UPMC Quarterly Disclosure & Audited Consolidated Financial Statements

FOR THE PERIOD ENDED DECEMBER 31, 2018

UPMC
LIFE CHANGING MEDICINE

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TABLE OF CONTENTS

The following financial data is derived from both the December 31, 2018 audited consolidated financial statements of UPMC and the unaudited interim consolidated financial statements of UPMC. The interim consolidated financial statements include all adjustments consisting of a normal recurring nature that UPMC considers necessary for a fair presentation of its financial position and the results of operations for these periods. Operating and financial results reported herein are not necessarily indicative of the results that may be expected for any future periods.

The information contained herein is being filed by UPMC for the purpose of complying with its obligations under Continuing Disclosure Agreements entered into in connection with the issuance of the series of bonds listed herein and disclosure and compliance obligations in connection with various banking arrangements. The information contained herein is as of December 31, 2018. Digital Assurance Certification, L.L.C., as Dissemination Agent, has not participated in the preparation of this document, has not examined its contents and makes no representations concerning the accuracy and completeness of the information contained herein.

UPMC LIFE CHANGING MEDICINE

INTRODUCTION TO MANAGEMENT'S DISCUSSION AND ANALYSIS

PERIOD ENDED DECEMBER 31, 2018

UPMC, doing business as the University of Pittsburgh Medical Center, is one of the world's leading Integrated Delivery and Financing Systems ("IDFS"). UPMC is based in Pittsburgh, Pennsylvania and primarily serves residents across the Commonwealth of Pennsylvania. We also draw patients for highly specialized services from across the nation and around the world. UPMC's 40 hospitals and more than 700 clinical locations comprise one of the largest nonprofit health systems in the United States. UPMC has three major divisions: Health Services, Insurance Services, and UPMC Enterprises.

We are committed to providing the communities that our hospitals, outpatient centers and other health care facilities serve, as well as our insurance members, with high quality, cost-effective health care while continuing to grow our business and execute on our mission to provide Life Changing Medicine. As the stewards of UPMC's community assets, we are guided by our core values of integrity, excellence, respect and teamwork. These values govern the manner in which we serve our communities and are embedded in the execution and delivery of Life Changing Medicine.

UPMC continues to make significant investments in equipment, technology, education and operational strategies designed to improve clinical quality at our hospitals and outpatient centers. As a result of our efforts, UPMC Presbyterian Shadyside is consistently ranked on the *U.S. News & World Report* Honor Roll of America's Best Hospitals. Investments in our operations and continued capital improvements are expected to become increasingly important as the competitive environment of the market and changes to health care nationally continue to progress and change the landscape of patient care and reimbursement. We build new facilities, make strategic acquisitions, and enter into joint venture arrangements or affiliations with health care businesses — in each case in communities where we believe our mission can be effectively utilized to improve the overall health of those communities.

By continually evolving and refining UPMC's world-class financial processes, we focus on achieving optimal financial results that support the continued development of our organization, as well as ongoing investment in the future of Pennsylvania. We are committed to achieving these objectives with unyielding commitments to transparency in reporting and disclosure, enterprise-wide integration, and ongoing process improvement.

The purpose of this section, Management's Discussion and Analysis ("MD&A"), is to provide a narrative explanation of our financial statements that enhances our overall financial disclosures, to provide the context within which our financial information may be analyzed, and to provide information about the quality of, and potential variability of, our financial condition, results of operations and cash flows.

Unless otherwise indicated, all financial and statistical information included herein relates to our continuing operations, with dollar amounts expressed in millions (except for statistical information). MD&A should be read in conjunction with the accompanying audited consolidated financial statements.

CONSOLIDATED FINANCIAL HIGHLIGHTS

(Dollars in millions)

Financial Results for the Twelve Months Ended December 31	**2018**	2017
Operating revenues	**$ 18,777**	$ 15,633
Operating income	**$ 166**	$ 246
Operating margin	**0.9%**	1.6%
Operating margin (including income tax and interest expense)	**0.0%**	0.6%
(Loss) gain from investing and financing activities	**$ (367)**	$ 416
Excess of (expenses over revenues) revenues over expenses	**$ (290)**	$ 1,267
Operating EBIDA	**$ 790**	$ 789
Capital expenditures	**$ 891**	$ 701
Reinvestment ratio	**1.43**	1.29

Selected Other Information as of	**December 31, 2018**	December 31, 2017
Total cash and investments	**$ 6,856**	$ 7,504
Unrestricted cash and investments	**$ 5,098**	$ 5,407
Unrestricted cash and investments over long-term debt	**$ 1,059**	$ 1,471
Days of cash on hand	**101**	128
Days in net accounts receivable	**39**	39
Average age of plant	**8.7**	8.7**

*** Adjustments to comparable period to include recent affiliations*

Operating revenues for the twelve months ended December 31, 2018 increased $3.1 billion, or 20%, as compared to the twelve months ended December 31, 2017. Operating income for the twelve months ended December 31, 2018 decreased $80 million over the same period in the prior fiscal year. Operating earnings before interest, depreciation and amortization totaled $790 million, and excess of expenses over revenues was $290 million. As of December 31, 2018, UPMC had more than $6.8 billion of cash and investments.

For the twelve months ended December 31, 2018:

- Hospital medical-surgical admissions and observation cases increased 15% compared to the prior year.
- Hospital outpatient revenue per workday increased 25% compared to the prior year.
- Physician service revenue per weekday increased 13% from the comparable period in the prior year, and
- Enrollment in UPMC's Insurance Services grew to 3.4 million members as of December 31, 2018.

UPMC's loss from investing and financing activities, excluding UPMC Enterprises activity, for the twelve months ended December 31, 2018 was $234 million. UPMC made no material changes to its asset allocation policies during the quarter and continues to have a long-term perspective with regard to its investment activities.

BUSINESS HIGHLIGHTS

On February 1, 2019, Somerset Hospital in Somerset, Pa., affiliated with UPMC and became UPMC Somerset. The affiliation allows a greater opportunity for the Somerset facility to grow and offer more specialty services to local patients close to their homes. UPMC has committed to invest at least $45 million over 10 years to enhance services and upgrade facilities at UPMC Somerset. Expanding clinical programs, establishing a multi-specialty consultation program, adding a new primary care center, recruiting and retaining outstanding medical staff and updating information technology capabilities are among the initial investment priorities. UPMC also has assumed responsibility for all of Somerset Hospital's outstanding liabilities, including its pension and benefit plan obligations. The Boards of Directors of UPMC and Somerset had signed a non-binding letter of intent to negotiate an affiliation agreement in June 2018, proceeded with a four-month due diligence process, and then in November 2018, signed a definitive agreement to affiliate, setting February 1, 2019 as the target date for finalizing the affiliation.

In December 2018, UPMC Pinnacle announced that inpatient services will transition from UPMC Pinnacle Lancaster hospital to UPMC Pinnacle Lititz hospital, a much more modern facility that is seven miles away, by March 2019. This is part of a comprehensive plan to ensure the continued availability of the high-quality clinical care expected of UPMC for Lancaster-area communities. UPMC Pinnacle will maintain a strong outpatient presence in Lancaster for primary and specialty care services, while investing in centralizing inpatient services at the Lititz hospital, expanding current programs and introducing new services.

In November 2018, UPMC was named for the 20th year as one of the nation's "Most Wired" health systems by the College of Healthcare Information Management Executives. The 254 winners, including six from outside the U.S., are based on an annual survey designed to identify health care organizations that exemplify best practices through their adoption, implementation and use of information technology to elevate the health and care of communities around the world. UPMC is regularly recognized for its pioneering use of information technology, from electronic medical records ("EMR") to biometrics, machine learning and natural language processing. More than a dozen UPMC hospitals, as well as UPMC outpatient facilities, are at the highest levels of EMR use, as measured by Healthcare Information and Management Systems Society Analytics.

Fifteen UPMC hospitals received "A" grades from The Leapfrog Group's Fall 2018 Hospital Safety Grade. Leapfrog is a national organization aiming to improve health care quality and safety for consumers and purchasers. Of more than 2,600 hospitals rated by Leapfrog, 855 received "A", the highest possible score, for their efforts in protecting patients from harm and meeting rigorous safety standards.

Collaboration between UPMC and Western Maryland Health System ("WMHS") continues after the two organizations co-signed a clinical affiliation agreement in February 2018 to enhance health care services for local residents served by WMHS. Initiatives so far have included providing greater local access to physician specialists, including those in cardiovascular and neurosciences; complementing existing expertise at WMHS; enhancing services for telemedicine, oncology and behavioral health; and placing UPMC family practice residents on the WMHS campus.

CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS

Twelve Months Ended December 31, 2018 *(in millions)*

Revenues:	Health Services	Insurance Services	Eliminations	Consolidated
Net patient service revenue	**$ 10,828**	**$ -**	**$ (2,005)**	**$ 8,823**
Insurance enrollment revenue	**-**	**8,492**	**-**	**8,492**
Other revenue	**1,053**	**513**	**(104)**	**1,462**
Total operating revenues	**$ 11,881**	**$ 9,005**	**$ (2,109)**	**$ 18,777**
Expenses:				
Salaries, professional fees and benefits	**$ 6,437**	**$ 384**	**$ (27)**	**$ 6,794**
Insurance claims expense	**-**	**7,717**	**(2,005)**	**5,712**
Supplies, purchased services and general	**4,827**	**731**	**(77)**	**5,481**
Depreciation and amortization	**595**	**29**	**-**	**624**
Total operating expenses	**11,859**	**8,861**	**(2,109)**	**18,611**
Operating income	**$ 22**	**$ 144**	**-**	**$ 166**
Operating margin %	**0.2%**	**1.6%**	**-**	**0.9%**
Operating margin % (including income tax and interest expense)	**(1.7%)**	**2.2%**	**-**	**0.0%**
Operating EBIDA	**$ 617**	**$ 173**	**-**	**$ 790**
Operating EBIDA %	**5.2%**	**1.9%**	**-**	**4.2%**

Twelve Months Ended December 31, 2017 *(in millions)*

Revenues:	Health Services	Insurance Services	Eliminations	Consolidated
Net patient service revenue	$ 9,084	$ -	$ (1,919)	$ 7,165
Insurance enrollment revenue	-	7,273	-	7,273
Other revenue	934	377	(116)	1,195
Total operating revenues	$ 10,018	$ 7,650	$ (2,035)	$ 15,633
Expenses:				
Salaries, professional fees and benefits	$ 5,411	$ 324	$ (28)	$ 5,707
Insurance claims expense	-	6,546	(1,919)	4,627
Supplies, purchased services and general	3,975	623	(88)	4,510
Depreciation and amortization	533	10	-	543
Total operating expenses	9,919	7,503	(2,035)	15,387
Operating income	$ 99	$ 147	-	$ 246
Operating margin %	1.0%	1.9%	-	1.6%
Operating margin % (including income tax and interest expense)	(0.3%)	1.6%	-	0.6%
Operating EBIDA	$ 632	$ 157	-	$ 789
Operating EBIDA %	6.3%	2.1%	-	5.0%

Reclassifications were made to prior year categories to conform to current year presentation.

Health Services

UPMC Health Services Division ("Health Services") includes a comprehensive array of clinical capabilities consisting of hospitals, specialty service lines (e.g., transplantation services, woman care, behavioral health, pediatrics, cancer care and rehabilitation services), contract services (emergency medicine, pharmacy and laboratory) and 4,900 employed physicians with associated practices. Also included within Health Services are supporting foundations and UPMC's captive insurance programs. Hospital activity is monitored in four distinct groups: (i) academic hospitals that provide a comprehensive array of clinical services that include the specialty service lines listed above and serve as the primary academic and teaching centers for UPMC and are located in Pittsburgh; (ii) community hospitals that provide core clinical services mainly to the suburban Pittsburgh, greater Erie, and the greater Altoona populations of Pennsylvania; (iii) regional hospitals that provide core clinical services to certain other areas of western and central Pennsylvania; and (iv) pre- and post-acute care capabilities that include: UPMC HomeCare, a network of home health services, and UPMC Senior Communities, the facilities of which provide a complete network of senior living capabilities in greater Pittsburgh and surrounding counties. Health Services also includes its international ventures which aims to bring new revenue streams into western Pennsylvania. International ventures currently include ISMETT, a transplant and specialty surgery hospital in Palermo, Italy, that has performed more than 2,200 transplants since its founding in 1999, a hospital system located in Ireland, a contract to provide remote second-opinion pathology consultations for patients in China and Singapore, a national oncology treatment and research center in Kazakhstan, as well as the Advanced Radiosurgery Center of Excellence at San Pietro FBF Hospital in Rome.

Health Services revenues of $11.9 billion increased $1.9 billion versus the prior year due to hospital affiliations and payer rate increases. Operating income of $22 million decreased versus the prior year by $77 million as the prior year benefited from non-recurring third party payer settlements. Additionally, inflation on current year expenses has outpaced payer rate increases.

Insurance Services

UPMC holds various interests in health care financing initiatives and network care delivery operations that have 3.4 million members as of December 31, 2018. UPMC Health Plan is a health maintenance organization ("HMO") offering coverage for commercial and Medicare members. UPMC for You is also an HMO, which is engaged in providing coverage to Medical Assistance & Medicare Special Needs Plan beneficiaries. UPMC Health Network offers preferred provider organization ("PPO") plan designs to serve Medicare beneficiaries. UPMC Health Options offers PPO plan designs to serve commercial beneficiaries. UPMC for Life is a Medicare product line offered by various companies within the Insurance Services Division ("Insurance Services"). UPMC Work Partners provides fully insured workers' compensation, and integrated workers' compensation and disability services to employers. Community Care Behavioral Health Organization ("Community Care") is a state-licensed HMO that manages the behavioral health services for Medical Assistance through mandatory managed care programs in Pennsylvania.

Insurance Services revenues of $9.0 billion increased $1.4 billion versus the prior year, driven by membership growth of over 140,000. Operating income decreased by $3 million, driven by negative adjustments made to UPMC's Affordable Care Act ("ACA") risk adjustment accruals totaling $60 million, of which $34 million related to calendar year 2017. Notwithstanding the prior period adjustment, operating income would have increased significantly in 2018. The unfavorable development related to the risk adjustment is based on preliminary Statewide Risk Adjustment Model results as provided by the Pennsylvania Department of Insurance ("PID"). The goal of risk adjustment is to discourage insurers from selectively picking healthier enrollees over less healthy enrollees and the program transfers funds from non-grandfathered plans with healthier enrollees in the individual and small group markets to non-grandfathered plans with less healthy enrollees.

UPMC Enterprises

UPMC Enterprises leverages UPMC's integrated delivery and financing system capabilities to generate new revenue streams. This is accomplished by fostering new ideas for improvement in the delivery of health care, pursuing commercialization opportunities of smart technologies and developing strategic partnerships with industry leaders. Leveraging UPMC's long-standing reputation for academic and research excellence, UPMC Enterprises also sponsors the translation of basic science conducted in a research setting to its commercial use in bedside clinical practice, application in medical laboratories, or use across emerging venues where medicine is delivered. These ventures both support UPMC's core mission and help to stimulate the economy of western Pennsylvania.

UPMC Enterprises manages a portfolio that includes various internally-focused initiatives and numerous operating companies with commercially-available products and services directed toward the improvement of the delivery of health care. Unlike the Health Services and Insurance Services divisions, UPMC Enterprises' results are classified as investing and financing activity in the Statements of Operations and Changes in Net Assets, consistent with the long-term nature of developing and commercializing technology-enabled initiatives.

REVENUE METRICS – HEALTH SERVICES

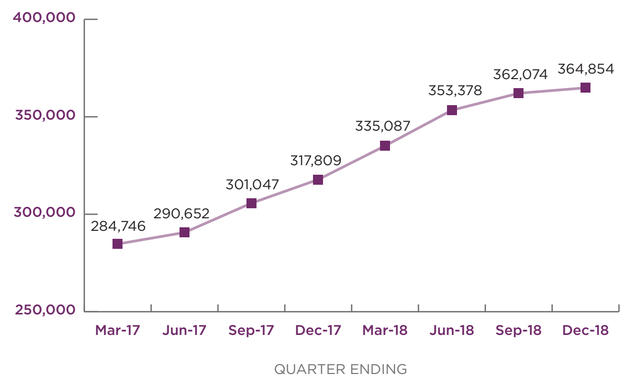
Medical-Surgical Admissions and Observation Visits

Inpatient activity as measured by medical-surgical admissions and observation visits at UPMC's hospitals for the twelve months ended December 31, 2018 increased 15% compared to the same period in 2017 due to recent affiliations.

For the Twelve Months Ended December 31

(in thousands)	**2018**	Change	2017
Academic	**127.7**	(3%)	131.1
Community	**88.0**	(1%)	89.0
Regional	**149.2**	53%	97.7
Regional excl. recent acquisitions	*101.3*	*4%*	*97.7*
Total	**364.9**	15%	317.8
Total excl. recent acquisitions	*317.0*	*0%*	*317.8*

Trailing Twelve Months



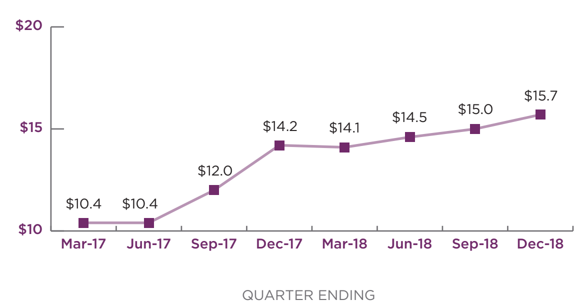
Outpatient Revenue per Workday

UPMC's outpatient activity for the twelve months ended December 31, 2018 as measured by average revenue per workday increased 25% compared to the same period in 2017 due to recent affiliations. Hospital outpatient activity is measured on an equivalent workday ("EWD") basis to adjust for weekend and holiday hours.

For the Twelve Months Ended December 31

(in thousands)	**2018**	Change	2017
Academic	**$ 5,641**	5%	$ 5,377
Community	**2,343**	3%	2,271
Regional	**6,826**	64%	4,160
Regional excl. recent acquisitions	*4,751*	*14%*	*4,160*
Total	**$ 14,810**	25%	$ 11,808
Total excl. recent acquisitions	*12,735*	*8%*	*11,808*

Quarterly Average (in millions)



REVENUE METRICS – HEALTH SERVICES (CONTINUED)

Physician Service Revenue per Weekday

UPMC's physician activity for the twelve months ended December 31, 2018 as measured by average revenue per weekday increased 13% from the comparable period in 2017. Physician services activity is measured on a weekday basis.

For the Twelve Months Ended December 31			
(in thousands)	**2018**	Change	2017
Academic	**$ 3,553**	9%	$ 3,253
Community	**1,710**	5%	1,624
Regional	**1,366**	39%	984
Regional excl. recent acquisitions	*1,004*	*2%*	*984*
Total	**$ 6,629**	13%	$ 5,861
Total excl. recent acquisitions	*6,267*	*7%*	*5,861*

Quarterly Average (in millions)

Sources of Patient Service Revenue

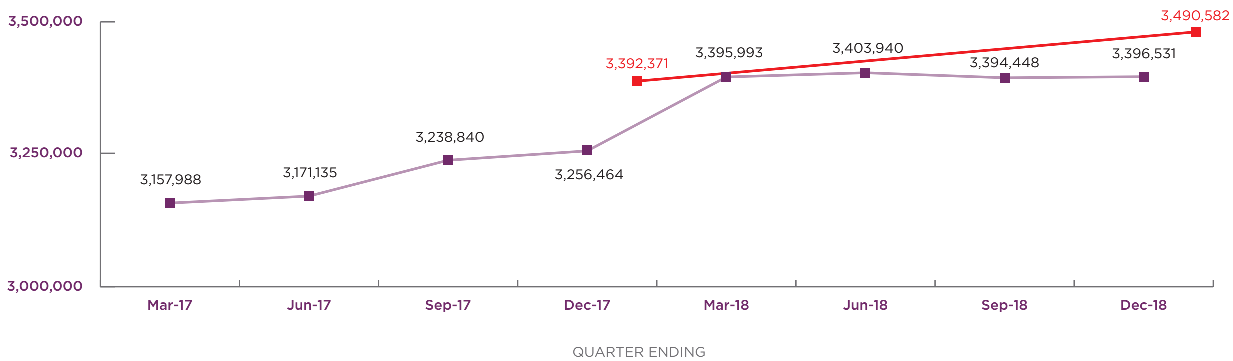
The gross patient service revenues, before explicit and implicit price concessions, of UPMC are derived from third-party payers which reimburse or pay UPMC for the services it provides to patients covered by such payers. Third-party payers include the federal Medicare Program, the federal and state Medical Assistance Program ("Medicaid"), Highmark Blue Cross Blue Shield ("Highmark") and other third-party insurers such as health maintenance organizations and preferred provider organizations. The following table is a summary of the percentage of the subsidiary hospitals' gross patient service revenue by payer.

	Twelve Months Ended December 31	
	2018	2017
Medicare	**47%**	45%
Medicaid	**17%**	18%
UPMC Insurance Services Commercial	**14%**	14%
National Insurers Commercial	**7%**	8%
Highmark Commercial	**7%**	7%
Other	**8%**	8%
Total	**100%**	100%

OPERATING METRICS - INSURANCE SERVICES

Membership

Membership in the UPMC Insurance Services Division increased to 3,396,531 as of December 31, 2018, a 4% increase versus the same period in the prior year.

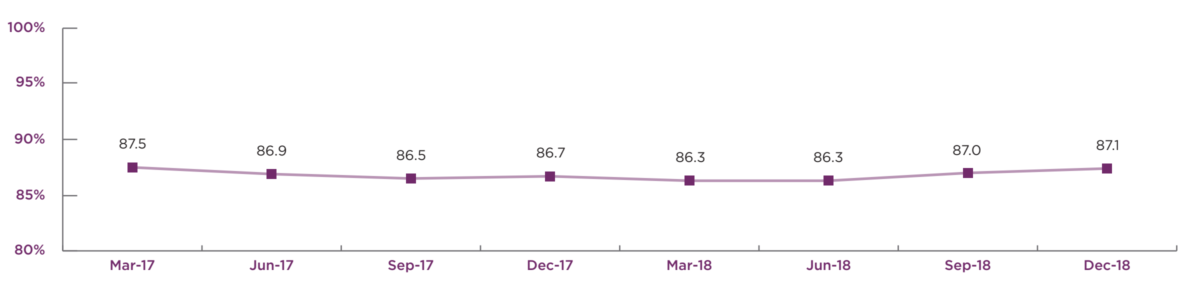


As of	**Jan 1, 2019**	Jan 1, 2018	**Dec 31, 2018**	Dec 31, 2017
Commercial Health	**777,345**	728,452	**715,704**	707,591
Medicare	**190,512**	175,758	**182,337**	168,784
Medicaid	**420,242**	421,169	**419,324**	420,239
Sub-Total Physical Health Products	**1,388,099**	1,325,379	**1,317,365**	1,296,614
Community HealthChoices	**74,547**	41,762	**43,260**	-
Behavioral Health	**981,461**	1,000,143	**981,691**	989,553
Sub-Total Health Products	**2,444,107**	2,367,284	**2,342,316**	2,286,167
Work Partners and Life Solutions	**570,314**	534,692	**570,129**	520,877
Ancillary Products	**390,588**	378,203	**385,921**	352,800
Evolent TPA	**85,573**	112,192	**98,165**	96,620
Total Membership	**3,490,582**	3,392,371	**3,396,531**	3,256,464

Healthcare Spending Ratio

UPMC Insurance Services Medical Expense Ratio remained stable as medical expenses trended consistently with premiums.

Trailing Twelve Months



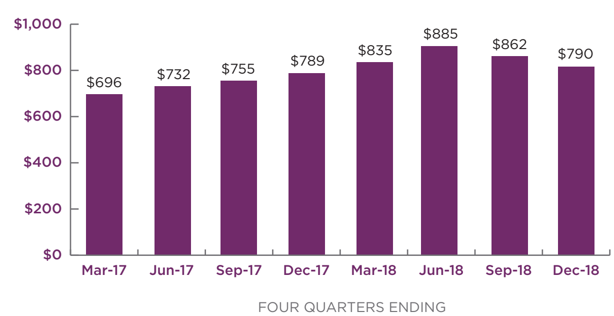
KEY FINANCIAL INDICATORS
(Dollars in millions)

Operating Earnings before Interest, Depreciation and Amortization

Operating income for the twelve months ended December 31, 2018 reflects UPMC's financial performance despite a national trend of expense inflation without commensurate government payer rate increases. UPMC has maintained its commitment to charitable and academic support and continues to make investments in patient and member care. Operating EBIDA for the twelve months ended December 31, 2018 increased as compared to the twelve months ended December 31, 2017, as depreciation expense increased due to recent affiliations and increased capital spending.

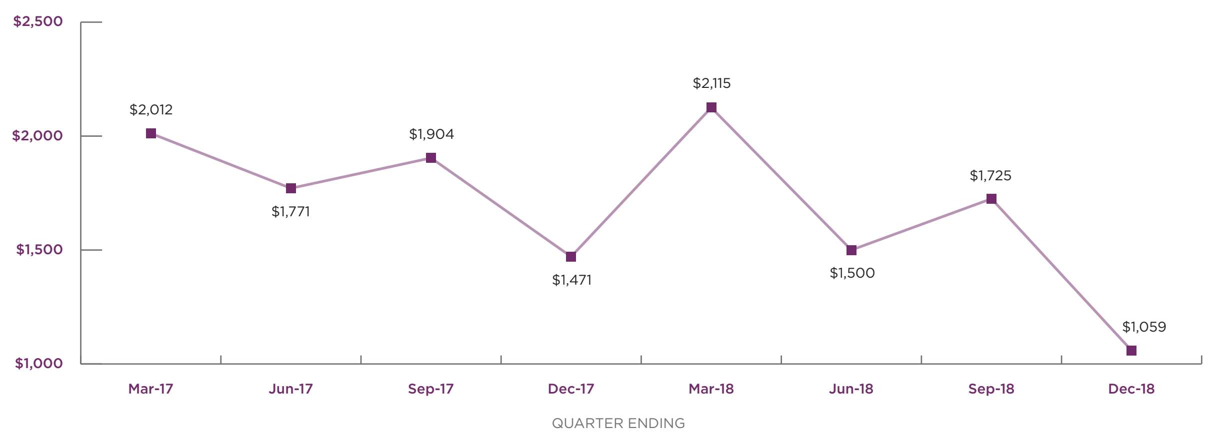
For the Twelve Months Ended December 31			
	2018	Change	2017
Operating Income	**$166**	(33%)	$ 246
Depreciation and Amortization	**624**	15%	543
Operating EBIDA	**$790**	0%	$ 789

Trailing Twelve Months EBIDA



Unrestricted Cash and Investments Over Long Term Debt

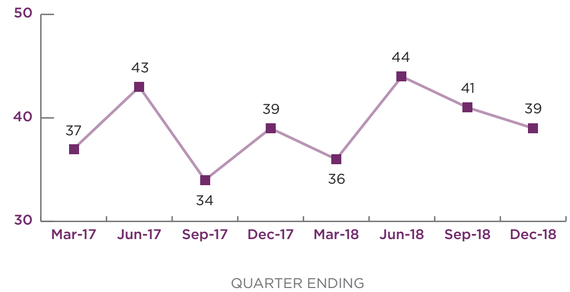
Unrestricted cash over long term debt decreased by $412 million as compared to December 2017, primarily due to declining investment market conditions in the fourth quarter.



Days in Net Accounts Receivable

Consolidated Days in Accounts Receivable continue to be lower than industry averages due to UPMC's rigorous procedures in this area. Days in Accounts Receivable fluctuations are typically driven by the timing of payment from the state of Pennsylvania's Medicaid program.

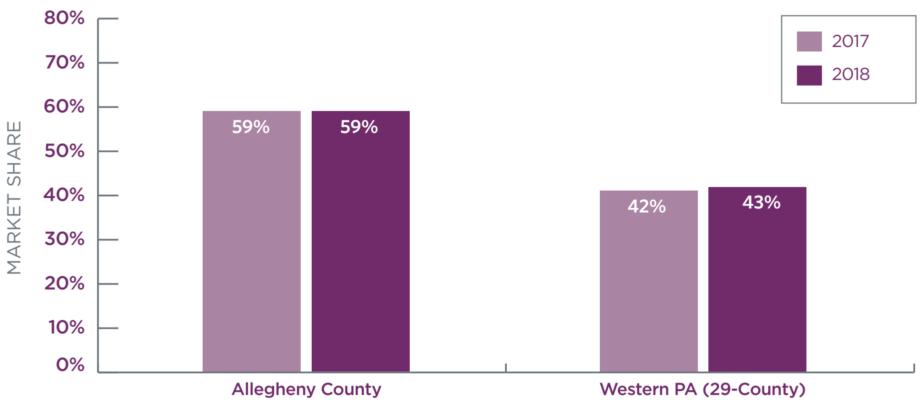
By Division	2018 Balance	Days	
		Dec 31, 2018	Dec 31, 2017
Health Services	$ 1,340	43	45
Insurance Services	796	32	29
Consolidated	$ 2,136	39	39



Market Share

The chart below shows the change in UPMC's estimated inpatient market share for the first two quarters of calendar years 2017 and 2018 by service area[(1)]. This is the most recent market share data currently available.

UPMC INPATIENT MEDICAL-SURGICAL MARKET SHARE
AS OF JUNE 30[(2)]



[(1)] *The service areas represented above are (1) Allegheny County, and (2) a 29-county region which also includes Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Crawford, Elk, Erie, Fayette, Forest, Greene, Huntingdon, Indiana, Jefferson, Lawrence, McKean, Mercer, Potter, Somerset, Venango, Warren, Washington and Westmoreland counties.*

[(2)] *Excludes psychiatry and substance abuse discharges.*

ASSET AND LIABILITY MANAGEMENT

During the three months ended December 31, 2018, UPMC's investment portfolio returned (5.0%). As of December 31, 2018, UPMC utilized 143 ongoing external investment managers including 50 traditional managers, nine hedge fund managers and 84 private capital managers. UPMC is also invested with an additional 83 legacy private capital and hedge fund managers. UPMC's investment portfolio has a long-term perspective and has generated annualized returns of (1.9%), 6.3%, and 5.0% for the trailing one-, three- and five-year periods. As of December 31, 2018, 71% of UPMC's investment portfolio could be liquidated within three days.

UPMC's annualized cost of capital during the period was 3.37%. This cost of capital includes the accrual of interest payments, the amortization of financing costs and original issue discount or premium, the ongoing costs of variable rate debt and the cash flow impact of derivative contracts. As of December 31, 2018, the interest rates on UPMC's long-term debt were approximately 71% fixed and 29% variable after giving effect to derivative contracts. Annualized interest cost for the variable rate debt for the period averaged 2.25%. The annualized interest cost for the fixed rate debt was 3.74%. UPMC has a revolving credit facility which expires in July 2019 and has a borrowing limit of $500 million. As of December 31, 2018, UPMC had approximately $76 million in letters of credit outstanding under the credit facility leaving $424 million available to fund operating and capital needs, of which none was drawn. As of December 31, 2018, UPMC had $3 million of unsecured letters of credit not included in the revolving credit facility.

In April 2017, credit facilities of $19 million (increased to $150 million from May 15 to August 14 on an annual basis) and $50 million were opened, both with expiration dates in April 2022. Both of these credit facilities support the Insurance Services Division. As of December 31, 2018, there were no draws on either credit facility.

The table below compares reported Investing and Financing Activity for the twelve months ended December 31, 2018 and 2017 by type.

Investing and Financing Activity by Type

Twelve Months Ended December 31	**2018**	2017
(in thousands)		
Realized gains	**$ 268,561**	$ 283,924
Interest and dividends, net of fees	**90,645**	74,122
Realized investment revenue	**$ 359,206**	$ 358,046
Unrealized gains on derivative contracts	**207**	2,427
Other unrealized (losses) gains	**(430,293)**	336,701
Impairment on cost basis investments	**-**	(24,023)
Investment (loss) revenue	**$ (70,880)**	$ 673,151
Loss on extinguishment of debt	**-**	(577)
Interest expense	**(162,782)**	(140,735)
UPMC Enterprises activity	**(133,167)**	(115,570)
(Loss) gain from investing and financing activities	**$(366,829)**	$ 416,269

Sources and Uses of Cash

UPMC's primary source of operating cash is the collection of revenues and related accounts receivable. As of December 31, 2018, UPMC had approximately $277 million of cash and cash equivalents on hand to fund operations and capital expenditures, and borrowing availability under the credit facilities was $493 million to fund operating and capital needs, of which none was drawn.

Operating EBIDA was $790 million for the twelve months ended December 31, 2018, compared to $789 million for the twelve months ended December 31, 2017. Net cash provided by operating activities increased to $750 million in the twelve months ended December 31, 2018 compared to $641 million used in operating activities in the twelve months ended December 31, 2017 primarily due to net investment withdrawals.

Key sources and uses of cash from investing activities for the twelve month period ended December 31, 2018 include capital expenditures of $891 million, as well as $14 million to acquire ownership interests in and fund businesses. Major capital projects included construction and improvements on UPMC Jameson, UPMC Susquehanna - Emergency Department Expansion and the UPMC Mercy Vision Institute. Major information services projects included enhancements that are advancing UPMC's leading clinician centric computing environment, technology infrastructure that supports UPMC's diversified digital environment, investments in enterprise data analytics and other technologies that are transforming the consumer experience across the spectrum of health care.

UTILIZATION STATISTICS

PERIOD ENDED DECEMBER 31, 2018

The following table presents selected consolidated statistical indicators of medical-surgical, psychiatric, sub-acute and rehabilitation patient activity for the twelve months ended December 31, 2018 and 2017.

	Twelve Months Ended December 31	
	2018	**2017**
Licensed Beds	**8,677**	8,552
BEDS IN SERVICE		
Medical-Surgical	**4,850**	4,821
Psychiatric	**430**	435
Rehabilitation	**258**	265
Skilled Nursing	**1,425**	1,347
Total Beds in Service	**6,963**	6,868
PATIENT DAYS		
Medical-Surgical	**1,309,333**	1,149,371
Psychiatric	**135,456**	136,917
Rehabilitation	**79,342**	77,165
Skilled Nursing	**455,447**	392,909
Total Patient Days	**1,979,578**	1,756,362
Average Daily Census	**5,424**	5,231
Observation Days	**138,740**	119,788
Obs Average Daily Census	**380**	368
ADMISSIONS AND OBSERVATION CASES		
Medical-Surgical	**267,545**	229,866
Observation Cases	**97,324**	87,943
Subtotal	**364,869**	317,809
Psychiatric	**12,257**	12,066
Rehabilitation	**5,331**	5,311
Skilled Nursing	**5,124**	4,740
Total Admissions and Observation Cases	**387,581**	339,926
Overall Occupancy	**83%**	82%
AVERAGE LENGTH OF STAY		
Medical-Surgical	**4.9**	5.0
Psychiatric	**11.1**	11.3
Rehabilitation	**14.9**	14.5
Skilled Nursing	**88.9**	82.9
Overall Average Length of Stay	**6.8**	7.0
Emergency Room Visits	**1,136,776**	957,427
TRANSPLANTS (DOMESTIC)		
Liver	**135**	141
Kidney	**247**	224
All Other	**360**	321
Total	**742**	686
OTHER POST-ACUTE METRICS		
Home Health Visits	**762,457**	746,573
Hospice Care Days	**224,886**	196,439
Outpatient Rehab Visits (CRS)	**655,565**	646,309

OUTSTANDING DEBT

PERIOD ENDED DECEMBER 31, 2018
(IN THOUSANDS)

Issuer	Original Borrower	Series	Amount Outstanding
Allegheny County Hospital Development Authority	UPMC Health System	1997B	$ 43,562
	UPMC	2007A	67,210
	UPMC	2007B	64,637
	UPMC	2008 Notes	77,927
	UPMC	2009A	316,031
	UPMC	2010A	81,854
	UPMC	2010B	98,081
	UPMC	2010C	50,000
	UPMC	2010D	150,000
	UPMC	2010F	95,000
	UPMC	2011A	77,947
	UPMC	2017D	499,645
Monroeville Finance Authority	UPMC	2012	332,103
	UPMC	2013B	60,313
	UPMC	2014B	48,554
	UPMC	2015A Note	66,043
Pennsylvania Economic Development Financing Authority	UPMC	2013A	114,760
	UPMC	2014A	304,073
	UPMC	2015B	124,881
	UPMC	2016	259,523
	UPMC	2017A	455,133
	UPMC	2017C	134,613
Erie County Hospital Authority	Hamot Health Foundation	2010A	9,867
	Hamot Health Foundation	2010C	500
Pennsylvania Higher Educational Facilities Authority	UPMC	2010E	210,196
Lycoming County Authority	Susquehanna Health System	2009	141,727
	The Williamsport Hospital	2011	14,722
Tioga County Industrial Development Authority	Laurel Health System	2010	7,425
	Laurel Health System	2011	5,782
Dauphin County General Authority	Pinnacle Health System	2009A	55,192
	Pinnacle Health System	2012A	137,202
	Pinnacle Health System	2016A	108,193
	Pinnacle Health System	2016B	89,255
General Authority of Southcentral Pennsylvania	Hanover Hospital	2013	9,944
	Hanover Hospital	2015	24,070
Potter County Hospital Authority	UPMC	2018A Note	22,991
None	UPMC	2011B	99,625
	UPMC	2017B	97,290
	UPMC	2018B Note	498
	Susquehanna Health Innovation Center	New Market Tax Credit	17,076
	Hanover Hospital	ACNB Note	346
	UPMC	Swap Liabilities	7,550
	Various - Capital Leases and Loans		126,215
Total			**$ 4,707,556**

Includes original issue discount and premium, deferred financing costs, and other.

Source: UPMC Records

DEBT COVENANT CALCULATIONS

PERIOD ENDED DECEMBER 31, 2018

DEBT SERVICE COVERAGE RATIO

(Dollars in Thousands)

	Trailing Twelve-Month Period Ended December 31, 2018
Net Income	$ (290,268)
ADJUSTED BY:	
Net Unrealized Gains from Period [1]	430,839
Depreciation and Amortization [1]	624,388
Inherent Contribution [1]	72,354
Realized Investment Impairments [2]	(23,190)
Interest Expense	160,967
Revenues Available for Debt Service	$ 975,090
Historical Debt Service Requirements – 2007 MTI	$ 358,778
Debt Service Coverage Ratio – 2007 MTI	2.72X
Historical Debt Service Requirements – All Debt and Leases	$ 391,029
Debt Service Coverage Ratio – All Debt and Leases	2.49X

LIQUIDITY RATIO AS OF DECEMBER 31, 2018

Unrestricted Cash and Investments	$ 5,098,367
Master Trust Indenture Debt	$ 4,437,191
Unrestricted Cash to MTI Debt	**1.15**

(1) Non-Cash.

(2) Reflects ultimate realization of previously impaired cost-based investments.

I hereby certify to the best of my knowledge that, as of December 31, 2018, UPMC is in compliance with the applicable covenants contained in the financing documents for the bonds listed on the cover hereof and all applicable bank lines of credit and no Event of Default (as defined in any related financing document) has occurred and is continuing.

C Talbot Heppenstall Jr

C. Talbot Heppenstall, Jr.
Treasurer
UPMC

Audited Consolidated Financial Statements

FOR THE PERIOD ENDED DECEMBER 31, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of UPMC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of UPMC and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations and changes in net assets, and cash flows for the years then ended, and the related notes collectively referred to as the "consolidated financial statements." In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB) and in accordance with auditing standards generally accepted in the United States of America, the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 26, 2019, expressed an unqualified opinion thereon.

Adoption of ASU No. 2016-01

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for equity investments with a readily available fair value that do not result in consolidation and are not accounted for under the equity method in 2018 due to the adoption of ASU 2016-01, *Financial Instruments*.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are required to be independent with respect to the Company in accordance with the relevant ethical requirements relating to our audit.

We conducted our audits in accordance with the auditing standards of the PCAOB and 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 financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Ernst & Young LLP

We have served as the Company's auditor since 1994.

Pittsburgh, Pennsylvania
February 26, 2019

CONSOLIDATED BALANCE SHEETS

(IN THOUSANDS)

	December 31 2018	2017
CURRENT ASSETS		
Cash and cash equivalents	**$ 277,324**	$ 529,631
Patient accounts receivable	**1,060,365**	1,030,668
Other receivables	**1,076,317**	849,451
Securities lending collateral	**171,657**	-
Other current assets	**358,100**	325,617
Total current assets	**2,943,763**	2,735,367
Board-designated, restricted, trusteed and other investments	**6,578,930**	6,974,329
Beneficial interests in foundations and trusts	**499,957**	529,739
Property, buildings and equipment:		
Land and land improvements	**507,432**	485,245
Buildings and fixed equipment	**6,973,405**	6,181,462
Movable equipment	**2,639,369**	3,180,556
Capital leases	**145,267**	128,010
Construction in progress	**513,947**	284,742
	10,779,420	10,260,015
Less allowance for depreciation	**(5,445,369)**	(5,190,406)
	5,334,051	5,069,609
Other assets	**482,246**	503,529
Total assets	**$ 15,838,947**	$ 15,812,573
CURRENT LIABILITIES		
Accounts payable and accrued expenses	**$ 604,186**	$ 615,655
Accrued salaries and related benefits	**720,756**	684,865
Current portion of insurance reserves	**636,566**	564,209
Payable under securities lending agreement	**171,657**	-
Current portion of long-term obligations	**462,147**	445,126
Other current liabilities	**472,059**	450,697
Total current liabilities	**3,067,371**	2,760,552
Long-term obligations	**4,245,409**	4,508,413
Pension liability	**114,178**	-
Long-term insurance reserves	**335,527**	325,496
Other noncurrent liabilities	**341,407**	292,996
Total liabilities	**8,103,892**	7,887,457
Net assets without donor restrictions	**6,678,826**	6,871,804
Net assets with donor restrictions	**1,056,229**	1,053,312
Total net assets	**7,735,055**	7,925,116
Total liabilities and net assets	**$ 15,838,947**	$ 15,812,573

See accompanying notes

CONSOLIDATED STATEMENTS OF OPERATIONS AND CHANGES IN NET ASSETS

(IN THOUSANDS)

	Twelve Months Ended December 31	
	2018	2017
NET ASSETS WITHOUT DONOR RESTRICTIONS		
Patient service revenue (net of contractual allowances and discounts)	**$ -**	$ 7,503,414
Provision for bad debts	**-**	(338,788)
Net patient service revenue	**8,822,997**	7,164,626
Insurance enrollment revenue	**8,491,686**	7,273,331
Other revenue	**1,462,661**	1,195,713
Total operating revenues	**18,777,344**	15,633,670
Expenses:		
Salaries, professional fees and employee benefits	**6,794,036**	5,706,707
Insurance claims expense	**5,712,025**	4,627,853
Supplies, purchased services and general	**5,481,377**	4,509,686
Depreciation and amortization	**624,388**	543,719
Total operating expenses	**18,611,826**	15,387,965
Operating income	**165,518**	245,705
Inherent contribution	**(72,354)**	612,296
Other non-operating expense	**-**	(3,825)
Income tax expense	**(16,603)**	(3,801)
After-tax income	**$ 76,561**	$ 850,375
Investing and financing activities:		
Investment revenue	**(70,880)**	673,151
Interest expense	**(162,782)**	(140,735)
Loss on extinguishment of debt	**-**	(577)
UPMC Enterprises activity:		
Portfolio company revenue	**53,955**	30,524
Portfolio company and development expense	**(187,122)**	(146,094)
(Loss) gain from investing and financing activities	**(366,829)**	416,269
Excess of (expenses over revenues) revenues over expenses	**(290,268)**	1,266,644
Other changes in net assets without donor restrictions	**(121,510)**	226,854
Change in net assets without donor restrictions	**(411,778)**	1,493,498
NET ASSETS WITH DONOR RESTRICTIONS		
Contributions and other changes	**33,295**	6,318
Net realized and unrealized gains on restricted investments	**21,340**	15,494
Restricted net assets acquired	**-**	311,661
Assets released from restriction for operations and capital purchases	**(21,936)**	(6,581)
Change in beneficial interests in foundations and trusts	**(29,782)**	65,945
Change in net assets with donor restrictions	**2,917**	392,837
Change in net assets	**(408,861)**	1,886,335
Cumulative effect of change in accounting principle	**218,800**	-
Net assets, beginning of period	**7,925,116**	6,038,781
Net assets, end of period	**$ 7,735,055**	$ 7,925,116

See accompanying notes

CONSOLIDATED STATEMENTS OF CASH FLOWS

(IN THOUSANDS)

	Twelve Months Ended December 31	
	2018	2017
OPERATING ACTIVITIES		
Change in total net assets	**$ (408,861)**	$ 1,886,335
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities:		
Depreciation and amortization	**624,388**	543,719
Provision for bad debts	**-**	338,788
Change in beneficial interest in foundations and trusts	**29,782**	(65,945)
Restricted contributions and investment income	**(54,635)**	(21,812)
Restricted net assets acquired through affiliations	**-**	(311,661)
Unrealized losses (gains) on investments	**430,293**	(312,383)
Realized gains on investments	**(359,206)**	(358,046)
Purchases of non-alternative investments	**(4,424,269)**	(4,167,423)
Sales of non-alternative investments	**4,881,053**	3,446,865
Inherent contribution	**72,354**	(612,296)
Changes in operating assets and liabilities:		
Accounts receivable	**(256,563)**	(707,122)
Other current assets	**(204,140)**	(59,645)
Accounts payable and accrued liabilities	**24,422**	(39,753)
Insurance reserves	**82,388**	125,533
Other current liabilities	**193,019**	(48,022)
Other noncurrent assets and liabilities	**229,608**	(254,960)
Other operating changes	**(109,744)**	(22,881)
Net cash provided by (used in) operating activities	**749,889**	(640,709)
INVESTING ACTIVITIES		
Purchase of property and equipment (net of disposals)	**(867,345)**	(685,332)
UPMC Enterprises investments in joint ventures	**(14,000)**	(35,000)
Cash acquired through affiliations	**-**	55,274
Net change in investments designated as nontrading	**(8,611)**	39,140
Purchases of alternative investments	**(242,672)**	(470,508)
Sales of alternative investments	**348,818**	647,083
Net change in other assets	**(14,811)**	4,087
Net cash used in investing activities	**(798,621)**	(445,256)
FINANCING ACTIVITIES		
Repayments of long-term obligations	**(508,011)**	(644,126)
Borrowings of long-term obligations	**249,801**	1,340,975
Restricted contributions and investment income	**54,635**	21,812
Net cash (used in) provided by financing activities	**(203,575)**	718,661
Net change in cash and cash equivalents	**(252,307)**	(367,304)
Cash and cash equivalents, beginning of period	**529,631**	896,935
Cash and cash equivalents, end of period	**$ 277,324**	$ 529,631
SUPPLEMENTAL INFORMATION		
Capital lease obligations incurred to acquire assets	**$ 23,908**	$ 15,475

See accompanying notes

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(IN THOUSANDS)

1. ORGANIZATIONAL OVERVIEW AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

UPMC is a Pennsylvania nonprofit corporation and is exempt from federal income tax pursuant to Section 501(a) of the Internal Revenue Code ("Code") as an organization described in Section 501(c)(3) of the Code. Headquartered in Pittsburgh, Pennsylvania, UPMC is one of the leading integrated delivery and financing systems in the United States. UPMC is an integrated global health enterprise leveraging medical expertise, geographic reach, and financial stability in a model of care excellence that can transform health care nationally and internationally. UPMC comprises nonprofit and for-profit entities offering medical and health care related services, including health insurance products. Closely affiliated with the University of Pittsburgh ("University") and with shared academic and research objectives, UPMC partners with the University's Schools of the Health Sciences to deliver outstanding patient care, train tomorrow's health care specialists and biomedical scientists, and conduct groundbreaking research on the causes and course of disease.

The accompanying consolidated financial statements include the accounts of UPMC and its subsidiaries. The consolidated financial statements are comprised of domestic and foreign nonprofit and for-profit entities that maintain separate books and records as part of their legal incorporation. Intercompany accounts and transactions are eliminated in consolidation.

New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers*, which replaces most existing revenue recognition guidance in U.S. GAAP and is intended to improve and converge with international standards the financial reporting requirements for revenue from contracts with customers. The core principle of ASU 2014-09 is that an entity should recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled to receive for those goods or services. ASU 2014-09 also requires additional disclosures about the nature, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments. Effective January 1, 2018, UPMC elected the modified retrospective application for the adoption of the guidance to all contracts under the scope of the guidance and there was no material impact to UPMC related to its existing revenue streams. For further information on the impact of adoption of ASU 2014-09 see disclosures under net patient service revenue. These updates supersede almost all existing revenue recognition guidance under GAAP, with certain exceptions, including an exception for UPMC's premium revenue recorded in the insurance enrollment revenue line item on the consolidated statement of operations and changes in net assets, which will continue to be accounted for in accordance with the provisions of Accounting Standards Codification, or ASC, Topic 944, *Financial Services – Insurance*.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments*, which requires entities to measure equity investments that do not result in consolidation and are not accounted for under the equity method at fair value and recognize any changes in fair value in excess of revenues over expenses unless the investments qualify for the new practicability exception. With early adoption permitted, UPMC adopted the new standard as of January 1, 2018, and applied the standard prospectively as required. As a result of the adoption, UPMC recorded an increase in board-designated, restricted, trusteed and other investments and unrestricted net assets in its consolidated balance sheet of approximately $218,800 as of January 1, 2018. The adjustment impacted net assets, beginning of period as of January 1, 2018, by this amount and resulted in net assets after the cumulative effect of change in accounting principle as of January 1, 2018, of $8,143,916.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*, which consists of a comprehensive lease accounting standard. Under the new standard, assets and liabilities arising from most leases will be recognized on the balance sheet and enhanced disclosures on key quantitative and qualitative information about leasing arrangements will be required. Leases will be classified as either operating or financing, and the lease classification will determine whether expense is recognized on a straight-line basis (operating leases) or based on an effective interest method (financing leases). The new standard is effective for interim and annual periods on January 1, 2019, and UPMC has applied the transitional package of practical expedients allowed by the standard relating to the identification, classification and initial direct costs of leases commencing before the effective date of Topic 842; however, UPMC did not elect the hindsight transitional practical expedient. UPMC has made an accounting policy election to not apply recognition requirements of the guidance to short-term leases. In July 2018, the FASB issued ASU No. 2018-11, *Leases: Targeted Improvements*, which provides an optional transition method that allows entities to initially apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption while comparative periods presented will continue to be in accordance with current ASC 840. UPMC is using the optional transition method to apply the lease standard as of January 1, 2019.

UPMC is nearing completion of its assessment process and its determination of the expanded disclosures regarding leases, as well as the impact to the consolidated financial statements. UPMC has made enhancements to its information systems and internal controls in response to the new rule requirements, including the implementation of a lease tracking software for reporting information related to leases. Upon adoption, UPMC is prepared to provide expanded disclosures in the consolidated financial statements and management will recognize assets and liabilities of approximately $1,200,000 as of the transition date. The adoption of ASC 842 is not expected to have a material impact on UPMC's results of operations, cash flows or debt covenants.

In August 2016, the FASB issued ASU 2016-14, *Presentation of Financial Statements for Not-For-Profit Entities*, which requires not for-profit entities to revise financial presentation to include: net asset classifications, provide quantitative and qualitative information as to available resources and management of liquidity and liquidity risk, information on investment expenses and returns, and the presentation of operating cash flows. The standard aims to help the reader of the financial statements to better understand the financial position of the organization and enhance consistency among similar organizations. UPMC adopted the new standard as of December 31, 2018, and there were no material changes to the balance sheets, statements of changes in operations and net assets, cash flows or debt covenants as a result of the adoption. Additional disclosure requirements that resulted from the adoption are found in Note 14.

In March 2017, the FASB issued ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This new guidance requires the disaggregation of the service cost component from the other components of net benefit cost. The service cost component of net benefit cost is to be reported in the same line item on the consolidated statement of operations as other compensation costs arising from services rendered by the pertinent employees, while the other components of net benefit cost are to be presented in the consolidated statement of operations separately, outside a subtotal of operating income. The amendments also provide explicit guidance to allow only the service cost component of net benefit cost to be eligible for capitalization. The adoption of the change in presentation of net benefit cost in the consolidated statement of operations is to be applied retrospectively, and the change in capitalization for only service cost applied prospectively. The guidance allows a practical expedient that permits the use of the amounts disclosed in the retirement benefits footnote for the prior comparative periods as the estimation basis for applying the retrospective presentation requirements. UPMC is assessing the overall impact this guidance will have on its consolidated financial statements and will adopt for the year ending December 31, 2019 and interim periods in the subsequent year. The impact of adopting ASU 2017-07 when applied retrospectively to the year ended December 31, 2018, will increase salaries, professional fees and employee benefits on the consolidated statements of operations and changes in net assets presented herein by $71,575, with a corresponding decrease to operating income and increase to other non-operating gains. As a result, for the year ended December 31, 2018, operating income will be $93,943 and other non-operating gains will be $71,575 upon retrospective adoption of ASU 2017-07. The adoption will have no impact on excess of expenses over revenues or net assets.

Cash and Cash Equivalents

Cash and cash equivalents consist primarily of cash and investments, which are so near to maturity (maturity of three days or less when purchased) that they present insignificant risk of changes in value.

(IN THOUSANDS)

Net Patient Service Revenue

UPMC's net patient service revenue is reported at the amount that reflects the consideration to which UPMC expects to be entitled in exchange for providing patient care. These amounts are due from patients, third-party payers (including health insurers and government programs), and others and include an estimate of variable consideration for retroactive revenue adjustments due to settlement of audits, reviews, and investigations. Generally, UPMC bills the patients and third-party payers several days after the services are performed and/or the patient is discharged from the facility. Revenue is recognized as performance obligations are satisfied. Performance obligations are determined based on the nature of the services provided by UPMC. Revenue for performance obligations satisfied over time is recognized based on actual charges incurred in relation to total expected (or actual) charges. UPMC believes that this method provides a reasonable representation of the transfer of services over the term of the performance obligation based on the inputs needed to satisfy the obligation. Generally, performance obligations satisfied over time relate to inpatient services. UPMC measures the performance obligation from admission into the hospital to the point when it is no longer required to provide services to that patient, which is generally at the time of discharge. Revenue for performance obligations satisfied at a point in time is recognized when goods or services are provided and UPMC does not believe it is required to provide additional goods or services to the patient.

The majority of UPMC's services are rendered to patients with third party coverage. Reimbursement under these programs for all payers is based on a combination of prospectively determined rates, discounted charges and historical costs. Amounts received under Medicare and Medical Assistance programs are subject to review and final determination by program intermediaries or their agents and the contracts UPMC has with commercial payers also provide for retroactive audit and review of claims. Agreements with third-party payers typically provide for payments at amounts less than established charges. Generally, patients who are covered by third-party payers are responsible for related deductibles and coinsurance, which vary in amount. UPMC also provides services to uninsured patients, and offers those uninsured patients a discount, either by policy or law, from standard charges. UPMC estimates the transaction price for patients with deductibles and coinsurance and from those who are uninsured based on historical experience and current market conditions. The initial estimate of the transaction price is determined by reducing the standard charge by any contractual adjustments, discounts, and implicit price concessions. Subsequent changes to the estimate of the transaction price are generally recorded as adjustments to patient service revenue in the period of the change and are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as final settlements are determined. Adjustments arising from a change in the transaction price were not significant in the twelve months ended December 31, 2018 or 2017.

Consistent with UPMC's mission, care is provided to patients regardless of their ability to pay. UPMC has determined it has provided implicit price concessions to uninsured patients and patients with other uninsured balances (for example, copays and deductibles). The implicit price concessions included in estimating the transaction price represent the difference between amounts billed to patients and the amounts UPMC expects to collect based on its collection history with those patients. Patients who meet UPMC's criteria for charity care are provided care without charge or at amounts less than established rates and UPMC has determined it has provided an implicit price concession. Price concessions, including charity care, are not reported as net patient service revenue.

The composition of net patient service revenue for the twelve months ended December 31, 2018 and 2017, primarily resulting from patients in the western Pennsylvania region, are as follows:

Twelve Months Ended December 31	**2018**	2017
Medicare	**39%**	39%
Commercial	**38%**	38%
Medicaid	**15%**	15%
Self-pay/other	**8%**	8%
	100%	100%

(IN THOUSANDS)

Laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation. Compliance with such laws and regulations is subject to government review and interpretation as well as significant regulatory action including fines, penalties, and exclusion from Medicare and Medicaid programs. As a result, there is at least a reasonable possibility that recorded estimates may change.

Insurance Enrollment Revenue

UPMC's insurance subsidiaries (collectively, "Health Plans") provide health care services on a prepaid basis under various contracts. Insurance enrollment revenues are recognized as income in the period in which enrollees are entitled to receive health care services, which represents the performance obligation. Health care premium payments received from UPMC's members in advance of the service period are recorded as unearned revenues.

Insurance enrollment revenues include commercial, Medicare, Medicaid and behavioral health contracts. Laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation. UPMC believes that it is in compliance with all applicable laws and regulations and is not aware of any pending or threatened investigations involving allegations of potential wrongdoing. Compliance with such laws and regulations can be subject to government review and interpretation as well as significant regulatory action, including fines, penalties, and exclusion from the programs. As a result, there is at least a reasonable possibility that recorded estimates will change.

Other Revenue

UPMC's other revenue consists of various contracts related to its Health Services and Insurance Services divisions. These contracts vary in duration and in performance obligations. In evaluating these contracts for compliance with ASU 2014-09, there were no changes to the nature, timing or extent of revenues previously recognized or how revenues are recognized prospectively. Revenues are recognized when the performance obligations identified within the individual contracts are satisfied and collections can be reasonably assured.

Receivables

Concentrations of net patient accounts receivable at December 31, 2018 and 2017, primarily resulting from patients centered in the western Pennsylvania region include:

Twelve Months Ended December 31	**2018**	2017
Commercial	**47%**	48%
Medicare	**25%**	24%
Medicaid	**9%**	8%
Self-pay/other	**19%**	20%
	100%	100%

Other receivables are primarily comprised of payments due to Insurance Services and include the uncollected amounts from fully-insured groups, individuals and government programs and are reported net of an allowance for estimated terminations and uncollectible accounts.

Board-Designated, Restricted, Trusteed, and Other Investments

Substantially all of UPMC's investments in debt and equity securities are classified as trading. This classification requires UPMC to recognize unrealized gains and losses on substantially all of its investments in debt and equity securities as investment revenue in the consolidated statements of operations and changes in net assets. This classification also includes UPMC Enterprises' cost basis investments in early stage entities, which are categorized as alternative investments. UPMC's investments in debt and equity securities that are donor restricted assets are designated as nontrading. Unrealized gains and losses on donor-restricted assets are recorded as changes in net assets with donor restrictions in the consolidated statements of operations and changes in net assets. Gains and losses on the sales of securities are determined by the average cost method. Realized and unrealized gains and losses are included in investment revenue in the consolidated statements of operations and changes in net assets.

Investments in equity securities with readily determinable fair values and all investments in debt securities are measured at fair value using quoted market prices or model-driven valuations. These investments predominantly include those maintained in Master Trust Funds ("MTF") and are summarized as nonalternative investments in Note 4.

Investments in limited partnerships that invest in marketable securities (hedge funds) are reported using the equity method of accounting based on information provided by the respective partnership. The values provided by the respective partnerships are based on historical cost, appraisals, or other estimates that require varying degrees of judgment. Generally, UPMC's holdings reflect net contributions to the partnership and an allocated share of realized and unrealized investment income and expenses. The investments may individually expose UPMC to securities lending, short sales, and trading in futures and forward contract options and other derivative products. UPMC's risk is limited to its carrying value for these lending and derivatives transactions. Amounts can be divested only at specified times. The financial statements of the limited partnerships are audited annually, generally as of December 31. The results of our private equity investments are based upon financial statements received from the general partners, which are generally received on a quarter lag. As a result, the market values and earnings recorded at December 31, 2018 reflect the partnership activity experienced during the twelve month period ending September 30, 2018. These investments are summarized as alternative investments in Note 4.

Fair Value Elections

Pursuant to accounting guidance provided by Accounting Standards Codification ("ASC") 825-10, *Financial Instruments*, UPMC makes elections, on an investment-by-investment basis, as to whether it measures certain equity method investments that are traded in active markets at fair value. Fair value elections are generally irrevocable. The initial unrealized gains recognized upon election of the fair value option are recorded as operating revenue in the consolidated statements of operations and changes in net assets consistent with accounting for other equity method investments where UPMC has the ability to exercise significant influence but not control. Any subsequent changes in the fair value of the investment are recorded as investment revenue in the consolidated statements of operations and changes in net assets consistent with UPMC's reporting of gains and losses on other marketable securities included in board-designated, restricted, trusteed, and other investments. Management believes this reporting increases the transparency of UPMC's financial condition.

Financial Instruments

Cash and cash equivalents and investments recorded at fair value aggregate $6,193,204 and $5,906,435 at December 31, 2018 and 2017, respectively. The fair value of these instruments is based on market prices as estimated by financial institutions. The fair value of long-term debt at December 31, 2018 and 2017, is $4,730,862 and $5,065,304, respectively, based on market prices as estimated by financial institutions which would be categorized as Level 2 if presented in the fair value table found in footnote 7. The fair value of amounts owed to counterparties under derivative contracts at December 31, 2018 and 2017, is $7,550 and $8,901, respectively, and due from counterparties is $408 and $1,552, respectively, based on pricing models that take into account the present value of estimated future cash flows.

UPMC participates in securities lending transactions whereby a portion of its investments are loaned, through its agent, to various parties in return for cash and securities from the parties as collateral for the securities loaned. The amount of cash collateral received under securities lending is reported as an asset and a corresponding payable in the consolidated balance sheet. Total collateral is required to have a market value between 102% and 105% of the market value of securities loaned. As of December 31, 2018, securities loaned, of which UPMC maintains ownership, totaled $247,777 and total collateral (cash and noncash) received related to the securities loaned was $258,677.

Beneficial Interests in Foundations and Trusts

Several of UPMC's subsidiary hospitals have foundations that, according to their bylaws, were formed for the exclusive purpose of supporting and furthering the mission of the respective hospital. The foundations are separate corporations and are not liable for the obligations of UPMC, including any claims of creditors of any UPMC entities. The net assets of certain foundations are included in the consolidated balance sheets as beneficial interests in foundations and net assets with donor restrictions because the hospitals' use of these assets is at the discretion of the foundations' independent boards of directors.

Beneficial interests in foundations and trusts of $499,957 and $529,739 and the net assets of consolidated foundations of $205,238 and $165,304 as of December 31, 2018 and 2017, respectively, are not pledged as collateral for UPMC's debt.

Property, Buildings, and Equipment

Property, buildings, and equipment are recorded at cost or, if donated or impaired, at fair market value at the date of receipt or impairment. Interest cost incurred on borrowed funds (net of interest earned on such funds) during the period of construction of capital assets is capitalized as a component of the cost of acquiring those assets.

Costs associated with the development and installation of internal-use software are expensed or capitalized depending on whether they are incurred in the preliminary project stage, application development stage, or post-implementation stage.

Depreciation is computed using the straight-line method at rates designed to depreciate the assets over their estimated useful lives (predominantly ranging from 3 to 40 years) and includes depreciation related to capitalized leases. Certain newly constructed buildings have estimated useful lives up to 60 years. Depreciation expense on property, buildings, and equipment for years ended December 31, 2018 and 2017 was $623,783 and $543,719, respectively.

Asset Impairment

UPMC evaluates the recoverability of the carrying value of long-lived assets by reviewing long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and adjusts the asset cost to fair value if undiscounted cash flows are less than the carrying amount of the asset. There have been no significant impairments in the years ended December 31, 2018 and 2017.

Other Assets

Investments in individual entities in which UPMC has the ability to exercise significant influence but does not control, generally 20% to 50% ownership, are reported using the equity method of accounting unless the fair value option is elected. All other noncontrolled investments, generally less than 20% ownership, are carried at cost. Other assets include approximately $142,775 and $142,007 at December 31, 2018 and 2017, respectively, relating to investments in partnerships/joint ventures that provide health care, management, and other goods and services to UPMC, its affiliates, and the community at large.

Goodwill

Goodwill represents the excess of the cost of an acquired entity over the net of the amounts assigned to the fair value of assets acquired and liabilities assumed. As of December 31, 2018 and 2017, goodwill of $247,047 and $184,707, respectively, is recorded in UPMC's consolidated balance sheets as other assets. Increases in goodwill from prior year include $25,214 related to Whitfield Hospital in Ireland, $20,461 related to UPMC Enterprises acquisitions and several other insignificant acquisitions aggregating to $16,665.

Goodwill is reviewed annually for impairment, or more frequently if events or circumstances indicate that the carrying value of an asset may not be recoverable. In connection with changes in accounting standards, which were adopted by UPMC in 2012, UPMC has the option to qualitatively assess goodwill for impairment before completing a quantitative assessment. Under the qualitative approach, if, after assessing the totality of events or circumstances, including both macroeconomic, industry and market factors, and entity-specific factors, UPMC determines it is likely (more likely than not) that the fair value is greater than its carrying amount, then the quantitative impairment analysis is not required. As of December 31, 2018 and 2017, after application of the qualitative approach, there were no indicators of impairment.

Derivatives

UPMC uses derivative financial instruments ("derivatives") to modify the interest rates and manage risks associated with its asset allocation and outstanding debt. UPMC records derivatives as assets or liabilities in the consolidated balance sheets at fair value. The accounting for changes in the fair value (i.e., gains or losses) of a derivative depends on whether it has been designated and qualifies as part of a hedging relationship and, further, on the type of hedging relationship. UPMC has entered into interest rate swap agreements that convert a portion of its variable rate debt to a fixed interest rate. UPMC has also entered into equity-related derivatives to manage the asset allocation in its investment portfolio. Under the equity index swap agreements, UPMC pays a fixed income-like return in order to receive an equity-like return. The notional amount of these swaps is based upon UPMC's target asset allocation. None of UPMC's swaps outstanding as of December 31, 2018 and 2017, are designated as hedging instruments and, as such, changes in fair value are recognized in investing and financing activities as investment revenue in the consolidated statements of operations and changes in net assets.

By using derivatives to manage these risks, UPMC exposes itself to credit risk and market risk. Credit risk is the failure of the counterparty to perform under the terms of the derivatives. When the fair value of a derivative is positive, the counterparty owes UPMC, which creates credit risk for UPMC. When the fair value of a derivative is negative, UPMC owes the counterparty, and therefore, it does not incur credit risk. UPMC minimizes the credit risk in derivatives by entering into transactions that require the counterparty to post collateral for the benefit of UPMC based on the credit rating of the counterparty and the fair value of the derivative. If UPMC has a derivative in a liability position, UPMC's credit is a risk and fair market values could be adjusted downward. Market risk is the effect on the value of a financial instrument that results from a change in interest rates. The market risk associated with interest rate changes is managed by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken. Management also mitigates risk through periodic reviews of derivative positions in the context of UPMC's total blended cost of capital.

Net Assets

Resources are classified for reporting purposes as net assets without donor restrictions and net assets with donor restrictions, according to the absence or existence of donor-imposed restrictions. Board-designated net assets are net assets without donor restrictions that have been set aside by the Board for specific purposes. Net assets with donor restrictions are those assets, including contributions and accumulated investment returns, whose use has been limited by donors for a specific purpose or time period or are those for which donors require the principal of the gifts to be maintained in perpetuity to provide a permanent source of income.

Net assets with donor restrictions include $338,154 and $319,735 of net assets held in perpetuity at December 31, 2018 and 2017, respectively. The remainder of net assets with donor restrictions represents beneficial interests in foundations that support research and other health care programs. Some net assets with donor restrictions are limited by donors and the foundations to a specific time period or purpose and are reclassified to net assets without donor restrictions and included in the consolidated statements of operations and changes in net assets as other revenue or assets released from restriction for capital purchases when the restriction is met.

Inherent Contribution

UPMC applies the guidance set forth in ASC 958-805; *Not-for-Profit Business Combinations*, for affiliations and acquisitions. The guidance primarily characterizes business combinations between not-for-profit entities as nonreciprocal transfers of assets resulting in the contribution of the acquiree's net assets to the acquirer. The guidance prescribes that the acquirer recognize an excess of the acquisition date fair value of unrestricted net assets acquired over the fair value of the consideration transferred as a separate credit in its statement of operations as of the acquisition date or conversely, recognize the excess of the fair value of the consideration transferred over the fair value of the unrestricted net assets acquired as goodwill. Adjustments to these fair value assessments and other related charges are recorded in the statement of operations and changes in net assets in the period incurred or identified.

Excess of Revenues Over Expenses

The consolidated statements of operations and changes in net assets include excess of revenues over expenses as a performance indicator. Excess of revenues over expenses includes all changes in net assets without donor restrictions except for contributions and distributions from foundations for the purchase of property and equipment, adjustments for pension liability, other than net periodic pension cost, discontinued operations, if any, and the cumulative effect of changes in accounting principles, if any.

Use of Estimates

The preparation of financial statements, in conformity with accounting principles generally accepted in the United States, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

2. SIGNIFICANT TRANSACTIONS

On September 1, 2017, UPMC and PinnacleHealth, executed an Integration and Affiliation Agreement (the "Agreement") providing for an affiliation between UPMC and PinnacleHealth. PinnacleHealth is a multi-institutional nonprofit health system that includes hospitals and a network of other health care providers servicing the Harrisburg region and a larger multicounty area in central Pennsylvania. The transaction is intended to preserve and enhance the mission of PinnacleHealth and to advance its ability to provide high-quality health services to its service area. On the date of the affiliation, the articles of incorporation and bylaws of PinnacleHealth were amended such that UPMC became the sole corporate member of PinnacleHealth. Concurrent with this transaction, PinnacleHealth and Hanover Hospital executed an Integration and Affiliation Agreement providing for an affiliation between PinnacleHealth and Hanover. On the date of the affiliations, the articles of incorporation and bylaws of PinnacleHealth and Hanover Hospital (combined "Pinnacle") were amended such that UPMC became the sole corporate member. As part of the affiliation, UPMC has committed approximately $1,500,000 to Pinnacle to expand healthcare services and maintain its patient focused mission. UPMC Pinnacle contributed $1,804,000 of net patient service revenue to year ended December 31, 2018. For the year ended December 31, 2017, UPMC Pinnacle contributed $573,000 of net patient service revenue and would have contributed an additional $1,045,000 of net patient service revenue had it been consolidated for the entire year.

As a result of the affiliation, UPMC acquired approximately $1,983,000 of total assets, consisting of $780,000 of property, plant and equipment, $923,000 of cash and investments, $81,000 of current and long-term assets and $199,000 of accounts receivable, assumed approximately $1,108,000 of Pinnacle's liabilities including $762,000 of long-term debt obligations and current and long term liabilities of $346,000, and acquired approximately $283,000 of net assets with donor restrictions.

3. CHARITY CARE

UPMC's patient acceptance policy is based on its mission and its community service responsibilities. Accordingly, UPMC accepts patients in immediate need of care, regardless of their ability to pay. UPMC does not pursue collection of amounts determined to qualify as charity care based on established policies of UPMC. These policies define charity care as those services for which no payment is due for all or a portion of the patient's bill. For financial reporting purposes, charity care is excluded from net patient service revenue. The amount of charity care provided, determined on the basis of cost, was $88,847 and $80,916 for the years ended December 31, 2018 and 2017, respectively. UPMC estimates the cost of providing charity care using the ratio of average patient care cost to gross charges and then applying that ratio to the gross uncompensated charges associated with providing charity care.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(IN THOUSANDS)

4. CASH AND INVESTMENTS

Following is a summary of cash and investments included in the consolidated balance sheets:

	December 31	
	2018	2017
Internally designated:		
Funded depreciation	**$ 6,652**	$ 76,247
Employee benefit and workers' compensation self-insurance programs	**103,785**	102,163
Professional and general liability insurance program	**555,021**	592,531
Health insurance programs	**1,426,274**	1,166,671
	2,091,732	1,937,612
Externally designated:		
Trusteed assets for capital and debt service payments	**498,963**	813,112
Donor-restricted assets	**551,505**	542,893
	1,050,468	1,356,005
Other long-term investments	**3,436,730**	3,680,712
Board-designated, restricted, trusteed, and other investments	**6,578,930**	6,974,329
Cash and cash equivalents	**277,324**	529,631
	$ 6,856,254	$ 7,503,960

Following is a summary of the composition of cash and investments. The table below shows all of UPMC's investments, including nonalternative investments measured at fair value and alternative investments using either the cost or equity method of accounting.

	December 31	
	2018	2017
Cash and cash equivalents	**$ 277,324**	$ 529,631
Nonalternative investments:		
Fixed income	**2,364,981**	2,298,497
Domestic equity	**566,688**	789,570
International equity	**423,875**	423,066
Public real estate	**54,423**	73,989
Long/short equity	**71,686**	67,010
Absolute return	**21,087**	34,417
Commodities	**4,515**	4,107
Nonalternative investments valued at net asset value	**1,242,199**	1,686,148
	4,749,454	5,376,804
Alternative investments:		
Long/short equity	**286,422**	277,470
Absolute return	**198,729**	281,593
Private equity and other	**961,858**	764,578
Private real estate	**140,690**	87,371
Natural resources	**241,777**	186,513
	1,829,476	1,597,525
	$ 6,856,254	$ 7,503,960

(IN THOUSANDS)

Investments are primarily maintained in MTF and administered using a bank as trustee. As of December 31, 2018, UPMC utilized 143 ongoing external investment managers including 50 traditional managers, nine hedge fund managers and 84 private capital managers. UPMC is also invested with an additional 83 legacy private capital and hedge fund managers. The largest allocation to any alternative investment fund is $54,923. Certain managers use various equity and interest rate derivatives. These instruments are subject to various risks similar to nonderivative financial instruments, including market, credit, liquidity, operational, and foreign exchange risk. UPMC's unfunded commitments to investments in MTF are $456,891 and $601,113 as of December 31, 2018 and 2017, respectively.

As of December 31, 2018 and 2017, respectively, UPMC had investments not measured at fair value of $663,050 and $1,597,525.

Investment return from cash and investments is comprised of the following for the years ended December 31, 2018 and 2017:

	2018	2017
Interest income	**$ 91,345**	$ 76,868
Dividend income	**34,962**	28,483
Net realized gains on sales of securities	**268,561**	283,924
	394,868	389,275
Unrealized investment (losses) gains	**(430,293)**	336,701
Impairment losses on limited partnerships	**-**	(24,023)
Derivative contracts mark to market	**207**	2,427
	(430,086)	315,105
Total investment gain	**(35,218)**	704,380
Traditional investment manager and trustee fees	**(35,662)**	(31,229)
Investment (loss) revenue	**$ (70,880)**	$ 673,151

In managing the UPMC investment strategy, an important consideration is to ensure sufficient liquidity. While UPMC's relationships with its external investment managers vary in terms of exit provisions, a percentage of the agreements allow ready access to underlying assets which are generally liquid and marketable. Investment liquidity as of December 31, 2018, is shown below:

Liquidity Availability	Cash and Cash Equivalents	Nonalternative Investments	Alternative Investments	Total
Within three days	$ 277,324	$ 4,590,539	$ –	$ 4,867,863
Within 30 days	–	30,960	54,923	85,883
Within 60 days	–	–	74,320	74,320
Within 90 days	–	–	154,285	154,285
More than 90 days	–	127,955	1,545,948	1,673,903
Total	$ 277,324	$ 4,749,454	$ 1,829,476	$ 6,856,254

(IN THOUSANDS)

5. CREDIT ARRANGEMENTS

UPMC has a revolving line and letter of credit facility (the "Revolving Facility") with an available line of $500,000. The Revolving Facility expires on July 31, 2019. The Revolving Facility is used to manage cash flow during the year and to provide for a consolidated method of issuing various letters of credit for certain business units. A note to secure UPMC's repayment obligation with respect to the Revolving Facility was issued under the 2007 Master Trust Indenture ("2007 UPMC MTI") and is secured by a pledge of and security interest in the gross revenues of UPMC's parent corporation, UPMC Presbyterian Shadyside, Magee-Women's Hospital of UPMC, UPMC Passavant and UPMC St Margaret as members of the obligated group under the 2007 UPMC MTI. Advances may be variable rate based on the prime rate or the Federal Funds effective rates, or advances may be fixed on the date of the advance based on the LIBOR Rate and the reserve requirement on Eurocurrency liabilities.

As of December 31, 2018, UPMC has issued $75,901 of letters of credit under the Revolving Facility. These letters of credit predominantly support the capital requirements of certain insurance subsidiaries. As of December 31, 2018, there was $424,099 available to borrow under the Revolving Facility. No amounts were outstanding under the Revolving Facility as of December 31, 2018. As of December 31, 2018, UPMC had $3,033 of unsecured letters of credit not included in the revolving credit facility.

In April 2017, credit facilities of $19 million (increased to $150 million from May 15 to August 14 on an annual basis) and $50 million were opened, both with expiration dates in April 2022. Both of these credit facilities support the Insurance Services Division. As of December 31, 2018 and 2017, there were no draws on these credit facilities.

During the year ended December 31, 2017, UPMC issued Series 2017A and 2017B fixed rate bonds in the par amount of $536,745, as well as Series 2017C and 2017D variable rate bonds in the par amount of $635,000 in order to fund new capital projects and refund existing debt.

6. LONG-TERM OBLIGATIONS AND DERIVATIVE INSTRUMENTS

Long-term obligations consist of the following:

	December 31	
	2018	2017
Fixed rate revenue bonds	**$ 3,001,836**	$ 3,282,570
Variable rate revenue bonds	**1,463,870**	1,417,278
Capital leases and other	**120,165**	120,324
Par value of long-term obligations	**4,585,871**	4,820,172
Net premium and other	**121,685**	133,367
	4,707,556	4,953,539
Less current portion	**(462,147)**	(445,126)
Total long-term obligations	**$ 4,245,409**	$ 4,508,413

(IN THOUSANDS)

Revenue instruments outstanding represent funds borrowed by the UPMC parent corporation and various subsidiaries pursuant to loan agreements and lease and sublease financing arrangements with governmental authorities. The bond proceeds were used for the purchase, construction, and renovation of hospital facilities, certain buildings and equipment, as well as the extinguishment of debt.

The fixed rate revenue instruments bear interest at fixed coupon rates ranging from 1.90% to 6.00% at December 31, 2018 and from 1.68% to 6.00% at December 31, 2017. The average interest cost for the variable rate instruments was 2.25% and 1.65% during the years ended December 31, 2018 and 2017, respectively. Revenue instruments have varying principal payments and final maturities from 2019 through 2047. Certain revenue bonds are secured by bond insurance ($43,562 and $43,551 in 2018 and 2017, respectively). The revenue bonds contain redemption provisions whereby, at the direction of UPMC, the bonds may be redeemed on various dates as presented within the bond agreements.

Revenue instruments in the aggregate amount of debt outstanding of $4,437,191 and $4,657,212 as of December 31, 2018 and 2017, respectively, are issued under the UPMC MTI. The instruments are secured by a pledge of and security interest in gross revenues. Certain amounts borrowed under the MTI are loaned to certain subsidiary corporations pursuant to loan and contribution agreements and require the transfer of subsidiary funds to the parent corporation in the event of failure to satisfy the UPMC Parent corporation liquidity covenant.

The various indebtedness agreements contain restrictive covenants, the most significant of which are the maintenance of minimum debt service coverage and liquidity ratios, and restrictions as to the incurrence of additional indebtedness and transfers of assets. UPMC was in compliance with such covenants as of December 31, 2018 and 2017.

Aggregate maturities of long-term obligations for the next five years, assuming remarketing of UPMC's variable rate debt, indicating the maximum potential payment obligations in these years, are as follows:

2019	$ 462,147
2020	153,495
2021	262,371
2022	154,334
2023	176,137

Interest paid, net of amounts capitalized, on all obligations was $180,012 and $143,584 during the years ended December 31, 2018 and 2017, respectively.

UPMC maintains interest rate swap programs on certain of its revenue bonds in order to manage its interest rate risk. To meet this objective and to take advantage of low interest rates, UPMC entered into various interest rate swap agreements to manage interest rate risk. The notional amount under each interest rate swap agreement is reduced over the term of the respective agreement to correspond with reductions in various outstanding bond series.

During the term of these agreements, the floating to fixed rate swaps convert variable rate debt to a fixed rate and the basis swaps convert the interest rate on underlying LIBOR-based bonds to the Securities Industry and Financial Markets Association Municipal Swap Index ("SIFMA Index").

(IN THOUSANDS)

Under the basis swaps, UPMC pays a rate equal to the SIFMA Index, an index of seven-day, high-grade, tax-exempt variable rate demand obligations. The SIFMA Index rates ranged from 0.94% to 1.81% (weighted average rate of 1.41%) and from 0.62% to 1.71% (weighted average rate of 0.85%) as of December 31, 2018 and 2017, respectively.

The following table summarizes UPMC's interest rate swap agreements:

				Notional Amount at December 31	
Swap	Maturity Date	UPMC Pays	UPMC Receives	**2018**	2017
Floating to fixed	2025	3.6%	68% one-month LIBOR	**$ 79,875**	$ 89,025
Floating to fixed	2018	1.2925%	70% one-month LIBOR	**-**	16,389
Basis	2021	SIFMA Index[1]	67% three-month LIBOR plus .2077%	**21,340**	27,955
Basis	2037	SIFMA Index[1]	67% three-month LIBOR plus .3217%	**46,095**	46,095
				$ 147,310	$ 179,464

[1] *The SIFMA Index is a 7-day high-grade market index comprised of tax-exempt variable rate demand obligations.*

The following table summarizes UPMC's equity swap agreements:

			Notional Amount at December 31	
Maturity Date	UPMC Pays	UPMC Receives	**2018**	2017
2018	One-month LIBOR plus .415%	S&P 500 Total Return Index	**$ -**	$ 100,000
2018	One-month LIBOR plus .37%	S&P 500 Total Return Index	**-**	100,000
2018	Three-month LIBOR plus .1300%	MSCI EAFE Daily Total Return[1]	**-**	100,003
2019	One-month LIBOR plus .385%	S&P 500 Total Return Index	**100,000**	-
			$ 100,000	$ 300,003

[1] *The MSCI EAFE Index is a free-float adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US and Canada.*

Pursuant to master netting arrangements, UPMC has the right to offset the fair value of amounts recognized for derivatives, including the right to reclaim or obligation to return cash collateral from/to counterparties. The fair values of the Company's derivative financial instruments are presented below, representing the gross amounts recognized as of December 31, 2018 and 2017, which are not offset by counterparty or by type of item hedged:

	December 31	
	2018	2017
Other assets	**$ 408**	$ 1,552
Long-term obligations	**(7,550)**	(8,901)
	$ (7,142)	$ (7,349)

(IN THOUSANDS)

The effects of changes in the fair value of the derivative instruments on the consolidated statements of operations and changes in net assets for the years ended December 31, 2018 and 2017, are as follows:

Type of Derivative	Classification of Unrealized Gain (Loss) in Excess of (Expenses Over Revenues) Revenues Over Expenses		2018		2017
Interest rate contracts	Investment revenue	**$**	**2,608**	$	3,217
Equity index contracts	Investment revenue		**(2,401)**		(790)
		$	**207**	$	2,427

UPMC's derivatives contain provisions that require UPMC's debt to maintain an investment grade credit rating from certain major credit rating agencies. If UPMC's debt were to fall below investment grade, it would be in violation of these provisions, and the counterparties to the derivatives could request payment or demand immediate and ongoing full overnight collateralization on derivatives in net liability positions. The aggregate fair value of all derivatives with credit-risk-related contingent features that are in a liability position at December 31, 2018 and 2017, is $6,003 and $8,408, respectively, for which UPMC has posted collateral of $0 in the normal course of business. If the credit-risk-related contingent features underlying these derivatives were triggered to the fullest extent on December 31, 2018 and 2017, UPMC would be required to post an additional $6,125 and $8,590, respectively of collateral to its counterparties.

7. FAIR VALUE MEASUREMENTS

As of December 31, 2018 and 2017, UPMC held certain assets that are required to be measured at fair value on a recurring basis. These include certain board-designated, restricted, trusteed, and other investments and derivatives. UPMC's alternative investments are measured using either the cost or equity method of accounting and are therefore excluded from the fair value hierarchy tables presented herein.

The valuation techniques used to measure fair value are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs are generally unsupported by market activity. The three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value, include:

- *Level 1* – Quoted prices for identical assets or liabilities in active markets.
- *Level 2* – Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-driven valuations whose inputs are observable or whose significant value drivers are observable.
- *Level 3* – Instruments which have unobservable inputs that are supported by little to no market activity and are significant to the fair value of the assets or liabilities.

The following tables represent UPMC's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2018 and 2017. The interest rate swaps are valued using internal models, which are primarily based on market observable inputs including interest rate curves. When quoted market prices are unobservable for fixed income securities, quotes from independent pricing vendors based on recent trading activity and other relevant information including market interest rate curves, referenced credit spreads and estimated prepayment rates where applicable are used for valuation purposes. These investments are included in Level 2 and include corporate fixed income, government bonds, and mortgage and asset-backed securities.

Other investments measured at fair value represent funds included on the consolidated balance sheets that are reported using the net asset value practical expedient as prescribed by ASU 2015-07, *Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share*. These amounts are not required to be categorized in the fair value hierarchy. The fair value of these investments is based on the net asset value ("NAV") information provided by the general partner. Fair value is based on the proportionate share of the NAV based on the most recent partners' capital statements received from the general partners, which is generally one quarter prior to the balance sheet date. With the adoption of ASU 2016-01, *Financial Instruments*, certain of UPMC's alternative investments are now utilizing NAV to calculate fair value and are included in other investments in the following tables.

(IN THOUSANDS)

FAIR VALUE MEASUREMENTS AS OF DECEMBER 31, 2018

	Level 1	Level 2	Level 3	NAV	Total Carrying Amount
ASSETS					
Fixed income	**$ 903,979**	**$ 1,461,002**	**$ -**	**$ -**	**$ 2,364,981**
Domestic equity	**318,851**	**15,543**	**-**	**-**	**334,394**
International equity	**408,392**	**-**	**-**	**-**	**408,392**
Public real estate	**54,423**	**-**	**-**	**-**	**54,423**
Long/short equity	**47,801**	**23,885**	**-**	**-**	**71,686**
Absolute return	**21,087**	**-**	**-**	**-**	**21,087**
Commodities	**4,515**	**-**	**-**	**-**	**4,515**
Derivative instruments	**-**	**408**	**-**	**-**	**408**
Securities on loan	**247,777**	**-**	**-**	**-**	**247,777**
Securities lending collateral	**171,657**	**-**	**-**	**-**	**171,657**
Other investments	**-**	**-**	**-**	**2,408,625**	**2,408,625**
Total assets measured at fair value on a recurring basis	**$ 2,178,482**	**$ 1,500,838**	**$ -**	**$ 2,408,625**	**$ 6,087,945**
LIABILITIES					
Derivative instruments	**$ -**	**$ (7,550)**	**$ -**	**$ -**	**$ (7,550)**
Total liabilities measured at fair value on a recurring basis	**$ -**	**$ (7,550)**	**$ -**	**$ -**	**$ (7,550)**

FAIR VALUE MEASUREMENTS AS OF DECEMBER 31, 2017

	Level 1	Level 2	Level 3	NAV	Total Carrying Amount
ASSETS					
Fixed income	$ 1,252,761	$ 1,045,736	$ -	$ -	$ 2,298,497
Domestic equity	767,448	22,122	-	-	789,570
International equity	422,480	586	-	-	423,066
Public real estate	73,989	-	-	-	73,989
Long/short equity	64,430	2,580	-	-	67,010
Absolute return	34,417	-	-	-	34,417
Commodities	4,107	-	-	-	4,107
Derivative instruments	-	1,552	-	-	1,552
Other investments	-	-	-	1,686,148	1,686,148
Total assets measured at fair value on a recurring basis	$ 2,619,632	$ 1,072,576	$ -	$ 1,686,148	$ 5,378,356
LIABILITIES					
Derivative instruments	$ -	$ (8,901)	$ -	$ -	$ (8,901)
Total liabilities measured at fair value on a recurring basis	$ -	$ (8,901)	$ -	$ -	$ (8,901)

(IN THOUSANDS)

8. PENSION PLANS

UPMC and its subsidiaries maintain defined benefit pension plans (the "Plans"), defined contribution plans, and nonqualified pension plans that cover substantially all of UPMC's employees. Under the defined contribution plans, employees may elect to contribute a percentage of their salary, which is matched in accordance with the provisions of the Plans. Contributions to the nonqualified pension plans are based on a percentage of salary or contractual arrangements. Total expense relating to the aforementioned pension plans was $184,357 and $177,602 for the years ended December 31, 2018 and 2017, respectively.

Benefits under the Plans vary and are generally based upon the employee's earnings and years of participation. It is UPMC's policy to meet the requirements of the Employee Retirement Income Security Act of 1974 ("ERISA") and the Pension Protection Act of 2006. UPMC's policy is to contribute amounts sufficient to, among other things, avoid Pension Benefit Guaranty Corporation variable premiums. Contributions made to the Plans were $0 and $117,237 for the years ended December 31, 2018 and 2017, respectively.

To develop the expected long-term rate of return on plan assets assumption, UPMC considers the current level of expected returns on risk-free investments, the historical level of risk premium associated with the other asset classes in which the portfolio is invested and the expectations for future returns on each asset class. The 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 assets assumption for the portfolio.

The table below sets forth the accumulated benefit obligation, the change in the projected benefit obligation, and the change in the assets of the Plans. The table also reflects the funded status of the Plans as well as recognized and unrecognized amounts in the consolidated balance sheets.

	December 31	
	2018	2017
Accumulated benefit obligation	**$ 2,173,087**	$ 2,142,178
CHANGE IN PROJECTED BENEFIT OBLIGATION		
Projected benefit obligation at beginning of year	**$ 2,222,020**	$ 2,181,261
Pension plans acquired	**21,614**	–
Service cost	**119,250**	105,880
Interest cost	**78,395**	72,526
Actuarial gain	**(53,321)**	(4,587)
Benefits paid	**(141,824)**	(133,060)
Projected benefit obligation at end of year	**2,246,134**	2,222,020
CHANGE IN PLAN ASSETS		
Fair value of plan assets at beginning of year	**2,289,039**	2,030,620
Pension plans acquired	**21,697**	–
Actual return on plan assets	**(36,956)**	274,242
Employer contributions	**–**	117,237
Benefits paid	**(141,824)**	(133,060)
Fair value of plan assets at end of year	**2,131,956**	2,289,039
Accrued pension liability (asset)	**$ 114,178**	$ (67,019)

(IN THOUSANDS)

Included in net assets without donor restrictions at December 31, 2018 and 2017, respectively, are the following amounts that have not yet been recognized in net periodic pension cost:

	December 31 2018	2017
Unrecognized prior service credit	**$ 49,831**	$ 55,088
Unrecognized net actuarial loss	**(548,427)**	(420,162)
	$ (498,596)	$ (365,074)

Changes in plan assets and benefit obligations recognized in net assets without donor restrictions during 2018 and 2017 include:

	December 31 2018	2017
Current year net actuarial (loss) gain	**$ (150,143)**	$ 186,397
Amortization of actuarial loss	**21,878**	43,362
Amortization of prior service credit	**(5,257)**	(5,349)
Amortization of plan merger	**-**	1,082
	$ (133,522)	$ 225,492

No plan assets are expected to be returned to UPMC during the year ending December 31, 2019.

The components of net periodic pension cost for the Plans were as follows:

	Year Ended December 31 2018	2017
Service cost	**$ 119,250**	$ 105,880
Interest cost	**78,395**	72,526
Expected return on plan assets	**(166,591)**	(144,357)
Recognized net actuarial loss	**21,878**	48,406
Amortization of prior service credit	**(5,257)**	(5,349)
Net periodic pension cost	**$ 47,675**	$ 77,106

The weighted average actuarial assumptions used to determine the benefit obligations and net periodic pension cost for the Plans are as follows:

	December 31 2018	2017
Discount rates:		
Used for benefit obligations	**4.31%**	3.63%
Used for net periodic pension cost	**3.63%**	3.78%
Expected rate of compensation increase:		
Used for benefit obligations	**Age-graded**	Age-graded
Used for net periodic pension cost	**Age-graded**	Age-graded
Expected long-term rate of return on plan assets	**7.50%**	7.50%
Interest crediting rate	**3.31%**	2.63%

The assumptions for long-term rate of return are developed using the expected returns of the various asset classes in which the pension invests and the allocations of each asset class with respect to the investment as a whole.

(IN THOUSANDS)

The change in discount rate from 3.63% to 4.31%, and the change in interest crediting rate from 2.63% to 3.31% had the net effect of increasing the projected benefit obligation by $24,114.

The following pension benefit payments are expected to be paid in the periods ending December 31:

2019	$ 193,883
2020	196,073
2021	199,285
2022	197,685
2023	197,336
2024-2028	940,940

UPMC employs a total return investment approach whereby a mix of equities and fixed income investments are used to maximize the long-term return on plan assets subject to accepting a prudent level of risk. Risk tolerance is established through consideration of plan liabilities, plan funded status, and corporate financial condition. The pension portfolio contains a diversified blend of equity, fixed-income, and alternative investments. Equity investments are diversified across United States and non-United States corporate stocks, as well as growth, value, and small and large capitalizations. Other assets such as real estate, private equity, and hedge funds are used to enhance long-term returns while improving portfolio diversification. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews, annual liability measurements, and periodic asset/liability studies.

As of December 31, 2018, UPMC employed 156 external investment managers to handle the investment of the assets in the pension portfolio. Of these, 24 managers manage equity investments, 11 manage fixed income investments, and 121 managers oversee alternative investment strategies. The largest allocation to any alternative investment manager is $38,180. UPMC's unfunded commitments to the Plans' investments are $304,540 and $247,925 as of December 31, 2018 and 2017, respectively.

The following is a summary of the pension plan asset allocations at December 31, 2018 and 2017:

	2018	2017	2018 Target
Nonalternative investments:			
Fixed income	**16.0%**	17.0%	13.0%
Domestic equity	**20.7%**	20.8%	23.0%
International equity	**19.1%**	24.8%	22.0%
Total nonalternative investments	**55.8%**	62.6%	58.0%
Real assets:			
Real estate	**2.7%**	2.2%	4.0%
Income opportunities	**2.6%**	1.7%	2.0%
Natural resources	**5.0%**	3.3%	4.0%
Total real assets	**10.3%**	7.2%	10.0%
Alternative investments:			
Long/short equity	**10.3%**	9.5%	10.0%
Absolute return	**6.1%**	6.2%	7.0%
Private equity	**17.5%**	14.5%	15.0%
Total alternative investments	**33.9%**	30.2%	32.0%
Total	**100.0%**	100.0%	100.0%

(IN THOUSANDS)

All of the Plans' assets are measured at fair value, including its alternative investments. The same levels of the fair value hierarchy as described in Note 7 are used to categorize the Plans' assets. Corporate debt instruments and fixed income/bonds are valued using pricing models, quoted prices of securities with similar characteristics, or discounted cash flows. The fair value of common/collective trust funds is determined by the issuer sponsoring such funds by dividing the fund's net assets at fair value by its units outstanding at the valuation dates. Partnership interests are valued using net asset value ("NAV"), which is based on the unit values of the interests as determined by the issuer sponsoring such interests dividing the fund's net assets at fair value by its units outstanding at the valuation dates.

The fair values of the Plans' assets at December 31, 2018, by asset category and by the level of inputs used to determine fair value, were as follows:

	Level 1	Level 2	Level 3	NAV	Total
ASSETS					
Cash	**$ 13**	**$ -**	**$ -**	**$ -**	**$ 13**
Equity securities:					
Domestic equity	**72,502**	**-**	**-**	**-**	**72,502**
International equity	**155,169**	**-**	**-**	**-**	**155,169**
U.S. REITS	**23,390**	**-**	**-**	**-**	**23,390**
Fixed income:					
Government securities	**32,091**	**-**	**-**	**-**	**32,091**
Corporate debt instruments	**2,295**	**43,770**	**-**	**-**	**46,065**
Asset and mortgage-backed securities	**-**	**81,726**	**-**	**-**	**81,726**
Long/short equity	**38,960**	**-**	**-**	**-**	**38,960**
Other investments	**-**	**-**	**-**	**1,679,614**	**1,679,614**
Net payables	**2,426**	**-**	**-**	**-**	**2,426**
Plans' assets at fair value	**$ 326,846**	**$ 125,496**	**$ -**	**$ 1,679,614**	**$ 2,131,956**

The fair values of the Plans' assets at December 31, 2017, by asset category and by the level of inputs used to determine fair value, were as follows:

	Level 1	Level 2	Level 3	NAV	Total
ASSETS					
Cash	$ 416	$ –	$ –	$ –	$ 416
Equity securities:					
Domestic equity	78,184	–	–	–	78,184
International equity	196,930	–	–	–	196,930
U.S. REITS	32,691	–	–	–	32,691
Fixed income:					
Government securities	24,240	–	–	–	24,240
Bond fund	4,602	–	–	–	4,602
Corporate debt instruments	4,882	33,141	–	–	38,023
Asset and mortgage-backed securities	–	79,197	–	–	79,197
Long/short equity	59,390	–	–	–	59,390
Other investments	–	–	–	1,772,412	1,772,412
Net receivables	2,954	–	–	–	2,954
Plan's assets at fair value	$ 404,289	$ 112,338	$ –	$ 1,772,412	$ 2,289,039

(IN THOUSANDS)

9. HEALTH INSURANCE REVENUE AND COSTS

Health care costs were $7,716,832 and $6,545,970, of which $2,004,807 and $1,918,117 were eliminated in consolidation representing medical services performed by other UPMC entities for the years ended December 31, 2018 and 2017, respectively. Such costs are included in insurance claims expense. These costs include estimates of payments to be made on claims reported as of the balance sheet date and estimates of health care services rendered but not reported to the Health Plans. Such estimates include the cost of services that will continue to be rendered after the balance sheet date when the Health Plans are obligated to remit payment for such services in accordance with contract provisions or regulatory requirements.

	2018	2017
Reserve for physical health care costs (beginning balance)	**$ 343,804**	$ 276,447
Add: Provisions for medical costs occuring in:		
Current year	**6,836,732**	5,680,992
Prior year	**(27,802)**	11,853
Net incurred medical costs	**6,808,930**	5,692,845
Deduct: Payments for claims occurring in:		
Current year	**6,411,538**	5,337,188
Prior year	**315,456**	288,300
Net paid medical costs	**6,726,994**	5,625,488
Reserve for physical health care costs (ending balance)	**$ 425,740**	$ 343,804

The foregoing rollforward shows favorable development of $27,802 and unfavorable development of $11,853 for the years ended December 31, 2018 and 2017. The reserve for health care costs and claims adjustment expenses was based on the best data available to UPMC; however, these estimates are subject to a degree of inherent variability. It is possible that UPMC's actual incurred costs and claim adjustment expenses will not conform to the assumptions inherent in the determination of the liability; accordingly, the ultimate settlement of health care costs and the related claims adjustment expenses may vary from the estimates included in the financial statements.

Incurred claims development, for the years ended December 31, 2018, 2017 and 2016 are as follows:

	(Unaudited) December 31, 2016	(Unaudited) December 31, 2017	**December 31, 2018**
December 31, 2016	$ 5,034,654	$ 5,046,507	**$ 5,046,507**
December 31, 2017		5,680,992	**5,653,190**
December 31, 2018			**6,836,732**
Total			**$ 17,536,429**

Paid claims development, for the years ended December 31, 2018, 2017 and 2016 are as follows:

	(Unaudited) December 31, 2016	(Unaudited) December 31, 2017	**December 31, 2018**
December 31, 2016	$ 4,758,207	$ 5,046,507	**$ 5,046,507**
December 31, 2017		5,337,188	**5,652,644**
December 31, 2018			**6,411,538**
Total			**$ 17,110,689**

At December 31, 2018, the total of incurred but not reported (IBNR) liabilities plus expected development on reported claims and the cumulative number of reported claims for the years ended December 31, 2018, 2017 and 2016 are as follows:

	Total IBNR and Expected Development on Reported Claims	(Unaudited) Cumulative Number of Reported Claims*
December 31, 2016	$ –	16,768
December 31, 2017	–	18,092
December 31, 2018	425,740	21,571
Total	**$ 425,740**	**56,431**

** In thousands*

The cumulative number of reported claims for each claim year have been developed using historical data captured by UPMC's claims payment system and data warehouse.

Net assets without donor restrictions required to meet statutory requirements of the Health Plans were $939,123 and $772,748 at December 31, 2018 and 2017, respectively.

10. PROFESSIONAL AND GENERAL LIABILITY INSURANCE

UPMC is insured for professional and general liability losses through wholly owned, multiprovider insurance companies ("Captives"). The Captives provide primary and excess professional liability coverage to UPMC subsidiaries, employed physicians of UPMC, and other entities not included in the consolidated financial statements. For those self-insured risks, UPMC has established irrevocable trust funds to pay claims and related costs.

Certain insurance agreements have retrospective clauses that permit additional premiums or refunds to be made based on actual experience. The reserve for professional and general liability indemnity losses and loss adjustment expenses is determined using individual case-based evaluations and statistical analyses and represents an estimate of reported claims and claims incurred but not reported. Those estimates are subject to the effects of trends in loss severity and frequency. Although considerable variability is inherent in such estimates, management believes that the reserves for professional and general liability losses and loss adjustment expenses are reasonable. The estimates are reviewed and adjusted as necessary as experience develops or new information becomes known. Such adjustments are included in current operations. Reserves for professional and general liability losses and loss adjustment expenses of $372,767 and $358,784, discounted at 2.50% and 1.75%, were recorded as of December 31, 2018 and 2017, respectively. At December 31, 2018 and 2017, respectively, $83,018 and $79,676 of the loss reserves are included in current portion of insurance reserves and $289,749 and $279,108 are included in long-term insurance reserves.

(IN THOUSANDS)

The following tables provide a rollforward of the reserve balances for professional and general liability costs for the years ended December 31, 2018 and 2017.

	December 31 2018	2017
Reserve for professional and general liability costs (beginning balance)	**$ 358,784**	$ 348,808
Add: Provisions for expenses occuring in:		
Current year	**92,528**	93,998
Prior year	**(8,448)**	(2,898)
Net incurred expenses	**84,080**	91,100
Deduct: Payments for expenses occurring in:		
Current year	**(252)**	(1,599)
Prior year	**(69,845)**	(79,525)
Net paid expenses	**(70,097)**	(81,124)
Reserve for professional and general liability costs (ending balance)	**$ 372,767**	$ 358,784

The foregoing rollforward shows favorable development of $8,448 and $2,898 for the twelve months ended December 31, 2018 and December 31, 2017, respectively.

The following table provides undiscounted information for claims development for incurred losses and paid claim loss and by accident year for the year ended December 31, 2018. The information about incurred and paid claims development for the years ended December 2009 to 2018, is presented as supplementary information. For the reported development, the adequacy of case reserves has been consistent and favorable over time, and there have been no significant changes in the rate at which claims have been reported. For the paid development, the rate of payment of claims has been relatively consistent over time.

DIRECT CLAIM LOSS INCURRED

Accident Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Unaudited									
2009	$ 49,133	$ 53,480	$ 58,907	$ 59,781	$ 58,585	$ 59,055	$ 57,750	$ 54,210	$ 54,923	**$ 56,803**
2010	–	55,900	54,852	44,722	46,528	46,813	42,323	43,028	39,810	**41,298**
2011	–	–	66,258	70,290	66,046	60,384	62,040	60,156	61,946	**64,870**
2012	–	–	–	75,893	83,976	79,407	73,929	72,981	75,360	**74,732**
2013	–	–	–	–	75,246	77,768	70,835	65,978	70,085	**68,116**
2014	–	–	–	–	–	84,031	82,924	81,287	75,886	**75,644**
2015	–	–	–	–	–	–	94,241	99,592	87,110	**88,801**
2016	–	–	–	–	–	–	–	88,618	91,811	**91,655**
2017	–	–	–	–	–	–	–	–	98,225	**99,428**
2018	–	–	–	–	–	–	–	–	–	**100,780**
								Total		**$ 762,127**

(IN THOUSANDS)

DIRECT CLAIM LOSS PAID

Accident Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Unaudited									
2009	$ 260	$ 1,268	$ 9,340	$ 22,544	$ 34,082	$ 44,181	$ 48,855	$ 51,773	$ 52,540	**$ 54,580**
2010	–	965	2,784	8,006	19,672	26,302	29,939	32,638	35,279	**38,560**
2011	–	–	1,152	3,234	10,556	20,488	35,104	39,791	49,012	**54,634**
2012	–	–	–	1,029	6,777	16,334	27,212	47,768	57,588	**62,641**
2013	–	–	–	–	353	5,861	12,020	28,016	42,775	**49,807**
2014	–	–	–	–	–	467	7,771	16,949	40,736	**48,191**
2015	–	–	–	–	–	–	355	16,914	26,838	**43,634**
2016	–	–	–	–	–	–	–	446	6,375	**14,220**
2017	–	–	–	–	–	–	–	–	1,610	**10,168**
2018	–	–	–	–	–	–	–	–	–	**252**
								Total		**$ 376,687**

Net reserves	**385,440**
Discount adjustment	(21,556)
Prior period reserves	7,866
Unallocated and other expense reserves	768
Directors and officers reserves	249
Total reserves	**$ 372,767**

AVERAGE ANNUAL PERCENTAGE PAYOUT OF INCURRED CLAIMS (UNAUDITED)

Prior	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
9.5%	2.2%	4.7%	8.0%	7.2%	10.0%	10.6%	24.0%	11.2%	12.2%	0.4%

In addition, the following table shows the total of IBNR plus expected development on reported claims by accident year and the cumulative number of reported claims by accident year. The cumulative number of reported claims are counted on a per occurrence and per coverage basis. Claim counts include open claims, claims that have been paid and closed, and asserted reported claims that have been closed without the need for any payment.

Accident Year	Incurred Claim Loss and Adjustment Expenses for the Year Ended December 31, 2018	Total Incurred But Not Reported as of December 31, 2018	Cumulative Number of Claims Reported as of December 31, 2018
2009	56,803	–	344
2010	41,298	625	272
2011	64,870	625	331
2012	74,732	2,501	315
2013	68,116	3,816	294
2014	75,644	10,253	271
2015	88,801	19,307	311
2016	91,655	53,668	271
2017	99,428	69,535	175
2018	100,780	97,596	114

The methodology for reserving and determining its reserve for loss and loss adjustment expenses, IBNR reserves, considers, among other things, the line of business, the number of years of experience and the age of the experience year being developed.

Loss development factors are also applied to the current evaluations of losses to project the ultimate incurred losses arising from each period of coverage. The selected loss development factors are based on the historical loss experience of UPMC. Therefore, it is assumed that the selected loss development factors coupled with UPMC's experience and actuarial support are appropriate to project the loss development that will be experienced.

The reserve for costs and claims adjustment expenses was based on the best data available to UPMC; however, these estimates are subject to a degree of inherent variability. It is possible that UPMC's actual incurred costs and claim adjustment expenses will not conform to the assumptions inherent in the determination of the liability; accordingly, the ultimate settlement of costs and the related claims adjustment expenses may vary from the estimates included in the financial statements.

The Medical Care Availability and Reduction of Error ("MCARE") Act was enacted by the legislature of the Commonwealth of Pennsylvania ("Commonwealth") in 2002. This Act created the MCARE Fund, which replaced The Pennsylvania Medical Professional Liability Catastrophe Loss Fund (the "Medical CAT Fund"), as the agency for the Commonwealth to facilitate the payment of medical malpractice claims exceeding the primary layer of professional liability insurance carried by UPMC and other health care providers practicing in the Commonwealth.

The MCARE Fund is funded on a "pay as you go basis" and assesses health care providers based on a percentage of the rates established by the Joint Underwriting Association (also a Commonwealth agency) for basic coverage. The MCARE Act of 2002 provides for a further reduction to the current MCARE coverage of $500 per occurrence to $250 per occurrence and the eventual phaseout of the MCARE Fund, subject to the approval of the Pennsylvania Insurance Commissioner. To date, the PA Insurance Commissioner has deferred the change in coverage and eventual phaseout of the MCARE Fund to future years.

11. RELATED-PARTY TRANSACTIONS

UPMC monitors its relationships with related or affiliated entities on an ongoing basis. The most significant of these relationships is with the University in which UPMC purchases and sells certain services from and to the University. The most significant payment to the University is for physician services in which the University, acting as a common paymaster, invoices UPMC for the clinical services rendered by certain faculty and medical residents. Payments to the University related to physician services amounted to $205,998 and $172,984 for the years ended December 31, 2018 and 2017, respectively. UPMC provides direct financial support to the University to sustain the research and academic medical enterprise of the University. Payments to the University related to research and academic support amounted to $144,707 and $136,190 for the years ended December 31, 2018 and 2017, respectively.

UPMC has various facility rental agreements with the University. UPMC received rent income of $23,640 and $22,354 and incurred rent expense of $10,061 and $10,070 related to rental arrangements with the University for the years ended December 31, 2018 and 2017, respectively. These rental agreements are also included in Note 12.

The University subcontracts with UPMC to perform research activity. Payments from the University related to research activity were $32,650 and $30,009 for the years ended December 31, 2018 and 2017, respectively.

(IN THOUSANDS)

12. OPERATING LEASES

UPMC has entered into certain long-term agreements with respect to facilities, equipment, and services with affiliated and other entities. The terms of the agreements generally range from 1 to 25 years with renewal options up to 15 years. Total expense under these agreements was approximately $195,449 and $163,688 for the years ended December 31, 2018 and 2017, respectively, for all long-term agreements.

Approximately 15.74% of total future payments are subject to adjustment based upon inflation or mutual negotiations. Approximately 0.72% of these payments are due to the University.

2019	$ 138,824
2020	123,700
2021	110,222
2022	102,313
2023	98,953
Thereafter	850,490

13. INCOME TAXES

UPMC calculates income taxes using the balance sheet method for its taxable subsidiaries. Taxable income differs from pretax book income principally due to certain income and deductions for tax purposes being recorded in the financial statements in different periods. Deferred income tax assets and liabilities are recorded for the tax effect of these differences using enacted tax rates for the years in which the differences are expected to reverse. UPMC assesses the realization of deferred tax assets and the need for a valuation allowance to reduce those assets to their net realizable value based on future operations, reversal of existing temporary differences, carryforward and carryback periods for credits and net operating losses, and potential tax planning strategies that may exist.

As of December 31, 2018, the for-profit entities of UPMC had gross federal net operating loss ("NOL") carryforwards of $714,263 (expiring in years 2019 through 2037) and gross state NOL carryforwards of $1,375,466 (expiring in years 2019 through 2037) that are available to offset future taxable income. Utilization of the state NOL carryforwards in any one year is limited to 35% of taxable income on an annual basis per company. During the year ended December 31, 2018, UPMC realized tax benefits of $17,573 from the use of NOL carryforwards.

The following is a reconciliation of income taxes computed at the stutory U.S. Federal income tax rate to the actual effective income tax expense:

Twelve Months Ended December 31	**2018**	2017
Taxes computed at the federal rate	**$ 6,790**	$ (11,530)
State income taxes, net of federal tax benefit	**5,416**	653
Valuation allowance	**(6,980)**	6,799
Permanent differences	**6,480**	9,679
Other items, net	**4,897**	(1,800)
Income tax expense	**$ 16,603**	$ 3,801

(IN THOUSANDS)

The following table presents deferred tax assets as of December 31, 2018 and 2017:

	2018	2017
Deferred tax assets:		
Net operating losses	$ 258,183	$ 177,831
Accrued benefits	13,590	10,447
Other	20,733	10,730
	292,506	199,008
Less valuation allowance	(292,506)	(195,047)
	$ -	$ 3,961

Tax benefits are recognized when it is more likely than not that a tax position will be sustained upon examination by the tax authorities based on the technical merits of the position. Such tax positions are measured as the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the tax authorities assuming full knowledge of the position and all relevant facts. Certain of the Company's subsidiaries are subject to taxation in the United States, various states and foreign jurisdictions. As of December 31, 2018, the Company's returns for the fiscal years ended June 30, 2015, 2016, 2017, and the short period ended December 31, 2017 are open for examination by the various taxing authorities.

14. FUNCTIONAL EXPENSES

UPMC provides general health care services primarily to residents within its geographic location and supports research and education programs. Reclassifications were made to the prior year presentation to conform to the current year presentation. For the years ended December 31, 2018 and 2017, expenses related to providing these services were as follows:

FOR THE YEAR ENDED DECEMBER 31, 2018

	Hospital & health care services	Insurance services	Academic & research activities	UPMC Enterprises activity	Administrative support	Total
Salaries, professional fees and employee benefits	$ 5,468,289	$ 384,045	$ 211,168	$ -	$ 730,534	$ 6,794,036
Insurance claims expense	-	5,712,025	-	-	-	5,712,025
Supplies, purchased services and general	4,087,029	731,155	255,908	-	407,285	5,481,377
Depreciation and amortization	466,381	29,469	-	-	128,538	624,388
Income tax expense	-	-	-	-	16,603	16,603
Interest expense	162,782	-	-	-	-	162,782
Portfolio company and development expense	-	-	29,597	157,525	-	187,122
	$ 10,184,481	$ 6,856,694	$ 496,673	$ 157,525	$ 1,282,960	$ 18,978,333

(IN THOUSANDS)

FOR THE YEAR ENDED DECEMBER 31, 2017

	Hospital & health care services	Insurance services	Academic & research activities	UPMC Enterprises activity	Administrative support	Total
Salaries, professional fees and employee benefits	$ 4,509,807	$ 323,886	$ 205,018	$ –	$ 667,996	$ 5,706,707
Insurance claims expense	–	4,627,853	–	–	–	4,627,853
Supplies, purchased services and general	3,253,002	622,896	215,141	–	418,647	4,509,686
Depreciation and amortization	392,430	9,322	–	–	141,967	543,719
Income tax expense	–	–	–	–	3,801	3,801
Interest expense	140,735	–	–	–	–	140,735
Portfolio company and development expense	–	–	10,178	135,916	–	146,094
	$ 8,295,974	$ 5,583,957	$ 430,337	$ 135,916	$ 1,232,411	$ 15,678,595

15. UPMC ENTERPRISES ACTIVITY

UPMC Enterprises conducts research, development and innovation activities on behalf of UPMC primarily focused on technologies for use in the healthcare industry to lower costs and improve care; such activities are expensed as incurred. From time to time, UPMC invests in companies that are developing technologies that align with its strategic imperatives, including companies that are not yet at the commercialization stage. UPMC's level of investment is dependent on numerous strategic considerations and may provide either a controlling or a non-controlling ownership interest. UPMC Enterprises also seeks partnerships with external companies to accelerate commercial growth of innovation activities, which may include the sale of internally developed technology solutions. Leveraging UPMC's long-standing reputation for academic and research excellence, UPMC Enterprises also sponsors the translation of basic science conducted in a research setting to its commercial use in bedside clinical practice, application in medical laboratories, or use across emerging venues where medicine is delivered; such activities are expensed as incurred.

UPMC Enterprises activity is comprised of the following for the years ended December 31:

	2018	2017
Technology research and development costs	**$ (76,709)**	$ (61,806)
Investments in translational science	**(34,067)**	(14,036)
Revenue from portfolio companies with controlling interest	**24,682**	30,524
Expenses of portfolio companies with controlling interest	**(46,239)**	(62,804)
Net loss from non-controlling interest in portfolio companies	**(30,107)**	(7,448)
Net gains from sale of technology-related assets	**29,273**	–
UPMC Enterprises activity	**$ (133,167)**	$ (115,570)

16. CONTINGENCIES

On October 9, 2012, UPMC received a Civil Investigative Demand ("CID") from the Department of Justice ("DOJ") that sought records relating to 40 surgical procedures performed between January 25, 2008 and June 24, 2010. UPMC timely responded to that CID. In November 2013, the DOJ advised UPMC that the CID had been served as part of the DOJ's investigation of allegations asserted by Relators in a federal qui tam lawsuit filed under seal. On July 27, 2016, the DOJ announced that it had reached an agreement with UPMC to settle certain allegations that UPMC had violated the False Claims Act for approximately $2,500. UPMC admitted no liability in settling those claims. The DOJ declined to intervene in the remaining allegations of the Relators' lawsuit, which was also unsealed on July 27, 2016. In their Second Amended Complaint against UPMC and UPP, Inc., Relators allege that UPMC violated the False Claims Act violations, by overpaying physicians and encouraging physicians to perform medically unnecessary procedures. On March 27, 2018, the Court granted UPMC's motion to dismiss all claims with prejudice. Relators have appealed that Order. UPMC has filed a brief opposing that appeal. The outcome and ultimate effect on UPMC's financial statements cannot be determined at this time.

On September 3, 2014, Highmark Inc. and Keystone Health Plan West, Inc. sued UPMC and various UPMC hospitals and physician practices in the Court of Common Pleas of Allegheny County, Pennsylvania, asserting claims for breach of contract and declaratory judgment related to oncology billing. On March 24, 2015, the Court denied UPMC's preliminary objections to that Complaint. On December 7, 2017, the plaintiffs filed a Second Amended Complaint that dropped the UPMC hospitals as defendants and added a new defendant and new claims against the remaining physician practices. On January 9, 2018, UPMC filed preliminary objections to the plaintiffs' Second Amended Complaint. UPMC has answered that complaint and filed counterclaims. Discovery is proceeding. The ultimate outcome and ultimate effect on UPMC's financial statements cannot be determined at this time.

In May 2015, PCS sued UPMC Health Network, UPMC Benefit Management Services, UPMC Health Benefits, and a PCS competitor in the United States District Court for the Western District of Pennsylvania, asserting four antitrust related claims. In August 2015, PCS filed an amended complaint, removing UPMC Health Network and adding UPMC, a Pennsylvania nonprofit nonstock corporation as a party. Discovery is ongoing. In 2018, the UPMC defendants moved for summary judgment on all PCS claims. UPMC's motion remains pending. The outcome and ultimate effect on UPMC's financial statements cannot be determined at this time.

17. SUBSEQUENT EVENTS

Management evaluated events occurring subsequent to December 31, 2018 through February 26, 2019, the date the audited consolidated financial statements of UPMC were issued. During this period, there were no subsequent events requiring recognition in the consolidated financial statements that have not been recorded except as noted below.

On February 7, 2019, the Pennsylvania Office of Attorney General ("OAG") filed a Petition to Modify a Consent Decree that UPMC entered into with the OAG, the Pennsylvania Insurance Department and the Pennsylvania Department of Health in 2014. Among other things, the OAG's Petition seeks to modify the Consent Decree to impose myriad obligations on UPMC's insurer subsidiaries beyond the June 30, 2019 end date of the Consent Decrees, including an obligation to contract with any credentialed health care provider. On February 21, 2019, UPMC moved to dismiss the OAG's Petition on multiple grounds including on the basis that the Pennsylvania Supreme Court held in 2018 that the June 30, 2019 end date of the Consent Decrees is a material term that cannot be amended. In addition, UPMC also filed a federal court complaint against the Attorney General on February 21, seeking a declaratory judgment and injunctive relief based on federal law that preempts the Attorney General from imposing the requested obligations on UPMC.