and the future expectations for returns for each asset class as well as the asset allocation of the other post-retirement plan assets.

Estimated benefit payments are expected as follows:

2018	$	95,000
2019	$	95,000
2020	$	93,000
2021	$	91,000
2022	$	90,000
2023-2027	$	422,000

The pension plans' overall investment strategies are determined by the plans' investment committees, investment advisors and plan administrators. Overall, the goals of the Health Network are to achieve sufficient diversification of asset types, fund strategies and fund managers in order to minimize volatility and maximize returns over the long term, while still having sufficient funds to pay those benefits due in the near term.

The Health Network's pension plans primarily set an investment strategy to achieve a mix of 25% of long-duration fixed income securities meant to hedge the benefit obligations, 73% of investments for long-term growth and 2% for near-term benefit payments with a diversification of asset types, fund strategies and fund managers. The target allocations for the Health Network's plans assets are approximately 25% fixed income securities, 60% equity securities, 13% alternative investments and 2% cash equivalents. Equity securities primarily include stock investments in U.S. developed and emerging market corporations. Fixed income securities primarily include bonds of domestic and foreign companies from diversified industries, domestic mortgage-backed securities and bonds of U.S. and foreign governments and agencies. Alternative investments include investments in real estate and private equity funds that follow several different strategies.

(in thousands of dollars)

The following table summarizes the fair value measurements by level at December 31, 2017:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Pension plan assets					
Cash and cash equivalents	$ 4,475	$ 4,475	$ -	$ -	$ -
Debt securities					
U.S. Treasury and agency obligations	67,302	62,742	4,560	-	-
Agency mortgage-backed securities	8,362	-	8,362	-	-
State and political obligations	5,838	-	5,838	-	-
Commercial mortgage-backed securities	2,518	-	2,518	-	-
Residential mortgage-backed securities	1,002	-	1,002	-	-
Asset-backed securities	12,930	-	12,430	500	-
Corporate and other debt securities	134,441	-	134,441	-	-
Total debt securities	232,393	62,742	169,151	500	-
Equity securities					
Domestic	319,535	319,535	-	-	-
Foreign	76,329	76,329	-	-	-
Total equity securities	395,864	395,864	-	-	-
Registered investment company shares	350,894	350,894	-	-	-
Common collective trust interests	705	-	705	-	-
Private limited partnerships	16,449	-	-	-	16,449
Total	$ 1,000,780	$ 813,975	$ 169,856	$ 500	$ 16,449

At December 31, 2017, the fair value of pension plan assets excluded accrued interest and other receivables of $2,557.

The following table summarizes the fair value measurements by level at December 31, 2016:

	Fair Value	Level 1	Level 2	Level 3	Net Asset Value
Pension plan assets					
Cash and cash equivalents	$ 5	$ 5	$ -	$ -	$ -
Debt securities					
U.S. Treasury and agency obligations	70,037	65,801	4,236	-	-
Agency mortgage-backed securities	9,930	-	9,930	-	-
State and political obligations	6,015	-	6,015	-	-
Commercial mortgage-backed securities	2,203	-	2,203	-	-
Residential mortgage-backed securities	420	-	420	-	-
Asset-backed securities	12,209	-	12,209	-	-
Corporate and other debt securities	129,661	-	129,661	-	-
Total debt securities	230,475	65,801	164,674	-	-
Equity securities					
Domestic	362,191	362,191	-	-	-
Foreign	62,394	62,394	-	-	-
Total equity securities	424,585	424,585	-	-	-
Registered investment company shares	178,593	152,245	26,348	-	-
Common collective trust interests	2,649	-	2,649	-	-
Private limited partnerships	6,741	-	-	-	6,741
Total	$ 843,048	$ 642,636	$ 193,671	$ -	$ 6,741

At December 31, 2016, the fair value of pension plan assets excluded accrued interest and other receivables of $1,721.

(in thousands of dollars)

The changes in fair value for pension plans measured using significant unobservable inputs (Level 3) for the years ended December 31 were as follows:

	2017	2016
Balance at January 1	$ -	$ -
Purchases	500	-
Balance at December 31	$ 500	$ -

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2017:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private limited partnerships	16,449	-	Quarterly	30 Days
Total	**$ 16,449**	**$ -**		

The following table summarizes the nature of the funds valued based on net asset value as a practical expedient for fair value as of December 31, 2016:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private limited partnerships	6,741	-	Quarterly	30 Days
Total	**$ 6,741**	**$ -**		

Defined Contribution Plans

The Health Network sponsors several forms of defined contribution savings plans including: 403(b), 401(a), and 401(k) plans under the Internal Revenue Code. While a number of the plans are frozen, certain plans continue to provide employer matching at various levels. The Health Network's expense associated with contributions to these savings plans was $8,238 and $6,969 for the years ended December 31, 2017 and 2016, respectively.

Deferred Compensation Plans

The Health Network sponsors multiple deferred compensations plans, for a select group of management and highly compensated employees, which are governed by Internal Revenue Code Section 457(b). Salary deferrals are subject to Code 457(b) limits. The Health Network makes no employer contributions to the plan. The related plan assets, while held in a separate trust, are recorded on the accompanying consolidated financial statements within the caption of other assets, and the offsetting liabilities recorded as of December 31, 2017 and 2016 were $34,148 and $27,370, respectively. The Health Network is not at risk for any negative changes to the market value of these assets.

(in thousands of dollars)

8. Debt

The Health Network's total debt consisted of the following at December 31:

	2017	2016
AHN revenue bonds	$ 992,268	$ -
JRMC revenue bonds	-	93,588
SVHS revenue bonds	-	87,450
WPAHS term loan	-	699,054
Highmark Inc. notes payable	-	502,794
Floating rate restructuring certificates	-	3,973
Mortgage loan, due March 15, 2032, interest at 6.00%	22,668	23,187
Capital leases payable due through 2021 at varying interest rates	50,047	6,293
Mortgage and other loans due through 2024 at varying interest rates	8,263	5,329
Total debt	$ 1,073,246	$ 1,421,668
Less: current portion	(10,854)	(14,385)
Less: long-term debt subject to short term remarketing arrangements	-	(55,385)
Total debt, net of current portion	$ 1,062,392	$ 1,351,898

A summary of scheduled principal repayments on debt is as follows:

Years ending December 31,	
2018	$ 10,854
2019	42,402
2020	3,255
2021	2,235
2022	994,164
Thereafter	20,336
Total	$ 1,073,246

Allegheny Health Network
Allegheny County Hospital Development Authority Revenue Bonds ("AHN Revenue Bonds")
In December 2017, the Health Network issued aggregate tax exempt revenue bonds of $1,000,000 ($300,000 (Series 2017A); $250,000 (Series 2017B); $250,000 (Series 2018C); and $200,000 (Series 2017D)) through the Allegheny County Hospital Development Authority for direct purchase by a financial institution. While the bonds are scheduled to mature in April 2047, the current structure of the multimodal master trust agreement requires that the initial mode with the financial institution end by December 1, 2022, to be replaced with an alternate mode of the bond instrument as remarketed. Under the multimodal structure of the bonds, the bonds can be remarketed in a fixed rate mode. The variable rate interest on the bonds under the initial mode is payable monthly and the Health Network has an option during the initial mode to select the interest rate based on either one-month LIBOR, 60 day LIBOR or 90 day LIBOR plus a credit spread. The interest rate is subject to change upon a revision in the federal corporate tax rate. The Health Network has selected one-month LIBOR at December 31, 2017, with a rate of 2.59% at December 31, 2017. Proceeds from the bonds were used to refinance existing bond debt at JRMC and SVHS as well as the 2014 term loan at WPAHS and provide funding of $194,000 for various capital projects, which are reported in a project fund included in board designated, restricted and other investments in the consolidated balance sheets. The bonds are collateralized by a guarantee from Highmark Inc (related only to the initial mode) as well as the gross receivables (excluding restricted amounts) and mortgages on property and equipment of the WPAHS hospitals. Deferred bond issuance costs of $7,732 were recognized in association with the issuance and will be amortized over the life of the bonds.

(in thousands of dollars)

Jefferson Regional Medical Center
Allegheny County Hospital Development Authority Revenue Bonds ("JRMC Revenue Bonds")
JRMC issued aggregate revenue bonds of $123,335 in September 2010, July 2008, February 2007, May 2006, May 2000 and March 1998 through the Allegheny County Hospital Development Authority with scheduled maturities through March 2040. In December 2017, these bonds were defeased and all outstanding amounts and related unamortized premiums and discounts were settled. At December 31, 2016, JRMC had bonds outstanding of $93,588. Interest rates ranged from 0.78% to 5.125% at December 31, 2016. Proceeds from the bonds were used primarily for various capital projects. The unamortized discount was $368 and premium was $81 at December 31, 2016. JRMC had aggregate letters of credit in place for these bonds in the amount of $59,715. Of this total, no amounts were outstanding at December 31, 2017 and 2016.

JRMC was party to related interest rate swap agreements designated as fair value hedges with a highly-rated major U.S. financial institution. The interest rate swap agreements were terminated and settled in December 2017 as part of the Health Network's retirement of existing bond debt at JRMC. In 2017 and 2016, JRMC paid $997 and $1,257, respectively, to the counterparty for settlement under the interest rate swap agreements. These amounts were included in interest expense in the consolidated statements of operations. JRMC recorded an interest rate swap liability of $5,544 at December 31, 2016, included in other liabilities in the consolidated balance sheets related to the swap agreements. The interest rate swaps did not qualify for hedge accounting, and changes in fair value are accounted for as non-operating income (expenses) in the consolidated statements of operations.

Saint Vincent Health System
Erie County Hospital Authority Revenue Bonds ("SVHS Revenue Bonds")
SVHS issued aggregate revenue bonds of $90,600 with the Series 2009 and Series 2010A issued in December 2009 and the Series 2010B issued in January 2010 through the Erie County Hospital Authority with scheduled maturities through July 2039. In December 2017, these bonds were defeased and all outstanding amounts were settled. At December 31, 2016, SVHS had a total of $81,889, outstanding in Series 2009 and 2010 bonds. Interest rates ranged from 0.77% to 7.00% at December 31, 2016. Proceeds from the bonds were used primarily for various capital projects and to advance the refund of previously issued bonds.

The Series 2010B bonds were demand bonds and, while subject to long-term amortization periods, may have been put to SVHS at the option of the bondholders in connection with certain remarketing dates. To the extent that bondholders may, under the terms of the debt, put their bonds within 12 months after the reporting date, the Board of Trustees of SVHS restricted cash and investments of $46,667 at December 31, 2016, as a source of self-liquidity in the event the put option would have been enacted. SVHS had an irrevocable direct-pay letter of credit in place for the Series 2010B bonds in the amount of $55,800. Of this total, no amounts were outstanding at December 31, 2017 and 2016.

SVHS issued bonds of $8,828 in Series 2011A in August 2011 through Erie County Hospital Authority and scheduled to mature in August 2026. In December 2017, bonds were retired and all outstanding amounts were settled. At December 31, 2016, SVHS had Series 2011A bonds of $5,561 outstanding. Principal and interest were payable monthly and calculated based on 70% of the taxable interest rate, which is a floating rate of interest equal to the one-month LIBOR plus 2.75%. Interest rates were 2.36% at December 31, 2016. Proceeds from the Series 2011A bonds were used primarily to refinance the construction loan for the new parking facility.

SVHS was party to multiple interest rate swap agreements with highly-rated major U.S. financial institutions (the "counterparties"). The interest rate swap agreements were terminated and settled in December 2017 as part of the Health Network's retirement of existing bond debt at SVHS. In 2017 and 2016, SVHS paid $1,204 and $1,239, respectively, to the counterparties for settlements under the interest rate swap agreements which were included in interest expense in the consolidated statements of operations. SVHS recorded an interest rate swap liability of $2,877 at December 31, 2016, included

in other liabilities in the consolidated balance sheets related to the swap agreements. The interest rate swaps did not qualify for hedge accounting, and changes in fair value are accounted for as non-operating income (expenses) in the consolidated statements of operations.

Term Loan
In May 2014, WPAHS entered into a $700,000 term loan credit facility ("Term Loan") with a maturity in May 2019. In December 2017, the Term Loan was terminated and the outstanding amounts was settled and related deferred issuance costs were written off. At December 31, 2016, the carrying value was $699,054, net of debt issuance costs of $946. The interest on the Term Loan was payable monthly and calculated based on LIBOR plus 0.75%. Interest rates were 0.97% at December 31, 2016. The Term Loan was fully guaranteed by Highmark Inc. with a pledge of cash and securities. The fair value of the pledged assets held by Highmark Inc. was $855,960 at December 31 2016, which satisfied the minimum level needed to maintain the guarantee. These assets were excluded from the Health Network's consolidated balance sheets at December 31, 2016 as they remained the assets of Highmark Inc.

WPAHS was party to a related interest rate swap agreement with a highly-rated major U.S. financial institution. The interest rate swap agreements were terminated and settled in December 2017 as part of the Health Network retirement of existing debt at WPAHS. The intent of the interest rate swap agreement was to hedge the interest rate risk associated with future interest payments on the Term Loan by converting the variable rate to a fixed rate of 2.34%. In 2017 and 2016, WPAHS paid $3,788 and $7,917, respectively, to the counterparty for settlements under the interest rate swap agreement. This amount was included in interest expense in the consolidated statements of operations. WPAHS recorded an interest rate swap liability of $3,844 at December 31, 2016, included in the consolidated balance sheets. The interest rate swap qualified for hedge accounting and changes in fair value were accounted for as unrestricted net assets in the consolidated statement of changes in net assets. The termination of the swap agreement in December 2017 resulted in a gain of $2,298 and is reported as gain on interest rate swaps on the consolidated statements of operations.

Highmark Inc. Notes Payable
In December 2017, Highmark Inc. and the Health Network entered into an intercompany debt termination agreement whereby the outstanding Health Network loans totaling $523,694 at December 1, 2017 were terminated and all amounts due and owing were deemed to be forgiven by Highmark Inc. with no further liability to the Health Network. The impact of this forgiveness was recorded as a net asset transfer resulting in an increase to the unrestricted net assets on the statement of changes in net assets. At December 31, 2016, the Health Network had loans from Highmark Inc. totaling $502,794, consisting of both secured and unsecured borrowings that paid interest at varying rates.

Other
WPAHS had outstanding floating rate restructuring certificates ("FRRCs") of $3,973 at December 31, 2016. In 2017, WPAHS settled and extinguished this debt.

SVHS has an outstanding mortgage loan of $22,668 and $23,187 at December 31, 2017 and 2016, respectively, related to a medical office building. The mortgage note matures on March 15, 2032 and requires monthly principal and interest payments. The related medical office building is pledged as collateral on the loan and has a carrying value of $19,850 and $20,595 at December 31, 2017 and 2016, respectively.

As a result of the interest rate swap agreements previously discussed, the Health Network is subject to interest rate risk and default risk. Only cash flows related to the differential in the fixed interest rates and the variable interest rates as applied to the notional amounts of the interest rate swaps are subject to interest rate risk over the terms of the interest rate swap agreements. The notional amounts do not represent the amounts at risk; rather, they are used only as the basis for calculating the amounts due under the interest rate swap agreements.

(in thousands of dollars)

Several of the debt agreements referred to above contain covenants, including covenants relating to such matters as indebtedness, minimum net worth and financial ratings. At December 31, 2017 and 2016, the Health Network was in compliance with all debt covenants that could affect the financial position or results from operations.

9. Income Taxes

The components of the income tax provision were as follows for the years ended December 31:

	2017	2016
Federal		
Current	$ 179	$ 41
Deferred	(2,063)	(2,864)
Total Federal	(1,884)	(2,823)
State		
Current	$ 238	$ 25
Deferred	(314)	(114)
Total State	(76)	(89)
Total income tax provision	$ (1,960)	$ (2,912)

There were no foreign current or deferred provisions for the years ended December 31, 2017 and 2016.

The components of deferred income taxes were as follows at December 31:

	2017	2016
Deferred tax assets		
Net unrealized losses on available-for-sale securities	$ -	$ 212
Other payables and accrued expenses	1,655	1,825
Net operating loss carryforwards	97,563	126,489
Allowance for doubtful accounts	1,141	1,990
Investment in partnerships	3,711	5,458
Total deferred tax assets	104,070	135,974
Less: valuation allowance	(95,707)	(125,492)
Total deferred tax assets, net of valuation allowance	8,363	10,482
Deferred tax liabilities		
Goodwill and other intangibles	2,168	2,887
Benefit plan	433	622
Property and equipment	6,052	9,443
Net unrealized gains on available-for-sale securities	111	-
Other payables and accrued expenses	224	154
Total deferred tax liabilities	8,988	13,106
Net deferred tax liability	$ (625)	$ (2,624)

The realization of net deferred tax assets is dependent on the Health Network's ability to generate sufficient taxable income in future periods. The amount of deferred tax assets considered realizable, however, could change if estimates of future taxable income change.

While the majority of entities within the Health Network are not-for-profit, there are a limited number of entities organized as for-profit companies. These include HMPG and its subsidiaries as well as several physician practices consolidated within WPAHS.

(in thousands of dollars)

At December 31, 2017, various subsidiaries and affiliates of the Health Network had state net operating loss carryforwards totaling $324,116 that expire between 2018 and 2037 and are available to offset future state taxable income of the subsidiary that generated the loss carryforward. The utilization of the state net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance given uncertainty surrounding the realizability of the carryforwards.

At December 31, 2017, the Health Network had federal net operating loss carryforwards, related to subsidiaries of $342,683, which expire in various amounts through 2037. The utilization of the federal net operating loss carryforwards is subject to certain limitations; therefore, the Health Network recognized a valuation allowance for that portion of the federal net operating loss carryforward not expected to be utilized.

A reconciliation of income tax expense recorded in the consolidated statements of operations and amounts computed at the statutory federal rate was as follows for the years ended December 31:

	2017	2016
Income taxes at statutory rate	$ 17,200	$ (15,035)
Tax exempt income	(31,370)	(5,549)
Valuation allowance adjustments	(21,167)	13,018
Rate change	30,655	-
Nondeductible compensation	2,232	4,254
Other	490	400
Total income tax benefit	$ (1,960)	$ (2,912)

The Health Network has no uncertain tax positions for 2017 or 2016, respectively, and does not anticipate any uncertain tax positions in 2018.

The Tax Cuts and Jobs Act of 2017 (the "TCJA"), signed into law on December 22, 2017, reduces the federal income tax rate of the Health Network's taxable entities from 35% to 21% for periods beginning after December 31, 2017. This change resulted in a decrease in the Health Network's net deferred tax liability in 2017 due to revaluation of deferred tax assets and liabilities. Although this change does not have an immediate cash impact, the revaluation resulted in $460 of deferred tax benefit being recorded through the statement of operations for the year ended December 31, 2017. Any additional impact of TCJA in future periods is currently being evaluated by the Health Network and will be separately disclosed in those periods in which an adjustment is deemed necessary.

10. Temporarily and Permanently Restricted Net Assets

Temporarily restricted net assets were available for the following purposes at December 31:

	2017	2016
Clinical	$ 16,546	$ 18,522
Capital expansion	1,207	923
Health education and support	5,057	4,414
Total temporarily restricted net assets	$ 22,810	$ 23,859

Temporarily restricted net assets for capital expansion and renovation represent donations, gifts and pledges made for specific hospitals and other facilities. Similarly, temporarily restricted net assets for clinical programs, health education and other support represent donations, gifts and pledges made to support specific programs or departments at hospitals and other facilities. In 2017 and 2016,

(in thousands of dollars)

temporarily restricted net assets were released from donor restrictions by incurring expenditures satisfying the specified restricted purposes in the amount of $5,012 and $7,465, respectively.

Permanently restricted net assets at December 31, 2017 and 2016 were $285,584 and $257,206, respectively. These net assets are restricted in perpetuity. Income distributions generated from permanently restricted net assets are either classified as unrestricted or are classified as temporarily restricted based on donor-imposed restrictions. At December 31, 2017 and 2016, permanently restricted net assets consisted of endowments managed by donor-selected trustees as well as endowments managed by the Health Network.

11. Leases

Non-cancellable operating leases, primarily for equipment and office space, were in effect at December 31, 2017. Rental expense is recognized on a straight-line basis over the lease term. Aggregate future rental commitments for all operating leases having initial or remaining non-cancellable lease terms in excess of one year are shown in the following table:

	Lease Commitments
Years ending December 31,	
2018	$ 63,457
2019	48,981
2020	39,144
2021	30,927
2022	26,663
Thereafter	136,870
Total	$ 346,042

Rent expense of $65,101 and $84,203 in 2017 and 2016, respectively, was recorded in other operating expenses in the accompanying consolidated statements of operations.

12. Insurance Coverage

Professional Liability

Palladium provides medical professional liability coverage on a claims-made basis to the Health Network and its employed physicians and also on a claims-made or occurrence basis to its affiliated physicians and groups. Palladium provides general liability coverage on an occurrence basis. Defense costs with respect to medical professional liability and general liability are outside the limits and are unlimited. Overall coverage for professional liability extends to $52,000 and general liability extends to $46,000.

With respect to the primary layer of medical professional liability coverage, Palladium provides limits of $500 per occurrence, $2,500 aggregate per hospital and $500 per occurrence, $1,500 aggregate per physician to providers participating in the Pennsylvania Medical Care Availability and Reduction of Error ("MCARE") Fund, and limits of $1,000 per occurrence, $3,000 aggregate to providers and entities not participating in the MCARE Fund. The primary layer of general liability coverage affords limits of $1,000 per occurrence, $3,000 aggregate.

The excess policies written in 2017 and 2016 afford the following shared limits corresponding to the first through sixth excess layers respectively: $2,000 per occurrence, $8,000 aggregate with respect to medical professional liability; $4,000 per occurrence, $4,000 aggregate for WPAHS and $4,000 per occurrence, $4,000 aggregate all other insureds with respect to medical professional liability; $5,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $5,000 per

(in thousands of dollars)

occurrence, $10,000 aggregate with respect to excess follow-form liability (which includes general liability, auto liability, employers' liability, helipad liability and non-owned aircraft liability); $5,000 per occurrence, $5,000 aggregate with respect to medical professional liability and $5,000 per occurrence, $5,000 aggregate with respect to excess follow-form liability; $10,000 per occurrence, $10,000 aggregate with respect to medical professional liability and $10,000 per occurrence, $10,000 aggregate with respect to excess follow-form liability; $25,000 each occurrence, $25,000 aggregate with respect to excess health care liability. The excess medical professional liability coverage is claims-made and the excess-follow form liability coverage is occurrence-based. The excess health care liability coverage afforded by the sixth layer is occurrence-reported. Defense costs with respect to the excess layers are outside the limits and are unlimited.

In 2017 and 2016, Palladium ceded 100% of the underlying risk for the third through sixth excess layers to third-party, highly-rated reinsurers. Reinsurance contracts do not relieve Palladium from its obligations to participants. Additionally, failure of the reinsurers to honor their obligations could result in significant losses to Palladium.

Accordingly, Palladium continually evaluates the reinsurers' financial condition. The financial condition of third-party reinsurers is assessed by review of the reinsurers' A.M. Best rating. Palladium records an allowance for credit losses when it's believed that it will be unable to collect amounts due.

JRMC joined Palladium September 10, 2013. Prior to joining, JRMC was insured by the PACE Risk Retention Group. SVHS joined Palladium October 1, 2013. Prior to joining, SVHS was insured by Steadfast Insurance Company. WPAHS joined Palladium January 1, 2014. Prior to joining, WPAHS was insured by Community Health Alliance Reciprocal Risk Retention Group.

Additional coverage is also provided for the Health Network by the Medical Care Availability and Reduction of Error ("MCARE") Fund created by Pennsylvania Act No. 113 of 2002. Most of the Health Network's entities providing services in Pennsylvania are required to participate in the MCARE Fund. The MCARE Fund, an agency fund of the Commonwealth of Pennsylvania, provides coverage in excess of the required primary layer. The MCARE Fund exposure was capped at $500 per incident and $1,500 in aggregate for 2017 and 2016. The actuarially-computed liability to all health care providers (hospitals, physicians and others) participating in the MCARE Fund at December 31, 2016 is expected to be substantially in excess of the amount the MCARE Fund has available to pay these claims. The Health Network's annual surcharge premium for participation in the MCARE Fund was approximately $6,895 and $6,187 for 2017 and 2016, respectively which are included in the amounts charged to malpractice expense. No provision has been made for any future MCARE Fund assessments in the accompanying consolidated financial statements as the Health Network's portion of the MCARE Fund's unfunded liability could not be reasonably estimated.

13. Functional Expenses

The Health Network provides general health care services to residents within its geographic region. Expenses related to providing these services are as follows for the years ended December 31:

	2017	2016
Healthcare services	$ 2,693,123	$ 2,511,002
General and administrative	357,930	385,633
Research	30,472	27,031
Fundraising and other	386	404
	$ 3,081,911	$ 2,924,070

(in thousands of dollars)

14. Related Party Transactions

As described more fully in Note 8, there were certain debt agreements with outstanding loan balances with Highmark Inc. that were terminated and forgiven in December 2017. For the years ended December 31, 2017 and 2016, the Health Network incurred interest expense of $6,314 and $4,560, respectively, associated with the outstanding loan balances.

In the normal course of business, the Health Network has transactions with Highmark Health and its subsidiaries and affiliates.

Total net patient service revenue from insurance claims, quality incentive programs and Community Health Reinvestment grants were $1,323,378 and $1,164,687 for the years ended December 31, 2017 and 2016, respectively. Included within net patient receivable balances are related party receivables of $124,786 and $128,961 as of December 31, 2017 and 2016, respectively. Additionally, total payor advances amounted to $29,859 as of December 31, 2017 and 2016 and are reported in deferred revenue.

The Health Network was party to a multi-year agreement to ensure access to quality care to its members and provide an environment for building quality and outcome based incentive programs. In 2016, the Health Network recognized $29,100 related to this agreement through other operating revenue on the statement of operations. The agreement expired on December 31, 2016.

In the normal course of business, the Health Network purchases certain services and receives shared service charges and allocations. Total purchased services and shared service charges were $66,797 and $47,181 for the year ended December 31, 2017 and 2016, respectively. At December 31, 2017 and 2016, $18,623 and $11,883, respectively, were outstanding and are included in accounts payable.

The Health Network has routinely received net asset transfers from Highmark Inc. in support of strategic capital improvements, service-line expansions and technology enhancements. For the years ended December 31, 2017 and 2016, the Health Network received $134,034 and $108,364, respectively, in transfers recorded as additions to unrestricted net assets. The majority of these transfers were specific to an intercompany funding agreement to finance necessary capital expenditure projects with the purpose of expanding services and healthcare capabilities that will serve to benefit Highmark Inc. policyholders in the Western Pennsylvania region.

At December 31, 2017 and 2016, the Health Network maintained unfunded affiliation agreements with Highmark Inc. of $6,824 and $7,961, respectively for capital project funding at JRMC. Funding under these arrangements is subject to certain conditions including meeting certain qualifying expenditures and use of the funds.

The Health Network continues to implement a new electronic medical record system which is financed and owned by Highmark Health. Upon implementation at certain Health Network entities, fees are incurred by the Health Network for the right to use the system in the form of an authorization agreement with Highmark Health. Right to use fees incurred under this authorization agreement were $6,369 and $18,853 for 2017 and 2016, respectively. Effective April 1, 2017, the authorization agreement with Highmark Health was terminated and a new authorization agreement executed which provided the full use of the system at no cost to the Health Network.

Effective January 1, 2018, the Health Network entered into a five year Clinical Affiliation Agreement with Highmark Inc. in order for Highmark Inc.'s members to have access to high quality medical and healthcare services in Western Pennsylvania and the surrounding community. Under the terms of the Agreement, Highmark Inc. has made an initial commitment of up to $364,000 subject to certain

conditions, to the Health Network to fund certain initiatives and objectives in furtherance of the integrated delivery and financing system objective of delivering high quality, lower cost health care in the community.

15. Contingencies

Participation in government-sponsored healthcare programs subjects the Health Network to a variety of federal laws and regulations and risks associated with audits conducted under these programs. These audits may occur in years subsequent to the Health Network providing the relevant services under audit. These risks may include reimbursement claims as well as potential fines and penalties. The Health Network believes, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

The Health Network is subject to various other contingencies, including legal and compliance actions and proceedings that arise in the ordinary course of its business. Due to the complex nature of these actions and proceedings, the timing of the ultimate resolution of these matters is uncertain. In the opinion of management, based on consultation with legal counsel, adequate provision has been made in the financial statements for any potential liability related to these matters, and the amount of ultimate liability is not expected to materially affect the financial position or results from operations.

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APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE MASTER TRUST INDENTURE AND THE SUPPLEMENTAL MASTER INDENTURE

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APPENDIX C

MASTER INDENTURE

The following is a summary of certain provisions of the Master Trust Indenture, dated as of December 1, 2017 (as supplemented and amended from time to time pursuant to its terms, the "Master Indenture"), among Allegheny Health Network and entities specified therein, and The Bank of New York Mellon Trust Company, NA., as Master Trustee, and the Supplemental Master Indenture of Trust for Obligation No. 7, dated as of August 1, 2018 ("Supplement No. 7"). This summary does not purport to be complete or definitive, is supplemental to the summary of other provisions of such documents described elsewhere in this Official Statement and is qualified in its entirety by reference to the full terms of the Master Indenture and Supplement No. 7. All capitalized terms used and not otherwise defined in this Official Statement have the meanings assigned to such terms in the Indenture or, if not set forth in the Indenture, in the Master Indenture.

Definitions

Accountant means any independent certified public accountant or firm of such accountants selected by the Credit Group Representative.

Additional Debt Ratio means, for any period of time, the ratio determined by dividing Income Available for Debt Service of the Credit Group by Annual Debt Service of the Credit Group.

Annual Coverage Ratio means for each Fiscal Year the combined or consolidated Income Available for Debt Service of the Credit Group divided by Annual Debt Service for such Fiscal Year.

Annual Debt Service means for each Fiscal Year the sum (without duplication) of the aggregate amount of scheduled principal and interest due and payable in such Fiscal Year on all Long-Term Indebtedness of the Credit Group then Outstanding, including Guaranties, whether by scheduled maturity, acceleration, mandatory redemption or otherwise, but not including purchase price becoming due as a result of mandatory or optional tender or put, less any amounts of such principal or interest paid during such Fiscal Year from (a) the proceeds of Indebtedness or (b) moneys or Government Obligations deposited in trust for the purpose of paying such principal or interest; provided that if an Identified Financial Product Agreement has been entered into by any Member with respect to Long-Term Indebtedness, interest on such Long-Term Indebtedness shall be included in the calculation of Annual Debt Service by including for each Fiscal Year an amount equal to the amount of interest paid on such Long-Term Indebtedness in such Fiscal Year at the rate or rates stated in such Long-Term Indebtedness plus any Financial Product Payments under an Identified Financial Product Agreement paid in such Fiscal Year minus any Financial Product Receipts under an Identified Financial Product Agreement received in such Fiscal Year; provided that in no event shall any calculation result in a number less than zero being included in the calculation of Annual Debt Service.

For the purposes of computing Annual Debt Service with respect to a Guaranty, (i) if the Credit Group Members have made a payment pursuant to such Guaranty, one hundred percent (100%) of the Annual Debt Service (calculated as if such Person were a Credit Group Member) guaranteed by the Credit Group Members under the Guaranty shall be included in the calculation of Annual Debt Service in the Fiscal Year in which such payment was made and for two Fiscal Years thereafter and (ii) otherwise, there shall be included in the calculation of Annual Debt Service a percentage of the Annual Debt Service (calculated as if such Person were a Credit Group Member) guaranteed by the Credit Group Members under the Guaranty, based on the ratio of Income Available for Debt Service of the Person whose indebtedness is guaranteed by the Credit Group Member (calculated as if such Person were a Credit

Group Member), over the Annual Debt Service of such Person (calculated as if such Person were a Credit Group Member) (the "Ratio"). The applicable percentage of Annual Debt Service on such indebtedness shall be included in the calculation of Annual Debt Service, as follows:

Ratio	Percentage of Annual Debt Service on such Indebtedness to be Included
Less than 1.1	20%
1.1 or greater	0%

Authorized Representative means with respect to each Credit Group Member, its chairman or vice chairman of the board, president, chief executive officer, chief financial officer, or any other person designated as an Authorized Representative of such Credit Group Member by a Certificate of that Credit Group Member signed by its chairman or vice chairman of the board, president, chief executive officer, or chief financial officer and filed with the Master Trustee.

Book Value means, when used in connection with Property, Plant and Equipment or other Property of any Credit Group Member, the value of such property, net of accumulated depreciation, as it is carried on the books of the Credit Group Member and in conformity with GAAP, and when used in connection with Property, Plant and Equipment or other Property of the Credit Group, means the aggregate of the values so determined with respect to such Property of each Credit Group Member determined in such a way that no portion of such value of Property of any Credit Group Member is included more than once.

Bonds means the Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2018A issued under the Indenture.

Certificate, **Statement, Request, or Consent of any Credit Group Member or of the Master Trustee** means, respectively, a written certificate, statement, request, or consent signed in the name of such Credit Group Member by its Authorized Representative or in the name of the Master Trustee by its Responsible Officer. Any such instrument and supporting opinions or certificates, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or certificate and the two or more so combined shall be read and construed as a single instrument. If and to the extent required by the provisions of the Master Indenture summarized herein under the heading "Contents of Certificates and Opinions; Use of GAAP," each such instrument shall include the statements provided for in such provisions.

Code means the Internal Revenue Code of 1986 and the regulations promulgated thereunder.

Collateral means any and all of the following, whether currently owned or hereafter acquired by any Member: all current and future interests of each Member in the Gross Receivables, ant other Property of any Member in which a Lien may expressly be granted to secure Obligations issued under the Master Indenture from time to time in Related Supplements, and the proceeds thereof.

Completion Indebtedness means any Long-Term Indebtedness incurred for the purpose of financing the completion of construction or equipping of any project for which Long-Term Indebtedness or Interim Indebtedness has theretofore been incurred in accordance with the provisions of the Master Indenture, to the extent necessary to provide a completed and fully equipped facility of the type and scope contemplated at the time said Long-Term Indebtedness or Interim Indebtedness was incurred, and in accordance with the general plans and specifications for such facility as prepared in connection with said Long-Term Indebtedness or Interim Indebtedness as certified by an Officer's Certificate.

Controlling Member means the Obligated Group Member designated by the Credit Group Representative to establish and maintain control over a Designated Affiliate.

Corporate Trust Office means the office of the Master Trustee at which its corporate trust business is conducted, which, at the date of execution of the Master Indenture, is located at 500 Ross Street, 12th Floor, Pittsburgh, PA 15262.

Corporation means Allegheny Health Network, a nonprofit corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania, or any corporation that is the surviving, resulting or transferee corporation in any merger, consolidation or transfer of assets permitted under the Master Indenture.

Credit Group or **Credit Group Members** means all Obligated Group Members and Designated Affiliates.

Credit Group Financial Statements means one or more financial statements that, in the aggregate, shall include the Material Credit Group Members. Such financial statements:

(a) may, at the election of the Credit Group Representative, consist either of (1) consolidated or combined financial results of the Corporation and prepared in accordance with GAAP or (2) similarly prepared special purpose financial statements including only Credit Group Members;

(b) shall be audited by an Accountant as having been prepared in accordance with GAAP (except in the case of special purpose financial statements); and

(c) shall include a consolidated or combined balance sheet, statement of operations and changes in net assets.

Credit Group Representative means the Corporation or such other Obligated Group Member (or Obligated Group Members acting jointly) as may have been designated pursuant to written notice to the Master Trustee executed by the Corporation or a successor Credit Group Representative.

Default means an event that, with the passage of time or the giving of notice or both, would become an Event of Default.

Designated Affiliate means any Person that has been so designated by the Credit Group Representative in accordance with the provisions of the Master Indenture summarized herein under the heading "Designation of Designated Affiliates" below so long as such Person has not been further designated by the Credit Group Representative as no longer being a Designated Affiliate.

Event of Default means any of the events specified under the provisions of the Master Indenture summarized herein under the heading "Events of Default" below.

Fair Market Value, when used in connection with Property, means the fair market value of such Property as determined by:

(a) an appraisal of the portion of such Property that is real property made within five years of the date of determination by a "Member of the Appraisal Institute" and by an appraisal of the portion of such Property that is not real property made within five years of the date of determination by any expert qualified in relation to the subject matter, provided that any

such appraisal shall be performed by an Independent Consultant, adjusted for the period, not in excess of five years, from the date of the last such appraisal for changes in the implicit price deflator for the gross national product as reported by the United States Department of Commerce or its successor agency, or if such index is no longer published, such other index certified to be comparable and appropriate in an Officer's Certificate delivered to the Master Trustee; or

(b) a bona fide offer for the purchase of such Property made on an arm's-length basis within six months of the date of determination, as established by an Officer's Certificate; or

(c) an officer of the Credit Group Representative (whose determination shall be made in good faith and set forth in an Officer's Certificate filed with the Trustee) if the fair market value of such Property is less than or equal to the greater of $5,000,000 or 2.5% of cash and equivalents as shown on the Credit Group Financial Statements.

Financial Product Agreement means any interest rate exchange agreement, hedge or similar arrangement, including, *inter alia*, an interest rate swap, asset swap, a constant maturity swap, a forward or futures contract, cap, collar, option, floor, forward or other hedging agreement, arrangement or security, direct funding transaction or other derivative, however denominated and whether entered into on a current or forward basis.

Financial Product Extraordinary Payments means any payments required to be paid to a **counterparty** by a Credit Group Member pursuant to a Financial Product Agreement in connection with the termination thereof, tax gross-up payments, expenses, default interest, and any other payments or indemnification obligations to be paid to a counterparty by a Credit Group Member under a Financial Product Agreement, and which payments are not Financial Product Payments.

Financial Product Payments means regularly scheduled payments required to be paid to a counterparty by a Credit Group Member pursuant to a Financial Product Agreement.

Financial Product Receipts means regularly scheduled payments required to be paid to a Credit Group Member by a counterparty pursuant to a Financial Product Agreement.

Fiscal Year means the period beginning on January 1 of each year and ending on the next succeeding December 31, or any other twelve-month period designated by the Credit Group Representative as the fiscal year of the Credit Group.

GAAP means accounting principles generally accepted in the United States of America, consistently applied.

Governing Body means, when used with respect to any Credit Group Member, its board of directors, board of trustees or other board or group of individuals in which all of the powers of such Credit Group Member are vested, except for those powers reserved to the corporate membership of such Credit Group Member by the articles of incorporation or bylaws of such Credit Group Member.

Government Issuer means any municipal corporation, political subdivision, state, territory or possession of the United States, or any constituted authority or agency or instrumentality of any of the foregoing empowered to issue obligations on behalf thereof, which obligations would constitute Related Bonds under the Master Indenture.

Government Obligations means: (1) direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America) or obligations the timely payment of the principal of and interest on which are fully and unconditionally guaranteed by the United States of America; (2) obligations issued or guaranteed by any agency, department or instrumentality of the United States of America if the obligations issued or guaranteed by such entity are rated in one of the two highest Rating Categories of a Rating Agency; (3) certificates that evidence ownership of the right to the payment of the principal of and interest on obligations described in the preceding clause (1), in clause (2) or in both clauses, provided that such obligations are held in the custody of a bank or trust company in a special account separate from the general assets of such custodian; and (4) obligations the interest on which is excluded from gross income for purposes of federal income taxation pursuant to Section 103 of the Internal Revenue Code of 1986, and the timely payment of the principal of and interest on which is fully provided for by the deposit in trust of cash and/or obligations described in one or more of clauses (1), (2) and (3).

Government Restriction means federal, state or other applicable governmental laws or regulations affecting any Credit Group Member and its health care facilities or other licensed facilities placing restrictions and limitations on the (i) fees and charges to be fixed, charged or collected by any Credit Group Member or (ii) the timing of the receipt of such revenues.

Gross Receivables means all of the accounts, chattel paper, instruments and payment intangibles (all as defined in the UCC) of each Obligated Group Member, as are now in existence or as may be in existence in the future acquired and the proceeds thereof; excluding, however, all Restricted Moneys.

Guaranty means any obligation of any Credit Group Member guaranteeing directly any obligation of any other Person that would, if such other Person were a Credit Group Member, constitute Indebtedness.

Holder means the registered owner of any Obligation in registered form or the bearer of any Obligation in coupon form that is not registered or is registered to bearer or the party or parties to any contractual obligation designated to be an Obligation set forth in a related Supplement and identified therein as the party to whom payment is due thereunder or the "holder" thereof.

Identified Financial Product Agreement means a Financial Product Agreement identified to the Master Trustee in a Certificate of the Credit Group Representative as having been entered into by an Obligated Group Member with a Qualified Provider with respect to Indebtedness (that is either then-Outstanding or to be issued after the date of such Certificate) identified in such Certificate.

Immaterial Affiliates means Persons that are not Members of the Credit Group and whose combined total assets, as shown on their financial statements for their most recently completed fiscal year, aggregated less than 10% of the combined or consolidated total assets of the Credit Group as shown on the Credit Group Financial Statements, plus the total assets of such Persons as if they were Members of the Credit Group for such period, for the most recently completed Fiscal Year of the Credit Group.

Income Available for Debt Service means, unless the context provides otherwise, with respect to the Credit Group as to any period of time, net income, or excess of revenues over expenses (excluding income from all Irrevocable Deposits) before depreciation, amortization, taxes, and interest expense, as determined in accordance with GAAP and as shown on the Credit Group Financial Statements; provided, that no determination thereof shall take into account:

(a) Restricted Moneys;

(b) the net proceeds of insurance (other than business interruption insurance) and condemnation awards;

(c) any gain or loss resulting from the extinguishment of Indebtedness;

(d) any gain or loss resulting from the sale, exchange or other disposition of assets not in the ordinary course of business; provided, however, that, at the Credit Group Representative's election, gain from a sale-leaseback under GAAP may be taken into account;

(e) any gain or loss resulting from any discontinued operations;

(f) any gain or loss resulting from pension terminations, settlements or curtailments;

(g) any unusual charges for employee severance;

(h) adjustments to the value of assets or liabilities resulting from changes in GAAP;

(i) Unrealized losses, including without limitation "other than temporary" declines in Book Value of investments;

(j) gains or losses resulting from changes in valuation of any hedging, derivative, interest rate exchange or similar contract;

(k) any Financial Product Extraordinary Payments or similar payments on any hedging, derivative, interest rate exchange or similar contract that does not constitute a Financial Product Agreement;

(l) unrealized gains or losses from the write-down, reappraisal or revaluation of assets; or

(m) other nonrecurring items of any nature that do not involve the receipt, expenditure or transfer of assets.

Indebtedness means any obligation of any Credit Group Member for repayment of borrowed money and any Guaranty (other than any Guaranty by any Credit Group Member of Indebtedness of any other Credit Group Member); provided, however, that if more than one Credit Group Member shall have incurred or assumed a Guaranty of a Person other than a Credit Group Member, or if more than one Credit Group Member shall be obligated to pay any other Indebtedness, for purposes of any computations or calculations under the Master Indenture such Guaranty or other Indebtedness shall be included only one time. Financial Product Agreements and physician income guaranties shall not constitute Indebtedness. For purposes of determining Indebtedness, all lease obligations shall not be deemed to be Indebtedness, whether or not those lease obligations are shown as a liability on the financial statements of the Credit Group Members under GAAP.

Indenture means that certain Bond Indenture, dated as of August 1, 2018, between the Authority and the Trustee, and relating to the Bonds, as originally executed and as it may from time to time be supplemented, modified or amended in accordance with the terms thereof.

Independent Consultant means a firm (but not an individual) that (1) is in fact independent, (2) does not have any direct financial interest or any material indirect financial interest in any Credit Group Member (other than the agreement pursuant to which such firm is retained), (3) is not connected

with any Credit Group Member as an officer, employee, promoter, trustee, partner, director or person performing similar functions and (4) is qualified to pass upon questions relating to the financial affairs of organizations similar to the Credit Group or facilities of the type or types operated by the Credit Group and having the skill and experience necessary to render the particular opinion or report required by the Master Indenture in which such requirement appears.

Industry Restrictions means federal, state or other applicable governmental laws or regulations, including conditions imposed specifically on the Credit Group Members or the Credit Group Members' facilities, or general industry standards or general industry conditions placing restrictions and limitations on the rates, fees and charges to be fixed, charged and collected by the Credit Group Members.

Interim Indebtedness means Indebtedness with an original maturity not in excess of one year, the proceeds of which are to be used to provide interim financing for capital improvements in anticipation of the issuance of Long-Term Indebtedness. Interim Indebtedness shall be considered Long-Term Indebtedness for purposes of the Master Indenture.

Irrevocable Deposit means the irrevocable deposit in trust of cash in an amount, or Government Obligations, or other securities permitted for such purpose pursuant to the terms of the documents governing the payment of or discharge of Indebtedness, the principal of and interest on which will be an amount, and under terms sufficient to pay all or a portion of the principal of, premium, if any, and interest on, as the same shall become due, any such Indebtedness that would otherwise be considered Outstanding. The trustee of such deposit may be the Master Trustee, a Related Bond Trustee or any other trustee or escrow agent authorized to act in such capacity.

Lien means any mortgage or pledge of, or security interest in, or lien or encumbrance on, any Property of an Obligated Group Member (i) that secures any Indebtedness or any other obligation of such Obligated Group Member or (ii) that secures any obligation of any Person other than an Obligated Group Member, and excluding liens applicable to Property in which an Obligated Group Member has only a leasehold interest unless the lien secures Indebtedness of that Obligated Group Member.

Loan Agreement means that certain Loan Agreement, dated as of August 1, 2018, between the Authority and the Credit Group Representative, and relating to the Bonds, as originally executed and as it may from time to time be supplemented, modified or amended in accordance with the terms thereof and of the Indenture.

Long-Term Indebtedness means Indebtedness other than Short-Term Indebtedness.

Master Indenture means the Master Indenture, as originally executed and as it may from time to time be supplemented, modified or amended in accordance with the terms of the Master Indenture.

Master Trustee means The Bank of New York Mellon Trust Company, N.A., a national banking association organized under the laws of the United States of America, and, subject to the limitations contained in the provisions of the Master Indenture summarized herein under the heading "Separate or Co-Master Trustee," any other corporation or association that may be co-trustee with the Master Trustee, and any successor or successors to said trustee or co-trustee in the trusts created under the Master Indenture.

Material Credit Group Members means the Credit Group Members whose combined or consolidated total assets, as shown on their financial statements for their most recently completed fiscal year, were equal to or greater than 85% of the combined or consolidated total assets of the entire Credit

Group as shown on the Credit Group Financial Statements for the most recently completed Fiscal Year of the Credit Group.

Merger Transaction has the meaning set forth under the heading "Merger, Consolidation, Sale or Conveyance" herein.

Mortgaged Property means the property subject to the lien of the Mortgages from time to time.

Mortgages mean the (i) Open-End Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of December 1, 2017, from West Penn Allegheny Health System, Inc., a Pennsylvania nonprofit corporation, successor by merger to Allegheny General Hospital, a Pennsylvania nonprofit corporation, to the Master Trustee, (ii) Open-End Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of December 1, 2017, from West Penn Allegheny Health System, Inc., a nonprofit corporation incorporated under the law of the Commonwealth of Pennsylvania, formerly known as The Western Pennsylvania Hospital, a Pennsylvania nonprofit corporation, successor by merger to Forbes Merger Company, a Pennsylvania corporation, successor by division to Forbes Regional Hospital, a Pennsylvania nonprofit corporation, formerly known as and successor by division of Allegheny University Medical Centers, a Pennsylvania nonprofit corporation, successor by merger to Forbes Health System, a Pennsylvania nonprofit corporation, to the Master Trustee, (iii) Open-End Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of December 1, 2017, from Canonsburg General Hospital, a nonprofit corporation incorporated under the law of the Commonwealth of Pennsylvania, formerly known as AUMC/Canonsburg, successor by merger to Canonsburg General Hospital, a Pennsylvania nonprofit corporation, formerly known as Canonsburg General Hospital Association, to the Master Trustee, (iv) Open-End Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of December 1, 2017, from Alle-Kiski Medical Center, a nonprofit corporation incorporated under the law of the Commonwealth of Pennsylvania, successor by division of Allegheny University Medical Centers, a Pennsylvania nonprofit corporation, successor by merger to Allegheny Valley Hospital (also known as Allegheny Valley Hospital Association), a Pennsylvania nonprofit corporation, to the Master Trustee, and (v) Open-End Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of December 1, 2017, from West Penn Allegheny Health System, Inc., a nonprofit corporation incorporated under the law of the Commonwealth of Pennsylvania, formerly known as The Western Pennsylvania Hospital, a Pennsylvania nonprofit corporation, successor by merger to Forbes Merger Company, a Pennsylvania corporation, successor by division of Forbes Regional Hospital, a Pennsylvania nonprofit corporation, formerly known as and successor by division of Allegheny University Medical Centers, a Pennsylvania nonprofit corporation, successor by merger to Forbes Health System, a Pennsylvania nonprofit corporation, to the Master Trustee, all as originally executed and all as may subsequently be modified, amended, or restated.

Nonrecourse Indebtedness means any Indebtedness that is not a general obligation and that is secured by a Lien on Property, Plant and Equipment acquired or constructed with the proceeds of such Indebtedness, liability for which is effectively limited to the Property, Plant and Equipment subject to such Lien with no recourse, directly or indirectly, to any other Property of any Credit Group Member.

Obligated Group means all Obligated Group Members.

Obligated Group Member or **Member** means each Person that is obligated under the Master Indenture from and after the date upon which such Person joins the Obligated Group, but excluding any Person that withdraws from the Obligated Group to the extent and in accordance with the provisions of the Master Indenture summarized herein under the heading "Withdrawal from Obligated Group," from and after the date of such withdrawal.

Obligation means any obligation of the Obligated Group issued under the provisions of the Master Indenture summarized herein under the heading "Authorization and Issuance of Obligations," as a joint and several obligation of each Obligated Group Member, that may be in any form set forth in a Related Supplement, including, but not limited to, bonds, notes, obligations, debentures, reimbursement agreements, loan agreements, Financial Product Agreements or leases. Reference to a Series of Obligations or to Obligations of a Series means Obligations or Series of Obligations issued pursuant to a single Related Supplement.

Obligation No. 7 means the Obligation issued pursuant to the Master Indenture, as supplemented by Supplement No. 7.

Officer's Certificate means a certificate signed by an Authorized Representative of the Credit Group Representative.

Opinion of Bond Counsel means a written opinion signed by an attorney or firm of attorneys experienced in the field of public finance whose opinions are generally accepted by purchasers of bonds issued by or on behalf of a Government Issuer.

Opinion of Counsel means a written opinion signed by a reputable and qualified attorney or firm of attorneys who may be counsel for the Credit Group Representative.

Outstanding, when used with reference to Indebtedness or Obligations, means, as of any date of determination, all Indebtedness or Obligations theretofore issued or incurred and not paid and discharged other than (1) Obligations theretofore cancelled by the Master Trustee or delivered to the Master Trustee for cancellation or otherwise deemed paid in accordance with the terms of the Master Indenture, (2) Obligations in lieu of which other Obligations have been authenticated and delivered or that have been paid pursuant to the provisions of a Related Supplement regarding mutilated, destroyed, lost or stolen Obligations unless proof satisfactory to the Master Trustee has been received that any such Obligation is held by a bona fide purchaser, (3) any Obligation held by any Credit Group Member and (4) Indebtedness deemed paid and no longer outstanding pursuant to the terms of the Master Indenture; provided, however, that if two or more obligations that constitute Indebtedness represent the same underlying obligation (as when a Obligation secures an issue of Related Bonds and another Obligation secures repayment obligations to a bank under a letter of credit that secures such Related Bonds) for purposes of calculating compliance with the various financial covenants contained in the Master Indenture, but only for such purposes, only one of such Obligations shall be deemed Outstanding and the Obligation so deemed to be Outstanding shall be that Obligation which produces the greatest amount of Annual Debt Service to be included in the calculation of such covenants.

Parity Financial Product Extraordinary Payments means Financial Product Extraordinary Payments that (1) are with respect to a Financial Product Agreement secured or evidenced by an Obligation and (2) have been specified to be payable on a parity with Financial Product Payments in the Related Supplement authorizing the issuance of such Obligation.

Permitted Liens means and include:

(a) Any judgment lien or notice of pending action against any Credit Group Member so long as the judgment or pending action is being contested and execution thereon is stayed or while the period for responsive pleading has not lapsed;

(b) (i) Rights reserved to or vested in any municipality or public authority by the terms of any right, power, franchise, grant, license, permit or provision of law, affecting any

Property, to (A) terminate such right, power, franchise, grant, license or permit, provided that the exercise of such right would not materially impair the use of such Property or materially and adversely affect the Value thereof, or (B) purchase, condemn, appropriate or recapture, or designate a purchase of, such Property; (ii) any liens on any Property for taxes, assessments, levies, fees, water and sewer charges, and other governmental and similar charges and any liens of mechanics, materialmen, laborers, suppliers or vendors for work or services performed or materials furnished in connection with such Property, that are not delinquent, or the amount or validity of which are being contested and execution thereon is stayed or, with respect to liens of mechanics, materialmen and laborers, have been due and payable or that are not delinquent, or the amount or validity of which, are being contested or, with respect to liens of mechanics, materialmen and laborers, have been due for less than sixty (60) days, or the amount or validity of which are being contested; (iii) easements, rights-of-way, water, mineral and oil and gas rights, servitudes, waivers, reservations of abutter's rights, governmental requirements, and defects, encumbrances, and irregularities in the title to any Property that do not materially impair the use of such Property or materially and adversely affect the Value thereof; (iv) condominium plans, condominium maps, tract maps, lot splits or lot line adjustment maps affecting such Property; and (v) rights reserved to or vested in any municipality or public authority to control or regulate any Property or to use such Property in any manner, which rights do not materially impair the use of such Property in any manner, or materially and adversely affect the Value thereof;

(c) Any Lien existing on the date of execution of the Master Indenture, including without limitation the Liens set forth in Appendix C hereto, or as exists upon addition of a Credit Group Member with respect to Liens existing on the Property of such additional Credit Group Member, provided that no such Lien (or the amount of Indebtedness or other obligations secured thereby) may be increased, extended, renewed or modified to apply to any Property of any Credit Group Member not subject to such Lien on such date, unless such Lien as so extended, renewed or modified otherwise qualifies as a Permitted Lien;

(d) Any Lien in favor of the Master Trustee securing all Outstanding Obligations equally and ratably;

(e) Liens arising by reason of good faith deposits with any Credit Group Member in connection with leases of real estate, bids or contracts (other than contracts for the payment of money), deposits by any Credit Group Member to secure public or statutory obligations, or to secure, or in lieu of, surety, stay or appeal bonds, and deposits as security for the payment of taxes or assessments or other similar charges;

(f) Any Lien arising by reason of deposits with, or the giving of any form of security to, any governmental agency or any body created or approved by law or governmental regulation as a condition to the transaction of any business or the exercise of any privilege or license, or to enable any Credit Group Member to maintain self-insurance or to participate in any funds established to cover any insurance risks or in connection with workers' compensation, unemployment insurance, pension or profit sharing plans or other similar social security plans, or to share in the privileges or benefits required for companies participating in such arrangements, and any Lien granted to a bank or similar entity providing a letter or line of credit to secure any obligation of the kind referred to in clause (f);

(g) Any Lien arising by reason of any escrow or reserve fund established to pay debt service with respect to Indebtedness;

(h) Any Lien in favor of a trustee on the proceeds of Indebtedness prior to the application of such proceeds;

(i) Liens on moneys deposited by patients or residents or others with any Credit Group Member as security for or as prepayment for the cost of patient or residential care;

(j) Liens on Property received by any Credit Group Member through gifts, grants, bequests or research grants, such Liens being due to restrictions on such gifts, grants, bequests or research grants or the income thereon;

(k) Rights of the United States of America, including, without limitation, the Federal Emergency Management Agency ("FEMA"), or the Commonwealth of Pennsylvania by reason of FEMA and other federal and Commonwealth of Pennsylvania funds made available to any Member of the Obligated Group under federal or Commonwealth of Pennsylvania statutes;

(l) Liens on Property securing Indebtedness incurred to refinance Indebtedness previously secured by a Lien on such Property, provided that (i) the amount of such new Indebtedness does not exceed the amount of such refinanced Indebtedness, (ii) the Property securing such Indebtedness is not changed, and (iii) the obligor with respect to such Indebtedness, whether direct or contingent, is not changed;

(m) Liens granted by a Credit Group Member to another Credit Group Member;

(n) Liens securing Nonrecourse Indebtedness incurred pursuant to the provisions of the Master Indenture;

(o) Liens consisting of purchase money security interests (as defined in the UCC) and lessors' interest in capitalized leases, and proceeds of casualty insurance relating to the Property that is the subject of such purchase money security interest or capitalized leases;

(p) Liens on the Obligated Group Members' accounts receivable securing Indebtedness in an amount not to exceed 25% of the Credit Group Members' net accounts receivable;

(q) Liens on revenues constituting rentals in connection with any other Lien permitted under the Master Indenture on the Property from which such rentals are derived;

(r) the lease or license of the use of a part of the Obligated Group Members' facilities for use in performing professional or other services necessary for the customary and economical operation of such facilities in accordance with customary business practices in the industry;

(s) Liens created on amounts deposited by an Obligated Group Member pursuant to a security annex or similar document to collateralize obligations of such Member under a Financial Product Agreement;

(t) Liens junior to Liens in favor of the Master Trustee;

(u) Liens in favor of banking or other depository institutions arising as a matter of law encumbering the deposits of any Member held in the ordinary course of business by such banking institution (including any right of setoff or statutory bankers' liens) so long as such deposit account is not established or maintained for the purpose of providing such Lien, right of setoff or bankers' lien;

(v) Uniform Commercial Code financing statements filed with the Secretary of State of the State (or such other office maintaining such records) in connection with an operating lease entered into by any Member in the ordinary course of business so long as such financing statement does not evidence the grant of a Lien other than a Permitted Lien;

(w) Rights of tenants under leases or rental agreements pertaining to Property, Plant and Equipment owned by any Member so long as the lease arrangement is in the ordinary course of business of the Member;

(x) deposits of Property by any Member to meet regulatory requirements for a governmental workers' compensation, unemployment insurance or social security program, other than any Lien imposed by ERISA;

(y) deposits to secure the performance of another party with respect to a bid, trade contract, statutory obligation, surety bond, appeal bond, performance bond or lease, and other similar obligations incurred in the ordinary course of business of a Member;

(z) Liens resulting from deposits to secure bids from or the performance of another party with respect to contracts incurred in the ordinary course of business of a Member (other than contracts creating or evidencing an extension of credit to the depositor or otherwise for the payment of Indebtedness);

(aa) present or future zoning laws, ordinances or other laws or regulations restricting the occupancy, use or enjoyment of Property, Plant and Equipment of any Member that, in the aggregate, are not substantial in amount, and that do not in any case materially impair the Fair Market Value or use of such Property, Plant and Equipment for the purposes for which it is used or could reasonably be expected to be held or used;

(bb) Any Lien on inventory that does not exceed 25% of the Value thereof;

(cc) Any Lien on Property due to the rights of third-party payors for recoupment or offset of amounts paid to any Credit Group Member;

(dd) Any Lien on Property to secure Indebtedness incurred under the provisions of the Master Indenture summarized herein under the heading "Limitation on Indebtedness";

(ee) Any Lien existing for not more than 10 days after the Credit Group Member shall have received notice thereof;

(ff) Any Lien on Property to secure an Obligation issued under a Related Supplement; and

(gg) Any other Lien on Property provided that the Value of all Property encumbered by all Liens permitted does not exceed 15% of the sum of the Value of all Property of the Credit Group Members, calculated at the time of creation of such Lien.

Person means an individual, corporation, limited liability company, firm, association, partnership, trust or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.

Property means any and all rights, titles and interests in and to any and all assets of any Credit Group Member, whether real or personal, tangible or intangible and wherever situated, other than donor restricted funds as determined in accordance with GAAP. For purposes of performing calculations under the Master Indenture, the Credit Group Representative may treat "total assets" as shown on the Credit Group's audited financial statements as the Book Value of the Credit Group's Property.

Property, Plant and Equipment means all Property of any Credit Group Member that is considered property, plant and equipment of such Credit Group Member under GAAP.

Qualified Provider means any financial institution or insurance company or corporation that is a party to a Financial Product Agreement if (i) the unsecured long-term debt obligations of such provider (or of the parent or a subsidiary of such provider if such parent or subsidiary guarantees or otherwise assures the performance of such provider under such Financial Product Agreement), or (ii) obligations secured or supported by a letter of credit, contract, guarantee, agreement, insurance policy or surety bond issued by such provider (or such guarantor or assuring parent or subsidiary), are rated in one of the three highest Rating Categories of a Rating Agency at the time of the execution and delivery of the Financial Product Agreement.

Rating Agency means Fitch Inc., Moody's Investors Service, Inc., S&P Global Ratings, a division of The McGraw-Hill Companies, any successor thereof and any other national rating agency then rating Obligations or Related Bonds.

Related Bonds means the revenue bonds or other obligations issued by any Government Issuer, the proceeds of which are loaned or otherwise made available to a Credit Group Member in consideration of the execution, authentication and delivery of an Obligation or Obligations to or for the order of such Government Issuer.

Related Bond Indenture means any indenture, bond resolution, trust agreement or other comparable instrument pursuant to which a series of Related Bonds are issued.

Related Bond Issuer means the Government Issuer of any issue of Related Bonds.

Related Bond Trustee means the trustee and its successors in the trusts created under any Related Bond Indenture, and if there is no such trustee, means the Related Bond Issuer.

Related Supplement means an indenture supplemental to, and authorized and executed pursuant to the terms of, the Master Indenture.

Required Payment means any payment, whether at maturity, by acceleration, upon proceeding for redemption or otherwise, including without limitation, Financial Product Payments, Financial Product Extraordinary Payments and the purchase price of Related Bonds tendered or deemed tendered for purchase pursuant to the terms of a Related Bond Indenture, required to be made by any Obligated Group Member pursuant to any Related Supplement or any Obligation.

Responsible Officer means, with respect to the Master Trustee, any vice president, any senior associate, any associate, or any other officer of the Master Trustee customarily performing functions similar to those performed by the persons above designated or to whom any corporate trust matter is

referred because of such person's knowledge of and familiarity with the particular subject and having direct responsibility for the administration of the Master Indenture.

Restricted Moneys means (i) the proceeds of any grant, gift, bequest, contribution or other donation (and, to the extent subject to the applicable restrictions, the investment income derived from the investment of such proceeds), and (ii) any income and gains and the proceeds thereof of a Member that is a captive insurance company; to the extent in each case as restricted by law or its terms to an object or purpose inconsistent with their use for the payment of Required Payments.

Restricted Property means the real and tangible personal property of an Obligated Group Member identified on Appendix B to the Mater Trust Indenture, which the Credit Group Representative and the Master Trustee may amend from time to time upon delivery of a certificate of the Credit Group Representative designating, adding to or deleting a general description of the property to be treated as "Restricted Property" and certifying that the Book Value or the Fair Market Value of such property, in the aggregate, is not less than 25% of total assets as shown on the Credit Group Financial Statements for the Fiscal Year most recently ended.

Short-Term Indebtedness means all Indebtedness (other than Interim Indebtedness) having an original maturity less than or equal to one year and not renewable at the option of a Credit Group Member for a term greater than one year from the date of original incurrence or issuance, or Indebtedness with a maturity greater than one year or renewable at the option of a Credit Group Member for a term greater than one year, if by the terms of such Indebtedness, for a period of at least twenty (20) consecutive days during each calendar year no Indebtedness is permitted to be Outstanding thereunder. For purposes of the definition, (i) only the stated maturity of Indebtedness (and not any tender or put right of the holder of such Indebtedness) shall be taken into account in determining if such Indebtedness constitutes Short-Term Indebtedness under the Master Indenture and (ii) classification of Indebtedness as current or short-term under GAAP shall not be controlling. Interim Indebtedness shall not constitute Short-Term Indebtedness for any purpose under the Master Indenture.

State means the Commonwealth of Pennsylvania.

Subordinated Indebtedness means Long-Term Indebtedness specifically subordinated as to payment and security to the payment of all Required Payments and other obligations of the Credit Group Members under the Master Indenture.

Surviving Entity has the meaning set forth under the heading "Merger, Consolidation, Sale or Conveyance" herein.

Supplement No. 7 means the Supplemental Master Indenture for Obligation No. 7.

Tax-Exempt Organization means a Person organized under the laws of the United States of America or any state thereof that is an organization described in Section 501(c)(3) of the Code and exempt from federal income taxes under Section 501 (a) of the Code (other than the tax on unrelated business income under Section 511 of the Code), or corresponding provisions of federal income tax laws from time to time in effect.

Total Revenues means, for the period of calculation in question, the sum of total unrestricted revenue and other support (including net patient service revenue), other operating revenue, and net assets released from restrictions, as shown on the Credit Group Financial Statements for the most recent Fiscal Year.

Transaction Test means, with respect to any specified transaction, that (i) no Event of Default or Default would exist; and (ii) following such transaction, the Obligated Group could satisfy the conditions for the issuance of additional Long-Term Indebtedness set forth in the provisions of the Master Indenture summarized herein under the heading "Limitation on Indebtedness," assuming that such transaction occurred at the start of the most recent Fiscal Year preceding such transaction for which Credit Group Financial Statements are available and taking into account any other action taken by the Credit Group in reliance upon the Transaction Test within the then current Fiscal Year.

Trustee means The Bank of New York Mellon Trust Company, N.A., a national banking association organized and existing under the laws of the United States, and any successor to its duties under the Indenture.

UCC means the Uniform Commercial Code of the State, as amended from time to time.

United States Government Obligations means the United States Government Obligations as specified in the definition set forth in the Indenture.

Value, when used with respect to Property, means the aggregate value of all such Property, with each component of such Property valued, at the option of the Credit Group Representative, at either its Fair Market Value or its Book Value.

General

The Master Indenture authorizes the issuance of Obligations by the Obligated Group. An Obligation is stated in the Master Indenture to be a joint and several obligation of each Obligated Group Member.

Authorization and Issuance of Obligations

Authorization of Obligations. Each Obligated Group Member authorizes to be issued from time to time Obligations or Series of Obligations, without limitation as to amount, except as provided in the Master Indenture or as may be limited by law, and subject to the terms, conditions and limitations established in the Master Indenture and in any Related Supplement. Currently, the Obligated Group is comprised of Allegheny Health Network, West Penn Allegheny Health System, Inc., West Penn Allegheny Foundation, LLC, Jefferson Regional Medical Center, Saint Vincent Health Center, Alle-Kiski Medical Center, Canonsburg General Hospital, West Penn Hospital Foundation, Forbes Health Foundation, The Saint Vincent Foundation for Health and Human Services, Alle-Kiski Medical Center Trust, Canonsburg General Hospital Ambulance Service, Allegheny Singer Research Institute, Allegheny Clinic, Allegheny Clinic Medical Oncology, Palladium Risk Retention Group, Inc., Saint Vincent Health System, Saint Vincent Medical Education & Research Institute, Inc., and Saint Vincent Affiliated Physicians.

Issuance of Obligations. From time to time when authorized by the Master Indenture and subject to the terms, limitations and conditions established in the Master Indenture or in a Related Supplement, the Credit Group Representative may authorize the issuance of an Obligation or a Series of Obligations by entering into a Related Supplement. The Obligation or the Obligations of any such Series may be issued and delivered to the Master Trustee for authentication upon compliance with the provisions of the Master Indenture and of any Related Supplement.

Each Related Supplement authorizing the issuance of a Obligation or a Series of Obligations shall specify the purposes for which such Obligation or Series of Obligations are being issued; the form, title,

designation, manner of numbering or denominations, if applicable, of such Obligations; the date or dates of maturity or other final expiration of the term of such Obligations; the date of issuance of such Obligations; and any other provisions deemed advisable or necessary by the Credit Group Representative. Each Related Supplement authorizing the issuance of a Obligation shall also specify and determine the principal amount of such Obligation (if any) for purposes of calculating the percentage of Holders of Obligations required to take actions or give consents pursuant to the Master Indenture (which, if such Obligation does not evidence or secure Indebtedness, shall be equal to zero, except with respect to any action that requires the consent of all of the Holders of Obligations). The designation of zero as a principal amount of an Obligation shall not in any manner affect the obligation of the Members to make Required Payments with respect to such Obligation.

Appointment of Credit Group Representative. Each Obligated Group Member, by becoming an Obligated Group Member, irrevocably appoints the Credit Group Representative as its agent and attorney-in-fact and grants full power to the Credit Group Representative (a) to execute (i) Related Supplements authorizing the issuance of Obligations or Series of Obligations, (ii) Obligations and (iii) all security-related agreements, certificates, disclosure documents, filings, registrations and other instruments ancillary to the issuance of Obligations and in furtherance of their purposes, and (b) to bind such Obligated Group Member by making covenants or agreements on behalf of such Obligated Group Member.

Particular Covenants of the Members

Payment of Required Payments. Each Obligated Group Member jointly and severally covenants to promptly pay, or cause to be paid, all Required Payments at the place, on or before the dates and in the manner provided in the Master Indenture or in any Related Supplement or Obligation. Each Obligated Group Member acknowledges that the time of such payment and performance is of the essence of the Obligations under the Master Indenture. Each Obligated Group Member further covenants to faithfully observe and perform all of the conditions, covenants and requirements of the Master Indenture, any Related Supplement and any Obligation.

The obligation of each Obligated Group Member with respect to Required Payments shall not be abrogated, prejudiced or affected by:

(a) the granting of any extension, waiver or other concession given to any Obligated Group Member by the Master Trustee or any Holder or by any compromise, release, abandonment, variation, relinquishment or renewal of any of the rights of the Master Trustee or any Holder or anything done or omitted or neglected to be done by the Master Trustee or any Holder in exercise of the authority, power and discretion vested in them by the Master Indenture, or by any other dealing or thing that, but for the provisions of the Master Indenture summarized herein under paragraph (a) under the heading "Payment of Requirements Payments," might operate to abrogate, prejudice or affect such obligation; or

(b) the liability of any other Obligated Group Member under the Master Trist Indenture ceasing for any cause whatsoever, including the release of any other Obligated Group Member pursuant to the provisions of the Master Indenture or any Related Supplement; or

(c) any Obligated Group Member's failing to become liable as, or losing eligibility to become, an Obligated Group Member with respect to an Obligation.

Subject to the provisions of the Master Indenture summarized herein under the heading "Withdrawal from Obligated Group" permitting withdrawal from the Obligated Group, the obligation of each Obligated Group Member to make Required Payments is a continuing one and is to remain in effect until all Required Payments have been paid or deemed paid in full in accordance with the provisions of the Master Indenture summarized herein under the heading "Satisfaction and Discharge." All moneys from time to time received by the Credit Group Representative or the Master Trustee to reduce liability on Obligations, whether from or on account of the Obligated Group Members or otherwise, shall be regarded as payments in gross without any right on the part of any one or more of the Obligated Group Members to claim the benefit of any moneys so received until the whole of the amounts owing on Obligations has been paid or satisfied and so that in the event of any such Obligated Group Member's filing bankruptcy, the Credit Group Representative or the Master Trustee shall be entitled to prove up the total indebtedness or other liability on Obligations Outstanding as to which the liability of such Obligated Group Member has become fixed.

Each Obligation shall be a primary obligation of the Obligated Group Members and shall not be treated as ancillary to or collateral with any other obligation and shall be independent of any other security so that the covenants and agreements of each Obligated Group Member under the Master Indenture shall be enforceable without first having recourse to any such security or source of payment and without first taking any steps or proceedings against any other Person. The Credit Group Representative and the Master Trustee are each empowered to enforce each covenant and agreement of each Obligated Group Member under the Master Indenture and to enforce the making of Required Payments. Each Obligated Group Member authorizes each of the Credit Group Representative and the Master Trustee to enforce or refrain from enforcing any covenant or agreement of the Obligated Group Members under the Master Indenture or under any other contract or agreement pursuant to which the Credit Group Representative has made covenants by or on behalf of any such Obligated Group Member and to make any arrangement or compromise with any Obligated Group Member or Obligated Group Members as the Credit Group Representative or the Master Trustee may deem appropriate, consistent with the Master Indenture and any Related Supplement. Each Obligated Group Member waives in favor of the Credit Group Representative and the Master Trustee all rights against the Credit Group Representative, the Master Trustee and any other Obligated Group Member, insofar as is necessary to give effect to the requirements of the Master Indenture summarized under the heading "Payment of Required Payments."

Transfers from Designated Affiliates. Each Controlling Member covenants and agrees that it shall cause each of its Designated Affiliates to pay, loan or otherwise transfer to the Credit Group Representative such amounts as are necessary to enable the Obligated Group Members to comply with the provisions of the Master Indenture including without limitation the provisions summarized under the heading "Payment of Required Payments"; *provided, however,* that nothing in the Master Indenture shall be construed to require any Controlling Member to cause its Designated Affiliate to pay, loan or otherwise transfer to the Credit Group Representative any amounts that constitute Restricted Moneys.

Designation of Designated Affiliates

(a) The Credit Group Representative by resolution of its Governing Body may from time to time designate Persons as Designated Affiliates. In connection with such designation, the Credit Group Representative shall designate for each Designated Affiliate an Obligated Group Member to serve as the Controlling Member for such Designated Affiliate. The Credit Group Representative shall at all times maintain an accurate and complete list of all Persons designated as Designated Affiliates (and of the Controlling Members for such Designated Affiliates) and file such list with the Master Trustee and any Related Bond Issuer that shall request such list in writing annually on or before March 31 of each year.

(b) Each Controlling Member shall cause each of its Designated Affiliates to provide to the Credit Group Representative a resolution of its Governing Body accepting such Person's designation as a Designated Affiliate and acknowledging the provisions of the Master Indenture that affect the Designated Affiliates. So long as such Person is designated as a Designated Affiliate, the Controlling Member of such Designated Affiliate shall either (i) maintain, directly or indirectly, control of such Designated Affiliate to the extent necessary to cause such Designated Affiliate to comply with the terms of the Master Indenture, whether through the ownership of voting securities, by contract, corporate membership, reserved powers or the power to appoint corporate members, trustees or directors, or otherwise, or (ii) execute and have in effect such contracts or other agreements that the Credit Group Representative and the Controlling Member, in the judgment of their respective Governing Bodies, deem sufficient for the Controlling Member to cause such Designated Affiliate to comply with the terms of the Master Indenture.

(c) Each Controlling Member covenants and agrees that it will, to the extent permitted by law, cause each of its Designated Affiliates to comply with any and all directives of the Controlling Member given pursuant to the provisions of the Master Indenture.

(d) Any Person may cease to be a Designated Affiliate (and thus not subject to the terms of the Master Indenture) provided that prior to such Person ceasing to be a Designated Affiliate the Master Trustee receives:

(i) a resolution of the Governing Body of the Credit Group Representative declaring such Person no longer a Designated Affiliate; and

(ii) an Officer's Certificate to the effect that immediately following such Person ceasing to be a Designated Affiliate neither a Default nor an Event of Default would exist by reason of such Person ceasing to be a Designated Affiliate.

Covenants of Corporate Existence, Maintenance of Properties, Etc. Each Obligated Group Member agrees, and each Controlling Member agrees to cause each of its Designated Affiliates:

(a) Except as otherwise expressly provided in the Master Indenture, to preserve its corporate or other legal existence and all its rights and licenses to the extent necessary or desirable in the operation of its business and affairs and to be qualified to do business in each jurisdiction where its ownership of Property or the conduct of its business requires such qualification; provided, however, that nothing in the Master Indenture contained shall be construed to obligate it to retain or preserve any of its rights or licenses no longer used or useful in the conduct of its business or affairs.

(b) At all times to cause its Property, Plant and Equipment to be maintained, preserved and kept in good repair, working order and condition, reasonable wear and tear excepted, and all needed and proper repairs, renewals and replacements thereof to be made; provided, however, that nothing contained the provisions of the Master Indenture summarized herein under paragraph (a) under the heading "Covenants of Corporate Existence, Maintenance of Properties, Etc." shall be construed to (i) prevent it from ceasing to operate any immaterial portion of its Property, Plant and Equipment, (ii) prevent it from ceasing to operate any material portion of its Property, Plant and Equipment if in its judgment it is advisable not to operate the same, or (iii) obligate it to retain, preserve,

repair, renew or replace any Property, Plant and Equipment no longer used or useful in the conduct of its business.

(c) To procure and maintain all necessary licenses and permits necessary, in the judgment of its Governing Body, to the operation of its health care Property and the status of its health care Property (other than that not currently having such status or not having such status on the date a Person becomes a Member of the Credit Group) as providers of health care services eligible for payment under those third party payment programs that its Governing Body determines are appropriate; provided, however, that it need not comply with the provisions of the Master Indenture summarized herein under paragraph (c) under the heading "Covenants of Corporate Existence, Maintenance of Properties, Etc." in this Appendix C if and to the extent that its Governing Body shall have determined in good faith, evidenced by a resolution of the Governing Body, that such compliance is not in its best interests and that lack of such compliance would not materially impair its ability to pay its Indebtedness when due.

Gross Receivables Pledge

(a) To secure their obligation to make Required Payments under the Master Indenture and their other obligations, agreements and covenants to be performed and observed under the Master Indenture, each Obligated Group Member grants to the Master Trustee security interests in the Gross Receivables;

(b) The Master Indenture shall be deemed a "security agreement" for purposes of the UCC;

(c) The Master Trustee's security interest in the Gross Receivables shall be perfected, to the extent that such security interest may be so perfected, by the filing of financing statements that comply with the requirements of the UCC. Each Member (or the Credit Group Representative on such Member's behalf) shall cause to be filed, in accordance with the requirements of the UCC, financing statements; and, from time to time thereafter, shall execute and deliver such other documents (including, but not limited to, continuation statements as required by the UCC) as may be necessary or reasonably requested by the Master Trustee in order to perfect or maintain perfected such security interests or give public notice thereof;

(d) Upon written request from the Credit Group Representative, the Master Trustee shall take all procedural steps necessary to effect the subordination of its security interest in the Gross Receivables granted in the Master Indenture to security interests constituting Permitted Liens; and

(e) Each Obligated Group Member shall notify the Master Trustee of any change of name and change of address of its chief executive office to enable a new appropriate financing statement or an amendment to be filed in accordance with the requirements of the UCC, in order to maintain the perfected security interest granted in the Master Indenture.

Against Encumbrances

(a) Each Member has granted security interests in the Gross Receivables. The Corporation and each other Member, respectively, agrees to supplement the security interests in the Gross Receivables or to execute and deliver such other agreements as may be necessary

from time to time to grant to the Master Trustee a security interest in the Gross Receivables, subject only to Permitted Liens.

(b) .(b) Each Obligated Group Member agrees that it will not create or suffer to be created or permit the existence of any Lien upon the Gross Receivables and Restricted Property now owned or acquired in the future by it other than Permitted Liens. Each Obligated Group Member, respectively, further covenants and agrees that if such a Lien (other than a Permitted Lien) is nonetheless created by someone other than an Obligated Group Member and is assumed by any Obligated Group Member, the Credit Group Representative will make or cause to be made effective a provision whereby all Obligations will be secured prior to any such Indebtedness or other obligation secured by such Lien.

(c) Upon written request of the Credit Group Representative, the Master Trustee shall execute and deliver such releases, subordinations, requests for reconveyance, termination statements or other instruments as may be reasonably requested by the Credit Group Representative in connection with (1) the disposition of Property in accordance with the provisions of the Master Indenture summarized herein under the heading "Limitation on Disposition of Assets" and the applicable provisions of any Related Supplement, (2) the withdrawal of a Member under the provisions of the Master Indenture summarized herein under the heading "Withdrawal from Obligated Group" and the applicable provisions of any Related Supplement and (3) the granting by a Credit Group Member of any Lien which constitutes a Permitted Lien under the Master Indenture, as certified to the Master Trustee in writing by the Credit Group Representative.

Debt Service Coverage

(a) Each Obligated Group Member agrees that the Annual Coverage Ratio shall be not less than 1.10 for such Fiscal Year.

(b) If for any Fiscal Year the Income Available for Debt Service is not sufficient to satisfy paragraph (a), the Credit Group Representative covenants to prepare a plan with recommendations to increase the Income Available for Debt Service in the following Fiscal Year to the level required or, if in the opinion of the Credit Group Representative attainment of such level is impracticable, to the highest level attainable. The Credit Group Representative agrees to transmit a copy thereof to the Master Trustee within twenty (20) days of the receipt of such recommendations. Each Obligated Group Member shall, promptly upon its receipt of such recommendations, subject to applicable requirements or restrictions imposed by law and to a good faith determination by the Governing Body of the Credit Group Representative that such recommendations are in the best interest of the Obligated Group, take such action as shall be in substantial conformity with such recommendations. In no event may the ratio of Income Available for Debt Service to the Annual Debt Service for any Fiscal Year be less than 1.00.

(c) If in any subsequent Fiscal Year to which paragraph (b) applies the Income Available for Debt Service is still not sufficient to satisfy paragraph (a), the Credit Group Representative covenants to retain an Independent Consultant to make recommendations to increase Income Available for Debt Service in the following Fiscal Year to the level required or, if in the opinion of the Independent Consultant the attainment of such level is impracticable, to the highest level attainable. The Credit Group Representative agrees to transmit a copy thereof to the Master Trustee within twenty (20) days of the receipt of

such recommendations. Each Obligated Group Member shall, promptly upon its receipt of such recommendations, subject to applicable requirements or restrictions imposed by law and to a good faith determination by the Governing Body of the Credit Group Representative that such recommendations are in the best interest of the Obligated Group, take such action as shall be in substantial conformity with such recommendations. In no event may the ratio of Income Available for Debt Service to the Annual Debt Service for any Fiscal Year be less than 1.00.

(d) If the Credit Group substantially complies with the recommendations of the Credit Group Representative or the Independent Consultant, as applicable under paragraphs (b) and (c), respectively, the Credit Group will be deemed to have complied with the Debt Service covenants for such Fiscal Year, notwithstanding that the ratio of Income Available for Debt Service to the Annual Debt Service shall be less than 1.1:1.0; provided, however, that the Additional Debt Ratio shall not be reduced to less than 1.0:1.0 for any Fiscal Year. Notwithstanding the foregoing, the Credit Group Members shall not be excused from taking any action or performing any duty required under the Master Indenture and no other Event of Default shall be waived by the operation of the provisions of paragraph (d).

(e) If a report of the Credit Group Representative or an Independent Consultant is delivered to the Master Trustee and the Related Bond Issuers, which report shall state that Government Restrictions or Industry Restrictions have been imposed that make it impossible for the Income Available for Debt Service to satisfy the requirement of paragraph (a), then the required amount of Income Available for Debt Service shall be reduced to the maximum coverage permitted by such Government Restrictions or Industry Restrictions but in no event less than an amount to pay the debt service on all Indebtedness of the Credit Group for such Fiscal Year; but in no event may the ratio of Income Available for Debt Service to the Annual Debt Service for any Fiscal Year be less than 1.00.

(f) Notwithstanding the foregoing, an Obligated Group Member may permit the rendering of services or the use of its Property without charge or at reduced charges, at the discretion of the Governing Body of such Obligated Group Member, to the extent necessary for maintaining its tax-exempt status or the tax-exempt status of its Property, Plant and Equipment or its eligibility for grants, loans, subsidies or payments from governmental entities, or in compliance with any recommendation for free services that may be made by an Independent Consultant.

Merger, Consolidation, Sale or Conveyance. Each Obligated Group Member covenants that it will not merge or consolidate with any other Person that is not an Obligated Group Member or sell or convey all or substantially all of its assets to any Person that is not an Obligated Group Member (a "Merger Transaction") unless:

(a) After giving effect to the Merger Transaction,

(i) the successor or surviving entity (in the Master Indenture after, the "Surviving Entity") is an Obligated Group Member, or

(ii) the Surviving Entity shall

(A) be a corporation or other entity organized and existing under the laws of the United States of America or any state thereof, and

(B) become an Obligated Group Member under the provisions of the Master Indenture summarized herein under the heading "Membership in Obligated Group" and, pursuant to the Related Supplement required by the provisions of the Master Indenture summarized herein under the heading "Membership in Obligated Group", shall expressly assume in writing the due and punctual payment of all Required Payments of the disappearing Obligated Group Member under the Master Indenture and its joint and several obligation with respect to Obligations;

(b) The Master Trustee receives an Officer's Certificate to the effect that the Transaction Test is satisfied in connection with the Merger Transaction;

(c) So long as any Related Bonds that are tax-exempt obligations are Outstanding, the Master Trustee receives an Opinion of Bond Counsel to the effect that, under then existing law, the consummation of the Merger Transaction, in and of itself, would not result in the inclusion of interest on such Related Bonds in gross income for purposes of federal income taxation;

(d) The Master Trustee receives an Opinion of Counsel, subject to customary qualifications and exceptions, to the effect that (i) all conditions in the provisions of the Master Indenture summarized herein under the heading "Merger, Consolidation, Sale or Conveyance" relating to the Merger Transaction have been complied with and the Master Trustee is authorized to join in the execution of any instrument required to be executed and delivered; (ii) the Surviving Entity meets the conditions set forth in the provisions of the Master Indenture summarized herein under the heading "Merger, Consolidation, Sale or Conveyance" of the Master Indenture and all Obligations then Outstanding; (iii) the Merger Transaction will not adversely affect the validity of any Obligations then Outstanding and such Obligations then Outstanding are enforceable against the Surviving Entity in accordance with their respective terms; and (iv) the Merger Transaction will not cause the Master Indenture or any Obligations to be subject to registration under federal or state securities laws or the Trust Indenture Act of 1939, as amended (or, that any such registration, if required, has occurred); and

(e) The Surviving Entity shall be substituted for its predecessor in interest in all Obligations and agreements then in effect that affect or relate to any Obligation, and the Surviving Entity shall execute and deliver to the Master Trustee appropriate documents in order to effect the substitution.

From and after the effective date of such substitution (as set forth in the above-mentioned documents), the Surviving Entity shall be treated as an Obligated Group Member and shall thereafter have the right to participate in transactions under the Master Indenture relating to Obligations to the same extent as the other Obligated Group Members. All Obligations issued under the Master Indenture on behalf of a Surviving Entity shall have the same legal rank and benefit under the Master Indenture as Obligations issued on behalf of any other Obligated Group Member.

Membership in Obligated Group. Additional Obligated Group Members may be added to the Obligated Group from time to time, provided that prior to such addition the Master Trustee receives:

(a) a copy of a resolution of the Governing Body of the proposed new Obligated Group Member that authorizes the execution and delivery of a Related Supplement and compliance with the terms of the Master Indenture; and

(b) a Related Supplement executed by the Credit Group Representative, the new Obligated Group Member and the Master Trustee pursuant to which the proposed new Obligated Group Member

(i) agrees to become an Obligated Group Member, and

(ii) agrees to be bound by the terms of the Master Indenture, the Related Supplements and the Obligations, and

(iii) irrevocably appoints the Credit Group Representative as its agent and attorney-in-fact and grants to the Credit Group Representative the requisite power and authority to execute Related Supplements authorizing the issuance of Obligations or Series of Obligations and to execute and deliver Obligations, and

(c) an Opinion of Counsel, subject to customary qualifications and exceptions, to the effect that (i) the proposed new Obligated Group Member has taken all necessary action to become an Obligated Group Member, and upon execution of the Related Supplement, such proposed new Obligated Group Member will be bound by the terms of the Master Indenture, (ii) the addition of such Obligated Group Member would not adversely affect the validity of any Obligation then Outstanding and (iii) the addition of such Obligated Group Member will not cause the Master Indenture or any Obligations to be subject to registration under federal or state securities laws or the Trust Indenture Act of 1939, as amended (or, that any such registration, if required, has occurred); and

(d) an Officer's Certificate to the effect that immediately after the addition of the proposed new Obligated Group Member, the Transaction Test would be satisfied; and

(e) so long as any Related Bonds that are tax-exempt obligations are Outstanding, an Opinion of Bond Counsel to the effect that the addition of the proposed new Obligated Group Member will not, in and of itself, result in the inclusion of interest on any Related Bonds in gross income for purposes of federal income taxation.

Withdrawal from Obligated Group. Any Obligated Group Member may withdraw from the Obligated Group and be released from further liability or obligation under the provisions of the Master Indenture, and any Obligated Group Member may be redesignated as a Designated Affiliate, provided that prior to such withdrawal or redesignation the Master Trustee receives:

(a) an Officer's Certificate to the effect that the Credit Group Representative has approved the withdrawal of such Obligated Group Member (and, if applicable, redesignation of such Obligated Group Member as a Designated Affiliate);

(b) in the event of a withdrawal but not a redesignation, an Officer's Certificate to the effect that immediately following the withdrawal of such Obligated Group Member, the Transaction Test would be satisfied; and

(c) an Opinion of Counsel, subject to customary qualifications and exceptions, to the effect that (i) the withdrawal (or redesignation) of such Obligated Group Member would not adversely affect the validity of any Obligation then Outstanding and (ii) the withdrawal (or redesignation) of such Obligated Group Member will not cause the Master Indenture or any Obligations to be subject to registration under federal or state securities laws or the Trust Indenture Act of 1939, as amended (or, that any such registration, if required, has occurred).

Upon compliance with the conditions summarized herein under the heading "Withdrawal from Obligated Group," the Master Trustee shall execute any documents reasonably requested by the withdrawing Obligated Group Member to evidence the termination of such Obligated Group Member's obligations under the Master Indenture, under all Related Supplements and under all Obligations, and shall execute and deliver such releases, subordinations, requests for reconveyance, termination statements or other instruments as may be reasonably requested by the Credit Group Representative as summarized under the heading "Against Encumbrances."

Limitation on Disposition of Assets

(a) Each Obligated Group Member covenants that it will not, and each Controlling Member agrees that it will not permit its Designated Affiliates to, sell, lease or otherwise dispose of any part of its Property in any Fiscal Year (other than (A) in the ordinary course of business, or (B) as part of a disposition of all or substantially all of its assets as permitted under the provisions of the Master Indenture summarized herein under the heading "Merger, Consolidation, Sale or Conveyance," or (C) to another Obligated Group Member or Designated Affiliate), with a Value in excess of 10% of the Value of the Property of the Credit Group, unless prior to said disposition:

(i) there shall have been delivered to the Master Trustee an Officer's Certificate to the effect that such Property is inadequate, obsolete, unsuitable, undesirable or unnecessary for the operation and functioning of the primary health care operations of the Credit Group Members; or

(ii) there shall have been delivered to the Master Trustee an Officer's Certificate to the effect that the disposition is for Fair Market Value; or

(iii) there shall have been delivered to the Master Trustee an Officer's Certificate to the effect that such Property is being transferred to a Person who is not an Obligated Group Member if such Person shall become a Member pursuant to satisfaction of the requirements summarized herein under the heading "Withdrawal from Obligated Group" coincidental to such transfer; or

(b) there shall have been delivered to the Master Trustee an Officer's Certificate to the effect that the Transaction Test is satisfied.

Notwithstanding the foregoing, nothing shall prohibit any disposition of assets among Credit Group Members nor shall prohibit any Credit Group Member from: (1) making loans, including, without limitation, employee relocation loans, physician recruitment loans or other credit/funding extensions, provided that such loans or other credit/funding extensions are in writing and the Master Trustee receives an Officer's Certificate to the effect that (x) such loans are in furtherance of the exempt purposes of the Credit Group Member (if it is a Tax-Exempt Organization) or (y) the Credit Group Member reasonably expects such loans to be repaid and such loans bear interest at a reasonable rate of interest and on

commercially reasonable terms; or (2) transferring gifts restricted to a purpose inconsistent with their use for the payment of debt service on Obligations or operating expenses to a Person that has the purpose to receive and disburse such restricted gifts.

Limitation on Indebtedness. Each Obligated Group Member covenants that it will not, and each Controlling Member covenants that it will not permit its Designated Affiliates to, incur any Indebtedness except that the Obligated Group Members and Designated Affiliates may incur the following Indebtedness:

(a) Long-Term Indebtedness, if prior to the date of incurrence of the Long-Term Indebtedness there is delivered to the Master Trustee an Officer's Certificate to the effect that:

(i) the Additional Debt Ratio for the most recent Fiscal Year for which Credit Group Financial Statements are available with respect to all Long-Term Indebtedness then Outstanding at the time of such certification and the additional Long-Term Indebtedness to be incurred, but excluding any Long-Term Indebtedness to be refunded with the proceeds of said additional Long-Term Indebtedness to be incurred, was not less than 1.1:1.0; or

(ii) (A) the Additional Debt Ratio for the most recent Fiscal Year (excluding the additional Long-Term Indebtedness to be incurred) was not less than 1.2:1.0 and (B) the Additional Debt Ratio for the Fiscal Year beginning with the Fiscal Year commencing after the estimated completion of the facilities to be financed by the Indebtedness to be incurred with respect to all Long-Term Indebtedness projected to be outstanding (including the additional Long-Term Indebtedness to be incurred but excluding any Long-Term Indebtedness to be refunded with the proceeds of said additional Long-Term Indebtedness to be incurred), is projected to be not less than 1.2:1.0. Notwithstanding the foregoing, if the Master Trustee receives a report of an Independent Consultant to the effect that Government Restrictions or Industry Restrictions prevent the Credit Group Members from generating the required levels of Income Available for Debt Service sufficient to result in an Additional Debt Ratio of not less than 1.2:1.0, the 1.2:1.0 ratio requirement described in paragraph (a)(ii) shall be reduced to a ratio of not less than 1.0:1.0; or

(iii) the forecasted Additional Debt Ratio, taking into account all Outstanding Long-Term Indebtedness and the Long-Term Indebtedness proposed to be incurred, for the first complete Fiscal Year succeeding the date on which the proposed Long-Term Indebtedness is to be incurred, is not less than 1.30:1.0, as shown by forecasted statements of revenues and expenses for each such Fiscal Year, accompanied by a statement of the relevant assumptions upon which such forecasted statements are based.

(b) Completion Indebtedness without limitation provided that an Officer's Certificate is delivered to the Master Trustee stating that the Credit Group Representative reasonably expected the aggregate principal amount of Long-Term or Interim Indebtedness originally issued to finance the construction or equipping of the project for which such Completion Indebtedness is being incurred, together with other funds reasonably anticipated to be available for such purposes, to be fully sufficient to provide a completed and fully equipped facility of the type and scope contemplated at the time said Long-

Term Indebtedness or Interim Indebtedness was originally incurred, and in accordance with the general plans and specifications for such facility as originally prepared and approved in connection with the related financing, modified or amended only in conformance with the provisions of the documents pursuant to which the related financing was undertaken.

(c) Short-term Indebtedness provided that the provisions described in paragraph (a) above are satisfied calculated as if such Short-term Indebtedness was Long-Term Indebtedness or an Officer's Certificate is delivered to the Master Trustee stating that:

(i) the total amount of such Short-term Indebtedness shall not exceed twenty percent (20%) of Total Revenues; and

(ii) In every Fiscal Year, there shall be at least a consecutive twenty (20) day period when the balances of such Short-term Indebtedness (excluding Short-Term Indebtedness consisting of commercial paper that is intended to be refinanced with additional commercial paper) is reduced to an amount that shall not exceed five percent (5%) of Total Revenues.

(d) Nonrecourse Indebtedness without limitation.

(e) Long-Term Indebtedness, if such Long-Term Indebtedness is issued or incurred to refund Long-Term Indebtedness and the Master Trustee receive an Officer's Certificate to the effect that the issuance of such Long-Term Indebtedness would not increase Annual Debt Service by more than ten percent (10%).

(f) Subordinated Indebtedness, without limitation.

(g) Any other Indebtedness, provided that an Officer's Certificate is delivered to the Master Trustee stating that the aggregate principal amount of such Indebtedness, together with the aggregate principal amount of Indebtedness incurred pursuant to the provisions of the Master Indenture summarized herein under paragraph under the heading herein "Limitations on Indebtedness,", does not, as of the date of incurrence, exceed 25% of Total Revenues.

(h) Reimbursement or other repayment obligations under reimbursement agreements or similar agreements relating to credit facilities and/or liquidity facilities that provide credit support and/or liquidity for Indebtedness.

(i) Indebtedness incurred in connection with the $1,000,000,000 Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network), Series 2017A, Series 2017B, Series 2017C, and Series 2017D and the Continuing Covenant Agreement dated as of December 1, 2017 by and among the Corporation, as Credit Group Representative, on behalf of itself and the other Members of the Obligated Group, and the Bondholders Party thereto, and PNC Bank, National Association, as Bondholder Representative.

Filing of Financial Statements, Certificate of No Default, Other Information

(a) The Credit Group Representative covenants and agrees that it will furnish to the Master Trustee financial statements:

(i) As soon as practicable, but in no event more than 180 days after the last day of each Fiscal Year, one or more financial statements that, in the aggregate, shall include the Material Credit Group Members. Such financial statement shall constitute the "Credit Group Financial Statements". Such financial statements:

(A) may, at the election of the Credit Group Representative, consist either of (1) consolidated or combined financial results of the Corporation and prepared in accordance with GAAP or (2) similarly prepared special purpose financial statements including only Credit Group Members;

(B) shall be audited by an Accountant as having been prepared in accordance with GAAP (except in the case of special purpose financial statements); and

(C) shall include a consolidated or combined balance sheet, statement of operations and changes in net assets.

(ii) (A) If a special purpose financial statement containing information solely related to the Credit Group Members (which may, but need not, include any Immaterial Affiliates) is delivered pursuant to clause (a)(i)(A) above, then such financial statement shall constitute the "Credit Group Financial Statements" if deemed to be as such by the Credit Group Representative for the purposes of meeting that specific submission.

(iii) At the time of the delivery of the Credit Group Financial Statements, a Certificate of a Responsible Officer of the Credit Group Representative, stating that no event that constitutes an Event of Default has occurred and is continuing as of the end of such Fiscal Year, or specifying the nature of such event and the actions taken and proposed to be taken to cure such Event of Default.

(b) Notwithstanding the foregoing, the results of operations and financial position of Immaterial Affiliates need not be excluded from financial statements delivered to the Master Trustee according to paragraph (b) under the heading "Filing of Financial Statements, Certificate of No Default, Other Information" herein and such results of operation and financial position may be considered as if they were a portion of the results of operation and financial position of the Credit Group Members for all purposes of the Master Indenture notwithstanding the inclusion of the results of operation and financial position of such Immaterial Affiliates. In all cases, the submission of the Corporation's consolidated financial statements shall be in full satisfaction of any requirement under the Master Indenture to submit Credit Group Financial Statements as defined under the heading "Filing of Financial Statements, Certificate of No Default, Other Information." herein. The Master Trustee shall have no duty to review, verify or analyze such financial statements and shall hold such financial statements solely as a repository for the benefit of the Holders. The Master Trustee shall not be deemed to have notice of any information contained in such financial statements or event of default that may be disclosed therein in any manner.

Use of GAAP

Where the character or amount of any asset or liability or item of income or expense is required to be determined or any consolidation, combination or other accounting computation is required to be made

for the purposes of the Master Indenture or any agreement, document or certificate executed and delivered in connection with or pursuant to the Master Indenture, such determination or computation shall be done in accordance with GAAP, to the extent applicable, except where such principles are inconsistent with the requirements of the Master Indenture or of such agreement, document or certificate in which case such agreement, document or certificate shall state that is was not done in accordance with GAAP, in effect as of, in the sole discretion of the Credit Group Representative, (i) the date such determination or computation is made for any purpose of the Master Indenture, or (ii) the date of execution and delivery of the Master Indenture if the Credit Group Representative delivers an Officer's Certificate to the Master Trustee explaining the basis for such treatment (including, but not limited to, to exclude the effect of "FASB ASC Topic 842, Leases" relating to the treatment of leases formerly classified as operating leases under GAAP); provided, however, that intercompany balances and liabilities among the Credit Group Members shall be disregarded.

Substitution of Master Indenture

(a) At the option of the Credit Group Representative and without the consent of any Holder, Obligations shall be surrendered by their Holders and delivered to the Master Trustee for cancellation upon receipt by the Master Trustee of the following:

(i) a Request of the Credit Group Representative requesting such surrender and delivery and stating that the Credit Group Representative (and each other Member of the Obligated Group) has become a member of an obligated group (the "New Obligated Group") under a master indenture (other than the Master Indenture) and that an obligation or obligations are being issued to the Holder under such replacement master indenture (the "Replacement Master Indenture");

(ii) a properly executed obligation (the "Replacement Obligation") for each Obligation issued under the Replacement Master Indenture and registered in the name of the Holder with the same tenor and effect as the previous Master Indenture Obligation of such Holder, duly authenticated by the master trustee under the Replacement Master Indenture;

(iii) an Opinion of Counsel, subject to customary qualifications and exceptions, to the effect that each Replacement Obligation has been validly issued under the Replacement Master Indenture and constitutes a valid and binding obligation of the Credit Group Representative (and each other Member of the Obligated Group) and each other member of the obligated group under the Replacement Master Indenture;

(iv) a copy of the Replacement Master Indenture, certified as a true and accurate copy by the master trustee under the Replacement Master Indenture;

(v) an Officer's Certificate showing that the New Obligated Group, after giving effect to the Replacement Obligations and assuming that the New Obligated Group constitutes the Obligated Group under the Master Indenture, could have satisfied the Transaction Test under the Master Indenture.

(vi) evidence that the ratings, if any, on Indebtedness secured by Obligations issued pursuant the Master Indenture will not be withdrawn or reduced following the substitution of the Master Indenture (without regard to any refinement or gradation by numerical modifier, outlook or otherwise); and

(vii) an Opinion of Bond Counsel to the effect that the replacement of the Obligations with the Replacement Obligations will not, in and of itself, result in the inclusion of the interest on any Related Bonds in gross income for purposes of federal income taxation.

(b) The provisions of the provisions of the Master Indenture summarized herein under the heading "Substitution of Master Indenture" may be implemented by the Obligated Group, notwithstanding any provisions of the provisions of the Master Indenture summarized herein under the headings "Supplements Not Requiring Consent of Holders" or "Supplements Requiring the Consent of Holders," so long as the provisions the provisions of the Master Indenture summarized herein under the heading under "Substitution of Master Indenture" are complied with by the Obligated Group.

(c) Following the surrender of the Obligations, and satisfaction of the conditions set forth under "Substitution of Master Indenture," and receipt of security and indemnity satisfactory to the Master Trustee, the Master Trustee will cancel the Obligations. Then and thereafter, Holders shall no longer be entitled to any rights and remedies under the Master Indenture, but shall have all of the rights and remedies granted under the Replacement Master Indenture.

Defaults

Events of Default. Each of the following events shall be an Event of Default under the Master Indenture:

(a) Failure on the part of the Obligated Group Members to make due and punctual payment of the principal of, redemption premium, if any, interest on or any other Required Payment on any Obligation.

(b) Any Obligated Group Member shall fail to observe or perform any other covenant or agreement under the Master Indenture (including covenants or agreements contained in any Related Supplement or Obligation) and shall not have cured such failure within sixty (60) days after the date on which written notice of such failure, requiring the failure to be remedied, shall have been given to the Credit Group Representative by the Master Trustee or to the Credit Group Representative and the Master Trustee by the Holders of a majority in aggregate principal amount of Outstanding Obligations (provided that if such failure can be remedied but not within such sixty (60) day period, such failure shall not become an Event of Default for so long as the Credit Group Representative shall diligently proceed to remedy the failure).

(c) Any Obligated Group Member shall default in the payment of Indebtedness (other than (1) Subordinated Indebtedness, (2) Nonrecourse Indebtedness, and (3) Indebtedness secured by a Obligation, which shall be governed by paragraph (a)) in an aggregate outstanding principal amount equal to the greater of three percent (3%) of the aggregate principal amount of Total Revenues of the Credit Group, and any grace period for such payment shall have expired; provided, however, that such default shall not constitute an Event of Default if, within sixty (60) days or within the time allowed for service of a responsive pleading if any proceeding to enforce payment of the Indebtedness is commenced, (1) any Obligated Group Member in good faith commences proceedings to contest the existence or payment of such Indebtedness, and (2) sufficient moneys are

deposited in escrow with a bank or trust company or a bond acceptable to the Master Trustee is posted for the payment of such Indebtedness.

(d) A court having jurisdiction shall enter a decree or order for relief in respect of any Obligated Group Member in an involuntary case under any applicable federal or state bankruptcy, insolvency or other similar law, or appointing a receiver, liquidator, assignee, custodian, trustee, sequestrator (or similar official) of any Obligated Group Member or for any substantial part of the Property of any Obligated Group Member, or ordering the winding up or liquidation of its affairs, and such decree or order shall remain unstayed and in effect for a period of sixty (60) consecutive days.

(e) Any Obligated Group Member shall commence a voluntary case under any applicable federal or state bankruptcy, insolvency or other similar law, or shall consent to the entry of an order for relief in an involuntary case under any such law, or shall consent to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian, sequestrator (or similar official) of any Obligated Group Member or for any substantial part of its Property, or shall make any general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due or shall take any corporate action in furtherance of the foregoing.

(f) An event of default shall exist under any Related Bond Indenture.

Acceleration; Annulment of Acceleration

(a) Upon the occurrence and during the continuation of an Event of Default, the Master Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of Outstanding Obligations shall, by notice to the Credit Group Representative, declare all Outstanding Obligations immediately due and payable. Upon such declaration of acceleration, all Outstanding Obligations shall be immediately due and payable. If the terms of any Related Supplement give a Person the right to consent to acceleration of the Obligations issued pursuant to such Related Supplement, the Obligations issued pursuant to such Related Supplement may not be accelerated by the Master Trustee unless such consent is properly obtained pursuant to the terms of such Related Supplement. In the event of acceleration, an amount equal to the aggregate principal amount of all Outstanding Obligations, plus all interest accrued thereon and, to the extent permitted by applicable law, that accrues on such principal and interest to the date of payment, and all other amounts due thereunder, shall be due and payable on the Obligations.

(b) At any time after the Obligations have been declared to be due and payable, and before the entry of a final judgment or decree in any proceeding instituted with respect to the Event of Default that resulted in the declaration of acceleration, the Master Trustee may annul such declaration and its consequences if:

(i) the Obligated Group Members have paid (or caused to be paid or deposited with the Master Trustee moneys sufficient to pay) all payments then due on all Outstanding Obligations (other than payments then due only because of such declaration); and

(ii) the Obligated Group Members have paid (or caused to be paid or deposited with the Master Trustee moneys sufficient to pay) all fees and expenses of the Master Trustee then due; and

(iii) the Obligated Group Members have paid (or caused to be paid or deposited with the Master Trustee moneys sufficient to pay) all other amounts then payable by the Obligated Group under the Master Indenture; and

(iv) every Event of Default (other than a default in the payment of the principal or other payments of such Obligations then due only because of such declaration) has been remedied.

No such annulment shall extend to or affect any subsequent Event of Default or impair any right with respect to any subsequent Event of Default.

Additional Remedies and Enforcement of Remedies

(a) Upon the occurrence and continuance of any Event of Default, the Master Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of the Outstanding Obligations (and upon indemnification of the Master Trustee to its satisfaction by the Credit Group Representative for any such request), shall, proceed to protect and enforce its rights and the rights of the Holders under the Master Indenture by such proceedings as may be deemed expedient, including but not limited to:

(i) Enforcement of the right of the Holders to collect amounts due or becoming due under the Obligations;

(ii) Civil action upon all or any part of the Obligations;

(iii) Civil action to require any Person holding moneys, documents or other property pledged to secure payment of amounts due or to become due on the Obligations to account as if it were the trustee of an express trust for the Holders of Obligations;

(iv) Civil action to enjoin any acts that may be unlawful or in violation of the rights of the Holders of Obligations;

(v) Civil action against any Obligated Group Member or Controlling Member, or against any officer or member of the Governing Body of any Obligated Group Member or Controlling Member to compel performance of any act specifically required by the Master Indenture or any Obligation;

(vi) Exercise any and all remedies with respect to Collateral; and Enforcement of any other right or remedy of the Holders conferred by law or under the Master Indenture.

(b) Regardless of the occurrence of an Event of Default, if requested in writing by the Holders of not less than a majority in aggregate principal amount of the Outstanding Obligations (and upon indemnification of the Master Trustee to its satisfaction for such request), the Master Trustee shall institute and maintain such proceedings as it may be advised shall be necessary or expedient (1) to prevent any impairment of the security

under the Master Indenture by any acts that may be unlawful or in violation of the Master Indenture, or (2) to preserve or protect the interests of the Holders. However, the Master Trustee shall not comply with any such request or institute and maintain any such proceeding that is in conflict with any applicable law or the provisions of the Master Indenture or (in the sole judgment of the Master Trustee) is unduly prejudicial to the interests of the Holders not making such request. Nothing in the Master Indenture shall be deemed to authorize the Master Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment, or composition affecting the Obligations or the rights of any Holder thereof, or to authorize the Master Trustee to vote in respect of the claim of any Holder in any such proceeding without the approval of the Holders so affected.

Application of Moneys After Default. During the continuance of an Event of Default, all moneys received by the Master Trustee pursuant to any right given or action taken under the Master Indenture (after payment of the costs of the proceedings resulting in the collection of such moneys and payment of all fees, expenses and other amounts owed to the Master Trustee) shall be applied as follows:

(a) Unless all Outstanding Obligations have become or have been declared due and payable (or if any such declaration is annulled):

First: To the payment of all Required Payments then due on the Obligations (including Financial Product Payments to the extent made pursuant to a Financial Product Agreement secured or evidenced by a Obligation and Parity Financial Product Extraordinary Payments), in the order of their due dates, and, if the amount available is not sufficient to pay in full all Required Payments due on the same date, then to the payment thereof ratably, according to the amount Required Payments due on such date, without any discrimination or preference;

Second: To the payment of all Financial Product Extraordinary Payments made pursuant to a Financial Product Agreement secured or evidenced by an Obligation (other than Parity Financial Product Extraordinary Payments), in the order of their due dates, and, if the amount available is not sufficient to pay in full all Financial Product Extraordinary Payments due on the same date, then to the payment thereof ratably, according to the amounts of Financial Product Extraordinary Payments due on such date, without any discrimination or preference.

(b) If all Outstanding Obligations have become or have been declared due and payable (and such declaration has not been):

First: To the payment of all Required Payments then due on the Obligations (including (i) Financial Product Payments to the extent made pursuant to a Financial Product Agreement secured or evidenced by an Obligation and (ii) Parity Financial Product Extraordinary Payments), and, if the amount available is not sufficient to pay in full the whole amount then due and unpaid, then to the payment thereof ratably, without preference or priority, according to the amounts due respectively, without any discrimination or preference; and

Second: To the payment of all Financial Product Extraordinary Payments made pursuant to a Financial Product Agreement secured or evidenced by an Obligation (other than Parity Financial Product Extraordinary Payments), and, if the amount available is not sufficient to pay in full all such Financial Product Extraordinary Payments, then to the payment thereof ratably, without any discrimination or preference.

Such moneys shall be applied at such times as the Master Trustee shall determine, having due regard for the amount of moneys available and the likelihood of additional moneys becoming available in the future. Upon any date fixed by the Master Trustee for the application of such moneys to the payment of principal, interest on the amounts of principal to be paid on such date shall cease to accrue. The Master Trustee shall give such notices as it may deem appropriate of the deposit with it of such moneys or of the fixing of such dates. The Master Trustee shall not be required to make payment to the Holder of any unpaid Obligation until such Obligation (and all unmatured interest coupons, if any) is presented to the Master Trustee for appropriate endorsement of any partial payment or for cancellation if fully paid.

Whenever all Obligations have been paid and all fees and expenses of the Master Trustee have been paid, any balance remaining shall be paid to the Person entitled to receive such balance. If no other Person is entitled thereto, then the balance shall be paid to the Members of the Obligated Group or such Person as a court of competent jurisdiction may direct.

Remedies Not Exclusive. No remedy granted by the terms of the Master Indenture is intended to be exclusive of any other remedy. Each remedy shall be cumulative and shall be in addition to every other remedy given under the Master Indenture or existing at law or in equity.

Remedies Vested in the Master Trustee. All rights of action (including the right to file proof of claims) under the Master Indenture or under any of the Obligations may be enforced by the Master Trustee without the possession of any of the Obligations or the production thereof in any proceeding relating thereto. Any proceeding instituted by the Master Trustee may be brought in its name as the Master Trustee without the necessity of joining any Holders as plaintiffs or defendants. Subject to the provisions of the Master Indenture summarized herein under the heading "Application of Moneys After Default," any recovery or judgment shall be for the equal benefit of the Holders of the Outstanding Obligations.

Master Trustee to Represent Holders. The Master Trustee is irrevocably appointed as trustee and attorney in fact for the Holders for the purpose of exercising on their behalf the rights and remedies available to the Holders under the provisions of the Master Indenture, the Obligations, any Related Supplement and applicable provisions of law, in each case subject to the provisions of the Master Indenture summarized under the heading "Holders' Control of Proceedings." The Holders, by taking and holding the Obligations, shall be conclusively deemed to have so appointed the Master Trustee.

Holders' Control of Proceedings. If an Event of Default has occurred and is continuing, notwithstanding anything in the Master Indenture to the contrary, the Holders of at least a majority in aggregate principal amount of Outstanding Obligations shall have the right (upon the indemnification of the Master Trustee to its satisfaction) to direct the method and/or place of conducting any proceeding to be taken in connection with the enforcement of the terms of the Master Indenture. Such direction must be in writing, signed by such Holders and delivered to the Master Trustee. However, the Master Trustee shall not follow any such direction that is in conflict with any applicable law or the provisions of the Master Indenture or is unduly prejudicial to the interests of the Holders not joining in such direction. The above language shall not impair the right of the Master Trustee to take any other action authorized by the Master Indenture that it may deem proper and that is not inconsistent with such direction by Holders.

Termination of Proceedings. In case any proceeding instituted by the Master Trustee with respect to any Event of Default is discontinued or abandoned for any reason or is determined adversely to the Master Trustee or the Holders, then the Obligated Group Members, the Master Trustee and the Holders shall be restored to their former positions and rights under the Master Indenture. All rights, remedies and powers of the Master Trustee and the Holders shall continue as if no such proceeding had been taken.

Waiver of Event of Default

(a) No delay or omission of the Master Trustee or of any Holder to exercise any right with respect to any Event of Default shall impair such right or shall be construed to be a waiver of or acquiescence to such Event of Default. Every right and remedy given under the provisions of the Master Indenture summarized herein under the heading "Additional Remedies and Enforcement of Remedies" and the Holders may be exercised from time to time and as often as may be deemed expedient by them.

(b) The Master Trustee may waive any Event of Default that in its opinion has been remedied before the entry of a final judgment or decree in any proceeding instituted by it under the provisions of the Master Indenture, or before the completion of the enforcement of any other remedy under the Master Indenture.

(c) Upon the written request of the Holders of at least a majority in aggregate principal amount of Outstanding Obligations, the Master Trustee shall waive any Event of Default under the Master Indenture and its consequences; *provided, however,* that, except under the circumstances summarized under the provisions of the Master Indenture summarized herein under paragraph (b) under the heading "Acceleration; Annulment of Acceleration," the failure to pay the principal of, premium, if any, or interest on any Obligation when due may not be waived without the written consent of the Holders of all Outstanding Obligations.

(d) In case of any waiver by the Master Trustee of an Event of Default, the Obligated Group Members, the Master Trustee and the Holders shall be restored to their former positions and rights. No waiver shall extend to, or impair any right with respect to, any other Event of Default.

Appointment of Receiver. Upon the occurrence and continuance of any Event of Default, the Master Trustee shall be entitled (a) without declaring the Obligations to be due and payable, (b) after declaring the Obligations to be due and payable, or (c) upon the commencement of any proceeding to enforce any right of the Master Trustee or the Holders, to the appointment of a receiver or receivers of any or all of the Property of the Obligated Group Members (without the necessity of notice to any Obligated Group Member or any other Person), with such powers as the court making such appointment shall confer. Each Obligated Group Member consents, and will if requested by the Master Trustee, consent at the time of application by the Master Trustee for appointment of a receiver, to the appointment of such receiver and agrees that such receiver may be given the right, to the extent the right may lawfully be given, to take possession of, operate and deal with such Property and the revenues, profits and proceeds therefrom, with the same effect as the Obligated Group Member could, and to borrow money and issue evidences of indebtedness as such receiver.

Remedies Subject to Provisions of Law. All rights, remedies and powers provided under "Remedies Subject to Provisions of Law" may be exercised only to the extent that the exercise thereof does not violate any applicable provision of law. All the provisions of the provisions of the Master

Indenture summarized herein under the heading "Remedies Subject to Provisions of Law" are intended to be limited to the extent necessary so that they will not render any provision of the Master Indenture invalid or unenforceable under the provisions of any applicable law.

Notice of Default. Within thirty days after a Responsible Officer of the Master Trustee has actual knowledge or has received written notice of the occurrence of an Event of Default, the Master Trustee shall mail notice of such Event of Default to all Holders, unless such Event of Default has been cured before the giving of such notice (the term "Event of Default" under "Notice of Default" being limited to the events specified in "Events of Default"). Except in the case of default in the payment of the principal of or premium, if any, or interest on any of the Obligations and the Events of Default specified in the provisions of the Master Indenture summarized herein under paragraphs (d) and (e) under the heading "Events of Default," the Master Trustee shall be protected in withholding such notice if and so long as the Master Trustee in good faith determines that the withholding of such notice is in the best interest of the Holders.

Supplements and Amendments

Supplements Not Requiring Consent of Holders. The Credit Group Representative (acting for itself and as agent for each Obligated Group Member) and the Master Trustee may, without the consent of or notice to any of the Holders, enter into one or more Related Supplements for any of the following purposes:

(a) To correct any ambiguity or formal defect or omission in the Master Indenture;

(b) To correct or supplement any provision that may be inconsistent with any other provision, or to make any other provision with respect to matters or questions arising under the Master Indenture and that does not materially and adversely affect the interests of the Holders;

(c) To grant or confer ratably upon all of the Holders any additional rights, remedies, powers or authority, or to add to the covenants of and restrictions on the Obligated Group Members;

(d) To qualify the Master Indenture under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal law from time to time in effect;

(e) To create and provide for the issuance of an Obligation or Series of Obligations as permitted under the Master Indenture;

(f) To obligate a successor to any Obligated Group Member as provided in the Master Indenture;

(g) To add a new Obligated Group Member as provided under the provisions of the Master Indenture summarized herein under the heading "Membership in Obligated Group";

(h) To make any change necessary or advisable to preserve the intent or effect of any provision of the Master Indenture affected by amendment or replacement of the Code; or

(i) To make any other change that does not materially and adversely affect the interests of the Holders.

In entering into any Related Supplement, the Master Trustee may rely on an Opinion of Counsel as described under the heading "Execution and Effect of Supplements" hereof.

Supplements Requiring Consent of Holders

(a) Other than Related Supplements referred to under the heading hereof "Supplements Not Requiring Consent of Holders" and subject to the terms of the Master Indenture summarized under the heading "Supplements and Amendments," the Holders of not less than a majority in aggregate principal amount of the Outstanding Obligations shall have the right to consent to and approve the execution by the Credit Group Representative (acting for itself and as agent for each Obligated Group Member) and the Master Trustee of such Related Supplements as shall be deemed necessary or desirable for the purpose of modifying, altering, amending, adding to or rescinding any of the terms contained in the Master Indenture; *provided, however,* that nothing in the provisions of the Master Indenture summarized under the heading "Supplements Requiring Consent of Holders" shall permit or be construed as permitting a Related Supplement that would:

(i) Extend the stated maturity of or time for paying interest on any Obligation or reduce the principal amount of or the redemption premium or rate of interest or change the method of calculating interest payable on or reduce any other Required Payment on any Obligation without the consent of the Holder of such Obligation;

(ii) Modify, alter, amend, add to or rescind any of the terms or provisions of the Master Indenture summarized under the heading "Payment of Required Payments" or "Defaults" so as to affect the right of the Holders of any Obligations in default as to payment to compel the Master Trustee to declare the principal of all Obligations to be due and payable, without the consent of the Holders of all Outstanding Obligations; or

(iii) Reduce the aggregate principal amount of Outstanding Obligations the consent of the Holders of which is required to authorize such Related Supplement without the consent of the Holders of all Obligations then Outstanding.

(b) The Master Trustee may execute a Related Supplement (in substantially the form delivered to it as described below) without liability or responsibility to any Holder (whether or not such Holder has consented to the execution of such Related Supplement) if the Master Trustee receives:

(i) a Request of the Credit Group Representative to enter into such Related Supplement; and

(ii) a certified copy of the resolution of the Governing Body of the Credit Group Representative approving the execution of such Related Supplement; and

(iii) the proposed Related Supplement; and

(iv) an instrument or instruments executed by the Holders of not less than the aggregate principal amount or number of Obligations specified in paragraph (a) for the Related Supplement in question which instrument or instruments shall refer to the proposed Related Supplement and shall specifically consent to and

approve the execution thereof in substantially the form of the copy thereof as on file with the Master Trustee.

(c) Any such consent shall be binding upon the Holder of the Obligation giving such consent and upon any subsequent Holder of such Obligation and of any Obligation issued in exchange therefor (whether or not such subsequent Holder thereof has notice thereof), unless such consent is revoked in writing by the Holder of such Obligation giving such consent or by a subsequent Holder thereof by filing with the Master Trustee, prior to the execution by the Master Trustee of such Related Supplement, such revocation and, if such Obligation or Obligations are transferable by delivery, proof that such Obligations are held by the signer of such revocation. At any time after the Holders of the required principal amount or number of Obligations shall have filed their consents to the Related Supplement, the Master Trustee shall file a written statement to that effect with the Credit Group Representative. Such written statement shall be conclusive evidence that such consents have been so filed.

(d) If the Holders of the required principal amount or number of the Outstanding Obligations have consented to the execution of such Related Supplement, no Holder shall have any right to object to the execution thereof, to object to any of the terms and provisions contained therein or the operation thereof, to question the propriety of the execution thereof or to enjoin or restrain the Master Trustee or the Credit Group Representative from executing such Related Supplement or from taking any action pursuant to the provisions thereof.

Amendment of Related Supplements. Any Related Supplement may provide that the provisions thereof may be amended without the consent of or notice to any of the Holders, or pursuant to such terms and conditions as may be specified in such Related Supplement. If a Related Supplement does not contain provisions relating to the amendment thereof, the amendment of such Related Supplement shall be governed by the provisions of the Master Indenture summarized under the headings "Supplements Not Requiring Consent of Holders" and "Supplements Requiring Consent of Holders" herein.

Satisfaction and Discharge of Master Indenture

The Master Indenture shall cease to be of further effect (except for the provisions of the Master Indenture summarized herein under the heading "Compensation and Reimbursement," which shall survive) if:

(a) all Obligations previously authenticated (other than any Obligations that have been mutilated, destroyed, lost or stolen and that have been replaced or paid as provided in any Related Supplement) and not cancelled are delivered to the Master Trustee for cancellation; or

(b) all Obligations not previously cancelled or delivered to the Master Trustee for cancellation are paid; or

(c) a deposit is made in trust with the Master Trustee (or with one or more banks, national banking associations or trust companies acceptable to the Master Trustee pursuant to one or more agreements between an Obligated Group Member and such national banking associations or trust companies in form acceptable to the Master Trustee) in cash or Government Obligations or both, sufficient to pay at maturity or upon redemption all

Obligations not previously cancelled or delivered to the Master Trustee for cancellation, including principal and interest or other payments (including Financial Product Payments and Financial Product Extraordinary Payments) due or to become due to such date of maturity, redemption date or payment date, as the case may be; and all other sums payable under the Master Indenture by the Obligated Group Members are also paid. The Master Trustee, on demand of the Credit Group Representative and at the cost and expense of the Obligated Group Members, shall execute proper instruments acknowledging satisfaction of and discharging the Master Indenture and authorizing the Credit Group Representative to file such terminations and releases as may be necessary to evidence the termination of the Master Trustee's security interest in the Gross Revenues. Unless the deposit(s) pursuant to clause (c) above is made solely with cash, the Credit Group Representative shall cause a report to be prepared by a firm nationally recognized for providing verification services regarding the sufficiency of funds for such discharge and satisfaction provided pursuant to clause (c) above, upon which report the Master Trustee may rely.

The Obligated Group Members shall pay and indemnify the Master Trustee against any tax, fee or other charge imposed on or assessed against the Government Obligations deposited under the provisions of the Master Indenture summarized under this heading "Satisfaction and Discharge of Master Indenture" or the principal and interest received in respect thereof other than any such tax, fee or other charge that by law is for the account of the Holders of Outstanding Obligations.

Payment of Obligations After Discharge of Lien. Notwithstanding the discharge of the lien of the Master Indenture, the Master Trustee shall retain such rights, powers and duties as may be necessary and convenient for the payment of amounts due or to become due on the Obligations and for the registration, transfer, exchange and replacement of Obligations. Any moneys held by the Master Trustee for the payment of the principal of, premium, if any, or interest or other Required Payment on any Obligation remaining unclaimed for one year after the principal of all Obligations has become due and payable, whether at maturity, upon proceedings for redemption or by declaration as provided in the Master Indenture, shall then be paid to the Obligated Group Members. The Holders of any Obligations or coupons not previously presented for payment shall thereafter be entitled to look only to the Obligated Group Members for payment thereof as unsecured creditors and all liability of the Master Trustee with respect to such moneys shall thereupon cease.

SUPPLEMENTAL MASTER INDENTURE FOR OBLIGATION NO. 7

General

Supplement No. 7 provides for the issuance of Obligation No. 7 and provides the terms and form thereof. Obligation No. 7 further secures the obligation of the Obligated Group arising under and pursuant the Loan Agreement with respect to the Bonds.

Payments on Obligation No. 7; Credits

Principal of and interest on Obligation No. 7 are payable in any coin or currency of the United States of America that on the payment date is legal tender for the payment of public and private debts. Except as provided in pursuant to the provisions of Supplement No. 7 with respect to credits and regarding prepayment summarized below, payments on the principal of and interest on Obligation No. 7 shall be made at the times and in the amounts specified in Obligation No. 7 by the Credit Group Representative (i) depositing the same with or to the account of the Trustee at or prior to the opening of business on the day such payments shall become due or payable (or on the next succeeding business day if such date is a Saturday, Sunday or bank holiday in the city in which the principal corporate trust office of the Trustee is located) and (ii) giving a notice to the Master Trustee and the Trustee of each payment of principal or interest on Obligation No. 7, specifying the amount paid, and identifying such payment as a payment on Obligation No. 7.

The Credit Group Representative shall receive credit for payment on Obligation No. 7, in addition to any credits resulting from payment or prepayment from other sources, as follows:

(a) On installments of interest on Obligation No. 7 in an amount equal to moneys deposited in the Interest Account created under the Indenture, to the extent such amounts have not previously been credited against payments on Obligation No. 7;

(b) On installments of principal of Obligation No. 7 in an amount equal to moneys deposited in the Principal Account created under the Indenture, to the extent such amounts have not previously been credited on Obligation No. 7;

(c) On installments of principal and interest, respectively, on Obligation No. 7 in an amount equal to the principal amount of Bonds for the payment or redemption of which sufficient amounts in cash or United States Government Obligations are on deposit as provided in the Indenture, to the extent such amounts have not been previously credited against payments on Obligation No. 7, and the interest on such Bonds from and after the date fixed for payment at maturity or redemption thereof. Such credits shall be made against the installments of principal of and interest on Obligation No. 7 that would have been used, but for such call for redemption, to pay principal of and interest on such Bonds when due at maturity or called for redemption; and

(d) On installments of principal and interest, respectively, on Obligation No. 7 in an amount equal to the principal amount of Bonds acquired by the Credit Group Representative and delivered to the Trustee for cancellation or purchased by the Trustee and cancelled, and the interest on such Bonds from and after the date interest thereon has been paid prior to cancellation. Such credits shall be made against the installments of principal of and interest on Obligation No. 7 that would have been used, but for such cancellation, to pay principal of and interest on such Bonds when due and, with respect to Bonds called for mandatory redemption, against principal installments that would have been used to pay Bonds of the same maturity.

Subject to the receipt by the Master Trustee of notice of the failure of the Credit Group Representative to make the foregoing payments as and when due from the Holder of Obligation No. 7, the Master Trustee may conclusively assume that such payments were made and corresponding credit on Obligation No. 7 shall be deemed to have occurred.

Prepayment of Obligation No. 7

So long as all amounts that have become due under Obligation No. 7 have been paid, the Credit Group Representative shall have the right, at any time and from time to time, to pay in advance and in any order of due dates all or part of the amounts to become due under Obligation No. 7. Prepayments may be made by payments of cash or surrender of Bonds. All such prepayments shall be deposited upon receipt in the Optional Redemption Account and, at the request of and as determined by the Credit Group Representative, credited against payments due under Obligation No. 7 or used for the redemption or purchase of Outstanding Bonds in the manner and subject to the terms and conditions set forth in the Indenture and the Loan Agreement. Notwithstanding any such redemption or surrender of Bonds, as long as any Bond remains outstanding under the Indenture or any additional payments required to be made under Supplement No. 7 remain unpaid, the Credit Group Representative shall not be relieved of its obligations under Supplement No. 7.

Prepayments shall be credited against amounts to become due on Obligation No. 7 as provided pursuant to the provisions of the Loan Agreement. The Credit Group Representative may also prepay all of its indebtedness under Obligation No. 7 by providing for prepayment of the Bonds in accordance with the Indenture.

Registration, Number, Negotiability and Transfer of Obligation No. 7

Except as described in the following paragraph, so long as any Bond remains outstanding, Obligation No. 7 shall consist of a single Obligation without coupons registered as to principal and interest in the name of the Trustee and no transfer of Obligation No. 7 shall be registered under the Master Indenture except for transfers to a successor Trustee.

Upon the principal of all Obligations then Outstanding being declared immediately due and payable upon and during the continuance of an Event of Default, Obligation No. 7 may be transferred if and to the extent the Trustee requests that the restrictions on transfers in the preceding paragraph be terminated.

Right to Redeem

Obligation No. 7 shall be subject to redemption, in whole or in part, prior to the maturity at the times and in the amounts applicable to redemption of the Bonds as specified in the Indenture and in the manner provided in Supplement No. 7; *provided*, that in no event shall any portion of Obligation No. 7 be redeemed unless a corresponding amount of Bonds is also redeemed.

Partial Redemption of Obligation No. 7

Upon the selection and call for redemption, and the surrender, of Obligation No. 7 for redemption in part only, the Credit Group Representative shall cause to be executed and the Master Trustee shall authenticate and deliver to, upon the written order of, the Holder thereof, at the expense of the Credit Group Representative, a new Obligation No. 7 in principal amount equal to the unredeemed portion of Obligation No. 7, which new Obligation No. 7 shall be a fully registered Obligation without coupons.

The Credit Group Representative may agree with the Holder of Obligation No. 7 that such Holder may, in lieu of surrendering Obligation No. 7 for a new fully registered Obligation without coupons, endorse on Obligation No. 7 a notice of such partial redemption, which notice shall set forth, over the signature of such Holder, the payment date, the principal amount redeemed and the principal amount remaining unpaid. Such partial redemption shall be valid upon payment of the amount thereof to the Holder of Obligation No. 7 and the Obligated Group and the Master Trustee shall be fully released and discharged from all liability to the extent of such payment irrespective of whether such endorsement shall or shall not have been made upon the reverse of Obligation No. 7 by the Holder thereof and irrespective of any error or omission in such endorsement.

Effect of Call for Redemption

On the date designated for redemption by notice given as set forth in Supplement No. 7, Obligation No. 7, or the part thereof called for redemption, shall become and be due and payable at the redemption price provided for redemption of Obligation No. 7 or the part thereof called for redemption on such date. If, on the date fixed for redemption, moneys for payment of the redemption price and accrued interest are held by the Master Trustee, interest on Obligation No. 7, or the part thereof called for redemption, shall cease to accrue and Obligation No. 7, or the part thereof called for redemption, shall cease to be entitled to any benefit or security under the Master Indenture except the right to receive payment from the moneys held by the Master Trustee or the paying agents and the amount of Obligation No. 7 so called for redemption shall be deemed paid and no longer outstanding.

Mortgages

General. To further secure the obligations of the Obligated Group under the Master Indenture, the certain Members of the Obligated Group have granted to the Master Trustee, by way of the Mortgages, a lien on the Mortgaged Property.

Releases, etc. Upon written request of the Credit Group Representative, the Master Trustee shall execute and deliver such releases, subordinations, requests for reconveyance, termination statements, or other instruments as may be reasonably requested by the Credit Group Representative in connection with (1) the disposition of the Mortgaged Property in accordance with provisions of the Master Indenture, (2) the withdrawal of an Obligated Group Member pursuant to provisions of the Master Indenture, and (3) the granting by an Obligated Group Member of any Lien which constitutes a Permitted Lien under the Master Indenture that is not junior to the Lien granted to the Master Trustee, as certified to the Master Trustee in writing by the Credit Group Representative.

Amendments. The Master Trustee and the Credit Group Representative may agree to amendments to the Mortgage without the consent of or notice to any of the Holders of Obligation No. 7 for one or more of the following purposes:

(A) to cure ambiguity or formal defect or omission in the Mortgages and which shall not materially adversely affect the interests of the Holders of Obligation No. 7; and

(B) to correct or supplement any provision in the Mortgages which may be inconsistent with any other provision in the Mortgages, or to make any other provisions with respect to matters or questions arising under the Mortgages and which shall not materially adversely affect the interests of the Holders of Master Indenture Obligations.

The Master Trustee and the Credit Group Representative may agree to any other amendments to the Mortgages with the consent of the Holders of Obligation No. 7.

Other Actions of the Master Trustee as Mortgagee. The Master Trustee shall also execute any consent, joinder, amendment, release, or other instrument requiring execution by the Master Trustee in its capacity as the Mortgagee in order to: (i) allow, provide for, or release any Permitted Lien; (ii) subject any additional property of an Obligated Group Member to the lien of the Mortgages or modify, clarify, correct, or properly reflect the description of the property subject to the Mortgages; (iii) preserve the lien of the Mortgages or provide for the Mortgages (or replacement thereof); (iv) properly reflect the identities of the Mortgagor or Mortgagee; (v) release the lien of the Mortgages upon the discharge of Obligation No. 7; or (vi) provide or execute estoppel certificates and nondisturbance agreements requested by the Credit Group Representative. The consent or approval of the Holders of Obligation No. 7 shall not be required in connection with items (i) through (vi) above. For purposes of determining whether the Master Trustee may execute any such consent, joinder, amendment, or other instrument, the Master Trustee may conclusively rely on an Officer's Certificate stating that: (x) the execution of such instrument is necessary or advisable in connection with the use, ownership, or operation of the Mortgaged Property; and (y) the execution and delivery of such instrument by the Master Trustee will not materially adversely affect the interests of the Holders of Obligation No. 7.

APPENDIX D

SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT

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APPENDIX D

SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT

The following are summaries of certain provisions of the Bond Indenture and the Loan Agreement. These summaries do not purport to be complete or definitive and are qualified in their entireties by reference to the full terms of such documents. All capitalized terms used in this Summary of Certain Provisions of the Bond Indenture and the Loan Agreement and not defined herein have the same meanings as in the Bond Indenture.

DEFINITIONS

The following are summaries of definitions of certain terms used in this Summary of Certain Provisions of the Bond Indenture and the Loan Agreement.

"Additional Payments" means the payments so designated and required to be made by the Corporation pursuant to the Loan Agreement. See "LOAN AGREEMENT –Payments."

"Administrative Fees and Expenses" means any application, commitment, financing or similar fee charged or reimbursement for administrative or other expenses incurred by the Authority or the Bond Trustee, including Additional Payments.

"Authority" means the Allegheny County Hospital Development Authority, or its successors and assigns.

"Authorized Representative" means with respect to the Corporation or any Member, the chairman or president of its Governing Board, its chief executive officer or its chief financial officer, or any other person designated as an Authorized Representative by a Certificate signed by one of the above parties and filed with the Bond Trustee.

"Authorized Signatory" means any member of the Board of the Authority and any other person as may be designated and authorized to sign on behalf of the Authority pursuant to a resolution adopted thereby.

"Beneficial Owner" means any Person which has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any of the Bonds (including any Person holding Bonds through nominees, depositories or other intermediaries).

"Bond Counsel" means Orrick, Herrington & Sutcliffe LLP or another attorney-at-law, or firm of such attorneys, of nationally recognized standing in matters pertaining to the tax-exempt nature of interest on obligations issued by states and their political subdivisions, and acceptable to the Authority.

"Bond Indenture" means the Bond Indenture, as originally executed or as it may from time to time be supplemented, modified or amended by any Supplemental Bond Indenture or otherwise in accordance with the terms of the Bond Indenture.

"Bond Trustee" means The Bank of New York Mellon Trust Company, N.A., a national banking association organized and existing under and by virtue of the laws of the United States, or its successor, as Bond Trustee as provided in the Bond Indenture.

"Bonds; Serial Bonds; Term Bonds" means the Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2018A, authorized by, and at any time Outstanding pursuant to, the Bond Indenture. "Serial Bonds" means the Bonds, each payable with respect to principal at their specified maturity date, for which no Mandatory Sinking Account Payments are provided, if any. "Term Bonds" means the Bonds payable at or before their specified maturity date or dates from Mandatory Sinking Account Payments established for the purpose and calculated to retire such Bonds on or before their specified maturity date or dates.

"Business Day" means any day other than (i) a Saturday or Sunday or (ii) a day on which banks located in (a) the Commonwealth of Pennsylvania or the State of New York, (b) the city or cities in which the Principal Office of the Bond Trustee is located are required or authorized to remain closed or (iii) a day on which The New York Stock Exchange or the Federal Reserve Bank is closed.

"Certificate," "Statement," "Request," "Requisition" and "Order" of the Authority or the Corporation, mean, respectively, a written certificate, statement, request, requisition or order signed in the name of the Authority by an Authorized Signatory of the Authority, or in the name of the Corporation by an Authorized Representative of the Corporation. Any such instrument and supporting opinions or representations, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined shall be read and construed as a single instrument. If and to the extent required, each such instrument shall include the statements provided for in the section of the Bond Indenture relating to the content of Certificates and Opinions.

"Code" means the Internal Revenue Code of 1986, as amended, or any successor statute thereto and any regulations promulgated thereunder.

"Continuing Disclosure Agreement" means that certain Continuing Disclosure Agreement, dated the Date of Issuance, between the Corporation and the dissemination agent named thereunder, as originally executed and as it may be amended in accordance with its terms.

"Corporation" means Allegheny Health Network, a nonprofit corporation organized and existing under the laws of the Commonwealth of Pennsylvania or any corporation that is the surviving, resulting or transferee corporation in any merger, consolidation or transfer of all or substantially all assets permitted under the Master Indenture.

"Date of Issuance" means the date on which the Bonds are initially issued.

"Event of Default" means any of the events specified under the Bond Indenture.

"Fitch" means Fitch, Inc., doing business as Fitch Ratings, a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, or, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Corporation by notice in writing to the Authority and the Bond Trustee.

"Governing Board" means the board of directors, board of trustees or other board or group of individuals in which the power of a corporation or other entity is vested, except for those powers

reserved to the corporate membership by the articles of incorporation or bylaws of such corporation or entity.

"Holder" or "Bondholder," whenever used in the Bond Indenture with respect to a Bond, means the Person in whose name such Bond is registered.

"Interest Account" means the account by that name established in the Revenue Fund pursuant to the Bond Indenture.

"Investment Securities" means any of the following:

(A) United States Government Obligations;

(B) Obligations of any of the following federal agencies which obligations represent the full faith and credit of the United States of America (including stripped securities if the agency has stripped them itself)

(1) U.S. Export-Import Bank (Eximbank Direct obligations or fully guaranteed certificates of beneficial ownership);

(2) Farmers Home Administration;

(3) Federal Financing Bank;

(4) Federal Housing Administration Debentures;

(5) General Services Administration;

(6) Government National Mortgage Association ("GNMA") (including guaranteed mortgage-backed bonds and guaranteed pass-through obligations);

(7) U.S. Maritime Administration (guaranteed Title XI financing); and

(8) U.S. Department of Housing and Urban Development (including project notes, local authority bonds, new communities debentures, U.S. government guaranteed debentures, U.S. Public Housing Notes and Bonds and U.S. government guaranteed public housing notes and bonds;

(C) Debentures, bonds, notes or other evidence of indebtedness issued or guaranteed by any of the following U.S. government agencies which obligations are not fully guaranteed by the full faith and credit of the United States of America (including stripped securities if the agency has stripped them itself):

(1) Federal Home Loan Bank System (senior debt obligations);

(2) Resolution Funding Corporation (REFCORP) obligations;

(3) Federal Home Loan Mortgage Corporation (FHLMC or "Freddie Mac") senior debt obligations or participation certificates;

(4) Federal National Mortgage Association (FNMA or "Fannie Mae") mortgage-backed securities and senior debt obligations;

(5) Farm Credit System – consolidated systemwide bonds and notes; and

(6) Senior debt obligations of other government sponsored agencies.

(D) Money market funds registered under the Federal Investment Company Act of 1940, whose shares are registered under the Federal Securities Act of 1933, and having a rating by S&P of AAAm-G, AAA-m or AA-m or, by Moody's, of Aaa, Aa1 or Aa2, including funds for which the Bond Trustee and its affiliates receives and retains fees for services provided to such funds, whether as a custodian, transfer agent, investment advisor or otherwise;

(E) Certificates of deposit secured at all times by collateral described in clause (A) above if issued by commercial banks, savings and loan associations or mutual savings banks; the collateral must be held by a third party and the Bond Trustee, on behalf of the Bondholders, must have a perfected first security interest in such collateral;

(F) Demand deposits, including interest bearing money market accounts, time deposits, trust funds, trust accounts, overnight bank deposits, interest-bearing deposits, other deposit products, certificates of deposit, including those placed by a third party pursuant to an agreement between the Bond Trustee and the Corporation, or bankers acceptances of depository institutions, including the Bond Trustee or any of its affiliates;

(G) Investment agreements, including GICs, forward purchase agreements and reserve fund put agreements (supported by appropriate opinions of counsel);

(H) Commercial paper which is rated at the time of purchase "P-1" or better by Moody's or "A-1" or better by S&P;

(I) Municipal obligations issued by any state or municipality with a rating by both Moody's and S&P in one of the two highest Rating Categories by such rating agencies; and

(J) Federal funds or bankers acceptances with a maximum term of one year of any bank which has an unsecured, uninsured and unguaranteed obligation rating of "Prime – 1" or "A3" or better by Moody's and "A-1" or "A" or better by S&P.

"Loan Default Event" means any of the events specified in the Loan Agreement.

"Loan Repayments" means the payments so designated and required to be made by the Corporation pursuant to the Loan Agreement. See "LOAN AGREEMENT – Loan of Proceeds; Payments for Principal (or Redemption Price) and Interest."

"Mandatory Sinking Account Payment" means the amount required by the Bond Indenture to be paid on any single date for the retirement of Term Bonds.

"Master Indenture" means that certain master trust indenture, dated as of December 1, 2017, between the Corporation, the other Members, and the Master Trustee, as it may from time to time be supplemented, modified or amended in accordance with the terms of the Master Indenture.

"Master Trustee" means The Bank of New York Mellon Trust Company, N.A., a national banking association duly organized and existing under the laws of the United States of America, or its successor, as successor master trustee under the Master Indenture.

"Member" means the Corporation and each other Person that is then obligated as a Member under and as defined in the Master Indenture.

"Moody's" means Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and assigns, or, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Corporation by notice in writing to the Authority and the Bond Trustee.

"Opinion of Counsel" means a written opinion of counsel (who may be counsel for the Authority, the Bond Trustee or the Corporation or Bond Counsel) selected by the Corporation and not objected to by the Authority or the Bond Trustee. If and to the extent required, each Opinion of Counsel shall include the statements provided for in the section of the Bond Indenture relating to the content of Certificates and Opinions.

"Optional Redemption Account" means the account by that name in the Redemption Fund established pursuant to the Bond Indenture.

"Outstanding," when used with respect to the Bond Indenture and when used as of any particular time with reference to Bonds, means (subject to the provisions of the Bond Indenture relating to disqualified Bonds) all Bonds theretofore, or thereupon being, authenticated and delivered by the Bond Trustee under the Bond Indenture except: (1) Bonds theretofore cancelled by the Bond Trustee or surrendered to the Bond Trustee for cancellation; (2) Bonds with respect to which all liability of the Authority shall have been discharged in accordance with the provisions of the Bond Indenture described under "BOND INDENTURE – Discharge of Liability on Bonds," including Bonds (or portions of Bonds) referred to in the provisions of the Bond Indenture relating to money held for particular Bonds; and (3) Bonds for the transfer or exchange of or in lieu of or in substitution for which other Bonds shall have been authenticated and delivered by the Bond Trustee pursuant to the Bond Indenture.

"Person" means, with respect to the Bond Indenture, an individual, corporation, firm, association, partnership, limited liability company, trust or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.

"Principal Account" means the account by that name established in the Revenue Fund pursuant to the Bond Indenture.

"Principal Office" means, with respect to the Bond Trustee or the Master Trustee, the designated corporate trust office of the Bond Trustee or the Master Trustee, which as of the date thereof, is located at the Corporate Trust Office.

"Rating Agency" means S&P, Moody's and Fitch, as applicable, but only to the extent then providing a rating on the Bonds at the request of the Corporation.

"Rebate Fund" means the fund by that name established pursuant to the Bond Indenture.

"Redemption Fund" means the fund by that name established pursuant to the Bond Indenture.

"Redemption Price" means, with respect to any Bond (or portion thereof), the principal amount of such Bond (or portion) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and the Bond Indenture.

"Revenue Fund" means the fund by that name established pursuant to the Bond Indenture.

"Revenues" means all amounts received by the Authority or the Bond Trustee for the account of the Authority pursuant or with respect to the Loan Agreement and Obligation No. 7, including, without limiting the generality of the foregoing, Loan Repayments (including both timely and delinquent payments and any late charges, and whether paid from any source), prepayments, insurance proceeds, condemnation proceeds and all interest, profits or other income derived from the investment of amounts in any fund or account established pursuant to the Bond Indenture, but not including any Administrative Fees and Expenses, or any amounts paid by the Corporation pursuant to the Loan Agreement or any moneys required to be deposited in the Rebate Fund.

"Sinking Accounts" means the subaccounts in the Principal Account so designated and established pursuant to the Bond Indenture.

"S&P" means S&P Global Ratings, its successors and their assigns, or, if such shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Corporation by notice in writing to the Authority and the Bond Trustee.

"Special Redemption Account" means the account by that name in the Redemption Fund established pursuant to the Bond Indenture.

"Supplemental Bond Indenture" means any indenture thereafter duly authorized and entered into between the Authority and the Bond Trustee, supplementing, modifying or amending the Bond Indenture; but only if and to the extent that such Supplemental Bond Indenture is specifically authorized under the Bond Indenture.

"Tax Agreement" means the Tax Certificate and Agreement delivered by the Authority and the Corporation at the Date of Issuance, as the same may be amended or supplemented in accordance with its terms.

"2018 Plan of Finance" means the refunding, on a current refunding basis, of all of the following issue of bonds (the "Prior Bonds"):

(A) Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017A;

(B) Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017B;

(C) Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017C; and

(D) Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2017D.

"United States Government Obligations" means noncallable direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of Treasury of the United States of America) and obligations of any agency or instrumentality of the United States of America the timely payment of the principal of and interest on which are unconditionally guaranteed by the United States of America.

BOND INDENTURE

General

The Bond Indenture sets forth the terms of the Bonds authorized thereunder, the application of such Bond proceeds, the nature and extent of the security for the Bonds, various rights of the Bondholders, rights, duties and immunities of the Bond Trustee and the rights and obligations of the Authority. Certain provisions of the Bond Indenture are summarized below. Other provisions are summarized in this Official Statement under the captions "THE BONDS" and "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS." This summary does not purport to be complete or definitive and is qualified in its entirety by reference to the full terms of the Bond Indenture.

Pledge and Assignment; Revenue Fund

Subject only to the provisions of the Bond Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Bond Indenture, there are pledged to secure the payment of the principal (and Redemption Price) of and interest on the Bonds in accordance with their terms and the provisions of the Bond Indenture, all of the Revenues and any other amounts (including proceeds of the sale of Bonds) held in any fund or account established pursuant to the Bond Indenture (other than the Rebate Fund).

The Authority transfers in trust, grants a security interest in and assigns to the Bond Trustee, for the benefit of the Holders from time to time of the Bonds, all of the Authority's right, title and interest, whether now owned or thereafter acquired, in and to the Revenues and other assets pledged in the Bond Indenture and all of the right, title and interest of the Authority in the Loan Agreement (except for (i) the right to receive any Additional Payments or Administrative Fees and Expenses to the extent payable to the Authority and (ii) any rights of the Authority to receive any amounts paid by the Corporation pursuant to the Loan Agreement) and Obligation No. 7. The Bond Trustee shall be entitled to and shall collect and receive all of the Revenues, and any Revenues collected or received by the Authority shall be deemed to be held, and to have been collected or received, by the Authority as the agent of the Bond Trustee and shall forthwith be paid by the Authority to the Bond Trustee. The Bond Trustee shall also be entitled to and subject to the provisions of the Bond Indenture, shall take all steps, actions and proceedings reasonably necessary in its judgment to enforce all of the rights of the Authority and all of the obligations of the Corporation under the Loan Agreement and all of the obligations of the Members under Obligation No. 7 other than those rights retained by the Authority.

All Revenues shall be promptly deposited by the Bond Trustee upon receipt thereof in a special fund designated as the "Revenue Fund" which the Bond Trustee shall establish, maintain and hold in trust, except as otherwise provided in the Bond Indenture described below in "—Rebate Fund" and "—Investment of Moneys in Funds and Accounts" and except that all moneys received by the Bond Trustee and required to be deposited in the Redemption Fund shall be promptly deposited in the Redemption

Fund, which the Bond Trustee shall establish, maintain and hold in trust. All Revenues deposited with the Bond Trustee shall be held, disbursed, allocated and applied by the Bond Trustee only as provided in the Bond Indenture.

The Authority shall cause to be filed a Uniform Commercial Code financing statement in the form attached to the Bond Indenture. No Person, including but not limited to the Authority and the Bond Trustee, is taking responsibility that the form of the initial Uniform Commercial Code financing statement attached to the Bond Indenture is sufficient to perfect or maintain the perfection and the priority of the security interest granted pursuant to the Bond Indenture (or the accuracy or sufficiency of any description of collateral in such initial filing). Under the Bond Indenture, the Authority irrevocably authorizes the Bond Trustee, and the Bond Trustee agrees, to cause to be filed a continuation statement with respect to each Uniform Commercial Code financing statement relating to such security interest and naming the Bond Trustee as the secured party, in such manner and in such places as the initial filings (copies of which shall be provided to the Bond Trustee by the Authority) were made. The Corporation shall be responsible for the reasonable costs incurred by the Authority and the Bond Trustee in the preparation and filing of the initial Uniform Commercial Code financing statement and all such continuation statements under the Bond Indenture. No Person (other than the Bond Trustee) shall be responsible for filing continuation statements. Notwithstanding anything to the contrary contained in the Bond Indenture, no Person shall be responsible for taking any other actions with respect to the perfection or the maintenance of the perfection or the priority of any security interest granted pursuant to the Bond Indenture. Notwithstanding anything to the contrary contained in the Bond Indenture, the Bond Trustee shall not be responsible for filing any modifications or amendments to the initial filings required by any amendments to Article 9 of the Uniform Commercial Code, and unless the Bond Trustee shall have received written notification from any Beneficial Owner, the Authority or the Corporation that any such initial filing or description of collateral was or has become defective, the Bond Trustee shall be fully protected in relying on such initial filing and descriptions in filing any continuation statements or modifications thereto pursuant to this paragraph and in filing any continuation statements in the same filing offices as the initial filings were made.

Allocation of Revenues

On or before the Business Day next preceding each Interest Payment Date or Principal Payment Date, the Bond Trustee shall transfer from the Revenue Fund and deposit into the following respective accounts (each of which the Bond Trustee shall establish and maintain within the Revenue Fund), the following amounts, in the following order of priority, the requirements of each such account (including the making up of any deficiencies in any such account resulting from lack of Revenues sufficient to make any earlier required deposit) at the time of deposit to be satisfied before any transfer is made to any account subsequent in priority:

First: to the Interest Account, the aggregate amount of interest becoming due and payable on the next Interest Payment Date on all Bonds then Outstanding, until the balance in said account is equal to said aggregate amount of interest; and

Second: to the Principal Account, the aggregate amount of principal becoming due and payable on the next Principal Payment Date on the Outstanding Serial Bonds plus the aggregate amount of Mandatory Sinking Account Payments required to be paid into each Sinking Account for Outstanding Term Bonds on the next Principal Payment Date, until the balance in said Principal Account is equal to said aggregate amount of such principal and Mandatory Sinking Account Payments.

Any moneys remaining in the Revenue Fund after any of the foregoing transfers shall be transferred to the Corporation as an overpayment of Loan Repayments.

Application of Interest Account

All amounts in the Interest Account shall be used and withdrawn by the Bond Trustee solely for the purpose of paying interest on the Bonds as it shall become due and payable (including accrued interest on any Bonds purchased or redeemed prior to maturity pursuant to the Bond Indenture).

Application of Principal Account

All amounts in the Principal Account shall be used and withdrawn by the Bond Trustee solely for the purpose of paying the principal of the Bonds when due and payable, except that all amounts in a Sinking Account shall be used and withdrawn by the Bond Trustee to purchase or redeem or pay at maturity Term Bonds, as provided in the Bond Indenture.

The Bond Trustee shall establish and maintain within the Principal Account separate subaccounts for each maturity of Term Bonds designated as the "_____ Sinking Account." With respect to each Sinking Account, on each Mandatory Sinking Account Payment date established for such Sinking Account, the Bond Trustee shall transfer the amount deposited in the Principal Account pursuant to the provisions of the Bond Indenture described above in "—Allocation of Revenues" for the purpose of making a Mandatory Sinking Account Payment from the Principal Account to the applicable Sinking Account. On each Mandatory Sinking Account Payment date, the Bond Trustee shall apply the Mandatory Sinking Account Payment required on that date to the redemption (or payment at maturity, as the case may be) of Bonds of the maturity for which such Sinking Account was established, upon the notice and in the manner provided in the Bond Indenture; provided that, at any time prior to giving such notice of such redemption, the Bond Trustee shall apply such moneys to the purchase of Bonds of such maturity at public or private sale, as and when and at such prices (including brokerage and other charges, but excluding accrued interest, which is payable from the Interest Account) as the Corporation may direct, in writing, except that the purchase price (excluding accrued interest) shall not exceed the par amount of such Bonds. If, during the twelve-month period immediately preceding said Mandatory Sinking Account Payment date, the Bond Trustee has purchased Bonds of the maturity for which such Sinking Account was established with moneys in the Sinking Account, or, during said period and prior to giving said notice of redemption, the Corporation has deposited Bonds of such maturity with the Bond Trustee, or Bonds of such maturity were at any time purchased or redeemed by the Bond Trustee from the Redemption Fund and allocable to said Mandatory Sinking Account Payment, such Bonds so purchased or deposited or redeemed shall be applied, to the extent of the full principal amount thereof, to reduce said Mandatory Sinking Account Payment. All Bonds purchased or deposited as described in this section shall be delivered to the Bond Trustee and cancelled. Any amounts remaining in the Sinking Account when all of the Bonds of the maturity for which such Sinking Account was established are no longer Outstanding shall be withdrawn by the Bond Trustee and transferred to the Revenue Fund. All Bonds purchased from the Sinking Account or deposited by the Corporation with the Bond Trustee shall be allocated first to the next succeeding Mandatory Sinking Account Payment, then to the remaining Mandatory Sinking Account Payments as the Corporation directs.

Application of Redemption Fund

The Bond Trustee shall establish and maintain within the Redemption Fund a separate Optional Redemption Account and a separate Special Redemption Account and shall accept all moneys

deposited for redemption and shall deposit such moneys into said accounts, as applicable. All amounts deposited in the Optional Redemption Account and in the Special Redemption Account shall be accepted and used and withdrawn by the Bond Trustee solely for the purpose of redeeming Bonds, in the manner and upon the terms and conditions specified in the Bond Indenture, at the next succeeding date of redemption for which notice has not been given and at the Redemption Prices then applicable to redemptions from the Optional Redemption Account and the Special Redemption Account, respectively; provided that, at any time prior to giving such notice of redemption, the Bond Trustee shall, upon written direction of the Corporation, apply such amounts to the purchase of Bonds at public or private sale, as and when and at such prices (including brokerage and other charges, but excluding accrued interest, which is payable from the Interest Account) as the Corporation may direct, except that the purchase price (exclusive of accrued interest) may not exceed the Redemption Price then applicable to such Bonds (or, if such Bonds are not then subject to redemption, the par value of such Bonds); and provided further that in lieu of redemption at such next succeeding date of redemption, or in combination therewith, amounts in such account may be transferred to the Revenue Fund and credited against Loan Repayments in order of their due date as set forth in a Request of the Corporation.

Rebate Fund

The Bond Trustee shall establish and maintain a fund separate from any other fund established and maintained under the Bond Indenture designated as the Rebate Fund. Within the Rebate Fund, the Bond Trustee shall maintain such accounts as shall be specified in the Bond Indenture and as directed in writing by the Corporation, which directions shall comply with the Tax Agreement. Subject to the transfer provisions provided in the Bond Indenture, all money at any time deposited in the Rebate Fund shall be held by the Bond Trustee in trust, to the extent required to satisfy the Rebate Requirement (as defined in the Tax Agreement), for payment to the federal government of the United States of America. None of the Authority, the Corporation, or the Holder of any Bonds shall have any rights in or claim to such money.

Investment of Moneys in Funds and Accounts

All moneys in any of the funds and accounts established pursuant to the Bond Indenture shall be invested and reinvested by the Bond Trustee, upon the written direction of the Corporation, solely in Investment Securities. The Bond Trustee shall acquire such Investment Securities upon the written direction of the Corporation at such prices and on such terms as directed by the Corporation. The Bond Trustee shall be entitled to rely upon any investment direction provided to it under the Bond Indenture as a certification to the Bond Trustee that such investment constitutes an Investment Security. In the absence of written investment directions from the Corporation, the Bond Trustee shall hold such funds uninvested. All Investment Securities shall be acquired subject to the limitations set forth in the tax covenants section of the Bond Indenture, the limitations as to maturities described below and such additional limitations or requirements consistent with the foregoing as may be established by Request of the Corporation. In no event shall the Authority bear any liability in connection with the investment of moneys in the funds and accounts established pursuant to the Bond Indenture.

Moneys in all funds and accounts shall be invested in Investment Securities maturing not later than the date on which it is estimated that such moneys will be required for the purposes specified in the Bond Indenture. Investment Securities purchased under a repurchase agreement or constituting an investment contract may be deemed to mature on the date or dates on which the Bond Trustee may deliver such Investment Securities for repurchase under such agreement. Investment Securities that are registrable securities shall be registered in the name of the Bond Trustee or its nominee.

All interest, profits and other income received from the investment of moneys in any fund or account established pursuant to the Bond Indenture shall be deposited when received in the Revenue Fund. Notwithstanding anything to the contrary contained in this paragraph, an amount of interest received with respect to any Investment Security equal to the amount of accrued interest, if any, paid as part of the purchase price of such Investment Security shall be credited to the fund or account for the credit of which such Investment Security was acquired. Investment Securities acquired as an investment of moneys in any fund or account established under the Bond Indenture shall be credited to such fund or account. For the purpose of determining the amount in any such fund or account, all Investment Securities credited to such fund or account shall be valued at market value.

The Bond Trustee may commingle any of the funds or accounts established pursuant to the Bond Indenture into a separate fund or funds for investment purposes only, provided that all funds or accounts held by the Bond Trustee under the Bond Indenture shall be accounted for separately as required by the Bond Indenture. The Bond Trustee or any of its affiliates may act as principal or agent in the making or disposing of any investment. The Bond Trustee may sell or present for redemption, any Investment Securities so purchased whenever it shall be necessary to provide moneys to meet any required payment, transfer, withdrawal or disbursement from the fund or account to which such Investment Security is credited, and, subject to the provisions of the Bond Indenture relating to the liability of the Bond Trustee, the Bond Trustee shall not be liable or responsible for any loss resulting from any investment made in accordance with the provisions described in this section. The Bond Trustee may purchase or sell to itself or any affiliate, as principal or agent, investments authorized by the Bond Indenture.

Amendment of Loan Agreement

Except as provided in the next paragraph, the Authority shall not amend, modify or terminate any of the terms of the Loan Agreement, or consent to any such amendment, modification or termination unless the written consent of the Holders of a majority in principal amount of the Bonds then Outstanding to such amendment, modification or termination is filed with the Bond Trustee, provided that no such amendment, modification or termination shall reduce the amount of Loan Repayments to be made to the Authority or the Bond Trustee by the Corporation pursuant to the Loan Agreement, or extend the time for making such payments, without the written consent of all of the Holders of the Bonds then Outstanding.

Notwithstanding the provisions of the preceding paragraph, the terms of the Loan Agreement may also be modified or amended from time to time and at any time by the Authority, but without the necessity of obtaining the consent of any Bondholders, only to the extent permitted by law and only for any one or more of the following purposes:

(1) to add to the covenants and agreements of the Authority or the Corporation contained in the Loan Agreement other covenants and agreements thereafter to be observed, to pledge or assign additional security for the Bonds (or any portion thereof), or to surrender any right or power therein reserved to or conferred upon the Authority or the Corporation, provided, that no such covenant, agreement, pledge, assignment or surrender shall materially adversely affect the interests of the Holders of the Bonds;

(2) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Loan Agreement, or in regard to matters or questions arising under the Loan Agreement, as the Authority may deem necessary or desirable and not inconsistent with the Loan Agreement or the

Bond Indenture, and which shall not materially adversely affect the interests of the Holders of the Bonds;

(3) to maintain the exclusion from gross income of interest payable with respect to the Bonds; or

(4) to make any other amendment that does not materially adversely affect the interests of the Holders of the Bonds.

Events of Default

Events of Default under the Bond Indenture include: (A) default in the due and punctual payment of the principal or Redemption Price of any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, by acceleration or otherwise, or default in the redemption from the Sinking Account of any Bonds in the amounts and at the times provided therefor; (B) default in the due and punctual payment of any installment of interest on any Bond when and as such interest installment shall become due and payable; (C) default in any material respect by the Authority in the observance of any of the other covenants, agreements or conditions on its part contained in the Bond Indenture or in the Bonds, if such default shall have continued for a period of sixty (60) days after written notice thereof, specifying such default and requiring the same to be remedied, shall have been given to the Authority and the Corporation by the Bond Trustee, or to the Authority, the Corporation and the Bond Trustee by the Holders of not less than twenty-five percent (25%) in aggregate principal amount of the Bonds at the time Outstanding; or (D) a Loan Default Event.

Acceleration of Maturities

Whenever any Event of Default referred to in the Events of Default section of the Bond Indenture shall have happened and be continuing, the Bond Trustee may take the following remedial steps:

(A) In the case of an Event of Default of the type described in clauses (A) or (B) under "Events of Default" above, the Bond Trustee may, and upon the direction of the Holders of not less than a majority in aggregate principal amount then Outstanding shall, notify the Master Trustee of such Event of Default, may make a demand for payment under Obligation No. 7 and request the Master Trustee in writing to give notice to the Members pursuant to the "Acceleration; Annulment of Acceleration" section of the Master Indenture declaring the principal of all Obligations (as defined in the Master Indenture) issued under the Master Indenture then outstanding to be due and immediately payable. Upon such declaration by the Master Trustee, the Bond Trustee shall declare the principal of all the Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable, anything in the Bond Indenture to the contrary notwithstanding. In addition, the Bond Trustee may take whatever action at law or in equity is necessary or desirable to collect the payments due under Obligation No. 7;

(B) In the case of an Event of Default of the type described in clause (C) under "Events of Default" above, the Bond Trustee may take whatever action at law or in equity is necessary or desirable to enforce the performance, observance or compliance by the Authority with any covenant, condition or agreement by the Authority under the Bond Indenture; and

(C) In the case of an Event of Default of the type described in clause (D) under "Events of Default" above, the Bond Trustee may take whatever action the Authority would be entitled to

take, and shall take whatever action the Authority would be required to take, pursuant to the Loan Agreement in order to remedy the Loan Default Event.

Notwithstanding any other provision of the Bond Indenture or any right, power or remedy existing at law or in equity or by statute, the Bond Trustee shall not under any circumstance in which an Event of Default has occurred declare the entire unpaid aggregate principal amount of the Bonds Outstanding to be immediately due and payable except in the event that the Master Trustee shall have declared the principal amount of Obligation No. 7 and all interest due thereon immediately due and payable in accordance with the Master Indenture.

Any such declaration, however, is subject to the condition that if, at any time after such declaration and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the Authority or the Corporation shall deposit with the Bond Trustee a sum sufficient to pay all the principal or Redemption Price of, Mandatory Sinking Account Payments and installments of interest on the Bonds, payment of which is overdue, with interest on such overdue principal at the rate borne by the respective Bonds, and the reasonable charges and expenses of the Bond Trustee, and if the Bond Trustee has received notification from the Master Trustee that the declaration of acceleration of Obligation No. 7 has been annulled pursuant to the Master Indenture and any and all other defaults known to the Bond Trustee (other than in the payment of principal of and interest on the Bonds due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Bond Trustee or provision deemed by the Bond Trustee to be adequate shall have been made therefor, then, and in every such case, the Bond Trustee shall, on behalf of the Holders of all of the Bonds, rescind and annul such declaration and its consequences and waive such default; but no such rescission and annulment shall extend to or shall affect any subsequent default, or shall impair or exhaust any right or power consequent thereon.

Notwithstanding anything to the contrary in the Bond Indenture, the Authority shall have no obligation to and instead the Bond Trustee may, without further direction from the Authority, take any and all steps, actions and proceedings, to enforce any or all rights of the Authority (other than those specifically retained by the Authority pursuant to the provisions of the Bond Indenture described above in "—Pledge and Assignment; Revenue Fund") under the Bond Indenture or the Loan Agreement, including, without limitation, the rights to enforce the remedies upon the occurrence and continuation of an Event of Default and the obligations of the Corporation under the Loan Agreement.

Nothing contained in the Bond Indenture, however, shall require the Bond Trustee to exercise any remedies in connection with an Event of Default unless the Bond Trustee shall have actual knowledge or shall have received written notice of such Event of Default, the Bond Trustee has received indemnity satisfactory to it, and the Bond Trustee has received written direction from the Holders of a majority in aggregate principal amount of the Bonds Outstanding.

Application of Revenues and Other Funds After Default

If an Event of Default shall occur and be continuing, all Revenues and any other funds then held or thereafter received by the Bond Trustee under any of the provisions of the Bond Indenture (subject to the provisions of the Bond Indenture relating to money held for particular Bonds and other than moneys required to be deposited in the Rebate Fund) shall be applied by the Bond Trustee as follows and in the following order:

(A) To the payment of any expenses necessary in the opinion of the Bond Trustee to protect the interests of the Holders of the Bonds and payment of reasonable fees, charges and expenses of

the Bond Trustee (including reasonable fees and disbursements of its counsel) incurred in and about the performance of its powers and duties under the Bond Indenture;

(B) To the payment of the principal or Redemption Price of and interest then due on the Bonds (upon presentation of the Bonds to be paid, and stamping thereon of the payment if only partially paid, or surrender thereof if fully paid) subject to the provisions of the Bond Indenture (including the section of the Bond Indenture restricting the extension of payment of the Bonds), as follows:

(1) Unless the principal of all of the Bonds shall have become or have been declared due and payable,

First: To the payment to the Persons entitled thereto of all installments of interest then due in the order of the maturity of such installments, and, if the amount available shall not be sufficient to pay in full any installment or installments maturing on the same date, then to the payment thereof ratably, according to the amounts due thereon, to the Persons entitled thereto, without any discrimination or preference; and

Second: To the payment to the Persons entitled thereto of the unpaid principal (including Mandatory Sinking Account Payments) or Redemption Price of any Bonds that shall have become due, whether at maturity or by call for redemption, in the order of their due dates, with interest on the overdue principal at the rate borne by the respective Bonds, and, if the amount available shall not be sufficient to pay in full all the Bonds due on any date, together with such interest, then to the payment thereof ratably, according to the amounts of principal or Redemption Price due on such date to the Persons entitled thereto, without any discrimination or preference.

(2) If the principal of all of the Bonds shall have become or have been declared due and payable, to the payment of the principal and interest then due and unpaid upon the Bonds, with interest on the overdue principal at the rate borne by the respective Bonds, and, if the amount available shall not be sufficient to pay in full the whole amount so due and unpaid, then to the payment thereof ratably, without preference or priority of principal over interest, or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, according to the amounts due respectively for principal and interest, to the Persons entitled thereto without any discrimination or preference.

Bond Trustee to Represent Bondholders

The Bond Trustee is irrevocably appointed under the Bond Indenture (and the successive respective Holders of the Bonds, by taking and holding the same, shall be conclusively deemed to have so appointed the Bond Trustee) as trustee and true and lawful attorney-in-fact of the Holders of the Bonds for the purpose of exercising and prosecuting on their behalf such rights and remedies as may be available to such Holders under the provisions of the Bonds, the Bond Indenture, the Loan Agreement, Obligation No. 7, the Act and applicable provisions of any other law. Upon the occurrence and continuance of an Event of Default or other occasion giving rise to a right in the Bond Trustee to represent the Bondholders, the Bond Trustee in its discretion may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding, and upon being indemnified to its satisfaction therefor, shall, proceed to protect or enforce its rights or the rights of such Holders by such appropriate action, suit, mandamus or other proceedings as it shall deem most effectual to protect and enforce any such right, at law or in equity, either for the specific performance of any covenant or agreement contained in the Bond Indenture, or in aid of the execution of any power granted in the Bond

Indenture, or for the enforcement of any other appropriate legal or equitable right or remedy vested in the Bond Trustee, in such Holders under the Bond Indenture, the Loan Agreement, Obligation No. 7, the Act or any other law; and upon instituting such proceeding, the Bond Trustee shall be entitled, as a matter of right, to the appointment of a receiver of the Revenues and other assets pledged under the Bond Indenture, pending such proceedings. All rights of action under the Bond Indenture or the Bonds or otherwise may be prosecuted and enforced by the Bond Trustee without the possession of any of the Bonds or the production thereof in any proceeding relating thereto, and any such suit, action or proceeding instituted by the Bond Trustee shall be brought in the name of the Bond Trustee for the benefit and protection of all the Holders of such Bonds, subject to the provisions of the Bond Indenture (including the section of the Bond Indenture restricting the extension of payment of the Bonds).

Bondholders' Direction of Proceedings

Anything in the Bond Indenture to the contrary notwithstanding, the Holders of a majority in aggregate principal amount of the Bonds then Outstanding shall have the right, by an instrument or concurrent instruments in writing executed and delivered to the Bond Trustee, to direct the method of conducting all remedial proceedings taken by the Bond Trustee under the Bond Indenture, provided that such direction shall not be otherwise than in accordance with law and the provisions of the Bond Indenture, and that the Bond Trustee shall have the right to decline to follow any such direction that in the opinion of the Bond Trustee would be unjustly prejudicial to Bondholders not parties to such direction.

Limitation on Bondholders' Right to Sue

No Holder of any Bond shall have the right to institute any suit, action or proceeding at law or in equity, for the protection or enforcement of any right or remedy under the Bond Indenture, the Loan Agreement, Obligation No. 7 or any other applicable law with respect to such Bond, unless (1) such Holder shall have given to the Bond Trustee written notice of the occurrence of an Event of Default; (2) the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding shall have made written request upon the Bond Trustee to exercise the powers granted in the Bond Indenture or to institute such suit, action or proceeding in its own name; (3) such Holder or said Holders shall have tendered to the Bond Trustee reasonable indemnity satisfactory to it against the costs, expenses and liabilities to be incurred in compliance with such request; and (4) the Bond Trustee shall have refused or omitted to comply with such request for a period of sixty (60) days after such written request shall have been received by, and said tender of indemnity shall have been made to, the Bond Trustee.

Such notification, request, tender of indemnity and refusal or omission are declared by the Bond Indenture, in every case, to be conditions precedent to the exercise by any Holder of Bonds of any remedy under the Bond Indenture or under law; it being understood and intended that no one or more Holders of Bonds shall have any right in any manner whatever by such Holder's or Holders' action to affect, disturb or prejudice the security of the Bond Indenture or the rights of any other Holders of Bonds, or to enforce any right under the Bond Indenture, the Loan Agreement, Obligation No. 7, the Act or other applicable law with respect to the Bonds, except in the manner provided in the Bond Indenture, and that all proceedings at law or in equity to enforce any such right shall be instituted, had and maintained in the manner provided in the Bond Indenture and for the benefit and protection of all Holders of the Outstanding Bonds, subject to the provisions of the Bond Indenture (including the section of the Bond Indenture restricting the extension of payment of the Bonds).

Modification or Amendment of the Bond Indenture

The Bond Indenture and the rights and obligations of the Authority, of the Bond Trustee and of the Holders of the Bonds may be modified or amended from time to time and at any time by a Supplemental Bond Indenture, which the Authority and the Bond Trustee may enter into with the written consent of the Corporation when the written consent of the Holders of a majority in aggregate principal amount of the Bonds then Outstanding shall have been filed with the Bond Trustee. No such modification or amendment shall (1) extend the fixed maturity of any Bond, or reduce the amount of principal thereof, or reduce the amount of any Mandatory Sinking Account Payment, or extend the time of payment thereof, or reduce the rate of interest thereon, or extend the time of payment of interest thereon or reduce any premium payable upon the redemption thereof, without the consent of the Holder of each Bond so affected, or (2) reduce the aforesaid percentage of Bonds the consent of the Holders of which is required to effect any such modification or amendment, or permit the creation of any lien on the Revenues and other assets pledged under the Bond Indenture prior to or on a parity with the lien created by the Bond Indenture, or deprive the Holders of the Bonds of the lien created by the Bond Indenture on such Revenues and other assets (except as expressly provided in the Bond Indenture), without the consent of the Holders of all Bonds then Outstanding. It shall not be necessary for the consent of the Bondholders to approve the particular form of any Supplemental Bond Indenture, but it shall be sufficient if such consent shall approve the substance thereof. Promptly after the execution by the Authority and the Bond Trustee of any Supplemental Bond Indenture pursuant to the Bond Indenture, the Bond Trustee shall mail a notice, setting forth in general terms the substance of such Supplemental Bond Indenture to the Bondholders at the addresses shown on the registration books maintained by the Bond Trustee. Any failure to give such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such Supplemental Bond Indenture.

The Bond Indenture and the rights and obligations of the Authority, of the Bond Trustee and of the Holders of the Bonds may also be modified or amended from time to time and at any time by a Supplemental Bond Indenture, which the Authority and the Bond Trustee may enter into without the consent of any Bondholders, but with the written consent of the Corporation, but only to the extent permitted by law and only for any one or more of the following purposes: (1) to add to the covenants and agreements of the Authority in the Bond Indenture contained other covenants and agreements thereafter to be observed, to pledge or assign additional security for the Bonds (or any portion thereof), or to surrender any right or power reserved to or conferred upon the Authority, provided, that no such covenant, agreement, pledge, assignment or surrender shall materially adversely affect the interests of the Holders of the Bonds; (2) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Bond Indenture, or in regard to matters or questions arising under the Bond Indenture, as the Authority, the Corporation or the Bond Trustee may deem necessary or desirable and not inconsistent with the Bond Indenture, and which shall not materially adversely affect the interests of the Holders of the Bonds; (3) to modify, amend or supplement the Bond Indenture in such manner as to permit the qualification of the Bond Indenture under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect, and to add such other terms, conditions and provisions as may be permitted by said act or similar federal statute, and which shall not materially adversely affect the interests of the Holders of the Bonds; (4) to maintain the exclusion from gross income for federal income tax purposes of the interest on the Bonds, including the amendment of any Tax Agreement; or (5) to make any other changes which will not materially adversely affect the interests of the Holders of the Bonds.

Discharge of Bond Indenture

The Bonds may be paid by the Authority or the Bond Trustee on behalf of the Authority in any of the following ways: (a) by paying or causing to be paid the principal or Redemption Price of and interest on all Bonds Outstanding, as and when the same become due and payable; (b) by depositing with the Bond Trustee, in trust, at or before maturity, moneys or securities in the necessary amount (as provided in the section of the Bond Indenture described below in "—Deposit of Money or Securities with Bond Trustee") to pay when due or redeem all Bonds then Outstanding; or (c) by delivering to the Bond Trustee, for cancellation by it, all Bonds then Outstanding.

If the Authority shall pay all Bonds Outstanding and shall also pay or cause to be paid all other sums payable under the Bond Indenture by the Authority and the Corporation shall have paid all Administrative Fees and Expenses payable to the Authority pursuant to the Loan Agreement, then and in that case at the election of the Authority (evidenced by a Certificate of the Authority filed with the Bond Trustee at the direction of the Corporation signifying the intention of the Authority to discharge all such indebtedness and the Bond Indenture), and notwithstanding that any Bonds shall not have been surrendered for payment, the Bond Indenture and the pledge of Revenues and other assets made under the Bond Indenture and all covenants, agreements and other obligations of the Authority under the Bond Indenture (except as otherwise specifically provided in the Bond Indenture) shall cease, terminate, become void and be completely discharged and satisfied. In such event, upon the request of the Authority, the Bond Trustee shall cause an accounting for such period or periods as may be requested by the Authority to be prepared and filed with the Authority and shall execute and deliver to the Authority all such instruments as may be necessary to evidence such discharge and satisfaction, and the Bond Trustee shall pay over, transfer, assign or deliver to the Corporation all moneys or securities or other property held by it pursuant to the Bond Indenture which are not required for the payment or redemption of Bonds not theretofore surrendered for such payment or redemption; provided that in all events moneys in the Rebate Fund shall be subject to the provisions of the Bond Indenture relating to the Rebate Fund established thereunder.

Discharge of Liability on Bonds

Upon the deposit with the Bond Trustee, in trust, at or before maturity, of money or securities in the necessary amount (as provided in the section of the Bond Indenture described below in "—Deposit of Money or Securities with Bond Trustee") to pay or redeem any Outstanding Bond (whether upon or prior to its maturity or the redemption date of such Bond), provided that, if such Bond is to be redeemed prior to maturity, notice of such redemption shall have been given as provided in the Bond Indenture provided or provision satisfactory to the Bond Trustee shall have been made for the giving of such notice, then all liability of the Authority in respect of such Bond shall cease, terminate become void and be completely discharged and satisfied, except only that thereafter the Holder thereof shall be entitled to payment of the principal of and interest on such Bond by the Authority, and the Authority shall remain liable for such payments, but only out of such money or securities deposited with the Bond Trustee as aforesaid for their payment, subject, however, to the provisions of the Bond Indenture relating to the payment of Bonds after discharge of the Bond Indenture.

The Authority or the Corporation may at any time surrender to the Bond Trustee for cancellation by it any Bonds previously issued and delivered, which the Authority or the Corporation may have acquired in any manner whatsoever, and such Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired.

Deposit of Money or Securities with Bond Trustee

Whenever in the Bond Indenture it is provided or permitted that there be deposited with or held in trust by the Bond Trustee money or securities in the necessary amount to pay or redeem any Bonds, the money or securities so to be deposited or held may include money or securities held by the Bond Trustee in the funds and accounts established pursuant to the Bond Indenture (other than the Rebate Fund) and shall be:

(a) lawful money of the United States of America in an amount equal to the principal amount of such Bonds and all unpaid interest thereon to maturity, except that, in the case of Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption shall have been given as provided in the Bond Indenture or provision satisfactory to the Bond Trustee shall have been made for the giving of such notice, the amount to be deposited or held shall be the principal amount or Redemption Price of such Bonds and all unpaid interest thereon to the redemption date; or

(b) United States Government Obligations (not callable by the issuer thereof prior to maturity), the principal of and interest on which when due (without any income from the reinvestment thereof) will provide money sufficient to pay the principal or Redemption Price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Bonds to be paid or redeemed, as such principal or Redemption Price and interest become due; provided that, in the case of Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as provided in the Bond Indenture or provision satisfactory to the Bond Trustee shall have been made for the giving of such notice;

provided, in each case, that the Bond Trustee shall have been irrevocably instructed to apply such money to the payment of such principal or Redemption Price and interest with respect to such Bonds, and provided further, that with respect to the deposit of United States Government Obligations pursuant to subsection (b) above, the Bond Trustee shall have received (i) a verification report from a firm of independent accountants addressed to the Authority and the Bond Trustee acceptable in form and substance to the Authority and the Bond Trustee to the effect that the amount deposited is sufficient to make the payments specified therein and (ii) an opinion of Bond Counsel addressed to the Authority and the Bond Trustee to the effect that the Bonds are no longer Outstanding under the Bond Indenture.

LOAN AGREEMENT

General

The Loan Agreement is an agreement between the Authority and the Corporation, whereby the Authority agrees to lend the proceeds of the Bonds to the Corporation and the Corporation agrees to make payments to the Bond Trustee sufficient to pay debt service on the Bonds.

The following is a summary of certain provisions of the Loan Agreement. This summary does not purport to be complete or definitive and is qualified in its entirety by reference to the full terms of the Loan Agreement.

Payments

Payments of Principal (or Redemption Price) and Interest. In consideration of the loan of the proceeds of the Bonds to the Corporation, the Corporation agrees to pay, or cause to be paid, "Loan Repayments" in an amount sufficient to enable the Bond Trustee to make the transfers and deposits

required at the times and in the amounts pursuant to the Bond Indenture. Each Loan Repayment shall be made in immediately available funds. Notwithstanding the foregoing, the Corporation agrees to make payments, or cause payments to be made, at the times and in the amounts required to be paid as principal or Redemption Price of and interest on the Bonds from time to time Outstanding under the Bond Indenture and other amounts required to be paid under the Bond Indenture, as the same shall become due whether at maturity, upon redemption, by declaration of acceleration or otherwise.

Additional Payments. In addition to the Loan Repayments, the Corporation shall also pay to the Authority or to the Bond Trustee, or the designated agent of either of them, as the case may be, "Additional Payments," as follows:

(a) all taxes and assessments of any type or character charged to the Authority or to the Bond Trustee affecting the amount available to the Authority or the Bond Trustee from payments to be received under the Loan Agreement or in any way arising due to the transactions contemplated by the Loan Agreement (including taxes and assessments assessed or levied by any public agency or governmental authority of whatsoever character having power to levy taxes or assessments) but excluding franchise taxes based upon the capital and/or income of the Bond Trustee and taxes based upon or measured by the net income of the Bond Trustee; provided, however, that the Corporation shall have the right to protest any such taxes or assessments and to require the Authority or the Bond Trustee, as the case may be, at the Corporation's expense, to protest and contest any such taxes or assessments assessed or levied upon them and that the Corporation shall have the right to withhold payment of any such taxes or assessments pending disposition of any such protest or contest unless such withholding, protest or contest would adversely affect the rights or interests of the Authority or the Bond Trustee;

(b) all reasonable fees, charges, expenses and indemnities of the Bond Trustee for services rendered under the Loan Agreement and under the Bond Indenture and all amounts referred to in the compensation and indemnification section of the Bond Indenture, as and when the same become due and payable;

(c) the reasonable fees and expenses of such accountants, consultants, attorneys and other experts as may be engaged by the Authority or the Bond Trustee to prepare audits, financial statements, reports, opinions or provide such other services required under the Loan Agreement, Supplement No. 7, Obligation No. 7, the Continuing Disclosure Agreement, the Tax Agreement or the Bond Indenture;

(d) fees of the Authority as described in the Loan Agreement;

(e) any other administrative expenses incurred in connection with the 2018 Plan of Finance, and any such additional fees and expenses (including reasonable attorney's fees and expenses) incurred by the Authority or the Bond Trustee in connection with amending or supplementing the Bond Indenture or the Loan Agreement or inquiring into, or enforcing, the performance of the Corporation's obligations under the Loan Agreement or under the Bond Indenture, within thirty days of receipt of a statement from the Authority or the Bond Trustee requesting payment of such amounts;

(f) to the Bond Trustee all rebate payments required under Section 148(f) of the Code and the Bond Indenture; and

(g) all additional amounts required to be paid by it under the Bond Indenture or the Loan Agreement, including without limitation all costs and expenses (including reasonable attorneys' fees and expenses) of the Authority incurred in connection with the preparation of any responses, reproduction

of any documentation or participation in any inquiries, investigations or audits from any Person, including without limitation, the Internal Revenue Service, the Securities Exchange Commission or other governmental agency.

Such Additional Payments shall be billed to the Corporation by the Person entitled to payment of such Additional Payments from time to time, together with a statement certifying that the amount billed has been incurred or paid by such Person for one or more of the above items. After such a demand, amounts so billed shall be paid by the Corporation within thirty (30) days after receipt of the bill by the Corporation.

Credits for Payments

The Corporation shall receive credit against its payments required to be made under the Loan Agreement, in addition to any credits resulting from payment or repayment from other sources, as follows:

(a) on installments of interest in an amount equal to moneys deposited in the Interest Account, to the extent such amounts have not previously been credited against such payments;

(b) on installments of principal in an amount equal to moneys deposited in the Principal Account, to the extent such amounts have not previously been credited against such payments;

(c) on installments of principal and interest in an amount equal to the principal amount of Bonds for the payment at maturity or redemption of which sufficient amounts (as determined by the Bond Indenture) in cash or United States Government Obligations are on deposit as provided in the Bond Indenture to the extent such amounts have not previously been credited against such payments, and the interest on such Bonds from and after the date fixed for payment at maturity or redemption thereof. Such credits shall be made against the installments of principal and interest which would have been used, but for such call for redemption, to pay principal of and interest on such Bonds when due; and

(d) on installments of principal and interest in an amount equal to the principal amount of Bonds acquired by the Corporation and surrendered to the Bond Trustee for cancellation or purchased by the Bond Trustee on behalf of the Corporation and canceled, and the interest on such Bonds from and after the date interest thereon has been paid prior to cancellation. Such credits shall be made against the installments of principal and interest which would have been used, but for such cancellation, to pay principal of and interest on such Bonds when due.

Prepayment

The Corporation shall have the right, so long as all amounts which have become due under the Loan Agreement have been paid or will be paid at the time of prepayment, at any time or from time to time to prepay all or any part of the Loan Repayments and the Authority agrees that the Bond Trustee shall accept such prepayments when the same are tendered. Prepayments may be made by payments of cash, deposit of United States Government Obligations or surrender of Bonds, as contemplated by subsections (c) and (d) of the immediately preceding section.

All such prepayments (and the additional payment of any amount necessary to pay the applicable Redemption Price payable upon the redemption of Bonds) shall be deposited upon receipt at the Corporation's direction in (i) the Principal Account and/or Interest Account, as applicable, if Bonds are to be redeemed pursuant to the mandatory sinking fund redemption provisions of the Bond Indenture,

(ii) the Optional Redemption Account of the Redemption Fund if the Bonds are to be redeemed pursuant to the optional redemption provisions of the Bond Indenture, (iii) the Special Redemption Account of the Redemption Fund if the Bonds are to be redeemed pursuant to the provisions of the Bond Indenture described in this Official Statement under the caption "REDEMPTION OF THE BONDS – Extraordinary Optional Redemption," or (iv) such other Bond Trustee escrow account as may be specified by the Corporation and, at the request of and as determined by the Corporation, credited against payments due under the Loan Agreement or used for the redemption or purchase of Outstanding Bonds in the manner and subject to the terms and conditions set forth in the Bond Indenture. Notwithstanding any such prepayment or surrender of Bonds, as long as any Bonds remain Outstanding or any Additional Payments required to be made under the Loan Agreement remain unpaid, the Corporation shall not be relieved of its obligations under the Loan Agreement.

Obligations Unconditional

The obligations of the Corporation under the Loan Agreement and pursuant to Obligation No. 7 are absolute and unconditional, notwithstanding any other provision of the Loan Agreement, Supplement No. 7, Obligation No. 7, the Master Indenture or the Bond Indenture. Until the Loan Agreement is terminated and all payments under the Loan Agreement are made, the Corporation:

(a) will pay all amounts required under the Loan Agreement and under Obligation No. 7 without abatement, deduction or setoff except as otherwise expressly provided in the Loan Agreement;

(b) will not suspend or discontinue any payments due under the Loan Agreement or under Obligation No. 7 for any reason whatsoever, including, without limitation, any right of setoff or counterclaim;

(c) will perform and observe all its other agreements contained in the Loan Agreement; and

(d) except as provided in the Loan Agreement, will not terminate the Loan Agreement for any cause, including, without limiting the generality of the foregoing, damage, destruction or condemnation of the facilities financed or refinanced with the proceeds of the Bonds or any part thereof, commercial frustration of purpose, any change in the tax or other laws of the United States of America, the Commonwealth of Pennsylvania or any political subdivision of either, or any failure of the Authority to perform and observe any agreement, whether express or implied, duty, liability or obligation arising out of or connected with the Loan Agreement. Nothing contained in the provisions of the Loan Agreement described in this section "—Obligations Unconditional" shall be construed to release the Authority from the performance of any of the agreements on its part contained in the Loan Agreement, and in the event the Authority should fail to perform any such agreement on its part, the Corporation may institute such action against the Authority as the Corporation may deem necessary to compel performance.

The rights of the Bond Trustee or any party or parties on behalf of whom the Bond Trustee is acting shall not be subject to any defense, setoff, counterclaim or recoupment whatsoever, whether arising out of any breach of any duty or obligation of the Authority, the Master Trustee or the Bond Trustee owing to the Corporation, or by reason of any other indebtedness or liability at any time owing by the Authority, the Master Trustee or the Bond Trustee to the Corporation.

Continuing Disclosure

The Corporation covenants and agrees that it will comply with and carry out all of the provisions of the Continuing Disclosure Agreement (if any) at all times required in order to comply with the provisions of Rule 15c2-12 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended. Notwithstanding any other provision of the Loan Agreement or the Master Indenture, failure of the Corporation to enter into and comply with the Continuing Disclosure Agreement (if any) shall not be considered a Loan Default Event or an Event of Default; however, the Bond Trustee may (and, at the request of any Participating Underwriter (as defined in the Continuing Disclosure Agreement) or the Holders of at least 25% in aggregate principal amount of Outstanding Bonds and being provided indemnification satisfactory to it, shall) or any Bondholder or Beneficial Owner may, take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Corporation to comply with its obligations described in this section.

Events of Default

Each of the following events shall constitute and be referred to as a "Loan Default Event":

(a) failure by the Corporation to pay in full any payment required under the Loan Agreement or of the Members to pay in full any payment required under Obligation No. 7 when due, whether on an Interest Payment Date, at maturity, upon a date fixed for prepayment, by declaration, or otherwise pursuant to the terms of the Loan Agreement or thereof;

(b) if any material representation or warranty made by the Corporation in the Loan Agreement or made by the Corporation or any Member in any document, instrument or certificate furnished to the Bond Trustee or the Authority in connection with the issuance of Obligation No. 7 or the Bonds shall at any time prove to have been incorrect in any respect as of the time made;

(c) if the Corporation shall fail to observe or perform any other covenant, condition, agreement or provision in the Loan Agreement on its part to be observed or performed, other than as referred to in sections (a) or (b), or shall breach any warranty by the Corporation contained in the Loan Agreement, for a period of sixty (60) days after written notice, specifying such failure or breach and requesting that it be remedied, has been given to the Corporation by the Authority, or the Bond Trustee; except that, if such failure or breach can be remedied but not within such sixty (60) day period and if the Corporation has taken all action reasonably possible to remedy such failure or breach within such sixty (60) day period, such failure or breach shall not become a Loan Default Event for so long as the Corporation shall diligently proceed to remedy such failure or breach in accordance with and subject to any directions or limitations of time established by the Bond Trustee;

(d) if the Corporation files a petition in voluntary bankruptcy, for the composition of its affairs or for its corporate reorganization under any state or federal bankruptcy or insolvency law, or makes an assignment for the benefit of creditors, or admits in writing to its insolvency or inability to pay debts as they mature, or consents in writing to the appointment of a trustee or receiver for itself or for the whole or any substantial part of the Corporation's facilities;

(e) if a court of competent jurisdiction shall enter an order, judgment or decree declaring the Corporation an insolvent, or adjudging it bankrupt, or appointing a trustee or receiver of the Corporation or of the whole or any substantial part of the Corporation's facilities, or approving a petition filed against the Corporation seeking reorganization of the Corporation under any applicable law or

statute of the United States of America or any state thereof, and such order, judgment or decree shall not be vacated or set aside or stayed within sixty (60) days from the date of the entry thereof;

(f) if, under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the Corporation's facilities, and such custody or control shall not be terminated within sixty (60) days from the date of assumption of such custody or control;

(g) any Event of Default as defined in and under the Bond Indenture; or

(h) any Event of Default as defined in and under the Master Indenture.

Remedies on Default

If a Loan Default Event shall occur, then, and in each and every such case during the continuance of such Loan Default Event, the Bond Trustee on behalf of the Authority, but subject to the limitations in the Bond Indenture as to the enforcement of remedies and the Bond Trustee's rights and protections thereunder, may take such action as it deems necessary or appropriate to collect amounts due under the Loan Agreement, to enforce performance and observance of any obligation or agreement of the Corporation under the Loan Agreement or to protect the interests securing the same, and may, without limiting the generality of the foregoing:

(a) exercise any or all rights and remedies given by or available under the Loan Agreement or given by or available under any other instrument of any kind securing the Corporation's performance under the Loan Agreement (including, without limitation, Obligation No. 7 and the Master Indenture);

(b) by written notice to the Corporation declare all Loan Repayments and Additional Payments to be immediately due and payable under the Loan Agreement, whereupon the same shall become immediately due and payable; and

(c) take any action at law or in equity to collect the payment required under the Loan Agreement then due, whether on the stated due date or by declaration of acceleration or otherwise, for damages or for specific performance or otherwise to enforce performance and observance of any obligation, agreement or covenant of the Corporation under the Loan Agreement.

To the extent that the Loan Agreement confers upon or gives or grants the Bond Trustee any right, remedy or claim under or by reason of the Loan Agreement, the Bond Trustee is explicitly recognized as being a third-party beneficiary under the Loan Agreement and may enforce any such right, remedy or claim conferred, given or granted under the Loan Agreement.

Amendments to Loan Agreement

The Loan Agreement may be amended, changed or modified only as provided in the Bond Indenture. See "BOND INDENTURE – Amendment of Loan Agreement."

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APPENDIX E

FORM OF BOND COUNSEL OPINION

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APPENDIX E

FORM OF BOND COUNSEL OPINION

August __, 2018

Allegheny County Hospital
Development Authority
Pittsburgh, Pennsylvania

Allegheny County Hospital Development Authority Revenue Bonds
(Allegheny Health Network Obligated Group Issue), Series 2018A
(Final Opinion)

Ladies and Gentlemen:

We have acted as bond counsel to the Allegheny County Hospital Development Authority (the "Authority") in connection with the issuance of $_____ aggregate principal amount of Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue), Series 2018A (the "Bonds"), issued pursuant to a bond indenture, dated as of August 1, 2018 (the "Bond Indenture"), between the Authority and The Bank of New York Mellon Trust Company, N.A., as bond trustee (the "Bond Trustee"). The Bond Indenture provides that the Bonds are issued for the stated purpose of making a loan of the proceeds thereof to Allegheny Health Network (the "Corporation") pursuant to a loan agreement, dated as of August 1, 2018 (the "Loan Agreement"), between the Authority and the Corporation. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Bond Indenture.

In such connection, we have reviewed the Bond Indenture; the Loan Agreement; the Tax Agreement; opinions of counsel to the Authority and the Corporation; certificates of the Authority, the Bond Trustee, the Corporation and others; and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein.

We have relied on the opinion of Ropes & Gray LLP, counsel to the Corporation, regarding, among other matters, the current qualification of the Corporation and certain of its affiliates (the "AHN Affiliates") as organizations described in Section 501(c)(3) of the Internal Revenue Code of 1986 (the "Code"). We note that the opinion is subject to a number of qualifications and limitations. We have also relied upon representations of the Corporation regarding the use of the facilities refinanced with the proceeds of the Bonds in activities that are not considered unrelated trade or business activities of the Corporation or the AHN Affiliates within the meaning of Section 513 of the Code. We note that the opinion of counsel to the Corporation does not address Section 513 of the Code. Failure of the Corporation or the AHN Affiliates to be organized and operated in accordance with the Internal Revenue Service's requirements for the maintenance of their status as organizations described in Section 501(c)(3) of the Code, or use of the bond-refinanced facilities in activities that are considered unrelated trade or business activities of the Corporation or the AHN Affiliates within the meaning of Section 513 of the Code, may result in interest on the Bonds being included in gross income for federal income tax purposes, possibly from the date of issuance of the Bonds.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after the date hereof. We have not undertaken to determine, or to inform any person, whether any such actions are taken or omitted or events do occur or any other matters come to our attention after the date hereof. Accordingly, this letter speaks only as of its date and is not intended to, and may not, be relied upon or otherwise used in connection with any such actions, events or matters. Our engagement with respect to the Bonds has concluded with their issuance, and we disclaim any obligation to update this letter. We have assumed the genuineness of all documents and signatures presented to us (whether as originals or as copies) and the due and legal execution and delivery thereof by, and validity against, any parties other than the Authority. We have assumed, without undertaking to verify, the accuracy of the factual matters represented, warranted or certified in the documents and of the legal conclusions contained in the opinions, referred to in the second and third paragraphs hereof. Furthermore, we have assumed compliance with all covenants and agreements contained in the Bond Indenture, the Loan Agreement and the Tax Agreement, including (without limitation) covenants and agreements compliance with which is necessary to assure that future actions, omissions or events will not cause interest on the Bonds to be included in gross income for federal income tax purposes. We call attention to the fact that the rights and obligations under the Bonds, the Bond Indenture, the Loan Agreement and the Tax Agreement and their enforceability may be subject to bankruptcy, insolvency, receivership, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against authorities of the Commonwealth of Pennsylvania. We express no opinion with respect to any indemnification, contribution, liquidated damages, penalty (including any remedy deemed to constitute a penalty), right of set-off, arbitration, choice of law, choice of forum, choice of venue, non-exclusivity of remedies, waiver or severability provisions contained in the foregoing documents, nor do we express any opinion with respect to the state or quality of title to or interest in any of the assets described in or as subject to the lien of the Bond Indenture or the Loan Agreement or the accuracy or sufficiency of the description contained therein of, or the remedies available to enforce liens on, any such assets. Finally, we undertake no responsibility for the accuracy, completeness or fairness of the Official Statement, dated August __, 2018, or other offering material relating to the Bonds and express no opinion with respect thereto.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions:

1. The Bonds constitute the valid and binding limited obligations of the Authority.

2. The Bond Indenture has been duly executed and delivered by, and constitutes the valid and binding obligation of, the Authority. The Bond Indenture creates a valid pledge, to secure the payment of the principal of and interest on the Bonds, of the Revenues and any other amounts held by the Bond Trustee in any fund or account established pursuant to the Bond Indenture, except the Rebate Fund, subject to the provisions of the Bond Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Bond Indenture.

3. The Loan Agreement has been duly executed and delivered by, and constitutes the valid and binding agreement of, the Authority.

4. Interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code and is exempt from present Commonwealth of Pennsylvania income taxation. Interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. We express no opinion regarding other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds.

Faithfully yours,

ORRICK, HERRINGTON & SUTCLIFFE LLP

per

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APPENDIX F

FORM OF CONTINUING DISCLOSURE AGREEMENT

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FORM OF
CONTINUING DISCLOSURE AGREEMENT

$_____
Allegheny County Hospital Development Authority
Revenue Bonds
(Allegheny Health Network Obligated Group Issue)
Series 2018A

This Continuing Disclosure Agreement (the "Disclosure Agreement") is executed and delivered by Allegheny Health Network ("AHN") and Digital Assurance Certification, L.L.C., in its capacity as dissemination agent hereunder (the "Dissemination Agent"), in connection with the issuance of the above-named bonds (the "Bonds"). The Bonds will be issued pursuant a Bond Indenture, dated as of August 1, 2018 (the "Bond Indenture"), between the Allegheny County Hospital Development Authority (the "Authority") and The Bank of New York Mellon Trust Company, N.A., as bond trustee (the "Bond Trustee"). The proceeds of the Bonds will be loaned by the Authority to AHN pursuant to a Loan Agreement, dated as of August 1, 2018 (the "Loan Agreement"), between the Authority and AHN. Pursuant to the terms of the Bond Indenture and the Loan Agreement, AHN covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Agreement. This Disclosure Agreement is being executed and delivered by AHN and the Dissemination Agent for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriters in complying with the Rule. AHN acknowledges that the Authority has undertaken no responsibility with respect to any reports, notices or disclosures provided or required under this Disclosure Agreement, and has no liability to any Person, including any Holder or Beneficial Owner of the Bonds, with respect to the Rule (as defined below).

SECTION 2. Definitions. In addition to the definitions set forth in the Bond Indenture, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

"Annual Report" shall mean any Annual Report provided by AHN pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

"Beneficial Owner" shall mean any person who has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries).

"Bonds" shall mean the Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue) Series 2018A.

"Credit Group Financial Statements" has the meaning set forth in the Master Indenture.

"Dissemination Agent" shall mean Digital Assurance Certification, L.L.C., or any successor Dissemination Agent designated in writing by AHN and which has filed with AHN a written acceptance of such designation.

"Holder" shall mean the person in whose name any Bond shall be registered.

"Listed Events" shall mean any of the events listed in Section 6(a) of this Disclosure Agreement.

"Master Indenture" means the Master Trust Indenture, dated as of December 1, 2017, by and among AHN, the initial Obligated Group Members and The Bank of New York Mellon Trust Company, N.A., as master trustee, as originally executed and as it may from time to time be supplemented, modified or amended in accordance with the terms thereof.

"Members" has the meaning set forth in the Master Indenture.

"MSRB" shall mean the Municipal Securities Rulemaking Board or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule.

"Official Statement" means the official statement relating to the Bonds dated August __, 2018.

"Participating Underwriters" shall mean the original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

"Rule" shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

(a) AHN, on behalf of the Members, shall, or shall cause the Dissemination Agent to, not later than each May 30 immediately following the end of AHN's fiscal year, commencing May 30, 2019, provide to the MSRB an Annual Report for the immediately preceding fiscal year ended December 31 which is consistent with the requirements of Section 4 of this Disclosure Agreement. The Annual Report may cross-reference other information as provided in Section 4 of this Disclosure Agreement. The audited Credit Group Financial Statements may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if they are not available by that date. If AHN's fiscal year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 6(b). The Annual Report shall identify the Bonds by name and CUSIP number.

(b) Not later than two (2) Business Days prior to the date required in subsection (a) of this Section for provision of an Annual Report, AHN shall provide the Annual Report to the Dissemination Agent (if other than AHN). If the Dissemination Agent is unable to provide to the MSRB an Annual Report, or to verify that the Annual Report has been so provided, by the date required in subsection (a) of this Section, the Dissemination Agent shall send a notice in a timely manner to the MSRB in substantially the form attached as Exhibit A.

(c) The Dissemination Agent shall:

(i) determine, prior to the filing of each Annual Report, the name, address and method of filing of each entity designated by the Securities Exchange Commission to receive reports or notices pursuant to the Rule; and

(ii) file a report with AHN (if the Dissemination Agent is other than AHN) certifying that the Annual Report has been filed pursuant to this Disclosure Agreement, stating the date it was filed (and if one or more entities other than the MSRB have been designated by the Securities Exchange Commission to receive reports or notices pursuant to the Rule, specifying the name, address and/or web address and method of filing applicable to each such entity).

SECTION 4. Content of Annual Reports. AHN's Annual Report shall contain or include by reference the audited Credit Group Financial Statements for the preceding fiscal year, prepared

in accordance with Generally Accepted Accounting Principles. If audited Credit Group Financial Statements are not available by the time the Annual Report is required to be provided to the MSRB pursuant to Section 3(a), the Annual Report shall contain unaudited Credit Group Financial Statements in a format similar to the financial statements contained in the Official Statement, and the audited Credit Group Financial Statements shall be provided to the MSRB in the same manner as the Annual Report when they become available.

To the extent not included in the audited Credit Group Financial Statements, the Annual Report shall also include the following:

1. other financial, statistical and operating data for such fiscal year in form and scope similar to the financial, statistical and operating data included under the captions "FINANCIAL AND OPERATING INFORMATION – Utilization," " – AHN Source of Revenues," " – AHN Summary Statement of Operations," " – AHN Summary Balance Sheet," " – AHN Days Cash on Hand," "– AHN Debt Service Coverage Ratio" and "– Debt-to-Capitalization" in APPENDIX A of the Official Statement pertaining to the Bonds; and

2. to the extent required to make the balance of the information contained therein not misleading, a narrative discussion and analysis of the financial and operating data described in the Credit Group Financial Statements and financial, statistical and operating data described in clause (1) above, prepared on behalf of the Members; and

3. a narrative explanation of the reasons for any amendments to this Disclosure Agreement or Section 5.5 of the Loan Agreement or Section 6.11 of the Bond Indenture made during the previous fiscal year and the impact of such amendments on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by AHN as provided in Section 10 of this Disclosure Agreement.

Any or all of the items listed above may be set forth in one or a set of documents or may be included by specific reference to other documents, including official statements of debt issues of AHN or related entities, which have been made available to the public on the MSRB's website. AHN shall clearly identify each such other document so included by reference.

SECTION 5. Quarterly Reports.

(a) AHN, on behalf of the Members, shall, or shall cause the Dissemination Agent to, not later than each May 30, August 29, November 29 and March 30 after the end of each of AHN's fiscal quarters (ending March 31, June 30, September 30 and December 31, respectively), commencing with the report for the fiscal quarter ending September 30, 2018, provide to the MSRB a Quarterly Report which is consistent with the requirements of subsection (b) of this Section. The Quarterly Report may cross-reference other information as provided in Section 4 of this Disclosure Agreement.

(b) "Quarterly Report" means, for any specified fiscal quarter, unaudited quarterly financial statements of the Credit Group (generally similar to those included under the captions "FINANCIAL AND OPERATING INFORMATION – AHN Summary Statement of Operations" and "– AHN Summary Balance Sheet") for such fiscal quarter. Notwithstanding the foregoing, at the option of AHN, such financial statements may include the unaudited Credit Group financial statement in a format similar to the financial statement contained in the Official Statement which includes the Summary Statement of Operations and Summary Balance Sheet.

SECTION 6. Reporting of Significant Events.

(a) Pursuant to the provisions of this Section 6, AHN shall give, or upon delivery of the information to the Dissemination Agent, the Dissemination Agent shall give notice of the occurrence of any of the following events with respect to the Bonds:

1. Principal and interest payment delinquencies;

2. Non-payment related defaults, if material;

3. Unscheduled draws on debt service reserves reflecting financial difficulties;

4. Unscheduled draws on credit enhancements reflecting financial difficulties;

5. Substitution of credit or liquidity providers, or their failure to perform;

6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices of determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;

7. Modifications to rights of Bondholders, if material;

8. Bond calls, if material, and tender offers;

9. Defeasances;

10. Release, substitution, or sale of property securing repayment of the Bonds, if material;

11. Rating changes;

12. Bankruptcy, insolvency, receivership or similar event of an obligated person (as defined in the Rule);

13. The consummation of a merger, consolidation, or acquisition involving an obligated person (as defined in the Rule) or the sale of all or substantially all the assets of an obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and

14. The appointment of a successor or additional trustee, or the change in the name of the trustee, if material.

Note: for the purposes of the event identified in subparagraph (12), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization,

arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person;

(b) AHN shall file, or instruct the Dissemination Agent to file, with a copy to AHN, notice of the occurrence of a Listed Event with the Authority and the MSRB, in a timely manner, but not in excess of ten (10) Business Days after the occurrence of such Listed Event.

SECTION 7. Filing With MSRB; EMMA. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at http://emma.msrb.org. Documents submitted to the MSRB, including EMMA, pursuant to this Disclosure Agreement shall be in electronic format and accompanied by identifying information as prescribed by the MSRB, in accordance with the Rule.

SECTION 8. Termination of Reporting Obligation. The obligations of AHN and the Dissemination Agent under this Disclosure Agreement with respect to the Bonds shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Bonds. If such termination occurs with respect to the Bonds prior to the final maturity of the Bonds, AHN shall give notice of such termination in the same manner as for a Listed Event under Section 6(b).

SECTION 9. Dissemination Agent. AHN may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement, and may discharge any such Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by AHN pursuant to this Disclosure Agreement. The initial Dissemination Agent shall be Digital Assurance Certification, L.L.C.

SECTION 10. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Agreement, AHN, with the written consent of the Authority, and the Dissemination Agent, may amend this Disclosure Agreement, and any provision of this Disclosure Agreement may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Sections 3(a), 4, or 6(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the Bonds in the same manner as provided in the Bond Indenture for amendments to such Bond Indenture with the consent of Holders, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Holders or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Agreement, AHN shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by AHN. In addition, if the amendment relates to the accounting principles to be followed in

preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under Section 6(b), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Notwithstanding anything to the contrary in this Disclosure Agreement, in the event of a change in the fiscal year of AHN, all dates specified herein shall be deemed to refer to the corresponding dates in the revised fiscal year. AHN shall specify any change in fiscal year in the next report filed (as described in this Disclosure Agreement) following the change of such fiscal year.

SECTION 11. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent AHN or any other Member from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report, Quarterly Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If AHN chooses to include any information in any Annual Report, Quarterly Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Agreement, AHN shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report, Quarterly Report or notice of occurrence of a Listed Event.

SECTION 12. Default. In the event of a failure of AHN or the Dissemination Agent to comply with any provision of this Disclosure Agreement, the Bond Indenture grants the right to the Bond Trustee, and imposes a duty upon the written direction of any Participating Underwriter or the Holders of at least 25% aggregate principal amount of Outstanding Bonds, but only to the extent indemnified to its satisfaction for any liability or expense, including without limitation reasonable attorney's fees and expenses and any additional fees and charges of the Bond Trustee, and allows any Holder or Beneficial Owner of the Bonds to take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause AHN or the Dissemination Agent, as the case may be, to comply with their respective obligations under this Disclosure Agreement. The sole remedy under this Disclosure Agreement in the event of any failure of AHN or the Dissemination Agent to comply with this Disclosure Agreement shall be an action to compel performance.

SECTION 13. Beneficiaries; Enforcement Rights of Authority. This Disclosure Agreement shall inure solely to the benefit of AHN, the Authority, the Dissemination Agent, the Participating Underwriters and Holders and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

SECTION 14. Duties, Immunities and Liabilities of the Dissemination Agent. Article VIII of the Bond Indenture is hereby made applicable to this Disclosure Agreement as if this Disclosure Agreement were (solely for this purpose) contained in the Bond Indenture. The Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Agreement, and AHN agrees to indemnify and save the Dissemination Agent and its officers, directors, employees and agents, harmless against any loss, expense and liabilities which they may incur arising out of or in the exercise or performance of their powers and duties hereunder, including the costs and expenses (including reasonable attorney’s fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent’s negligence or willful misconduct. The Dissemination Agent shall be paid compensation by AHN for its services provided hereunder in accordance with its schedule of fees as agreed to between the Dissemination Agent and AHN from time to time. The Dissemination Agent shall have no duty or obligation to review any information provided to it by AHN or any Member or hereunder and shall not be deemed to be acting in any fiduciary capacity for AHN, any Member, the Holders,

Beneficial Owners or any other party. The obligations of AHN under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

SECTION 15. Business Days. If the time for performing any act required by this Disclosure Agreement shall be a day that is not a Business Day, such act may be performed on the next succeeding Business Day with the same force and effect as if done on the nominal date provided in this Disclosure Agreement.

SECTION 16. Counterparts. This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

Date: August __, 2018

ALLEGHENY HEALTH NETWORK,
for itself and as Credit Group Representative
on behalf of the Obligated Group

By: _____

DIGITAL ASSURANCE CERTIFICATION, L.L.C.
as Dissemination Agent

By: _____

CONTINUING DISCLOSURE EXHIBIT A

FORM OF NOTICE TO THE MUNICIPAL SECURITIES RULEMAKING BOARD
OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer:	Allegheny County Hospital Development Authority
Name of Bond Issue:	Allegheny County Hospital Development Authority Revenue Bonds (Allegheny Health Network Obligated Group Issue) Series 2018A
Name of Borrower:	Allegheny Health Network
Date of Issuance:	August __, 2018

NOTICE IS HEREBY GIVEN that Allegheny Health Network ("AHN") has not provided an Annual Report with respect to the above-named Bonds as required by Section 4 of the Continuing Disclosure Agreement of AHN dated the Date of Issuance. [AHN anticipates that the Annual Report will be filed by _____.]

Dated: _____

ALLEGHENY HEALTH NETWORK

By _____[to be signed only if filed]_____

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APPENDIX G

INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM

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APPENDIX G

INFORMATION REGARDING BOOK-ENTRY SYSTEM

The information in the following section has been prepared from information made available by DTC for use in securities offering documents, and the Authority, the Bond Trustee, the Underwriters and the Corporation take no responsibility for the accuracy or completeness thereof. The Authority, the Bond Trustee, the Underwriters and the Corporation cannot and do not give any assurances that DTC, DTC Participants or Indirect Participants will distribute to the Beneficial Owners either (a) payments of interest, principal or premium, if any, with respect to the Bonds or (b) certificates representing ownership interest in or other confirmation of ownership interest in the Bonds, or that they will so do on a timely basis or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Official Statement. The current "Rules" applicable to DTC are on file with the Securities and Exchange Commission and the current "Procedures" of DTC to be followed in dealing with DTC Participants are on file with DTC.

When the Bonds are issued, ownership interests will be available to purchasers only through a book-entry-only system (the "*Book-Entry System*") maintained by DTC. DTC will act as initial securities depository for the Bonds. Initially, the Bonds will be issued as fully-registered bonds, registered in the name of Cede & Co. (DTC's partnership nominee). One fully-registered bond will be issued for each maturity of the Bonds, each in the aggregate original principal amount of such maturity of the Bonds and will be deposited with DTC. The following discussion will not apply to the Bonds if issued in certificate form due to the discontinuance of the DTC Book-Entry system, as described below.

General

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("*Direct Participants*") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("*DTCC*"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("*Indirect Participants*"). DTC has a S&P Global Ratings rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com. **Neither the information on DTC's websites, nor any links from those websites, is part of this Official Statement, and such information cannot be relied upon to be accurate as of the date of this Official Statement, nor should any such information be relied upon to make investment decisions regarding the Bonds.**

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of a Bond ("*Beneficial Owner*") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds. DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. The Obligated Group Members will not have any responsibility or obligation to such Direct Participants and Indirect Participants or the persons for whom they act as nominees with respect to the Bonds. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal of, redemption price and interest payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Bond Trustee or other paying agent, if any, on payable dates in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of

customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC nor its nominee, or the Bond Trustee or other paying agent, if any, the Obligated Group Members or the Authority, subject to any statutory, or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Bond Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Authority and the Bond Trustee. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The Authority and the Bond Trustee may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository) for the Bonds. In that event, Bond certificates will be printed and delivered.

Limitations

For so long as the Bonds of a series are registered in the name of DTC or its nominee, Cede & Co., or such other nominee as may be required by an authorized representative of DTC, the Authority and the Bond Trustee will recognize only DTC or its nominee, Cede & Co., as the registered owner of such series of the Bonds for all purposes, including payments, notices and voting.

Under the Indenture, payments made by the Bond Trustee to DTC or its nominee will satisfy the Authority's obligations under the Indenture and the Corporation's obligations under the Loan Agreement and on Obligation No. 7 to the extent of the payments so made.

Neither the Authority, the Underwriters, the Corporation nor the Bond Trustee will have any responsibility or obligation with respect to (i) the accuracy of the records of DTC, its nominee or any DTC Participant or Indirect Participant with respect to any beneficial ownership interest in any Bond, (ii) the delivery to any DTC Participant or Indirect Participant or any other Person, other than an owner, as shown in the Bond Register, of any notice with respect to any Bond including, without limitation, any notice of redemption, tender, purchase or any event which would or could give rise to a tender or purchase right or option with respect to any Bond, (iii) the payment to any DTC Participant or Indirect Participant or any other Person, other than an owner, as shown in the Bond Register, of any amount with respect to the principal of, premium, if any, or interest on, or the purchase price of, any Bond or (iv) any consent given by DTC as registered owner.

Prior to any discontinuation of the book-entry-only system described above, the Authority and the Bond Trustee may treat DTC as, and deem DTC to be, the absolute owner of the Bonds for all purposes whatsoever, including, without limitation, (i) the payment of principal of, premium, if any, and interest on the Bonds, (ii) giving notices of redemption and other matters with respect to the Bonds, (iii) registering transfers with respect to the Bonds and (iv) the selection of Bonds for redemption.

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ALLEGHENY COUNTY HOSPITAL DEVELOPMENT AUTHORITY • REVENUE BONDS (ALLEGHENY HEALTH NETWORK OBLIGATED GROUP ISSUE) SERIES 2018A

Allegheny
Health Network

Mixed Sources
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