Assessment of Healthcare Competition Following Highmark Inc.'s Affiliation with West Penn Allegheny Health System, Inc. and other Healthcare Providers

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Purpose of this Report

The Pennsylvania Insurance Department issued an Order on April 29, 2013 (the "2013 Order") approving the application by Highmark Health to acquire control of Highmark Inc. and its affiliated Pennsylvania insurers (the "Highmark Domestic Insurers" or "Highmark") and certain other transactions, a principal transaction in connection with which was the affiliation of Highmark Inc. with the West Penn Allegheny Health System, Inc. ("WPAHS"), Jefferson Regional Medical Center (now Jefferson Hospital), and Saint Vincent Health System/Saint Vincent Health Center (now Saint Vincent Hospital), such hospitals to be controlled by a subsidiary of Highmark Health, Allegheny Health Network ("AHN"). An additional purpose was to strengthen AHN as a competitor in providing healthcare services to consumers in Western Pennsylvania.

In the 2013 Order, the Pennsylvania Insurance Department ("Department") determined that the imposition of specific conditions, including those to preserve and promote competition in the Commonwealth of Pennsylvania, were necessary to find that the change of control would not violate Section 1402 of the Insurance Holding Company Act.

The Department recognized that the transaction would likely change the competitive dynamics in the Western Pennsylvania Area ("WPA") healthcare market.[1] Highmark's affiliation with AHN and the development of the integrated delivery network would likely make AHN a stronger competitor against the University of Pittsburgh Medical Center ("UPMC"), a vertically integrated healthcare provider and healthcare insurer and the leading healthcare delivery system in WPA. The transaction could potentially pose some competitive risks in the health insurance and in the provider (hospitals and physician) sectors.

Competitive conditions

The Department imposed conditions on Highmark designed to "mitigate potential adverse competitive effects on competition and on rivals contracting with" Highmark Domestic Insurers and/or AHN and "to maximize market-based access opportunities of unrelated providers and community hospitals to the IDN and insurers to AHN healthcare providers." A number of these conditions were intended to address the vertical nature of the transaction and the potential adverse effect upon competition for healthcare services or for health insurance; there was also consideration of market conditions and prior history of contracting in the marketplace. These conditions included: (1) a Firewall Policy to protect the dissemination of competitively sensitive information between the health insurance and healthcare provider businesses of the vertically integrated firm, (2) prohibition on exclusive contracting, (3) limitation on provider/insurer

[1] The Western Pennsylvania Area ("WPA") consists of the following 29 counties: Allegheny, 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.

reimbursement contract lengths in excess of five years, and (4) prohibition on most favored nation contracts or arrangements.

Consumer choice conditions

The 2013 Order also included public interest and policyholder protection conditions to prohibit provider and insurer contracts that would bar or limit the ability of healthcare insurers to implement such consumer choice initiatives. These conditions included: (1) prohibition of limitations on the use of consumer choice and other member cost-sharing initiatives, such as tiered network products, (2) monitoring and reporting of the effect of the affiliation transactions and IDN strategy on community hospital discharges, (3) various actions to be undertaken by Highmark to identify opportunities to deliver more cost-effective healthcare and a robust and vibrant network with meaningful choice, (4) transitioning of care for Highmark subscribers as UPMC moved to out-of-network status in health plans offered by Highmark, and (5) financial investment in "community health reinvestment" activities.

Financial conditions supporting AHN repositioning

Additionally, the 2013 Order included financial conditions, among other things, to limit the amount of policyholder funds that may be transferred to Highmark Health or other affiliates and to establish an enhanced standard of review and assessment that is required to be undertaken prior to any Highmark Domestic Insurer entering into additional material financial commitments. The WPAHS Corrective Action Plan included Highmark's commitments to implement actions to improve AHN's financial and operating performance along with needed infrastructure changes, including (1) efficiency improvements and revenue opportunities, (2) changes in employment, including employed physicians, (3) modifications to AHN's capital expenditure plan, (4) reductions in unfunded research, (5) non-core asset sales, (6) restructuring of compensation and benefits, and (7) outsourcing.

Transition Plan for termination of the Highmark/UPMC provider contract

The 2013 Order recognized that Highmark's provider contracts with UPMC were scheduled to terminate on December 31, 2014 and that the expectation of this event was causing great concerns in Western Pennsylvania on the ability of Highmark's members to access healthcare services at UPMC. With Highmark Inc. as the largest healthcare insurer in Western Pennsylvania and UPMC as the largest provider of inpatient hospital services, outpatient services, and physician services, the potential existed for a major disruption in the healthcare market in Western Pennsylvania. To provide for a smooth transition during this period, the Department imposed a condition on Highmark requiring that if it or one of the other Highmark Domestic Insurers did not secure a new contract with UPMC by July 1, 2014, it would need to file a formal transition plan with the goal of "minimizing any disruption to consumers and the marketplace and ensuring that consumers continue to have access to quality healthcare in a competitive marketplace." Among the key provisions of Highmark's UPMC Transition Plan were: (1) Highmark network adequacy

requirements, including in-network access to certain UPMC "exception" hospitals; (2) affordable access to in-network hospitals and providers, including the designation of UPMC Exception Hospitals and UPMC-owned oncologists, pediatricians, behavioral health specialists, and emergency medicine physicians, and other UPMC physicians working at Highmark contracted in-network facilities; (3) continuation of care for Highmark members undergoing treatment with UPMC providers and those transitioning from UPMC providers; and (4) in-network access to UPMC facilities for vulnerable populations, i.e., membership in current Medicare Advantage Products, other Senior Products, and access for Children's Health Insurance Program ("CHIP") and Medicaid.

Certain conditions of the 2013 Order are expected to expire on December 31, 2018 although the majority of the conditions listed above do not expire. For conditions expiring, the Department may extend these conditions for up to an additional five years.

With the 2013 Order at the midpoint of its tenure, the Department requested that Compass Lexecon assess the changes in the WPA healthcare market that have occurred since issuing the 2013 Order.[2] The purpose of this assessment is to determine the extent to which the 2013 Order, including conditions imposed, has achieved its purpose of preserving or enhancing both the competitive dynamics in the market among healthcare insurers and healthcare providers, and the ensuing effects on consumers of both healthcare insurance and healthcare services. The assessment evaluates whether it is likely that these changes are sufficient to sustain competition going forward in the presence or absence of conditions and to help inform the Department as to the merits of modifying or maintaining the 2013 Order's conditions.

This report responds to specific questions posed by the Department on these issues.

[2] Susan Henley Manning and Margaret E. Guerin-Calvert of Compass Lexecon are the principal authors of this report, with support for the analysis from Holly Saltrelli and Sabiha Quddus of the Center of Healthcare Economics and Policy at FTI Consulting, Inc. This analysis reflects the opinions and assessments of the authors, not of Compass Lexecon as a firm.

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I. Healthcare Insurance Markets

A. Changes in competitive conditions Post-2013 Order

How have the competitive conditions changed in the healthcare insurance markets in the WPA since the 2013 Order? Since the 2013 Order, to what extent, if any, have the actions of Highmark, UPMC or other insurers affected the healthcare insurance markets in WPA?

At the time of the 2013 Order, the WPA healthcare insurance market consisted of Highmark with approximately 60% share, and others including, UPMC, Aetna, HealthAmerica, UnitedHealthcare, Cigna, and in some areas of the WPA, Geisinger. Among the other competitors, UPMC had the highest share estimated at 8%. HealthAmerica (acquired by Aetna in 2012) had 6%, UnitedHealthcare had 4%, and both Aetna and Geisinger had 2% each. The remaining 13% share was split among several much smaller entities. Shares varied by type of commercial customer. Highmark's share among group and direct plans was estimated to be in the mid-60s and mid-70s.

By 2011, UPMC was gaining share in the WPA insurance market at Highmark's expense, while other competitors' overall shares were generally stable. Competitors other than Highmark were making inroads in gaining share in the small employer segment of the insurance market. Highmark continued to lead its competitors in terms of awareness, familiarity, favorability and use. Among its recognized competitive advantage in attracting and maintaining members included the size of its provider network and its competitive pricing, the latter supported in part by Highmark's highly favorable 10-year contract with UPMC, which terminated in December 2014, and formed the basis for the June 27, 2014 Consent Decrees ("Consent Decree").

Contracting between Highmark and UPMC and between UPMC and rival insurers substantially affected the insurance product offerings in the WPA area, including the inclusion of UPMC in rival insurer networks, the duration and pricing of contracts, and the ability of insurers to offer consumer choice and other member cost-sharing initiative products, such as narrow or tiered products, in WPA. UPMC had demonstrated the ability to execute contracts with provisions that limited or inhibited the ability of commercial insurers, including Highmark, to develop competitive insurance products using narrow or tiered networks which excluded UPMC or that offered tiered products that included UPMC. Highmark was the only insurer that had been able to extract a concession that permitted it to offer a narrow network product (Community Blue). Even so, the contracts limited the concession only to Community Blue, which did not have much traction with consumers. Highmark's highly favorable and lengthy (10 year) contract with UPMC contributed to other insurers being effectively a competitive fringe.

The 2013 Order and Consent Decree substantially changed the competitive conditions in the WPA insurance market. Two of Highmark's perceived competitive advantages were the breadth of its broad network and its competitive pricing. The termination of its contract with UPMC significantly narrowed its network offerings. Consumers wanting access to all of UPMC's healthcare system needed to purchase insurance from an insurer other than Highmark. UPMC's health plans became a highly viable option for consumers who wanted access to UPMC and did not value having access to the competing AHN system affiliated with Highmark. At the same time, consumers who preferred a broad network offering access to both UPMC and AHN had to turn to the national carriers, such as UnitedHealthcare, Cigna, and Aetna.[3]

Other major changes affecting competition since the 2013 Order occurred with the introduction of the insurance exchanges in January 2014 and Pennsylvania's Medicaid expansion in January 2015. These changes reduced the number of uninsured residents from 14% in 2013 to 10% in 2015 and presented new opportunities for health plans to compete for new members.[4]

These new market developments resulted in significant shifts in the types of healthcare insurance offered by commercial insurers. According to NAIC data filed with the Department, since 2013, the total Pennsylvania membership across all offered insurance products (i.e., Individual, Group, Title XVIII Medicare, Medicare Supplement, FEHB, Medicaid, and Other Members) increased by seven percent, from 8.4 million insured in 2013 to 9.0 million insured in 2016. Table 1 presents the annual percentage of commercially-insured healthcare members by type of insurance in the Commonwealth of Pennsylvania as reported to the Department.

[3] From 2012 to 2016, Highmark lost commercial members to other insurers, with the majority of the losses to national broad network carriers Aetna and United. National carriers are the only networks offering a broad network after 2014. Source: Information provided by Highmark (Losses/Gains- 12a and 17 Highmark membership gains and losses WPA Only (full version from HM).xlsx; Total Members (Item1a - Enrollment v3 County.xlsx)

[4] "The Pennsylvania Health Care Landscape," Fact Sheet, The Kaiser Commission on Medicaid and the Uninsured, Updated April 2016.

Table 1: Pennsylvania Healthcare Insurance Members

Total Annual Individual, Group, Title XVIII Medicare, Medicare Supplement, FEHB, Medicaid, Other Members by Group Type in PA							
	Share				Change (2013-2016)	% Change (2013-2016)	% of Total Change
Insurer	2013	2014	2015	2016			
Total Members	**100%**	**100%**	**100%**	**100%**	**559,448**	**7%**	**100%**
Medicaid	30%	31%	37%	38%	895,461	35%	160%
Group	31%	26%	22%	19%	-902,477	-34%	-161%
Other	14%	15%	16%	16%	325,236	28%	58%
Title XVIII Medicare	10%	11%	11%	11%	108,433	12%	19%
Individual	6%	8%	8%	8%	229,695	47%	41%
FEHB	5%	5%	5%	4%	-42,231	-9%	-8%
Medicare Supplement	3%	3%	3%	2%	-54,669	-20%	-10%

Source: NAIC Annual Statements filed by insurance companies to the Department

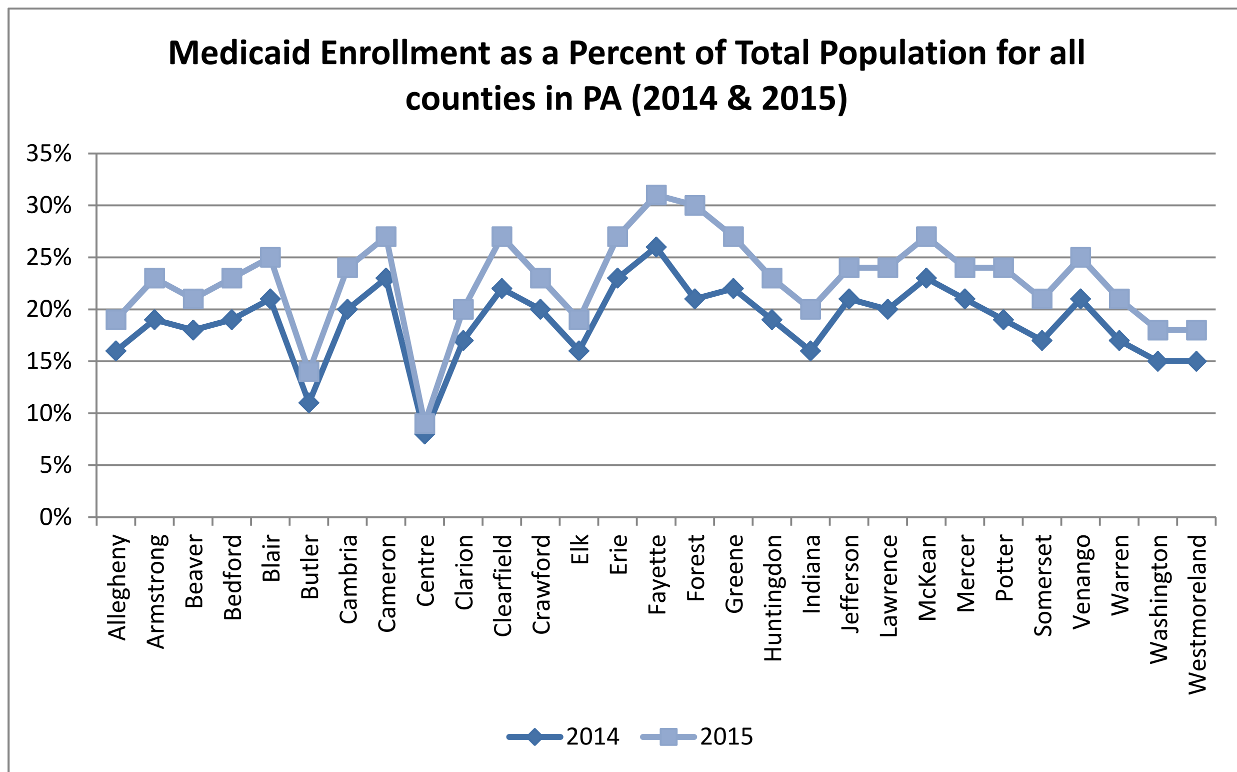
Note: Enrollment data reflects enrollments as of December 31st of each year and is the Total Members at the end of Current year (line 5) from the Exhibit of Premiums, Enrollment, and Utilization (Page 29.PA) from the Health Annual Statement. Enrollment data is not available for Life annual statement.

*Other includes "accident and health coverages not otherwise properly classified as Group Accident and Health or Credit Accident and Health (e.g., collectively renewable and individual non-cancelable, guaranteed renewable, non-renewable for stated reasons only, etc.). Includes all Medicare Part D Prescription Drug Coverage, whether sold on a stand-alone basis or through a Medicare Advantage product and whether sold directly to an individual or through a group."[5]

These data show the significant increase in Medicaid (35%) and individual insurance (47%) reflecting new members through the exchanges. Group insurance declined significantly by 34%. By March 2017, there were approximately 716,000 persons enrolled in the Pennsylvania Medicaid program. As Figure 1 shows, Medicaid expansion resulted in a significant increase in the number of Medicaid members in most of the 29-counties comprising the WPA.

[5] http://www.naic.org/consumer_glossary.htm#O

Figure 1: Medicaid Enrolled Members as a Percent of Total Population, By County in WPA



Source: "Medicaid Expansion Report", January 27, 2017; 2014-2015 most recent data available. (http://www.dhs.pa.gov/cs/groups/webcontent/documents/document/c_257436.pdf)

Similarly, the ACA insurance exchanges in Pennsylvania created a new forum for insurance carriers to compete for new members. As shown in Table 2, more than 88,000 members signed up under the exchanges in the WPA in 2014 and over 133,000 became members in 2015. In the first two years, Highmark made an aggressive push to compete and captured 93.5% of the exchange members in the first year of operation. In 2015, UPMC gained momentum and increased its share from 2.8% to almost 32%.

For the Commonwealth of Pennsylvania, Highmark quickly became the predominant insurer of ACA enrollees in 2014. ACA enrollees totalled 88,381 of which Highmark captured the vast majority. By 2015, ACA enrollees increased to 133,427 and Highmark remained the top insurer.

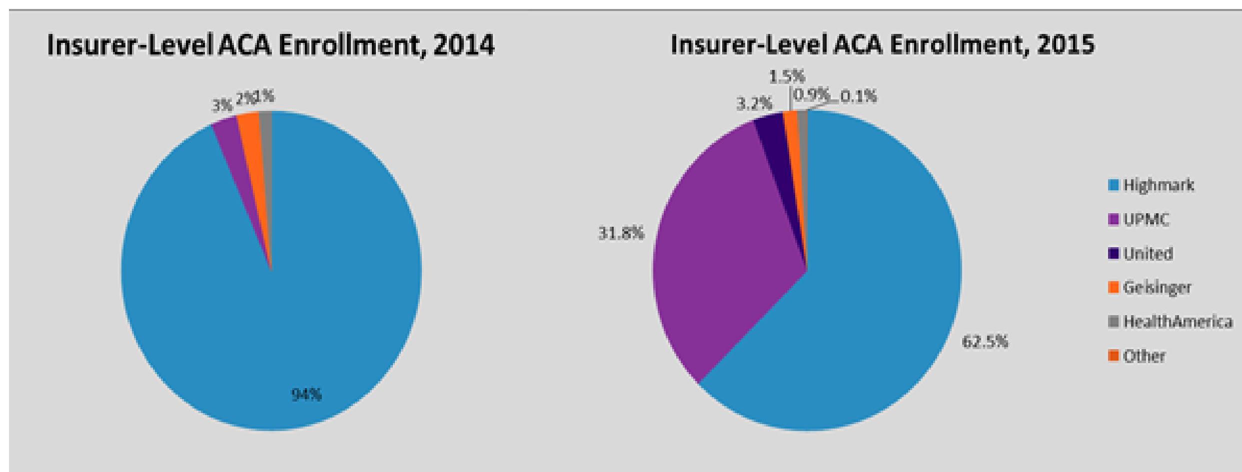
Table 2: Insurer-Level ACA Enrollment, 29-County WPA (2014-2015)

Insurer-Level ACA Enrollment, 29 County WPA (2014-2015)				
Insurer	Enrolled 2014	2014	Enrolled 2015	2015
Total	**88,381**	**100.0%**	**133,427**	**100.0%**
Highmark	82,609	93.5%	83,441	62.5%
UPMC	2,483	2.8%	42,391	31.8%
United	0	0.0%	4,227	3.2%
Geisinger	2,144	2.4%	1,996	1.5%
HealthAmerica	1,145	1.3%	1,239	0.9%
Other	0	0.0%	107	0.1%
Capital BlueCross	0	0.0%	26	0.0%

Source: Centers for Medicare and Medicaid Services (CMS)

In 2014, Highmark's share of ACA enrollment in the 29-county WPA was 94% (Figure 2). The next largest insurer was UPMC with a 3% share. However, the ACA insurance market segment proved to be highly dynamic. For the 2015 ACA exchange, Highmark's share fell to 62.5%, while maintaining almost the same level of enrollees, with UPMC capturing new enrollees. Highmark incurred significant financial losses on its ACA business in 2014 and attempted to revise its ACA exchange offerings in 2015 to stem the losses. However, Highmark again incurred significant losses in 2015 despite revising its plans.

Figure 2: Insurer-Level ACA Enrollment, 29 County WPA (2014 & 2015)



Source: Centers for Medicare and Medicaid Services (CMS)

Note: Enrollment data for 2016 has not yet been made available by CMS to the public.

Although exchange enrollment data for 2016 has not been released by CMS, UPMC publicly released its own estimates of its share assessment for this market segment. Table 3 presents UPMC's and Highmark's own estimates of the number of exchange patients as of March 2016 and January 2017. These data show that UPMC has overtaken Highmark in terms of members as Highmark pulls further out of the exchanges and UPMC pushes further into this market segment.

Table 3: Self-Reported Insurer-Level ACA Enrollment Estimates, 29-County WPA (2016-2017)

Self-Reported Insurer-Level ACA Enrollment Estimates (PA Direct Pay, On- and Off-Exchange), 2016-2017		
Insurer	Mar-16	Jan-17
UPMC	110,860	149,591
Highmark	128,796	73,882

Source: UPMC estimates are from UPMC, First Six Months Fiscal Year 2017, "Financial Results and System Highlights," February 2017. Highmark estimates from email titled "ACA Numbers" received July 11, 2017.

These latest member enrollments also capture the exit of other carriers from the exchanges. At the end of 2016, UnitedHealthcare and Aetna both exited the individual market in Pennsylvania.[6] Only ten plans were offered in 2017, among them Highmark offered two plans—Highmark Inc. EPO and PPO and Highmark Health Insurance Company PPO. UPMC offered two exchange plans—UPMC Health Coverage (HMO) and UPMC Health Options (PPO and EPO). Geisinger Quality Options PPO was not offered in 2017.[7] UPMC offered the lowest priced exchanged plans in 2016.[8]

Table 4 shows the overall change in healthcare plan members from 2013 to 2016 across the Commonwealth of Pennsylvania for the top six insurers operating in WPA.[9] Highmark continues to have the largest share of members although its membership declined by 11% during this period. Overall, from 2013 to 2016, the latest year available, UPMC's members increased 44%. Aetna also experienced a significant 35% decline in membership. Cigna suffered the largest decline of 49%. Two other carriers also increased membership—Geisinger and UnitedHealthcare. We would expect UnitedHealthcare's member count in 2017 to fall significantly since it has pulled out the Pennsylvania exchanges.

[6] These withdrawals are consistent with these health plans' behavior nationally, with Aetna withdrawing from 11 of 15 state exchanges and United participating in only three state exchanges in 2017. "Highmark Health Response to June 5, 2017 Inquiry #1 from Compass Lexecon."

[7] Geisinger continues to offer the most plans on the exchange for both individual and small group, and has requested to raise individual premiums to reduce its chance of being the lowest cost plan. "Highmark Health Response to June 5, 2017 Inquiry #1 from Compass Lexecon."

[8] "Highmark Health Response to June 5, 2017 Inquiry #1 from Compass Lexecon."

[9] These member counts do not include behavioral, vision, dental or other plan members. Compass Lexecon is unable to determine if reported members include members reported in more than one plan.

Table 4: Pennsylvania Healthcare Insured Members by Insurer

Total Annual Individual, Group, Title XVIII Medicare, Medicare Supplement, FEHB, Medicaid Pennsylvania Members for Top Six Insurance Groups in WPA						
	Members				Change (2013-2016)	% Change (2013-2016)
Insurer	2013	2014	2015	2016		
Total	4,177,712	3,927,801	4,160,522	4,001,281	-176,431	-4%
Highmark	1,882,836	1,871,500	1,888,647	1,668,340	-214,496	-11%
UPMC	687,941	700,931	880,461	989,798	301,857	44%
Aetna	927,295	730,821	675,296	604,029	-323,266	-35%
Geisinger	382,132	363,531	384,215	406,724	24,592	6%
UnitedHealthCare	220,816	198,065	276,726	286,115	65,299	30%
Cigna	76,692	62,953	55,177	46,275	-30,417	-40%

Source: NAIC Annual Statements filed by insurance companies to the Department

Note: Highmark owns 50% of Gateway Health Plan Inc. All Gateway members in this table are credited to Highmark. Enrollment data reflects enrollments as of December 31st of each year and is the Total Members at the end of Current year (line 5) from the Exhibit of Premiums, Enrollment, and Utilization (Page 29.PA) from the Health Annual Statement. Enrollment data is not available for Life annual statement.

Official data on current insurance membership in Western Pennsylvania is not publicly available; thus, we report insurer-based estimates for Highmark and UPMC that we are unable to validate and may not be direct comparisons. Within the WPA specifically, Highmark reports that its membership has decreased from 2012 to 2016.[10] Losses to other insurers, including UPMC, Aetna, and United, drove only a small portion of the decline.

In addition to their fully-funded insurance described Table 4, health plans have administrative service contracts (ASCs) or administrative services only contracts (ASOs) with other organizations that are self-funded.[11] Under ASCs/ASOs, health plans provide employers with access to their provider network with negotiated rates, preparation of plan materials, and other administrative supports; however, the employer assumes the risk for insuring the members, not the health plan. Table 5 provides a summary of ASCs/ASOs in the Commonwealth of Pennsylvania. Highmark serves the vast majority of employers with ASCs/ASOs in Pennsylvania, with 2,479,710 covered lives under its ASCs.

[10] "Item 1a - Enrollment v3 County.xlsx" (confidential) provided by Highmark on March 24, 2017. Estimate is based on average annual members calculated from member month data by county.
[11] NAIC "Accident and Health Policy Experience Exhibit" includes ASCs and ASOs as separate line items.

Table 5: Covered Lives under ASCs, 2013-2016 (as of December 31 Annually)

Covered lives under Administrative Services Only (ASO) and Administrative Services Contracts (ASC), 2013-2016 (as of Dec 31 of each year)				
Insurer	2013	2014	2015	2016
Highmark	2,486,920	2,483,111	2,505,043	2,479,710
Aetna	-	11,784	11,111	56,964
Geisinger	46,893	105,138	111,312	141,584
Total	2,533,813	2,600,033	2,627,466	2,678,258

Source: "Accident and Health Policy Experience Exhibit" from annual statements filed by the insurance companies to NAIC.

UPMC's strategy has been to increase share in the healthcare insurance business by fully competing for the newly insured under the ACA. Of its total physical health insurance membership in WPA, commercial health accounts for 53%, Medicare is 13% and Medicaid is 34% as of the end of 2016. This compares with 52% commercial, Medicare 14% and Medicaid 34% in 2015, according to public information UPMC reports. Of its three million members, 1.1 million are in physical healthcare plans in WPA, almost one million are covered by behavioral health plans, and the remaining 0.9 million are in auxiliary plans.[12] UPMC claims to be the largest medical insurer in WPA.[13]

UPMC aggressively markets its rise as a major insurer in the WPA. UPMC marketing materials report significant and progressive increases in revenue and membership for UPMC's insurance division over time, particularly since 2005.[14] UPMC appears to have focused its health plan growth strategy on government insurance market segments in which it has acquired a leading position. According to UPMC, it has more than 50% of the WPA's enrollees in Medicaid and CHIP insurance products.[15] As a vertically integrated hospital system, UPMC asserts publicly that it has the incentive to provide the highest quality, most efficient care to keep premiums low and provide the best value for money care in WPA. As a result, it claims its membership retention in most UPMC insurance products exceeds 90%.[16]

It also is aggressively marketing the quality of its insurance plans. UPMC's markets its 2016 National Committee for Quality Assurance ("NCQA") ratings which show improved rankings over the previous year for each of its plans and its 2016 CMS 4-5-star scorings. Highmark similarly

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[12] UPMC, "First Six Months Fiscal Year 2017, "Financial Results and System Highlights," February 2017. Compass Lexecon is unable to independently verify whether these counts are unique members.

[13]Compass Lexecon was unable to verify this claim; Highmark disputes this assertion and also claims to be the largest insurer in WPA. Regardless, this is indicative of active and vibrant competition in the WPA health insurance marketplace.

[14] UPMC, First Six Months Fiscal Year 2017, "Financial Results and System Highlights," February 2017.

[15] UPMC 2016 Year in Review. Compass Lexecon is unable to independently verify these public claims.

[16] UPMC 2016 Year in Review. Compass Lexecon is unable to independently verify these public claims.

markets its CMS ratings.[17] Table 6 summarizes the NCQA health insurance plan ratings in Pennsylvania by insurer for Commercial, Medicaid, and Medicare plans.

Table 6: Summary of NCQA Health Insurance Plan Ratings 2016-2017 – Pennsylvania Private (Commercial), Medicaid, and Medicare Plans by Insurer

Summary of NCQA Health Insurance Plan Ratings 2016-2017																		
	Commercial						Medicaid						Medicare Advantage					
Plan Name	# in PA	5.0	4.5	4.0	3.5	3.0	# in PA	5.0	4.5	4.0	3.5	3.0	# in PA	5.0	4.5	4.0	3.5	3.0
UPMC	6	3	3				1		1				3*			2		
Highmark	6*		1	2	2		1**				1		2			1	1	
UHC	2				2		1				1		5*			3		
Aetna	3			2	1		1				1		3			3		
Geisinger	2			2			1			1			2		1	1		
Cigna	1				1		0						1					1

Note: *No-Rating Exceptions: 1 Highmark Commercial Plan, 1 UPMC Medicare Plan, and 2 UnitedHealthcare Medicare Plans are not rated. NCQA was not able to rate Highmark Select Resources Inc. (HSR), UPMC For You INC., UnitedHealthcare Insurance Company (DC, DE, MD, PA, VA, WV), and UnitedHealthcare Insurance Company (MA/RI) because only partial or no data was reported.
**Highmark owns 50% of Gateway Health Plan; its Medicaid rating reflects the rating of Gateway Health Plan.

Source: NCQA Health Insurance Plan Ratings 2016-2017 - Summary Reports for Pennsylvania Private (Commercial), Medicaid, and Medicare, http://healthinsuranceratings.ncqa.org/2016/Default.aspx (accessed July 2017).

B. Expansion of narrow network products

For 2017, what insurance products are being offered by Highmark or UPMC that provide for narrow networks or other limitations, how do those products compare in terms of membership and price and how do those products compare with the product offerings at the time of the 2013 Order?

Highmark is a leader in the WPA in offering a selection of narrow network insurance products designed to provide consumers a lower cost option for healthcare insurance in exchange for limiting in-network access to some hospitals. According to data submitted by Highmark and verified by Compass Lexecon, Highmark has been successful in incentivizing its members to move to narrow networks and away from more inclusive broader networks offered at a higher cost point for consumers. The percentage of Highmark plan members now in a narrow network plan has significantly increased since the time of the 2013 order.

[17] Submission from Highmark, "06.30.2017 NonConfidential Covered Lives Totals."

Highmark provided confidential data[18] showing member shifts to narrow network products as a proportion of fully-funded products. A significant percentage of Highmark plan members are now in a narrow network plan compared with a much lower percentage at the time of the 2013 Order.

Highmark's portfolio of network offerings includes:[19]

- Broad network products (no tiering) with both in and out-of-network coverage locally and nationally. These PPO products are available in the large (51+) and small (2-50) group commercial customer segments. Products in this category include PPO Blue, Comprehensive, and Indemnity.

- Broad network products (no tiering) that limit access to in-network providers locally. These HMO products are available in the large group, small group and individual commercial customer segments. Products in this category include Keystone Blue HMO.

- Narrower network products (no tiering) with both in and out-of-network coverage locally and nationally. These PPO products are available in the large and small group commercial customer segments. Products in this category include Community Blue PPO.

- Narrower network products with two in-network tiers offering both in- and out-of–network coverage locally and nationally. These PPO products are available in the large group, small group and individual commercial customer segments. Products in this category include Community Blue Flex PPO.

- National network products with two and three in-network tiers that limit access to in-network providers locally and national. These EPO products are available in the large group, small group and individual commercial customer segments. Products in this category include Community Blue Flex EPO and Connect Blue EPO.

According to Highmark, it plans to develop and offer narrow network products that will deliver higher quality and lower cost. These new health plans will leverage a subset of providers with a track record of above average quality, below average total cost of care, and/or a commitment to value-based reimbursement arrangements. AHN will be a keystone of these narrow network products.

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[18] The Department has informed Compass Lexecon that reference in this document to confidential data, without releasing that data, is not intended to and does not waive the confidential nature of that data, which was submitted as confidential data and not a public record pursuant to one or more statutory provisions regarding confidentiality and/or privilege, including but not limited to: (i) the provisions of the Insurance Holding Companies Act, 40 P.S. §§ 991.1401 et seq.; (ii) the regulations under 31 Pa. Code Chapter 25; (iii) the provisions under 40 P.S. § 443; and/or (iv) the provisions of the Pennsylvania Right to Know Law, 65 P.S. § 67.101 et seq., including but not limited to § 67.708(b)(6)(i), § 67.708 (b)(10)(i), § 67.708(b)(11), and § 67.708(b)(17).

[19] Highmark response to Compass Lexecon information request, "Highmark Inc./Allegheny Health Network: Supplemental Analyses."

UPMC offers a variety of both narrow and broad networks. For individual and family plans, UPMC offers three plans, two of which are narrow networks—UPMC Partner and UPMC Select. Members may choose from UPMC hospitals and providers and some specific non-UPMC providers. These plans are restricted to residents in certain WPA counties.

- Individual and family[20]
  - UPMC Partner Network (EPO)—restricted to residents of Allegheny and Erie counties. Includes all UPMC providers and facilities. Residents in Erie may also see some independent providers.
  - UPMC Select Network (EPO)—restricted to residents of Allegheny, Beaver, Butler, Washington and Westmoreland counties. Includes access to all UPMC providers and facilities as well as Butler Memorial Hospital, Excela Health System, Heritage Valley Health System, Monogahela Valley Hospital and Washington Health System.
  - UPMC Premium Network (PPO)—UPMC's broadest network. Includes access to all UPMC providers and facilities as well as many independent providers and facilities. Members can use out-of-network providers at higher out-of-pocket costs.

UPMC offers five employer group plans with varied access to healthcare resources. UPMC offers a choice of plans based on benefits and location of the resident or employer, and in addition, three network options. Similar to its individual and family plans, some of these plans, such as UPMC MyCare Advantage and the UPMC Partner Network option, restrict membership to residents or employers in certain counties. The UPMC Partner Network and UPMC Standard Network restrict access to UPMC hospitals and providers and designated non-UPMC hospitals. Its UPMC Premium Network allows access to out-of-network providers at higher cost to the member. In all of its employer group plans, UPMC plans only cover emergency care provided at out-of-network hospitals.

- Employer Group Plans[21]
  - UPMC MyCare Advantage—tiered benefit plan available to groups with 51 plus employees. Restricted to employers located in Allegheny, Beaver, Bedford, Blair, Butler, Washington and Westmoreland counties. Includes access to UPMC facilities.
  - UPMC Self Assure Level Funding—ASO plan for employers with as few as 25 employees. Full in-network access to UPMC facilities.
  - UPMC *HealthyU*—rewards members for healthy choices. Available as a PPO or an EPO plan. Includes employers with as few as two employees.

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[20] https://www.upmchealthplan.com/docs/inf/SalesBrochure_SalesCenter.pdf, "Welcome to UPMC Health Plan for Individuals & Families."

[21] https://www.upmchealthplan.com/employer/knowledge/plan-options.aspx.

- UPMC Small Business Advantage and Business Advantage—available for employers with 51 or more employees. UPMC describes this as a robust benefit package.
- UPMC Consumer Advantage—plan design which qualifies members for a health savings account.
- Network options:[22]
  - Higher UPMC Partner Network—Available to residents of Allegheny, Bedford, Blair, Erie, Lawrence, Mercer, and Venango counties. Includes access to all UPMC owned hospitals plus Corry Memorial Hospital and Grove City Medical Center.
  - UPMC Standard Network—Available to employer groups domiciled within the 28-county UPMC service area. Includes access to all UPMC owned facilities and providers and participating community providers.
  - UPMC Premium Network—UPMC's broadest network available to employers domiciled with the 29 counties of UPMC's service area. Includes access to all UPMC providers and facilities as well as many independent providers and facilities. Members can use out-of-network providers at out-of-pocket costs.

Insufficient publicly available information exists to enable a one-to-one comparison of the rates for UPMC and Highmark health plans. Highmark also claims to have the lowest, most cost effective healthcare in WPA, with a commercial membership retention rate of 96% in WPA. It claims to have 55% commercial market share in WPA, more than twice its next largest competitor, and a leading membership of 38.7% in Medicare Advantage membership.[23] Highmark provided a confidential analysis showing that based on actual client experience, the utilization of AHN and community hospitals results in a lower cost of care. Highmark provided an analysis to show that it is on a path to achieve a significant cost differential between a broad network with UPMC and a Highmark narrow network without UPMC. Highmark uses its most price competitive broad network rival as the comparator, making the premium difference relative to another broad network national carrier larger than the projected differential.[24] Once Highmark is able to make good on care savings from traditional care management and from scaled care model redesigns, it proffers that it will achieve a significant cost differential. The analysis provides useful information; however, Highmark has not analyzed cost differentials for narrow network products offered by UPMC or other insurers, so this cost differential does not address Highmark's cost competitiveness against other narrow network offerings in the WPA marketplace.[25]

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[22] https://www.upmchealthplan.com/employer/knowledge/plan-options.aspx.

[23] Highmark Submission to Joseph DiMemmo, Deputy Insurance Commissioner, June 30, 2017 (Confidential). Compass Lexecon is unable to independently verify this claimed retention rate.

[24] "Highmark Health Response to June 5, 2017 Inquiry #6 from Compass Lexecon."

[25] "Highmark Health Response to June 5, 2017 Inquiry #6 from Compass Lexecon" and "CL Request Information."

In addition, Highmark also provided information on two examples of the cost benefits of moving from a broad PPO with UPMC in-network to one of its narrow network products without UPMC in-network. For several customer examples, Highmark shows a significant claimed savings with the Community Blue Flex health plan. Savings result from shifting hospital utilization away from UPMC and toward AHN and community facilities.

Although both AHN and UPMC claim that they each provide the lowest cost healthcare, the claims appear to be based on different assumptions. UPMC's claim centers on its integrated health system and delivering high quality and efficient care. AHN's claim is based on comparing facility costs and utilization, i.e., shifting from UPMC's estimated higher cost facilities as of 2014 to the estimated lower cost AHN and community hospitals in 2016. Both claims are based on each system being a vertically integrated healthcare system in which each is able to offer lower health plan premiums by delivering higher quality, more efficiently delivered healthcare at the provider level.

In WPA, the broadest networks include both AHN and UPMC. Hospital penetration rates for national carriers (Aetna, Cigna, and UnitedHealthcare) are 100% due to the inclusion of both AHN and UPMC facilities in their networks.[26] However, some national carriers are beginning to offer narrow networks within the Commonwealth as well. For example, Aetna currently has seven narrow networks in Pennsylvania; three (WPHO Narrow Network Commercial, Butler Narrow Network, and Penn Highlands Narrow Network Commercial) are in WPA.[27] National carriers may be shifting to narrow networks to better compete with AHN and UPMC in WPA.

[26] "Highmark Health Response to June 5, 2017 Inquiry #1 from Compass Lexecon."
[27] "Highmark Health Response to June 5, 2017 Inquiry #1 from Compass Lexecon."

II. Healthcare Delivery Markets

A. Changes in competitive conditions Post-2013 Order

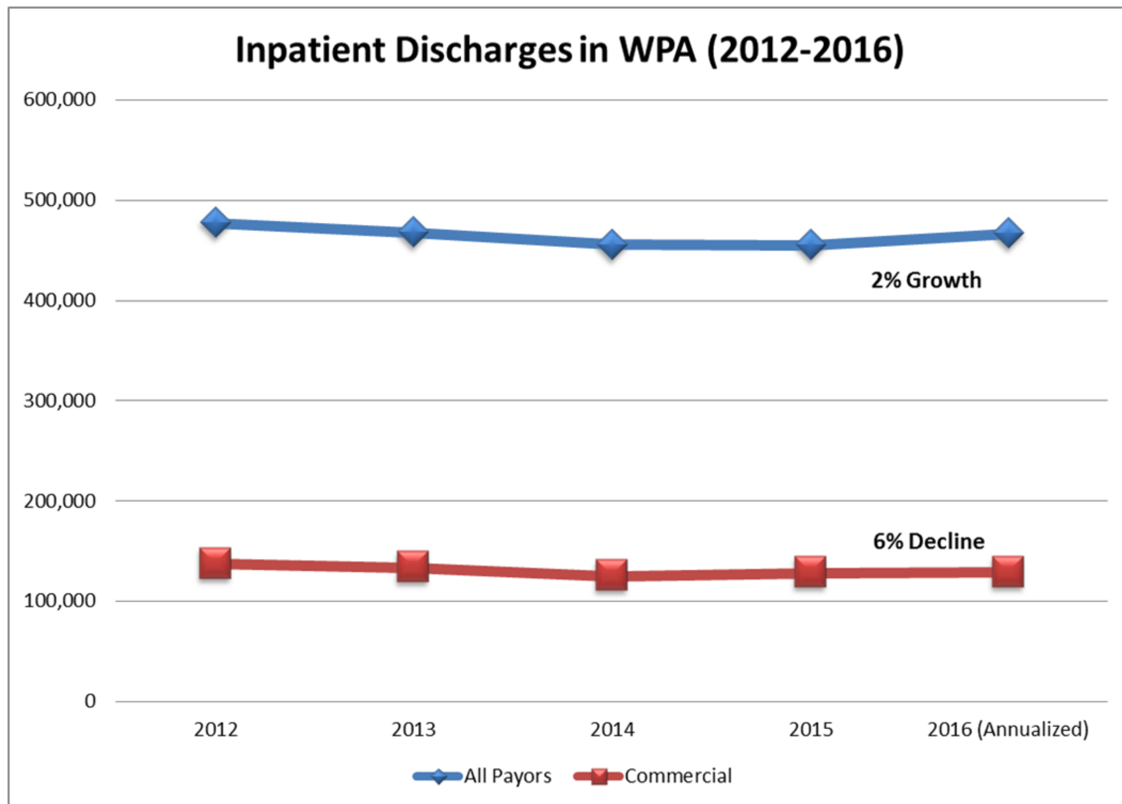
How have the competitive conditions changed in the healthcare services markets in WPA since the 2013 Order?

The competitive conditions at the time of the 2013 order could be characterized as having entered into a significant state of transition. UPMC as the predominant hospital system with over 45% share of inpatient discharges in the WPA was vertically integrated into both healthcare insurance and employment of physicians. WPAHS was a weakened competitor due to a long history of financial difficulties. WPAHS suffered from underinvestment in facilities and resources and a perceived lower quality of service than its primary rival, UPMC. As the predominant hospital system in WPA, UPMC competed with a diverse array of community hospitals scattered around the 29-county WPA and a highly fragile WPAHS. WPA was, and continues to be, an over-bedded, oversupplied region for the delivery of healthcare. At the time of the 2013 Order, only three hospitals in WPA, all UPMC hospitals, had occupancy rates above 80%. Community hospitals' occupancy rates range between 57% to 72%, well below the rate many healthcare practitioners view as an efficient utilization level for general acute care. WPAHS's occupancy rates ranged from 44.5% to 70%.

Highmark proposed affiliation with WPAHS was intrinsically linked to the expectation that UPMC and Highmark's contract would expire without renewal in December 2014. Without UPMC in its network, Highmark's affiliation with WPAHS and its establishment of a vertically integrated delivery network with WPAHS at its core was essential for Highmark to offer present and future members access to high quality and value for money healthcare services.

Since the 2013 Order, the number of inpatient discharges in WPA declined from 2012 to 2015 but showed a slight increase in 2016 (annualized) resulting in an overall growth of about 2% during the period. Commercially-insured inpatient discharges, however, declined in 2013 and 2014, and increased slightly in both 2015 and 2016 (annualized), but not enough to overcome the decline in the early part of the period. Overall, commercial inpatient discharges declined by 6% since 2012 (Figure 3).

Figure 3: Inpatient Discharges in 29 County WPA, 2012-2016



Source: PHC4 Discharge Data, 2012-2016

Using inpatient discharge data from Pennsylvania Health Care Cost Containment Council "(PHC4"), the trend in total inpatient discharges for Highmark plan members declined by 20% between 2012 and 2016 (annualized). For Highmark commercial plan members, the decline was 33% between 2012 and 2016.

Only AHN experienced an increase in total admissions and total inpatient days between 2012 and 2015. All other hospitals in the WPA, including UPMC, experienced declines in these metrics. As shown in Table 7, the growth in AHN discharges was largely driven by the introduction of certain high volume services after 2012, such as pregnancy and newborn services at West Penn Hospital, Forbes, and Jefferson, the expansion of trauma services and capabilities at Forbes, and the reopening of West Penn's emergency department in late 2012. West Penn Hospital drove a significant amount of growth for AHN. In comparison, UPMC discharges decreased overall by 6% from 2012 to 2016, with the largest declines in female reproductive system and HIV-related discharges.

Table 7: Growth in Discharges by MDC, 2012-2016, Greater Pittsburgh Area

MDC	MDC Description	AHN Hospitals (Total)	West Penn	Forbes	Jefferson	Canonsburg	Allegheny Valley	Allegheny General	UPMC Hospitals (Total)	Children's UPMC	UPMC Presbyterian Shadyside	UPMC McKeesport	UPMC Magee-Womens	UPMC St Margaret	UPMC Passavant	UPMC Mercy	UPMC East**	% Change (All Hospitals in Greater Pittsburgh)
	TOTAL	3%	59%	2%	-1%	-22%	-32%	2%	-6%	-17%	-13%	-24%	-8%	-15%	-6%	-7%	25%	-3%
1	NERVOUS SYSTEM	1%	117%	32%	-6%	35%	-49%	-9%	3%	-18%	-8%	-2%	-16%	1%	14%	12%	111%	8%
2	EYE	-20%	34%	-38%	-51%	0%	-55%	4%	-29%	-20%	-29%	-62%	-47%	-41%	-37%	-35%	-44%	-25%
3	EAR, NOSE, MOUTH & THROAT	-7%	67%	6%	-25%	-1%	-70%	9%	-22%	-39%	-14%	-39%	-5%	-42%	-10%	-13%	-3%	-18%
4	RESPIRATORY SYSTEM	-11%	50%	-20%	-15%	-28%	-30%	9%	-14%	-29%	-12%	-32%	-28%	-16%	-12%	-9%	3%	-14%
5	CIRCULATORY SYSTEM	-11%	153%	-15%	-21%	-27%	-46%	1%	-14%	-4%	-20%	-31%	-31%	-18%	-10%	-30%	34%	-13%
6	DIGESTIVE SYSTEM	-5%	116%	-15%	-18%	-29%	-27%	13%	-13%	-24%	-14%	-35%	-18%	-28%	-12%	-16%	16%	-11%
7	HEPATOBILIARY SYSTEM & PANCREAS	-2%	97%	-17%	-8%	-33%	-18%	11%	-11%	-9%	-6%	-31%	-17%	-25%	-19%	-12%	-1%	-8%
8	MUSCULOSKELETAL SYSTEM & CONN TISSUE	8%	137%	7%	6%	-20%	-3%	2%	-4%	-20%	-16%	-8%	3%	-8%	6%	-2%	14%	5%
9	SKIN, SUBCUTANEOUS TISSUE & BREAST	-10%	20%	2%	-16%	-39%	-44%	2%	-14%	-38%	-15%	-18%	-3%	-19%	-16%	-11%	-11%	-10%
10	ENDOCRINE, NUTRITIONAL & METABOLIC DISEASES	0%	86%	6%	-8%	-40%	-22%	-17%	-11%	3%	-23%	2%	-8%	-46%	-10%	-8%	3%	-8%
11	KIDNEY & URINARY TRACT	-13%	30%	-16%	-8%	-29%	-38%	-7%	-7%	15%	-7%	-33%	-23%	-7%	-19%	8%	28%	-3%
12	MALE REPRODUCTIVE SYSTEM	-16%	-1%	-32%	-16%	-51%	-50%	5%	-21%	-33%	-34%	-6%	78%	-29%	-35%	25%	52%	-14%
13	FEMALE REPRODUCTIVE SYSTEM	-14%	10%	-35%	-17%	-69%	-67%	-38%	-42%	-4%	-36%	-80%	-48%	-10%	-61%	-78%	34%	-42%
14	PREGNANCY, CHILDBIRTH & THE PUERPERIUM	61%	36%	60%	**	0%	-33%	-33%	-3%	0%	-24%	19%	-10%	-79%	-89%	-22%	-76%	1%
15	NEWBORNS & OTHER NEONATES	42%	32%	15%	0%	0%	0%	0%	16%	16%	0%	0%	17%	0%	0%	-15%	0%	16%
16	BLOOD, BLOOD FORMING ORGANS, IMMUNOLOG DISORDER	1%	79%	6%	-19%	-25%	-1%	-5%	1%	5%	3%	-20%	-9%	-13%	-8%	-40%	33%	-4%
17	MYELOPROLIFERATIVE DISEASES & DISORDERS	23%	33%	48%	23%	4%	-48%	22%	2%	-25%	4%	-58%	34%	-34%	21%	-16%	42%	-1%
18	INFECTIOUS & PARASITIC DISEASES	23%	143%	24%	27%	-6%	-26%	27%	18%	-27%	6%	-15%	-11%	25%	21%	49%	107%	34%
21	INJURIES, POISONINGS & TOXIC EFFECTS OF DRUGS	8%	23%	29%	-15%	-39%	-23%	14%	-2%	1%	-8%	7%	-24%	-18%	19%	10%	-17%	-1%
22	BURNS	9%	11%	0%	-55%	0%	-33%	0%	7%	0%	-55%	0%	0%	0%	-33%	9%	0%	10%
24	MULTIPLE SIGNIFICANT TRAUMA	19%	0%	798%	435%	0%	301%	-12%	-11%	34%	-24%	-33%	34%	34%	248%	-4%	-33%	2%
25	HUMAN IMMUNODEFICIENCY VIRUS INFECTIONS	-1%	11%	234%	34%	0%	0%	-14%	-36%	0%	-41%	-47%	-67%	0%	-33%	-33%	34%	-28%

Source: PHC4 Discharge Data.

Note: *2016 data contains only Q1-Q3 discharges. Change in discharges is calculated using annualized counts for 2016. Red highlight indicates negative changes greater than -20% and green highlight indicates positive changes greater than +20%.
UPMC Western Psychiatric Hospital and Select Specialty UPMC are included in the 'UPMC Hospitals (Total).'
Greater Pittsburgh Area is defined as Allegheny, Beaver, Butler, Washington, and Westmoreland counties.
**UPMC East opened in 2012. The difference reported reflects the percent change from 2013 to 2016.
***Jefferson Hospital began offering labor and delivery services in 2014 and expanded its trauma services in 2012-2013. West Penn Hospital expanded its obstetrics program in 2014.

Hospital capacity and utilization has changed only slightly since 2012 (Table 8). UPMC opened UPMC East in July 2012, the only general acute care hospital added in WPA. UPMC East is located less than two miles from AHN's Forbes Regional Hospital. Duke LifePoint acquired the Conemaugh Health System in September 2014. Meadville Medical Center system includes both the Meadville Medical Center located in Crawford County and the Titusville Area Hospital, a 25-bed critical access hospital also located in Crawford County, which was earlier acquired by Meadville in October 2015.

As reported by the American Hospital Association, AHN added about 100 licensed beds between 2012 and 2015 (Table 9). However, AHN's submissions to the Department indicate that it has consistently reduced the number of licensed beds since 2013 from 2,418 beds to 2,332 in 2014, 2,321 in 2015, 2,307 in 2016, and 2,224 in 2017, a total decline of 194 beds.

Table 8: 2012 Hospital Capacity and Utilization, 29 County WPA[28]

2012 Hospital Capacity and Utilization (29 County WPA) Sorted By Licensed Beds						
Health Care System	Total Hospitals	Licensed Beds	General Acute Care Beds	Total Admissions	Total Inpatient Days	Occupancy Rate
Total	**59**	**12,577**	**7,307**	**514,776**	**2,835,520**	**62%**
UPMC	10	4,240	2,600	183,362	1,073,160	72%
West Penn Allegheny Health Sys.	7	2,402	1,178	76,680	462,275	58%
Excela Health	3	654	331	29,087	129,032	65%
Conemaugh Health Sys.	3	605	397	25,409	140,940	64%
Heritage Valley Health Sys.	2	547	330	24,547	113,650	62%
Washington Hosp.	1	260	167	14,795	57,912	61%
Meadville M.C.	1	249	105	7,195	40,535	53%
Other Acute Care Hospitals	32	3,989	2,199	153,701	818,016	54%

Source: AHA Survey Database FY2012
https://www.ahadataviewer.com/additional-data-products/AHA-Survey/

Notes: The hospital list is restricted to general acute care hospitals. Additionally, hospitals owned by Air Force, Army, Navy, Public Health Service (other than Indian Service), Veteran Affairs, and Public Health Service Indian Service are excluded. Hospital systems are listed separately in this table. All individual hospitals (except Washington Hospital and Meadville M.C) are aggregated as 'Other Acute Care Hospitals.' WPAHS includes both Jefferson Hospital and St. Vincent for comparison purposes although both hospitals did not affiliate with WPAHS until 2013.

Overall licensed beds in the WPA declined by 801 and general acute care beds declined by 539. AHN removed or repurposed 303 general acute care beds from 2012 to 2015. All other general acute care hospitals, except UPMC, also decreased the number of general acute care beds.

[28] Note the admissions data listed in this figure are sourced from the AHA Survey Database and may differ slightly from the data provided by Highmark.

Overall however, the admission changes did not result in a significant change in the occupancy rate at these hospitals. Typically, practitioners consider an occupancy rate in the range of 80-85% to be full capacity. Demand for hospital admissions is not constant throughout the year. Hospitals must maintain some flexibility in capacity to meet unexpected peaks in demand. Overall, the occupancy rate for WPA remained in the low-60s indicating excess bed capacity to meet demand. UPMC maintained a healthy 72% occupancy rate during the period. AHN's occupancy rate decreased by three percentage point as the additional beds outpaced demand. Excela was the only hospital system to experience a significant increase in occupancy rate, mirroring UPMC's healthy rate of 72%. Even though many hospital systems removed or repurposed general acute care beds during this period, the WPA remains an over-bedded healthcare market for inpatient services.

Table 9: 2015 Hospital Capacity and Utilization, 29 County WPA[29]

2015 Hospital Capacity and Utilization (29 County WPA)
Sorted By Licensed Beds

Health Care System	Total Hospitals	Licensed Beds	General Acute Care Beds	Total Admissions	Total Inpatient Days	Occupancy Rate
Total	**60**	**12,688**	**6,768**	**490,950**	**2,633,192**	**61%**
UPMC	12	4,603	2,606	182,986	1,069,024	72%
Allegheny Health Network	7	2,321	875	85,804	423,697	55%
Excela Health	3	648	277	24,942	110,116	72%
Duke LifePoint Healthcare*	3	589	381	22,240	123,884	58%
Heritage Valley Health Sys.	2	547	259	21,970	95,884	58%
Washington Health Sys.*	2	309	181	13,316	60,260	55%
Meadville M.C.	2	235	155	8,643	45,688	48%
Other Acute Care Hospitals	29	3,436	2,034	131,049	704,639	54%

Source: AHA Survey Database FY2013 & FY2016
https://www.ahadataviewer.com/additional-data-products/AHA-Survey/

Notes: The hospital list is restricted to general acute care hospitals. Additionally, hospitals owned by Air Force, Army, Navy, Public Health Service (other than Indian Service), Veteran Affairs, and Public Health Service Indian Service are excluded.
Hospital systems are listed separately in this table. All individual hospitals are aggregated as 'Other Acute Care Hospitals.'
*Duke LifePoint Healthcare acquired Conemaugh Health System was acquired in September 2014.
(http://www.modernhealthcare.com/article/20140821/NEWS/308219959)
*In July 2015, Washington Health System, located in Washington, PA, purchased Southwest Regional Medical Center and renamed it Washington Health System Greene. (http://southwestregionalmedical.com/about-us/history/)

[29] Note the admissions data listed in this figure are sourced from the AHA Survey Database and may differ slightly from the data provided by Highmark.

Examining the two largest healthcare systems in more depth, major differences in occupancy rates emerges (Table 10). Within the UPMC system, Presbyterian Shadyside is close to full capacity. Other UPMC hospitals also show healthy occupancy rates in the low-70s. More distant UPMC hospitals have occupancy rates below 70% with Jameson and UPMC Bedford having the lowest rates in the mid-40s.

In terms of general acute care bed capacity, AHN is about one-third the size of UPMC. Its total admissions in 2016 were about 47% of UPMC's admissions and its total inpatient days were approximately 40% of UPMC's inpatient days. Allegheny General Hospital's occupancy rate is above 90% indicating that it is operating at full capacity, or even over capacity. AHN's other hospitals operate with occupancy rates below 60% indicating a great deal of excess capacity is available to serve patients. Both Allegheny Valley Hospital and Canonsburg Hospital operated with significant excess capacity showing occupancy rates below 35%. In addition, AHN has invested significant funds to improve the quality and resources available at these hospitals to attract more patients.[30]

Table 10: 2015 Hospital Capacity and Utilization, 29 County WPA

2015 Hospital Capacity and Utilization for AHN and UPMC (29 County WPA)
Sorted by Licensed Beds

Health Care System	Total Hospitals	Hospital Name	Hospital City	Licensed Beds	General Acute Care Beds	Total Admissions	Total Inpatient Days	Occupancy Rate
Total	**60**			**12,688**	**6,768**	**490,950**	**2,633,192**	**61%**
UPMC	***12***			***4,603***	***2,606***	***182,986***	***1,069,024***	***72%***
		UPMC Presbyterian Shadyside	Pittsburgh	1,622	905	59,960	440,613	81%
		UPMC Mercy	Pittsburgh	497	265	20,158	125,013	71%
		UPMC Hamot	Erie	433	212	19,698	88,341	76%
		UPMC Passavant	Pittsburgh	425	258	16,121	82,330	69%
		UPMC Altoona	Altoona	376	263	17,732	82,862	60%
		UPMC St. Margaret	Pittsburgh	248	186	12,784	64,351	78%
		Jameson Hosp.	New Castle	238	148	7,306	38,015	44%
		UPMC McKeesport	McKeesport	222	99	7,562	47,081	70%
		UPMC Northwest	Seneca	180	57	6,493	32,439	69%
		UPMC Horizon	Greenville	158	74	6,376	26,866	61%
		UPMC East	Monroeville	155	120	7,138	36,562	65%
		UPMC Bedford Memorial	Everett	49	19	1,658	4,551	46%
Allegheny Health Network	***7***			***2,321***	***875***	***85,804***	***423,697***	***55%***
		Allegheny General Hosp.	Pittsburgh	631	105	23,939	126,957	91%
		Saint Vincent Hosp.	Erie	371	124	14,044	64,846	44%
		Jefferson Hosp.	Jefferson Hills	341	217	14,802	65,972	53%
		Forbes Hosp.	Monroeville	329	180	13,533	68,309	57%
		West Penn Hosp.	Pittsburgh	317	72	11,241	58,036	50%
		Allegheny Valley Hosp.	Natrona Heights	228	97	5,634	27,809	33%
		Canonsburg Hosp.	Canonsburg	104	80	2,611	11,768	31%

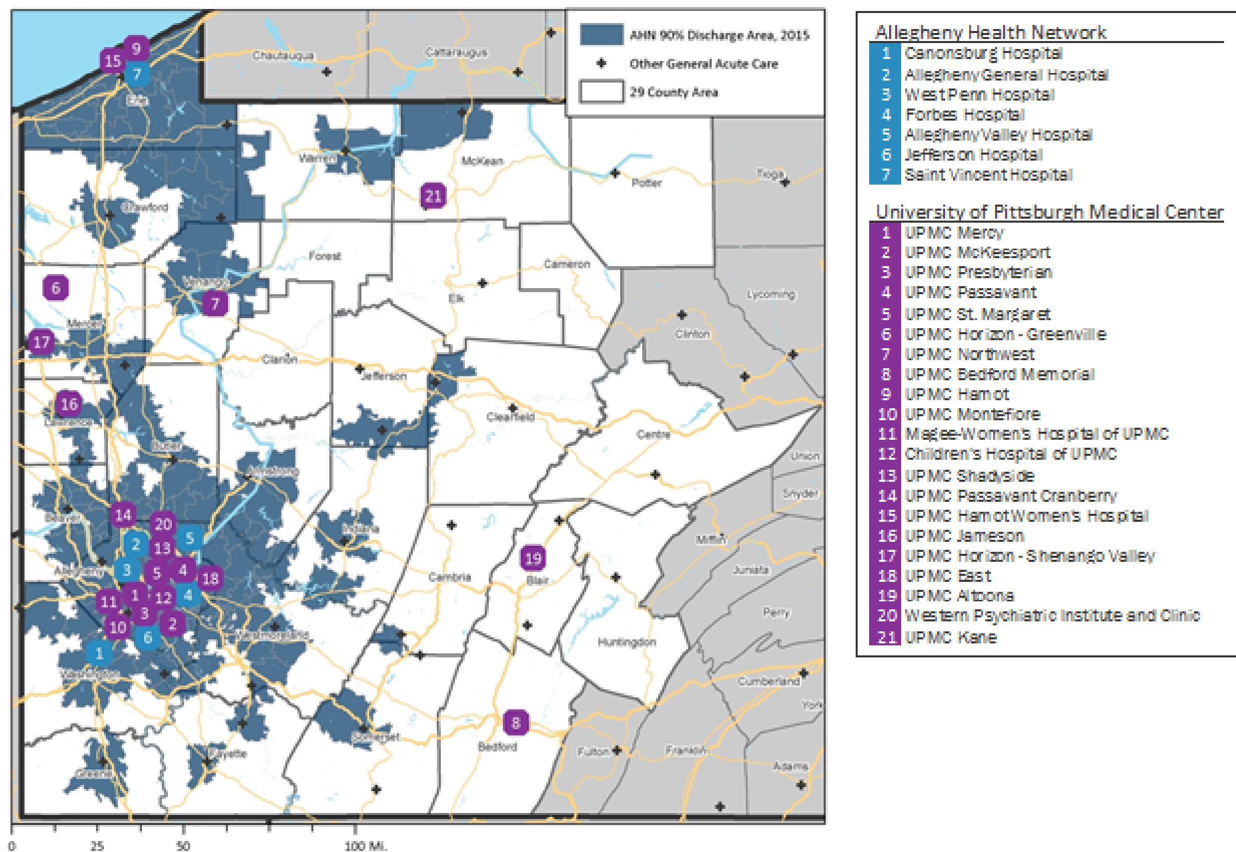
Source: AHA Survey Database FY2015
(https://www.ahadataviewer.com/additional-data-products/AHA-Survey/)

[30] Conversation with Highmark and "Allegheny Health Network: Strategic and Financial Plan 2017-2020" (Confidential).

As part of Highmark's initiative to implement an integrated delivery network to better serve residents of the WPA and to enhance AHN's ability to compete more effectively with UPMC, Highmark recognized that a large part of this effort would require adding primary care providers (PCPs) to its employed physician network to both more effectively manage care and the demand for healthcare services as well as generate referrals when patients' care needs required more specialized services. AHN has greatly expanded its network of PCPs, including family medicine, internal medicine, OB/GYNs, and pediatricians, in keeping with its IDN strategy.

Figure 4 shows AHN's 90% service area, defined as the zip codes from which 90% of AHN hospital discharges originate. UPMC also possesses significant presence within this service area due to the geographic overlap of the two systems. However, over time, a portion of discharges within the AHN service area has shifted some from UPMC to AHN facilities.

Figure 4: AHN Hospital Network 90% Service Area



For all payor discharges (Table 11), UPMC's share of discharges in 2012 was 45.5%, and it declined to 44.8% in 2016. During the same time period, AHN's share increased, from 21.0% in 2012 to 22.4% in 2016.

Table 11: Discharge Shares in AHN's 90% Service Area – All Services, All Payors, 2012-2016

Discharge Shares in AHN's 90% Service Area - All Services, All Payors, 2012-2016										
Hospital	Discharges 2012	Shares 2012	Discharges 2013	Shares 2013	Discharges 2014	Shares 2014	Discharges 2015	Shares 2015	Discharges 2016 (Q1-Q3)	Shares 2016 (Q1-Q3)
Total	**325,457**	**100%**	**320,367**	**100%**	**311,409**	**100%**	**308,997**	**100%**	**236,797**	**100%**
UPMC	148,236	45.5%	150,588	47.0%	144,186	46.3%	139,608	45.2%	105,981	44.8%
UPMC Presbyterian Shadyside	42,878	13.2%	41,408	12.9%	38,847	12.5%	37,656	12.2%	28,529	12.0%
Magee Womens Hospital of UPMC Health System	19,527	6.0%	19,748	6.2%	19,705	6.3%	18,340	5.9%	13,446	5.7%
UPMC Hamot	13,971	4.3%	15,044	4.7%	15,131	4.9%	15,805	5.1%	12,341	5.2%
UPMC Mercy	15,426	4.7%	15,307	4.8%	14,645	4.7%	14,426	4.7%	10,800	4.6%
UPMC Passavant	14,118	4.3%	13,924	4.3%	13,784	4.4%	13,034	4.2%	9,863	4.2%
UPMC St. Margaret	12,449	3.8%	11,857	3.7%	11,666	3.7%	10,379	3.4%	7,919	3.3%
Children's Hospital of Pittsburgh of UPMC	9,812	3.0%	9,585	3.0%	8,426	2.7%	8,415	2.7%	6,169	2.6%
UPMC East	1,232	0.4%	6,102	1.9%	6,319	2.0%	6,772	2.2%	5,658	2.4%
UPMC McKeesport	7,206	2.2%	6,459	2.0%	5,365	1.7%	5,213	1.7%	4,070	1.7%
UPMC Jameson	5,777	1.8%	5,462	1.7%	4,661	1.5%	4,014	1.3%	2,844	1.2%
UPMC Northwest	3,560	1.1%	3,368	1.1%	3,266	1.0%	3,080	1.0%	2,428	1.0%
UPMC Horizon	1,997	0.6%	1,951	0.6%	1,997	0.6%	2,099	0.7%	1,633	0.7%
Select Specialty Hospital/Pittsburgh/UPMC	170	0.1%	212	0.1%	192	0.1%	185	0.1%	147	0.1%
UPMC Altoona	80	0.0%	76	0.0%	104	0.0%	147	0.0%	119	0.1%
Western Psychiatric Institute & Clinic of UPMC	30	0.0%	83	0.0%	77	0.0%	43	0.0%	12	0.0%
UPMC Bedford	3	0.0%	2	0.0%	1	0.0%	0	0.0%	3	0.0%
AHN	68,375	21.0%	65,028	20.3%	65,851	21.1%	68,618	22.2%	52,934	22.4%
Allegheny General Hospital	17,518	5.4%	16,742	5.2%	17,486	5.6%	18,561	6.0%	13,557	5.7%
Jefferson Hospital	12,718	3.9%	11,752	3.7%	11,551	3.7%	12,460	4.0%	9,517	4.0%
Forbes Hospital	11,808	3.6%	10,824	3.4%	10,356	3.3%	10,969	3.5%	8,874	3.7%
Saint Vincent Hospital	10,484	3.2%	10,414	3.3%	10,928	3.5%	10,473	3.4%	8,119	3.4%
West Penn Hospital	6,730	2.1%	7,628	2.4%	8,906	2.9%	9,607	3.1%	8,045	3.4%
Allegheny Valley Hospital	6,560	2.0%	5,349	1.7%	4,585	1.5%	4,488	1.5%	3,337	1.4%
Canonsburg Hospital	2,557	0.8%	2,319	0.7%	2,039	0.7%	2,060	0.7%	1,485	0.6%
Heritage Valley	17,460	5.4%	16,723	5.2%	16,859	5.4%	16,069	5.2%	12,078	5.1%
Heritage Valley Beaver	10,145	3.1%	9,791	3.1%	9,983	3.2%	9,516	3.1%	7,171	3.0%
Heritage Valley Sewickley	7,077	2.2%	6,751	2.1%	6,659	2.1%	6,386	2.1%	4,756	2.0%
Kindred Hospital at Heritage Valley	238	0.1%	181	0.1%	217	0.1%	167	0.1%	151	0.1%
Washington Health	9,827	3.0%	9,352	2.9%	8,298	2.7%	8,254	2.7%	6,477	2.7%
Washington Hospital, The	8,825	2.7%	8,610	2.7%	7,701	2.5%	7,746	2.5%	6,133	2.6%
Washington Health System Greene	1,002	0.3%	742	0.2%	597	0.2%	508	0.2%	344	0.1%
Other Total	81,559	25.1%	78,676	24.6%	76,215	24.5%	76,448	24.7%	59,327	25.1%
Other	48,510	14.9%	47,069	14.7%	45,024	14.5%	45,025	14.6%	35,107	14.8%
St. Clair Memorial Hospital	14,100	4.3%	13,876	4.3%	14,063	4.5%	14,252	4.6%	10,936	4.6%
Excela Health Westmoreland Regional Hospital	12,474	3.8%	11,255	3.5%	10,834	3.5%	10,730	3.5%	7,934	3.4%
Butler Memorial Hospital	6,475	2.0%	6,476	2.0%	6,294	2.0%	6,441	2.1%	5,350	2.3%

Source: PHC4 Discharge Data.

Note: Excludes MDCs 19 and 20 and DRGS 795, 945, and 946. Limited to patients residing in (zip codes) AHN's 90% Service Area within the 29 County WPA. 2016 data contains only Q1-Q3 discharges. 2016 shares are annualized.

The shift is more pronounced for commercial payors (Table 12); AHN increased its share from 20.0% of commercial discharges in 2012 to 25.0% in 2016. In the same time period, UPMC decreased its share from 49.5% in 2012 to 44.4% in 2016. This larger commercial shift may be driven by the increased utilization of AHN hospitals by Highmark members.

Table 12: Discharge Shares in AHN's 90% Service Area – All Services, Commercial Payors, 2012-2016

Discharge Shares in AHN's 90% Service Area - All Services, Commercial Payors, 2012-2016										
Hospital	Discharges 2012	Shares 2012	Discharges 2013	Shares 2013	Discharges 2014	Shares 2014	Discharges 2015	Shares 2015	Discharges 2016 (Q1-Q3)	Shares 2016 (Q1-Q3)
Total	**95,878**	**100%**	**93,366**	**100%**	**86,302**	**100%**	**89,250**	**100%**	**67,151**	**100%**
UPMC	47,481	49.5%	47,389	50.8%	39,421	45.7%	40,353	45.2%	29,810	44.4%
UPMC Presbyterian Shadyside	13,027	13.6%	12,102	13.0%	9,619	11.1%	9,613	10.8%	6,947	10.3%
Magee Womens Hospital of UPMC Health System	10,168	10.6%	10,195	10.9%	8,483	9.8%	8,925	10.0%	6,371	9.5%
UPMC Hamot	4,488	4.7%	4,676	5.0%	4,311	5.0%	4,769	5.3%	3,964	5.9%
UPMC Mercy	4,715	4.9%	4,612	4.9%	3,736	4.3%	4,233	4.7%	3,107	4.6%
Children's Hospital of Pittsburgh of UPMC	4,103	4.3%	4,018	4.3%	3,286	3.8%	3,649	4.1%	2,735	4.1%
UPMC Passavant	4,206	4.4%	3,998	4.3%	3,550	4.1%	3,079	3.4%	2,295	3.4%
UPMC St. Margaret	3,110	3.2%	2,984	3.2%	2,520	2.9%	2,119	2.4%	1,448	2.2%
UPMC East	316	0.3%	1,571	1.7%	1,325	1.5%	1,262	1.4%	993	1.5%
UPMC Northwest	819	0.9%	735	0.8%	653	0.8%	752	0.8%	576	0.9%
UPMC Horizon	547	0.6%	495	0.5%	463	0.5%	593	0.7%	485	0.7%
UPMC McKeesport	906	0.9%	912	1.0%	553	0.6%	571	0.6%	425	0.6%
UPMC Jameson	1,012	1.1%	1,013	1.1%	840	1.0%	693	0.8%	397	0.6%
UPMC Altoona	27	0.0%	33	0.0%	41	0.0%	55	0.1%	35	0.1%
Select Specialty Hospital/Pittsburgh/UPMC	37	0.0%	40	0.0%	37	0.0%	39	0.0%	30	0.0%
UPMC Bedford	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%
Western Psychiatric Institute & Clinic of UPMC	0	0.0%	5	0.0%	4	0.0%	1	0.0%	1	0.0%
AHN	19,173	20.0%	18,268	19.6%	19,894	23.1%	21,933	24.6%	16,777	25.0%
Allegheny General Hospital	5,203	5.4%	4,801	5.1%	5,434	6.3%	6,113	6.8%	4,560	6.8%
West Penn Hospital	3,243	3.4%	3,568	3.8%	4,410	5.1%	5,111	5.7%	4,148	6.2%
Forbes Hospital	3,020	3.1%	2,914	3.1%	2,883	3.3%	3,565	4.0%	2,766	4.1%
Jefferson Hospital	3,093	3.2%	2,899	3.1%	2,928	3.4%	3,313	3.7%	2,544	3.8%
Saint Vincent Hospital	2,879	3.0%	2,618	2.8%	2,923	3.4%	2,590	2.9%	1,941	2.9%
Allegheny Valley Hospital	1,079	1.1%	799	0.9%	766	0.9%	829	0.9%	557	0.8%
Canonsburg Hospital	656	0.7%	669	0.7%	550	0.6%	412	0.5%	261	0.4%
Heritage Valley	4,976	5.2%	4,877	5.2%	4,870	5.6%	4,622	5.2%	3,358	5.0%
Heritage Valley Beaver	2,432	2.5%	2,440	2.6%	2,443	2.8%	2,316	2.6%	1,761	2.6%
Heritage Valley Sewickley	2,513	2.6%	2,421	2.6%	2,407	2.8%	2,269	2.5%	1,572	2.3%
Kindred Hospital at Heritage Valley	31	0.0%	16	0.0%	20	0.0%	37	0.0%	25	0.0%
Washington Health	2,505	2.6%	1,946	2.1%	1,802	2.1%	1,701	1.9%	1,248	1.9%
Washington Hospital, The	2,387	2.5%	1,836	2.0%	1,723	2.0%	1,641	1.8%	1,208	1.8%
Washington Health System Greene	118	0.1%	110	0.1%	79	0.1%	60	0.1%	40	0.1%
Other Total	21,743	22.7%	20,886	22.4%	20,315	23.5%	20,641	23.1%	15,958	23.8%
Other	10,397	10.8%	9,940	10.6%	9,740	11.3%	9,436	10.6%	7,266	10.8%
St. Clair Memorial Hospital	6,614	6.9%	6,363	6.8%	6,098	7.1%	6,516	7.3%	5,150	7.7%
Excela Health Westmoreland Regional Hospital	3,104	3.2%	2,892	3.1%	2,779	3.2%	2,906	3.3%	2,089	3.1%
Butler Memorial Hospital	1,628	1.7%	1,691	1.8%	1,698	2.0%	1,783	2.0%	1,453	2.2%

Source: PHC4 Discharge Data

Note: Excludes MDCs 19 and 20 and DRGS 795, 945, and 946. Limited to patients residing in (zip codes) AHN's 90% Service Area within the 29 County WPA. 2016 data contains only Q1-Q3 discharges. 2016 shares are annualized.

B. Changes in AHN's competitive effectiveness Post-2013 Order

Since the 2013 Order, to what extent, if any, has Allegheny Health Network and its affiliates ("AHN") improved or "turned around" its service offerings to be a more effective competitor, or otherwise, as an effective alternative option for patients seeking healthcare in WPA?

Since affiliating with AHN, Highmark has invested a substantial amount of capital to upgrade the facilities and service offerings of AHN. Key accomplishments include:[31]

- Hospitals
  - Allegheny General—ambulatory care/surgery center, hybrid OR, cardiac MRI, new cardiac unit opened, EPIC rollout;
  - West Penn Hospital—new cath labs, expansion and enhancement of ICUs, ER and OB facilities, NICU expansion and enhancement, EPIC rollout;

[31] Highmark Health Discussion with the Pennsylvania Insurance Department, March 16, 2017.

  - Forbes—trauma center designation, maternity, ER and ICU expansion and enhancement;
  - Jefferson—cancer institute, women's health center, neurosurgery, GI, liver/kidney disease;
  - Saint Vincent—enhancement of IP units.
- Outpatient facilities
  - Added Monroeville Surgery Center;
  - Opened three Health & Wellness Pavilions;
  - Launched same day primary care appointments;
  - EPIC rollout to 102 physician offices.
- Infrastructure and services
  - Critical infrastructure improvements, including air handling, electrical, plumbing at Allegheny General, Canonsburg, and West Penn;
  - Enhancement and privatization of IP units;
  - Expansion of employed physician network and affiliated physicians;
  - Healthcare@Home;
  - AHN call center transformation.

In addition, AHN has been constructing its clinically integrated network with AHN as its backbone. This is a network of employed and independent healthcare providers that work collaboratively to improve the quality of patient care and access to care while improving the value of these services on a cost basis.

AHN and Highmark recognize that many consumers perceive UPMC as providing higher quality of care and services than offered by AHN. However, since AHN's affiliation with Highmark, several of its hospitals have received accolades for quality:

- Allegheny General—No. 1 in WPA for major cardiac surgery, coronary bypass surgery, interventional coronary care, interventional carotid care, heart transplant, organ transplants and gallbladder removal;

- West Penn—Rated in the Top 10% nationally for gastrointestinal care, Top 20% nationally for heart failure treatment and major bowel procedures;

- Forbes—highest rated PA hospital in market, rated in Top 10% nationally for medical excellence in heart failure treatment, rated in Top 20% nationally for pneumonia care, rated in Top 20% nationally for hip fracture repair and pulmonary care;

- Saint Vincent—No. 1 in Erie for overall hospital care, overall medical care, overall surgical care, cancer care, cardiac care, major cardiac surgery, heart attach treatment, heart failure treatment, stroke care, gastrointestinal hemorrhage and women's health;

- Jefferson—rated in Top 10% nationally for major cardiac surgery and coronary bypass surgery, rated in Top 15% nationally for hip fracture repair.[32]

Due to investments from Highmark, AHN hospitals have improved their ability to compete to attract patients in WPA. Flagship hospitals for both AHN (Allegheny General Hospital) and UPMC (UPMC Presbyterian Shadyside) have capacity/utilization exceeding 80%. Additionally, AHN has made investments in an Obstetrics unit and Women's and Infant's Center at Jefferson Hospital and a Neonatal Intensive Care Unit at West Penn Hospital, which has driven a 49% increase in births from 2012 to 2016 (4,932 to 7,356).

In addition to an improved ability to compete as inpatient facilities, Highmark has also invested in outpatient services at AHN, with an increase in Outpatient Registrations from 2012 to 2016. To support an increased focus on outpatient services, Highmark has increased the number of internal medicine and family medicine physicians.

Finally, to further improve competitiveness of certain struggling AHN facilities, Highmark has made key facility enhancements and service line upgrades. At Allegheny Valley Hospital (AVH). Highmark has added a 17-bed rehab unit, a dedicated 14-bed orthopaedic unit, and a new 24-bed oncology and medical/surgical unit. They also added new services, including robotic surgery, cardiac rehab, and dermatology. Highmark recruited new primary care providers to serve the AVH area, and have added several employed physician specialists. The investments at Canonsburg Hospital have been more modest, including new pulmonary clinic, lab equipment, and sleep lab expansion. (See Section II.D for additional information).

These investments likely have contributed to the growth in commercially insured admissions at AHN. Highmark commercially insured admissions at AHN have increased since 2012. Despite a national and WPA declining trend in inpatient admissions, AHN hospitals have had a slight increase in acute care discharges from 2012 to 2016. As reported by Highmark, AHN commercial admissions have increased substantially from 2012 to 2016. Both Aetna and UnitedHealthcare commercial admissions have increased substantially at AHN hospitals, demonstrating that there have not been adverse effects on AHN in its ability to attract in-network insurer contracts and patients from Highmark's competitors.

Our analysis indicates that patients see AHN as a more effective substitute for UPMC hospitals in 2016 compared with 2012.[33] Only UPMC subscriber admissions declined at AHN. In total, commercially insured admissions increased substantially from 2012 to 2016. This may reflect efforts by AHN to make itself more attractive to Highmark's competitors by expanding services and improving the quality and access to care within the integrated system.

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[32] "Highmark Health Discussion with the Pennsylvania Insurance Department, March 16, 2017, based on Quantros, Inc.; CareChex@2017 National Quality Rating Database, FFY 2013, 2014, and 2015; No. 1 in Market Claims based on CareHexc@2017 Composite Quality Scores and Ratings for acute care hospitals.

[33] We provide a more detailed examination of the AHN hospitals as substitutes for UPMC later in this report.

C. AHN's effect on community hospitals

To what extent, if any, has the affiliation of Highmark Health with AHN (the "Affiliation") or 2013 Order limited or improved the ability of community hospitals in WPA to effectively compete for patients in WPA?

As part of its integrated delivery network strategy, Highmark identified seven community hospitals as facilities for "aligned secondary care." These included Heritage Valley, Washington Health, St. Clair Memorial Hospital, Excela Health Westmoreland Regional Hospital, and Butler Memorial Hospital; two others, Jefferson and Saint Vincent, formally affiliated with AHN before issuance of the 2013 Order.

From 2012 to 2015, the total beds and occupancy rates at community hospitals declined, though individual hospital performance varied (Table 13, Table 14). However, the share of Highmark member discharges from community hospitals remained constant, despite overall decreases in Highmark membership and total discharges. For Highmark all-payor and commercial plan discharges specifically, the share of discharges using community hospitals increased from 2012 to 2016. Thus, since the 2013 Order, Highmark members have tended to remain loyal to community hospitals, enabling these hospitals to maintain their ability to compete for inpatient admissions.

The number of beds, admissions, inpatient days and utilization are important considerations in determining the operational success of a hospital. Table 13 and Table 14 present these metrics for 2012 and 2015, respectively. The total number of licensed beds at these community hospitals increased by 58 beds. However, general acute care beds declined by a net 54 beds. The largest increase originated at Heritage Valley Health System which expanded general acute care beds by 71. St. Clair also expanded the number of general acute care beds, while the other community hospitals either reduced or maintain bed count.

With overall declining admissions at these hospitals and the general trend towards shorter lengths of stay, a hospital's occupancy rate can change significantly. Overall, the occupancy rate in aggregate for these community hospitals has declined from 63% to 61%, which is a relatively small change. Excela Health Westmoreland Hospital's occupancy rate increase significantly to 75%. For the most part, the smaller the community hospital, the more its decline in admissions took a toll on its occupancy rate.

Table 13: 2012 Hospital Capacity and Utilization for Community Hospitals

2012 Hospital Capacity and Utilization for Community Hospitals Sorted By Licensed Beds					
Health Care System	Licensed Beds	General Acute Care Beds	Total Admissions	Total Inpatient Days	Occupancy Rate
Total	**1,820**	**1,018**	**86,989**	**403,930**	**63%**
Excela Health Westmoreland Hosp.	364	174	18,326	86,348	66%
Heritage Valley Beaver	361	209	15,115	72,666	61%
St. Clair Memorial Hosp.	328	155	16,199	72,174	63%
Butler Health Sys.	321	157	12,779	65,704	63%
Washington Hosp.	260	167	14,795	57,912	61%
Heritage Valley Sewickley	186	121	9,432	40,984	63%
Kindred Hosp.-Heritage Valley	0	35	343	8,142	64%

Source: AHA Survey Database FY2012
(https://www.ahadataviewer.com/additional-data-products/AHA-Survey/)

Table 14: 2015 Hospital Capacity and Utilization for Community Hospitals

2015 Hospital Capacity and Utilization for Community Hospitals Sorted By Licensed Beds					
Health Care System	Licensed Beds	General Acute Care Beds	Total Admissions	Total Inpatient Days	Occupancy Rate
Total	**1,878**	**964**	**79,539**	**368,772**	**61%**
Excela Health Westmoreland Hosp.	373	158	15,749	73,748	75%
Heritage Valley Health Sys.	361	138	13,691	61,393	62%
St. Clair Hosp.	328	174	16,359	71,589	65%
Butler Health Sys.	321	157	11,813	60,992	58%
Washington Health Sys.	309	181	13,316	60,260	55%
Heritage Valley Sewickley	186	121	8,279	34,491	53%
Kindred Hosp.-Heritage Valley	0	35	332	6,299	49%

Source: AHA Survey Database FY2015
(https://www.ahadataviewer.com/additional-data-products/AHA-Survey/)

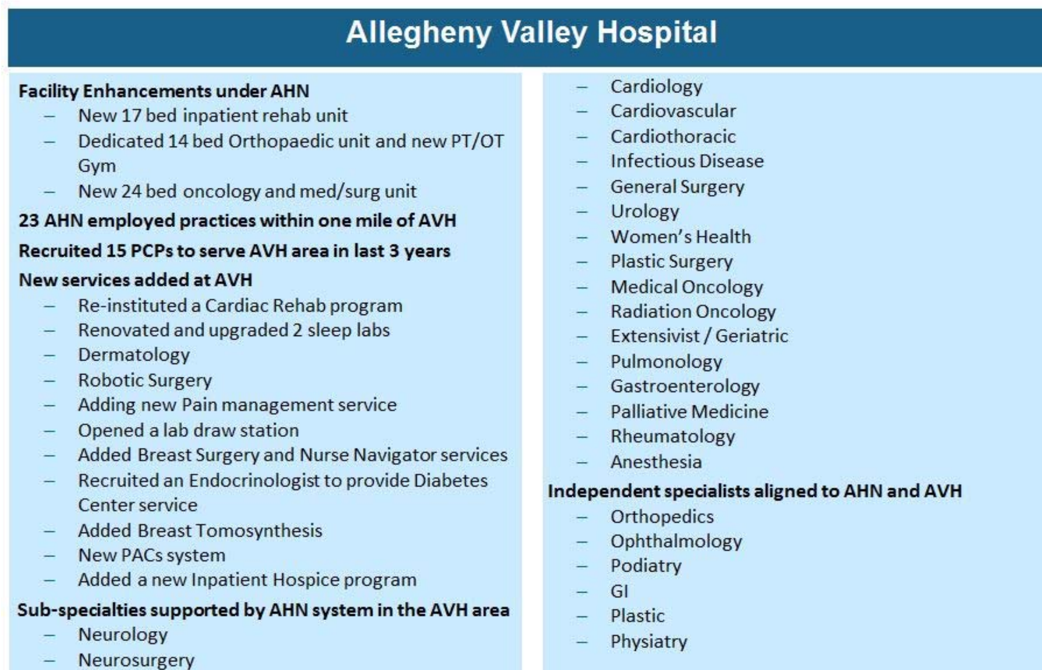
D. Expansions or enhancement of providers' healthcare services

Since the 2013 Order, to what extent, if any, have the actions of AHN, UPMC as a healthcare provider, or other healthcare providers, including such actions as new provider expansion or enhanced capability, affected the healthcare services markets in WPA?

Since the 2013 Order authorizing the affiliation, Highmark has invested significantly in struggling AHN hospitals, improving the provision of healthcare services in the WPA market and enhancing capabilities at those facilities. Specifically, Highmark has chosen to maintain Allegheny Valley Hospital (AVH) and Canonsburg Hospital as acute care hospitals, but repurposing their service offerings in line with community-based strategies to better reflect the service needs for their patients.

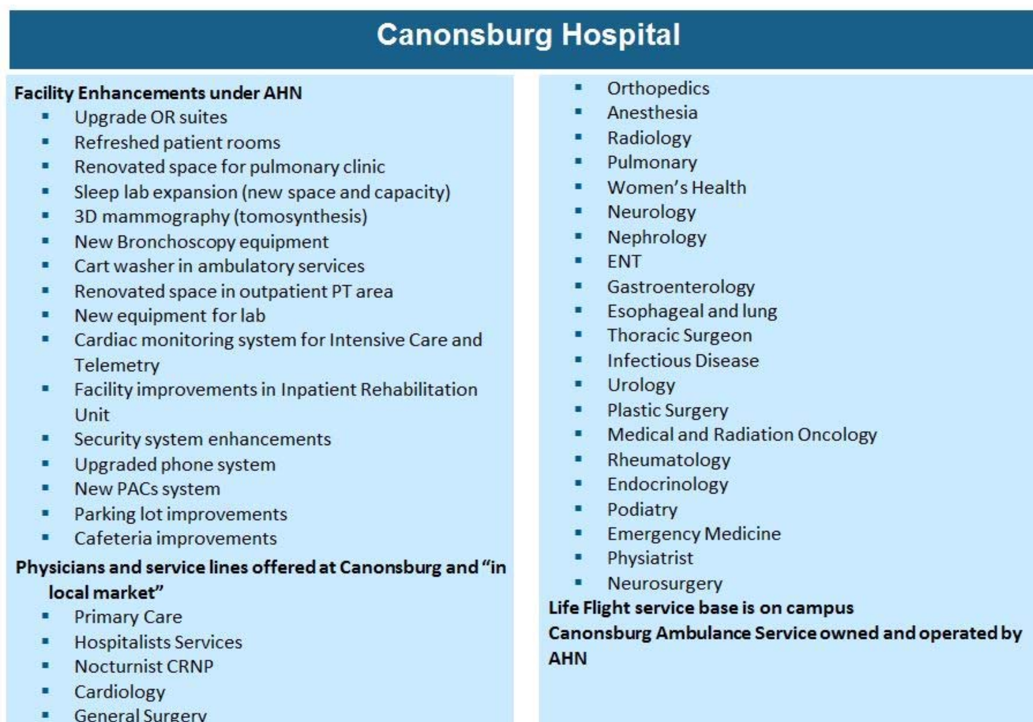
To bolster their performance and shift services to better meet patient needs, Highmark has made specific facility enhancements, service additions, and physician alignments, as shown in Figure 5 and Figure 6. The type of investments and growth in physician affiliation and employment at these two facilities is notably different. At Allegheny Valley Hospital, AHN has repurposed inpatient beds to create a new 17-bed rehabilitation unit, a dedicated 14-bed orthopaedic unit and 24-bed oncology and med/surg unit. With the exception of investment in telemetry and cardiac monitoring technology for intensive care at Canonsburg, the facility investments have been outpatient rather than inpatient focused. On the physician side, AHN appears to be adding more employed physicians to support its operations at Allegheny Valley Hospital while relying more on independent physicians to enhance services at Canonsburg.

Figure 5: Allegheny Valley Hospital Service Extensions under AHN



Source: "Allegheny Valley Hospital," submission from Highmark.

Figure 6: Canonsburg Hospital Service Extensions Under AHN



Source: "Allegheny Valley Hospital," submission from Highmark.

Furthermore, as part of the AHN Strategic Plan, Highmark has sought to address certain gaps in geographic coverage, service delivery, and service line brand perception to extend its provider network.[34] In geographic coverage, there are certain area within the WPA region in which AHN has limited presence. AHN has developed a strategy for addressing these gaps.

AHN recognizes that UPMC has developed significant brand equity at three specialized facilities—Hillman Cancer Center, Western Psychiatric Institute and Clinic (WPIC), and Magee-Women's Hospital—which have led to a perceived capability gap in oncology, psychiatry, and women's services, respectively. Highmark plans to address these gaps through a combination of investment, branding, and physician-led marketing. To support oncology services, Highmark has joined Johns Hopkins Kimmel Cancer Center in a clinical partnership which gives AHN patients improved access to clinical trials.[35] Additionally, AHN has opened a Cancer Institute at Jefferson Hospital and 10 sites for their Oncology Rehabilitation Program, as well as providing access to advanced technologies for cancer diagnosis and treatments.[36] The focus on oncology is borne out in the data; as shown in Section III.A.1, with some Highmark beneficiaries shifting away from UPMC facilities to AHN facilities for oncology services.

To improve recognition in women's services, AHN has focused on developing the West Penn Hospital women's services, its community hub-and-spoke approach, and focused service line programs (e.g., young women's breast cancer, high-risk post-partum services, and in vitro fertilization) as market differentiators. Additionally, AHN opened a Women's and Infant's Center at Jefferson Hospital in 2014 and expanded and renovated the West Penn Hospital labor and delivery units in 2015.[37]

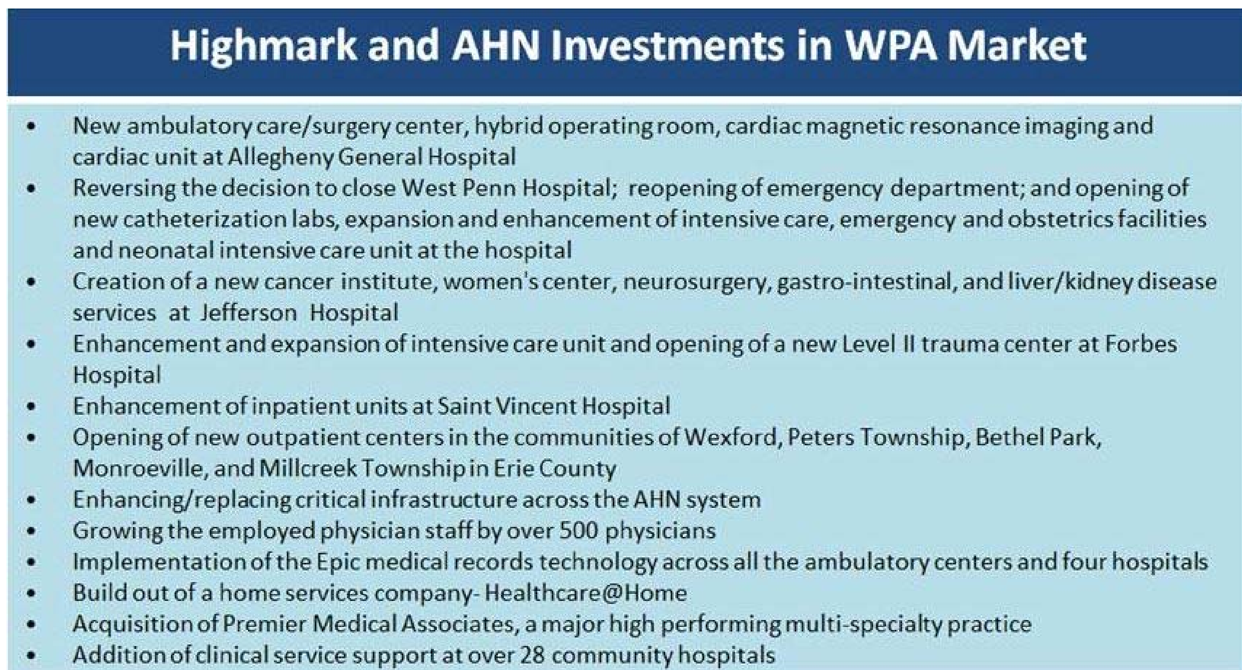
Finally, to improve service delivery in behavioral health and psychiatry, Highmark plans to increase behavioral health access through partnerships, such as Quartet.[38] As described in a Highmark press release, "Quartet increases access to mental health resources by identifying Highmark members who may have undiagnosed mental health conditions. The platform also identifies patients who have a mental health diagnosis, but are not in treatment or could benefit from additional support. As the first platform to integrate mental health into primary care successfully, Quartet helps physicians to quickly initiate patients into care with the right specialist for their needs." As a result

[34] "Allegheny Health Network: Strategic and Financial Plan 2017-2020" (Confidential).
[35] "Highmark Health and Allegheny Health Network Announce Major Investment in Cancer Services," June 13, 2017.
[36] Presentation from Highmark dated May 5, 2017.
[37] Presentation from Highmark dated May 5, 2017.
[38] "Highmark Health Response to June 5, 2017 Inquiry #3 from Compass Lexecon" (Confidential). See also, "Highmark Expands Quartet Partnership to Improve Mental Health Integration in Western Pennsylvania," Highmark Blue Cross Blue Shield Press Release, February 23, 2017, http://www.businesswire.com/news/home/20170221005209/en/Highmark-Expands-Quartet-Partnership-Improve-Mental-Health.

of the 2013 Order, AHN has worked to expand its geographic footprints and increase service line offerings to expand capabilities in the WPA market.[39]

Highmark has also made more general investments to improve the competitive status of the AHN network. These investments include a new ambulatory/surgery center at Allegheny General Hospital, the addition of over 500 employed physicians, and other inpatient and outpatient enhancements. Figure 7 provides a full list of enhancements and investments AHN/Highmark made in the WPA market.

Figure 7: Highmark and AHN Investments in WPA Market



Highmark and AHN Investments in WPA Market

- New ambulatory care/surgery center, hybrid operating room, cardiac magnetic resonance imaging and cardiac unit at Allegheny General Hospital
- Reversing the decision to close West Penn Hospital; reopening of emergency department; and opening of new catheterization labs, expansion and enhancement of intensive care, emergency and obstetrics facilities and neonatal intensive care unit at the hospital
- Creation of a new cancer institute, women's center, neurosurgery, gastro-intestinal, and liver/kidney disease services at Jefferson Hospital
- Enhancement and expansion of intensive care unit and opening of a new Level II trauma center at Forbes Hospital
- Enhancement of inpatient units at Saint Vincent Hospital
- Opening of new outpatient centers in the communities of Wexford, Peters Township, Bethel Park, Monroeville, and Millcreek Township in Erie County
- Enhancing/replacing critical infrastructure across the AHN system
- Growing the employed physician staff by over 500 physicians
- Implementation of the Epic medical records technology across all the ambulatory centers and four hospitals
- Build out of a home services company- Healthcare@Home
- Acquisition of Premier Medical Associates, a major high performing multi-specialty practice
- Addition of clinical service support at over 28 community hospitals

Source: "Allegheny Health Network: Strategic and Financial Plan 2017-2020."

UPMC is the largest non-government employer in the Commonwealth of Pennsylvania with 65,000 employees. In total, it operates 25 academic, community and specialty hospitals, 600 physician and outpatient facilities and employs 3,600 physicians.[40] From 2012 to 2016, UPMC has developed affiliations with eight different hospitals/hospital systems and constructed a new hospital facility, investing $1.5 billion in the WPA market. These investments both within and outside of the WPA market have increased UPMC's capacity and increased access points for patients.

Over time, it has acquired the Jewish Healthcare Foundation, which became UPMC Montefiore. It also acquired Children's Hospital of Pittsburgh and built a new campus for the hospital. UPMC later acquired Mercy Hospital of Pittsburgh after it was in financial distress. UPMC affiliated with Altoona

[39] "Allegheny Health Network: Strategic and Financial Plan 2017-2020" (Confidential).
[40] UPMC Fast Facts, December 16, 2016.

Regional Health System and committed to $250 million of capital investment in that system over a 10-year period. It recently opened a new comprehensive breast cancer care center at the hospital.

In 2013, UPMC opened its new UPMC East hospital less than two miles from AHN's Forbes Medical Center. In 2016, UPMC added Jameson Health System in New Castle, PA to its health system. As part of this acquisition, UPMC will make facility and technology capital investments. UPMC characterizes this acquisition as part of its coordinated approach in delivering healthcare to Lawrence and Mercer counties through UPMC Jameson and UPMC Horizon hospitals.[41]

UPMC's health system is continuing to expand. In late 2016, UPMC received approval to expand into New York by acquiring the WCA Hospital in Jamestown, NY. This hospital will be rebranded UPMC Chautauqua and UPMC plans to invest $25 million in the facility over the next ten years to support care coordination and care delivery.[42] Also in late 2016, UPMC fully integrated the four hospital Susquehanna Health system in Williamsport, PA and rebranded it UPMC Susquehanna.[43] UPMC has committed to investing $500 million to expand healthcare services and IT at Susquehanna and to offer UPMC health plans to the area.[44] In 2017, the Pittsburgh Post-Gazette reported that UPMC plans to affiliate with an additional seven hospitals and build an eighth, including the proposed affiliation with Pinnacle Health.[45]

UPMC is also expanding its service reach in other ways. UPMC Heart and Vascular Health is partnering with Washington Health System to offer cardiac care services in Washington, PA.[46] UPMC Altoona is collaborating with Magee Women's Hospital to offer advanced fertility treatments and maternal-fetal medicine. UPMC Altoona also is collaborating with WPIC to provide inpatient telepsychiatric care in Altoona's service area. UPMC Hamot now offers kidney transplants.

UPMC has recently developed a telemedicine program that links UPMC specialists in Pittsburgh with its UPMC community physicians in the WPA rural communities it serves. This program is designed to minimize the need for patients in these communities to travel into Pittsburgh for diagnosis and treatment.

UPMC is the leading provider of behavioral health services. It maintains an active ambulatory (outpatient) services program. In 2016, UPMC provided such services to 50,000 people at Western Psychiatric Institute and Clinic, Mercy, UPMC McKeesport, UPMC Northwest and from other outpatient facilities.

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[41] UPMC 2016 Year in Review.
[42] UPMC Unaudited Quarterly Disclosure for the Period Ended December 31, 2016.
[43] UPMC 2016 Year in Review.
[44] UPMC Unaudited Quarterly Disclosure for the Period Ended December 31, 2016.
[45] "UPMC's Buying and Building Binge Is Set to Continue in 2017," *Pittsburgh Post-Gazette*, http://www.post-gazette.com/business/healthcare-business/2017/04/09/upmc-hospital-mergers-acquisitions/stories/201704040004.
[46] UPMC 2016 Year in Review.

III. Effect of the 2013 Order and Consent Decree

A. Effect of the AHN affiliation on Highmark plan members

To what extent, if any, have consumers of healthcare goods or services in WPA, and more specifically Highmark members, been competitively disadvantaged in relation to other purchasers of healthcare insurance in WPA by the lack of a Highmark in-network provider contract with, or access to, UPMC and its affiliates?

The breakdown in the long term in-network contracting relationship between Highmark Inc. and UPMC meant that Highmark members who would no longer have in-network access to UPMC could be potentially disadvantaged by the reduction in choice and higher out-of-pocket expenses. Highmark members who have long term relationships with UPMC physicians and inpatient experience at UPMC hospitals would need to form new clinical relationships. Patients currently undergoing treatment for chronic or acute conditions might suffer if these patients were forced to interrupt their treatment and switch to another provider.

Having recognized the potential consumer harm from the termination of the Highmark/UPMC contract, the 2013 Order provided for Highmark to develop a "UPMC Contract Transition Plan". Specifically, the goal of the Transition Plan would be to "minimiz[e] any disruption to consumers and the marketplace and ensure that such consumers continue to have access to quality health care in a competitive marketplace."[47]

The Transition Plan provided three primary areas of focus: (1) demonstrated healthcare services capacity by Highmark with the ability to serve both broad and narrow network members, (2) continued in-network access to an extensive network of providers for its members, and (3) continuity of care for Highmark members already in treatment with UPMC physicians.

Our analysis of actual discharges and outpatient visits by Highmark members during this transition period indicates that the Transition Plan has achieved its purpose in minimizing disruption to consumers and ensuring quality access to care for Highmark members. Our analysis finds a decreasing reliance over time on Highmark members accessing UPMC facilities and a shift to in-network options at AHN and in-network community partners. Table 15 shows that as of the first three quarters of 2016, non-UPMC hospitals captured 73% of Highmark member discharges in the WPA. By comparison, only 33% of UPMC enrollees were discharged from a non-UPMC hospital.

[47] Highmark Health, UPMC Contract Transition Plan, August 29, 2014 (revised) at 1.

Table 15: Commercial Discharges, 2016 (Q1-Q3)

Commercial Discharges (All Admission Types), 2016 (Q1-Q3)					
	All Hospitals	AHN Hospitals	UPMC Hospitals	Other Hospitals	Non-UPMC Hospitals Total
Highmark Enrollees	50,121	14,275	13,531	22,315	36,590
Highmark Enrollees (%)	100%	28%	27%	45%	73%
UPMC Enrollees	26,569	702	17,920	7,947	8,649
UPMC Enrollees (%)	100%	3%	67%	30%	33%

Source: PHC4 Discharge Data

1. Continuity of care

The Transition Plan included a provision that allowed Highmark members currently undergoing treatment with UPMC providers to continue to have in-network access for the duration of their inpatient episode of care. In addition, members who were not currently in treatment but who used UPMC during 2014 and who could not find alternative services locally were allowed to use UPMC providers during 2015. Lastly, Highmark members who needed oncology services could also be treated at UPMC during 2015.

If this provision were working as intended, one would expect a shift in inpatient and outpatient services away from UPMC to AHN or community hospitals. Examining the PHC4 discharge data, we find that Highmark member discharges in the AHN 90% service area have shifted away from UPMC, more rapidly than the decline in Highmark membership. Specifically, for all Highmark plan types, Highmark member discharges in total decreased significantly from 2012 to 2016, compared to Highmark member discharges from UPMC hospitals, which also decreased significantly. The effect is even more pronounced at specific UPMC hospitals, including the flagship UPMC Shadyside Presbyterian and at Magee Women's Hospital. Four UPMC hospitals did not have a decline in Highmark member discharges: UPMC East, UPMC Horizon, UPMC Altoona, and Western Psychiatric Institute & Clinic of UPMC (WPIC). Of those four, only UPMC East is not an Exception Hospital.

Focusing on Highmark commercial-plan discharges further amplifies the positive consumer effect. Highmark commercial member discharges decreased significantly in WPA, but Highmark commercial member discharges from UPMC hospitals declined more rapidly from 2012 to 2016. The effect is more pronounced at UPMC Presbyterian Shadyside and Magee Women's Hospital.

The continuity of care was a particular concern for certain service lines for which AHN was perceived to have less offerings available or perceived lower quality than UPMC, such as oncology. From 2012 to 2016, Highmark oncology discharges declined at all UPMC hospitals, except for UPMC East. The decline has been faster than the decline in Highmark member oncology discharges. This trend is consistent with discharges for Highmark commercial plan members which show a smaller decrease in oncology discharges throughout WPA than the decline of Highmark commercial member oncology discharges at UPMC hospitals.

2. Exception Hospitals

The Consent Decree included a provision to allow Highmark members to continue using certain UPMC facilities to provide for affordable access during the transition period. Both the Consent Decree and the Transition Plan list certain UPMC facilities and services as Exception Hospitals or Exception Services. This determination was based on the geographic location of the UPMC facility and an assessment of the lack of available alternatives for certain UPMC services. Hospitals included in this category were UPMC Hamot, UPMC Altoona, UPMC Horizon, UPMC Northwest, UPMC Bedford, and Kane Community Hospital. The Transition Plan also designated WPIC as an Exception Hospital.

The significant number of Highmark member discharges at most of these hospitals suggests that there was some need for these hospitals to remain accessible at in-network rates, although they are generally attracting fewer Highmark members than previously. At several of these hospitals (i.e., Hamot, Horizon, Northwest, and Kane Community Hospital), the decline in Highmark member discharges has not outpaced the total Highmark member discharge decline; thus, the decrease is likely due to the general Highmark membership decline, not to reduced use of certain Exception Hospitals in favor of AHN hospitals. This is consistent with a finding that these particular hospitals fulfil some need that cannot be met by an AHN hospital. The exception to this finding is WPIC which had very few inpatient discharges. This may reflect either the availability of alternatives at other psychiatric facilities nearby or more intensive use of outpatient than inpatient services, which would not be captured by inpatient data alone.

B. Effect of the AHN affiliation on vulnerable populations

To what extent, if any, has the Affiliation affected the ability of seniors and other vulnerable populations to have access to healthcare at market prices?

The Transition Plan and the Consent Decree also identified three Highmark member populations that could be vulnerable to a disruption in access to UPMC facilities—seniors covered under Highmark's Medicare Advantage products and other covered seniors, and CHIP and Medicaid plan members.[48] Both the termination of the UPMC contract and Highmark's affiliation with AHN could potentially negatively impact vulnerable populations if long-term clinical care relationships were disrupted.

In WPA, enrollment in traditional Medicare decreased (Figure 8), while Medicare Advantage enrollment increased significantly (Figure 9). Highmark had the highest total Medicare Advantage enrollment in WPA, but this enrollment has been decreasing over time, from 246,603 in 2012 to 198,732 in 2017, or a 19% decline (Table 16). Simultaneously, other insurers, including UPMC, Aetna, UnitedHealthcare, and Geisinger, have been increasing their Medicare Advantage enrollment. Total Medicare Advantage enrollment in WPA increased by 12.8% since 2012.

Table 16: Insurer-Level Medicare Advantage Enrollment* as of June 2012 and March 2017, 29 County WPA

Insurer-Level Medicare Advantage Enrollment* as of June 2012 and March 2017 (29 County WPA)							
Insurer	Enrolled 2012	Enrolled 2013	Enrolled 2014	Enrolled 2015	Enrolled 2016	Enrolled 2017	% Change (2012-2017)
Total	**443,338**	**458,852**	**468,237**	**478,363**	**487,476**	**500,060**	**12.8%**
Highmark	246,603	239,447	235,981	212,432	214,295	198,732	-19.4%
UPMC	109,425	121,563	124,142	143,624	155,248	163,647	49.6%
Aetna/HealthAmerica	51,518	61,159	81,413	93,987	85,803	94,585	83.6%
United	14,737	14,622	3,416	4,448	8,398	16,448	11.6%
Geisinger	6,315	7,204	8,363	8,372	8,131	9,083	43.8%
Other Insurers	14,740	14,857	14,922	15,500	15,601	17,565	19.2%

Notes: *Enrollment figures report the number of beneficiaries enrolled by contract in the country. To comply with HIPAA privacy rules, CMS sets enrollment numbers to zero for plans with 10 or less enrollees.
**We combined enrollment shares for Aetna and HealthAmerica because Aetna acquired Conventry Health Care, Inc., owner of HealthAmerica, on May 7, 2013. (http://www.aetna.com/about-aetna-insurance/sas/aetna-coventry-close.html). Highmark owns 50% of Gateway Health Plan Inc. All Gateway members in this table are credited to Highmark.

[48] Other covered seniors included Highmark's Signature 65 plan, Medigap, retiree carve out products, and seniors covered through Highmark employer group products after December 31, 2014.

These enrollment data indicate that although Medicare enrollment has increased in the WPA between 2012 and 2017, Highmark has not shared in that growth. UPMC and Aetna/HealthAmerica have captured the vast majority of the growth in Medicare enrollments. Highmark has had a significant net loss of Medicare Advantage members to other insurers. These trends indicate that Medicare enrollees have insurer alternatives available and are willing to make the switch to access particular healthcare services.

As in most of the United States, the aging population is increasing the demand for Medicare-related insurance. Figure 8 shows the growth in traditional Medicare members and Figure 9 shows growth Medicare Advantage members in the WPA region. These growth rates indicate that AHN's primary service area is not a particularly high growth area for Medicare within the 29-county WPA.

Figure 8: Traditional Medicare Growth, 29 County WPA

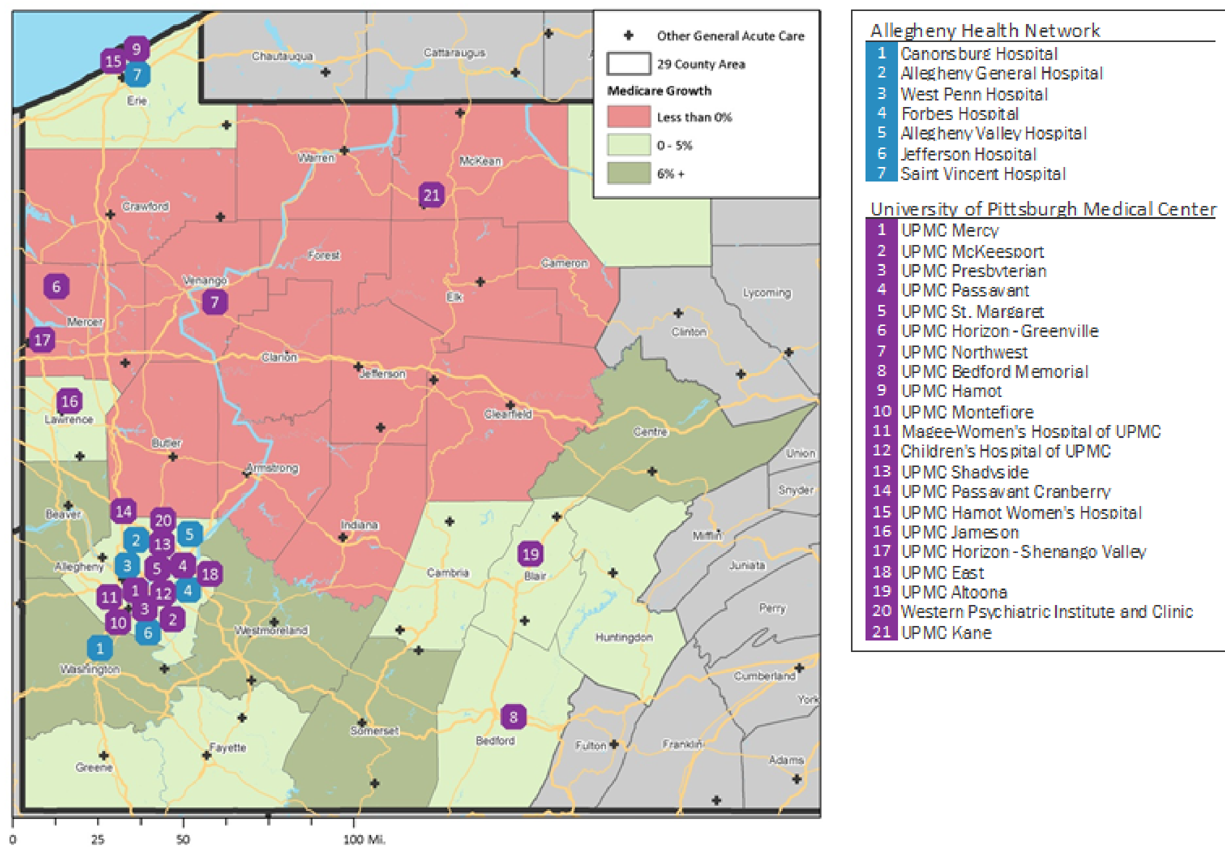
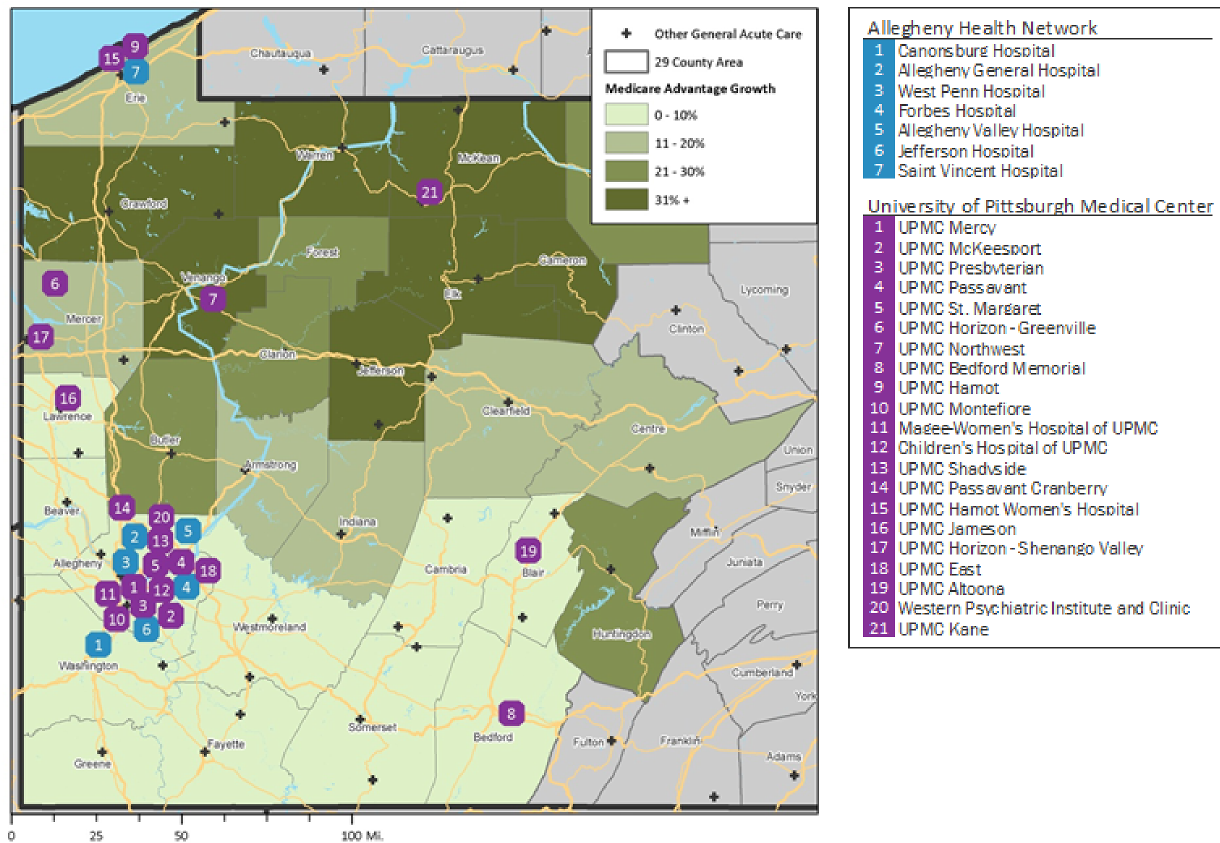


Figure 9: Medicare Advantage Growth, 29 County WPA



Within the AHN 90% service area, the share of UPMC Medicare discharges (including traditional Medicare and Medicare Advantage) increased from 39.1% of Medicare discharges in 2012 to 41.0% in 2016 (Table 17). Medicare discharges declined for AHN hospitals, from 23.6% in 2012 to 22.6% in 2016 (Table 17).

Table 17: Discharge Shares in AHN’s 90% Service Area, All Services, Medicare, 2012-2016

Discharge Shares in AHN's 90% Service Area - All Services, Medicare, 2012-2016										
Hospital	Discharges 2012	Shares 2012	Discharges 2013	Shares 2013	Discharges 2014	Shares 2014	Discharges 2015	Shares 2015	Discharges 2016 (Q1-Q3)	Shares 2016 (Q1-Q3)
Total	**166,242**	**100%**	**162,282**	**100%**	**157,658**	**100%**	**161,107**	**100%**	**124,743**	**100%**
UPMC	64,936	39.1%	65,500	40.4%	63,719	40.4%	66,998	41.6%	51,119	41.0%
UPMC Presbyterian Shadyside	21,302	12.8%	20,698	12.8%	19,695	12.5%	20,920	13.0%	15,841	12.7%
UPMC Passavant	8,821	5.3%	8,761	5.4%	8,608	5.5%	8,908	5.5%	6,745	5.4%
UPMC Hamot	6,260	3.8%	5,948	3.7%	6,483	4.1%	7,177	4.5%	5,497	4.4%
UPMC St. Margaret	7,696	4.6%	7,273	4.5%	7,214	4.6%	7,129	4.4%	5,415	4.3%
UPMC Mercy	6,183	3.7%	6,037	3.7%	6,101	3.9%	6,529	4.1%	4,849	3.9%
UPMC East	728	0.4%	3,709	2.3%	3,905	2.5%	4,681	2.9%	3,950	3.2%
UPMC McKeesport	4,714	2.8%	4,103	2.5%	3,365	2.1%	3,576	2.2%	2,747	2.2%
UPMC Jameson	3,516	2.1%	3,310	2.0%	2,906	1.8%	2,657	1.6%	1,975	1.6%
Magee Womens Hospital of UPMC Health System	2,572	1.5%	2,524	1.6%	2,401	1.5%	2,502	1.6%	1,884	1.5%
UPMC Northwest	2,008	1.2%	1,969	1.2%	1,901	1.2%	1,754	1.1%	1,371	1.1%
UPMC Horizon	943	0.6%	916	0.6%	902	0.6%	901	0.6%	654	0.5%
Select Specialty Hospital/Pittsburgh/UPMC	118	0.1%	156	0.1%	136	0.1%	140	0.1%	112	0.1%
UPMC Altoona	34	0.0%	35	0.0%	42	0.0%	64	0.0%	48	0.0%
Children's Hospital of Pittsburgh of UPMC	22	0.0%	24	0.0%	22	0.0%	47	0.0%	26	0.0%
Western Psychiatric Institute & Clinic of UPMC	16	0.0%	35	0.0%	37	0.0%	13	0.0%	4	0.0%
UPMC Bedford	3	0.0%	2	0.0%	1	0.0%	0	0.0%	1	0.0%
AHN	39,173	23.6%	36,907	22.7%	35,829	22.7%	36,238	22.5%	28,170	22.6%
Allegheny General Hospital	9,586	5.8%	9,136	5.6%	9,276	5.9%	9,542	5.9%	7,112	5.7%
Jefferson Hospital	8,492	5.1%	7,869	4.8%	7,649	4.9%	7,836	4.9%	5,820	4.7%
Forbes Hospital	7,459	4.5%	6,646	4.1%	6,196	3.9%	6,173	3.8%	5,074	4.1%
Saint Vincent Hospital	5,522	3.3%	5,817	3.6%	5,948	3.8%	5,910	3.7%	4,591	3.7%
Allegheny Valley Hospital	4,894	2.9%	4,079	2.5%	3,368	2.1%	3,195	2.0%	2,447	2.0%
West Penn Hospital	1,581	1.0%	1,983	1.2%	2,144	1.4%	2,215	1.4%	2,060	1.7%
Canonsburg Hospital	1,639	1.0%	1,377	0.8%	1,248	0.8%	1,367	0.8%	1,066	0.9%
Heritage Valley	10,058	6.1%	9,362	5.8%	9,601	6.1%	9,257	5.7%	7,017	5.6%
Heritage Valley Beaver	6,145	3.7%	5,730	3.5%	5,973	3.8%	5,770	3.6%	4,285	3.4%
Heritage Valley Sewickley	3,709	2.2%	3,496	2.2%	3,470	2.2%	3,374	2.1%	2,636	2.1%
Kindred Hospital at Heritage Valley	204	0.1%	136	0.1%	158	0.1%	113	0.1%	96	0.1%
Washington Health	5,062	3.0%	5,290	3.3%	4,833	3.1%	4,913	3.0%	3,918	3.1%
Washington Hospital, The	4,477	2.7%	4,882	3.0%	4,478	2.8%	4,608	2.9%	3,714	3.0%
Washington Health System Greene	585	0.4%	408	0.3%	355	0.2%	305	0.2%	204	0.2%
Non-System Community Hospitals	18,064	10.9%	17,018	10.5%	16,646	10.6%	16,372	10.2%	12,779	10.2%
St. Clair Memorial Hospital	6,286	3.8%	6,330	3.9%	6,505	4.1%	6,450	4.0%	4,836	3.9%
Excela Health Westmoreland Regional Hospital	7,851	4.7%	6,924	4.3%	6,573	4.2%	6,348	3.9%	4,813	3.9%
Butler Memorial Hospital	3,927	2.4%	3,764	2.3%	3,568	2.3%	3,574	2.2%	3,130	2.5%
Non-Community Hospitals	28,949	17.4%	28,205	17.4%	27,030	17.1%	27,329	17.0%	21,740	17.4%

Source: PHC4 Discharge Data

A similar pattern emerges with Medicare Advantage (Table 18). Medicare Advantage discharges increased at UPMC hospitals and decreased at AHN hospitals.

Table 18: Discharge Shares in AHN's 90% Service Area – All Services, Medicare Advantage, 2012-2016

Discharge Shares in AHN's 90% Service Area - All Services, Medicare Advantage, 2012-2016										
Hospital	Discharges 2012	Shares 2012	Discharges 2013	Shares 2013	Discharges 2014	Shares 2014	Discharges 2015	Shares 2015	Discharges 2016 (Q1-Q3)	Shares 2016 (Q1-Q3)
Total	87,821	100%	89,453	100%	86,606	100%	89,092	100%	68,571	100%
UPMC	34,138	38.9%	36,309	40.6%	34,594	39.9%	37,104	41.6%	27,777	40.5%
UPMC Presbyterian Shadyside	11,618	13.2%	11,719	13.1%	10,881	12.6%	12,089	13.6%	9,141	13.3%
UPMC Passavant	5,346	6.1%	5,324	6.0%	5,236	6.0%	5,451	6.1%	4,039	5.9%
UPMC St. Margaret	4,801	5.5%	4,560	5.1%	4,522	5.2%	4,488	5.0%	3,275	4.8%
UPMC Mercy	3,263	3.7%	3,387	3.8%	3,341	3.9%	3,711	4.2%	2,735	4.0%
UPMC East	415	0.5%	2,298	2.6%	2,379	2.7%	2,738	3.1%	2,192	3.2%
UPMC Hamot	1,752	2.0%	2,068	2.3%	2,248	2.6%	2,654	3.0%	1,980	2.9%
UPMC McKeesport	2,506	2.9%	2,570	2.9%	2,025	2.3%	2,217	2.5%	1,624	2.4%
Magee Womens Hospital of UPMC Health System	1,555	1.8%	1,506	1.7%	1,320	1.5%	1,466	1.6%	1,071	1.6%
UPMC Jameson	1,906	2.2%	1,903	2.1%	1,665	1.9%	1,354	1.5%	1,022	1.5%
UPMC Northwest	475	0.5%	467	0.5%	439	0.5%	415	0.5%	340	0.5%
UPMC Horizon	428	0.5%	414	0.5%	443	0.5%	420	0.5%	295	0.4%
Select Specialty Hospital/Pittsburgh/UPMC	39	0.0%	63	0.1%	52	0.1%	52	0.1%	28	0.0%
UPMC Altoona	19	0.0%	12	0.0%	20	0.0%	20	0.0%	17	0.0%
Children's Hospital of Pittsburgh of UPMC	7	0.0%	5	0.0%	6	0.0%	26	0.0%	14	0.0%
Western Psychiatric Institute & Clinic of UPMC	5	0.0%	12	0.0%	16	0.0%	3	0.0%	3	0.0%
UPMC Bedford	3	0.0%	1	0.0%	1	0.0%	0	0.0%	1	0.0%
AHN	21,941	25.0%	21,581	24.1%	21,010	24.3%	21,235	23.8%	16,626	24.2%
Allegheny General Hospital	5,512	6.3%	5,381	6.0%	5,464	6.3%	5,757	6.5%	4,284	6.2%
Jefferson Hospital	5,285	6.0%	5,330	6.0%	5,185	6.0%	5,157	5.8%	3,776	5.5%
Forbes Hospital	4,204	4.8%	3,939	4.4%	3,861	4.5%	3,648	4.1%	3,055	4.5%
Saint Vincent Hospital	2,236	2.5%	2,431	2.7%	2,525	2.9%	2,447	2.7%	2,077	3.0%
Allegheny Valley Hospital	2,986	3.4%	2,591	2.9%	2,111	2.4%	2,117	2.4%	1,611	2.3%
West Penn Hospital	935	1.1%	1,214	1.4%	1,246	1.4%	1,352	1.5%	1,270	1.9%
Canonsburg Hospital	783	0.9%	695	0.8%	618	0.7%	757	0.8%	553	0.8%
Heritage Valley	6,388	7.3%	6,093	6.8%	6,217	7.2%	5,873	6.6%	4,548	6.6%
Heritage Valley Beaver	3,919	4.5%	3,696	4.1%	3,834	4.4%	3,655	4.1%	2,757	4.0%
Heritage Valley Sewickley	2,378	2.7%	2,359	2.6%	2,346	2.7%	2,196	2.5%	1,767	2.6%
Kindred Hospital at Heritage Valley	91	0.1%	38	0.0%	37	0.0%	22	0.0%	24	0.0%
Washington Health	2,666	3.0%	3,101	3.5%	2,856	3.3%	2,850	3.2%	2,336	3.4%
Washington Hospital, The	2,447	2.8%	2,962	3.3%	2,720	3.1%	2,730	3.1%	2,266	3.3%
Washington Health System Greene	219	0.2%	139	0.2%	136	0.2%	120	0.1%	70	0.1%
Non-System Community Hospitals	9,946	11.3%	9,783	10.9%	9,591	11.1%	9,626	10.8%	7,708	11.2%
Excela Health Westmoreland Regional Hospital	5,087	5.8%	4,501	5.0%	4,347	5.0%	4,162	4.7%	3,129	4.6%
St. Clair Memorial Hospital	2,978	3.4%	3,186	3.6%	3,293	3.8%	3,227	3.6%	2,515	3.7%
Butler Memorial Hospital	1,881	2.1%	2,096	2.3%	1,951	2.3%	2,237	2.5%	2,064	3.0%
Non-Community Hospitals	12,742	14.5%	12,586	14.1%	12,338	14.2%	12,404	13.9%	9,576	14.0%

Source: PHC4 Discharge Data

For Highmark Medicare Advantage members specifically, Medicare discharges decreased at UPMC hospitals. Highmark Medicare Advantage discharges have decreased across the WPA region, whereas the share of Highmark Medicare Advantage discharges at UPMC has decreased at a higher rate.

Highmark Medicaid member discharges under Gateway Health Plan within the 90% AHN service area have decreased by 7%.[49] In comparison, Gateway member discharges at UPMC facilities have decreased; although this decrease is greater than the total Highmark member discharge decline, it is significantly less than the decrease of other Highmark insurance lines (e.g. commercial).

[49] Highmark owns 50% of Gateway Health Plan, and its Medicaid members are through the Gateway affiliation.

Looking at the 29-county WPA, Gateway Medicaid members continue to make use of Exception Hospitals, with increases in Gateway Medicaid discharges at all Exception Hospitals. This trend is not exclusive to Gateway Medicaid members. Across all Medicaid beneficiaries, discharge shares at most Exception Hospitals have increased from 2012 to 2016, excluding UPMC Jameson and WPIC (Table 19). However, these increases have not been as high as those among Gateway Medicaid members.

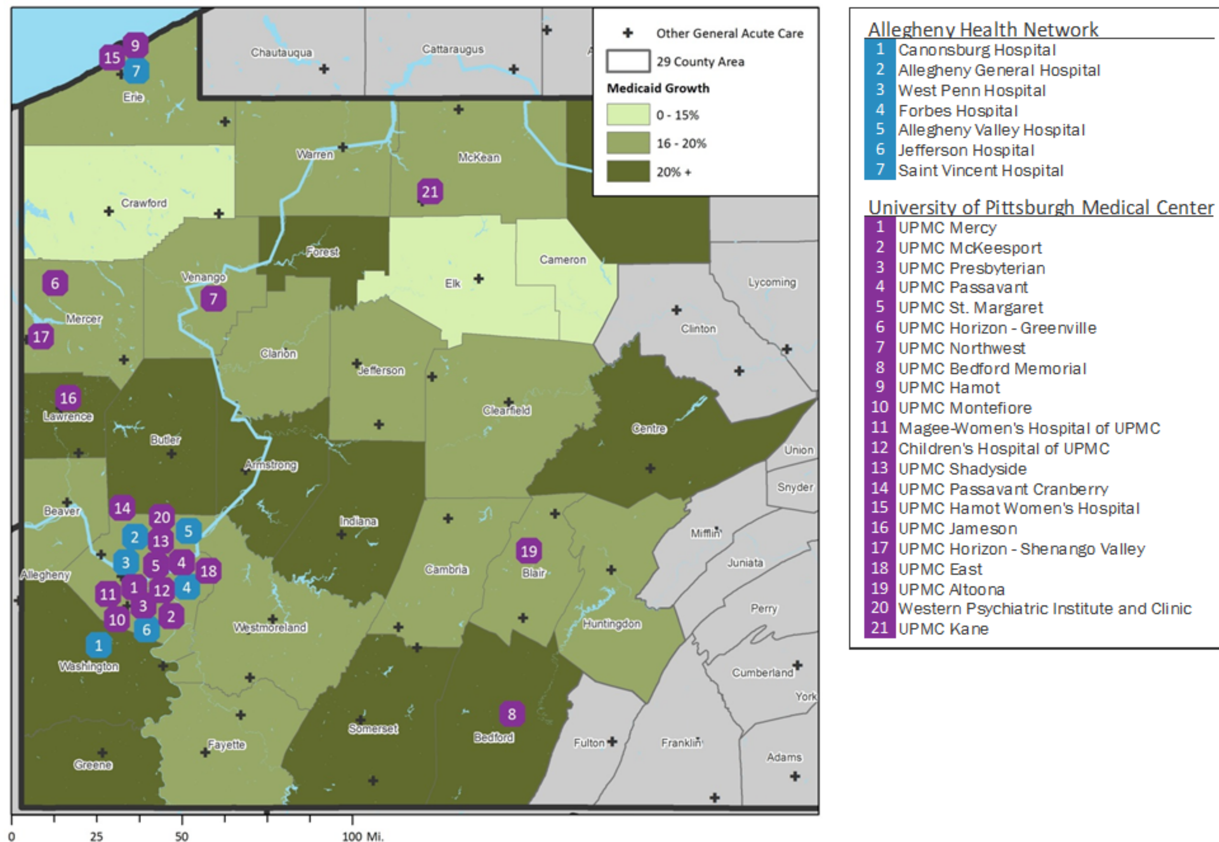
Table 19: Discharge Shares for All Patients at Exception Hospitals, Medicaid, 29 County WPA, 2012-2016

Discharge Shares for All Members at Exception Hospitals, Medicaid, 29 County WPA, 2012-2016						
Hospital	Discharges 2012	Discharges 2013	Discharges 2014	Discharges 2015	Discharges 2016 (Q1-Q3)	% Change (2012-2016)
Total Members	**131,789**	**129,387**	**122,857**	**127,007**	**100,378**	**2%**
UPMC Hamot	3,016	3,704	3,252	3,166	2,582	14%
UPMC Altoona	2,345	2,307	2,393	2,271	1,810	3%
UPMC Horizon	975	1,014	1,044	1,036	822	12%
UPMC Northwest	835	847	816	732	630	1%
UPMC Bedford	273	292	244	288	196	-4%
Kane Community Hospital	47	55	40	58	43	22%
Western Psychiatric Institute & Clinic of UPMC	2	2	6	10	1	-33%
Other*	62,148	60,583	57,531	59,723	47,147	-57%

Source: PHC4 Discharge Data

The growth in Exception Hospital usage may be driven by the geographic location of new Medicaid enrollees added after the Medicaid expansion. Figure 10 presents a map showing the rate of growth for the Medicaid population from 2014 to 2015, as well as the locations of AHN and UPMC hospitals. All of the Exception Hospitals showing an increase in Gateway Medicaid discharges are located in counties with at least 16% growth in the Medicaid population between 2014 and 2015. These Exception Hospitals are geographically isolated from AHN options, so any new Medicaid beneficiaries enrolled in a Gateway Medicaid managed care plan in those counties may select local, non-AHN options such as the UPMC hospitals. Medicaid beneficiaries may be more likely to go to the nearest-available hospital in the area they live due to limited resources and transportation options.

Figure 10: Medicaid Growth, 29 County WPA, 2014-2015



C. Effect of the 2013 Order on Highmark's ability to compete in the WPA health insurance markets

To what extent, if any, has Highmark's ability to compete in the health insurance markets in WPA been adversely affected or improved by the 2013 Order and, more specifically, by the competitive conditions imposed as part of the 2013 Order?

Since the implementation of the 2013 Order, Highmark has had a net loss of membership to its competitors. UPMC accounted for a small portion of the loss; Highmark lost the most members to Aetna/HealthAmerica.

However, Highmark has been able to maintain its key customers, with stability in its top 20 customers. With some of Highmark's top customers, Highmark has had to split the business with UPMC who now also claims these as top customers. This arises from the development of more employers allowing employees to choose from a menu of healthcare plans. Employees preferring access to UPMC may choose a UPMC health plan while another employee at the same company may choose a Highmark plan allowing in-network access to AHN, but not at UPMC.

Overall, our analysis, as documented here and in Section I of the Report, finds that the conditions of the 2013 Order have not significantly impacted Highmark's ability to compete with UPMC as an insurer in the WPA market.

D. Effect of the 2013 Order on AHN's ability to compete in the WPA healthcare delivery markets

To what extent, if any, has AHN's ability to compete in the healthcare services markets been adversely affected or improved by the 2013 Order and, more specifically, by the competitive conditions imposed as part of the 2013 Order?

WPAHS prior to its affiliation with Highmark Inc. was in many respects a flailing hospital system. WPAHS reported significant operating losses in 2010, 2011, and 2012.[50] In 2011, WPAHS's increasing financial difficulties made it vulnerable to violating its bond covenants.[51] Rating agencies had downgraded WPAHS's credit ratings—first, Moody's moved WPAHS from B1 to Ba3 (junk or non-investment grade status) in June 2010, and second, all three major credit rating agencies downgraded WPAHS further into junk grade status in November 2012.[52]

With WPAHS in financial distress and Highmark's in-network provider contract with UPMC about to expire, the Department concluded that a Highmark affiliation with WPAHS and change of control would benefit consumers in WPA. However, the Department also determined that the imposition of specific conditions, including those to preserve and promote competition in the Commonwealth of Pennsylvania, were necessary to find that the change of control would not violate Section 1402 of the Insurance Holding Company Act.

The Department recognized that the transaction would likely change the competitive dynamics in the WPA healthcare market. Highmark's financial commitments with AHN in terms of sustainability and competitiveness and development of the integrated delivery network would likely make AHN a stronger competitor against UPMC, a vertically integrated healthcare provider and healthcare insurer and the leading healthcare delivery system in WPA. Yet, because of the vertical nature of the transaction, it could potentially pose some competitive risks in the health insurance and in the provider sectors. In the approving Order, the Department imposed a series of conditions on the transaction to address competition.

As a result of its affiliation with Highmark, AHN is now a more effective competitor in delivering healthcare services to residents of Western Pennsylvania. AHN has made significant investment in AHN's infrastructure and operations to improve quality of care and the efficiencies of its operations. In addition, because of WPAHS's long-troubled financial situation, the capital investments that

[50] Highmark Inc./Allegheny Health Network, Summary of Select Analysis, May 5, 2017, Bates White, in response to information request to Highmark from Compass Lexecon.
[51] Highmark 2011 Submission to Department.
[52] Highmark Inc./Allegheny Health Network, Summary of Select Analysis, May 5, 2017, Bates White, in response to information request to Highmark from Compass Lexecon.

Highmark has funded not only have improved facilities relative to what otherwise had been the case, but also has expanded both access to care and the quality of care delivered.

Compass Lexecon performed a diversion analysis as a means to evaluate whether AHN is a more effective competitor of UPMC since the 2013 Order (Table 20). We ran the diversion analysis for all commercial patients in the WPA under two scenarios: (1) a competitive environment where patients' choice of hospitals is constrained by whether a particular hospital is in-network for that patient, and (2) a competitive environment where patients' choice of hospitals is not constrained by in-or-out of network status of a particular hospital. We compared 2012 diversions to 2016 diversions under the assumption that a particular UPMC hospital was no longer available to a patient. For example, we assume that UPMC Presbyterian Shadyside is no longer an option for patients and examine which hospitals capture those patients that would have gone to UPMC Presbyterian Shadyside if it were available. For the 2012 diversions, we assume that all area hospitals were in-network and available to patients.[53]

In the scenario where the network status of a hospital is allowed to factor into patient choice, we find, not surprisingly, that when a particular UPMC hospital is no longer available, other UPMC hospitals capture most of the diversion. The relative magnitude of the diversions to AHN, other UPMC hospitals, and other community hospitals are similar to the 2012 diversions when all hospitals were part of broad, all-inclusive networks. In effect, network status captures the price difference that patients may perceive in that a patient's out-of-pocket costs are likely higher in choosing an out-of-network hospital compared with an in-network hospital. One exception is the diversion to other hospitals when UPMC Mercy is no longer an option for patients. In this scenario, we find Allegheny General captures a greater share of patients in 2016 compared with 2012 and UPMC Presbyterian Shadyside captures a smaller share of patients in 2016 compared with 2012.

In the scenario where patient choice is unconstrained by the network status of hospitals (i.e., all hospitals are assumed to be in-network), we find that AHN hospitals capture a larger share of the diversion in 2016 compared with 2012 when a particular UPMC hospital is no longer available to patients. Similarly, we find that UPMC hospitals capture a much lower share of the diversion in 2016 compared with 2012 when a particular UPMC hospital is no longer available to patients (Table 20). We note that West Penn Hospital's 2016 diversions are significantly higher in 2016 than in 2012 indicating that patients view this hospital as a better substitute for UPMC hospitals than in the past. This analysis indicates that AHN hospitals are a more effective competitor of UPMC today than in in 2012 when the choice of a hospital is unconstrained by whether the hospital is in-network or out-of-network.

[53] We ran a diversion analysis using calendar year 2012 and fiscal year 2016 data for patients residing in the 29 county WPA. The hospital choice set consists of 87 hospitals in the 29 county area identified in the PHC4 data. The model is limited to commercial patients and excludes patients treated in MDCs 19 and 20 and DRGs 794, 945, and 946. The specification includes: drive time, drive time squared, drive time-DRG weight interaction, drive time-emergency admission interaction, drive time squared-emergency admission interaction, hospital fixed effects, hospital-DRG weight interactions, and network configuration dummy. The "All-Inclusive Network" model runs assume all hospitals are available in-network.

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Table 20: UPMC Diversion Analysis Summary, 2016 Network Configuration & All-Inclusive Network

UPMC Diversion Analysis Summary, 2016 Network Configuration & All-Inclusive Network																					
	Magee-Womens Hospital of UPMC Health System			UPMC East			UPMC McKeesport			UPMC Mercy			UPMC Passavant			UPMC Presbyterian Shadyside			UPMC St. Margaret		
Hospital	2012	2016		2012	2016		2012	2016		2012	2016		2012	2016		2012	2016		2012	2016	
		Network Configuration	All-Inclusive Network		Network Configuration	All-Inclusive Network		Network Configuration	All-Inclusive Network		Network Configuration	All-Inclusive Network		Network Configuration	All-Inclusive Network		Network Configuration	All-Inclusive Network		Network Configuration	All-Inclusive Network
UPMC	**47.5%**	**47.8%**	**43.4%**	**49.1%**	**48.8%**	**44.8%**	**50.2%**	**50.7%**	**47.2%**	**52.0%**	**43.4%**	**49.4%**	**48.5%**	**48.7%**	**45.6%**	**44.3%**	**46.2%**	**41.3%**	**52.4%**	**53.8%**	**49.5%**
Children's Hospital of Pittsburgh of UPMC	7.3%	6.9%	5.4%	5.4%	5.1%	4.0%	5.3%	4.9%	3.8%	6.5%	6.7%	4.8%	6.9%	6.5%	5.1%	8.1%	7.7%	6.0%	7.3%	6.8%	5.2%
Magee-Womens Hospital of UPMC Health System	–	–	–	12.9%	14.4%	13.7%	15.2%	15.5%	15.0%	13.7%	12.0%	14.7%	11.4%	12.6%	12.4%	15.5%	17.1%	16.2%	12.3%	13.7%	13.1%
Select Specialty Hospital/Pittsburgh/UPMC																					
UPMC East		2.7%	2.5%	–	–	–		3.4%	3.3%								2.4%	2.2%		2.5%	2.4%
UPMC McKeesport							–	–	–												
UPMC Mercy	7.1%	7.0%	5.8%	4.8%	4.7%	3.9%	5.5%	5.1%	4.3%	–	–	–	6.3%	6.0%	5.1%	8.2%	7.6%	6.3%	5.9%	5.6%	4.7%
UPMC Passavant	5.0%	5.0%	4.9%	3.4%	3.4%	3.3%	2.2%	2.2%	2.2%	5.4%	4.2%	5.2%	–	–	–	5.9%	6.0%	5.7%	6.3%	6.1%	5.8%
UPMC Presbyterian Shadyside	21.9%	21.3%	20.1%	16.9%	16.1%	15.2%	18.6%	17.1%	16.4%	21.2%	15.6%	19.0%	18.5%	17.7%	17.3%	–	–	–	19.4%	18.3%	17.4%
UPMC St. Margaret	4.1%	3.7%	3.4%	4.1%	3.6%	3.4%	2.8%	2.4%	2.3%	3.8%	2.6%	3.1%	4.7%	4.0%	3.8%	4.8%	4.1%	3.8%	–	–	–
Western Psychiatric Institute & Clinic of UPMC																					
AHN	**23.3%**	**23.3%**	**29.3%**	**22.9%**	**22.9%**	**27.9%**	**24.2%**	**23.6%**	**28.5%**	**20.6%**	**27.6%**	**25.6%**	**19.2%**	**20.0%**	**24.7%**	**26.1%**	**25.1%**	**31.7%**	**22.0%**	**21.3%**	**26.6%**
Allegheny General Hospital	7.5%	7.3%	9.1%	4.8%	4.8%	5.8%	4.9%	4.8%	5.8%	7.9%	10.1%	9.2%	9.2%	8.9%	10.9%	10.8%	9.9%	12.4%	7.5%	7.1%	8.8%
Allegheny Valley Hospital																			3.0%		2.0%
Canonsburg Hospital																					
Forbes Hospital	4.3%	4.0%	5.0%	9.1%	8.7%	10.4%	6.1%	5.8%	6.9%	3.1%	4.0%	3.7%	2.4%	2.4%	3.1%	4.1%	3.8%	4.8%	4.0%	3.9%	4.8%
Jefferson Hospital	4.2%	3.7%	4.8%	2.9%	2.7%	3.4%	8.2%	7.0%	8.6%	3.7%	4.2%	4.0%				4.3%	3.5%	4.5%	2.2%	2.0%	2.6%
West Penn Hospital	5.5%	7.4%	9.2%	3.9%	5.5%	6.7%	3.9%	5.4%	6.4%	4.3%	8.2%	7.5%	4.4%	6.2%	7.6%	5.0%	7.0%	8.8%	4.8%	6.6%	8.2%
Other	**29.3%**	**28.8%**	**27.3%**	**28.1%**	**28.3%**	**27.3%**	**25.6%**	**25.7%**	**24.3%**	**27.3%**	**29.0%**	**25.0%**	**32.3%**	**31.2%**	**29.6%**	**29.6%**	**28.7%**	**27.0%**	**25.6%**	**24.9%**	**23.9%**
Butler Memorial Hospital													3.7%	4.0%	4.0%					2.1%	2.2%
Excela Health Westmoreland Regional Hospital	2.9%	2.6%	2.5%	7.4%	6.9%	6.8%	6.0%	5.4%	5.3%	2.1%	2.1%					2.5%	2.5%	2.4%	2.4%	2.2%	2.1%
Heritage Valley Beaver											2.1%		4.4%	4.3%	4.1%						
Heritage Valley Sewickley	3.0%	2.5%	2.3%							2.9%	2.7%	2.1%	5.6%	4.5%	3.9%	3.0%	2.5%	2.2%	2.2%		
Monongahela Valley Hospital								2.6%	2.4%												
St. Clair Memorial Hospital	9.6%	9.9%	8.6%	4.0%	4.4%	3.6%	5.9%	6.1%	5.1%	8.8%	9.9%	7.6%	5.7%	5.9%	5.0%	9.3%	9.1%	7.9%	5.9%	6.1%	5.2%

Notes: Diversions are calculated for commercial patients residing in the WPA.
2012 assumes all-inclusive networks.
2016 Network Configuration assumes AHN hospitals are out-of-network for UPMC members and UPMC hospitals are out-of-network for Highmark Members.

Source: PHC4 Discharge Data

Table 21 shows commercial patient diversions for 2012 and 2016 with network restrictions, meaning that AHN hospitals are out-of-network for UPMC members, and UPMC hospitals are out-of-network for Highmark members. With those restrictions in place, the diversions from UPMC to AHN are lower in 2016 (37.8%) than 2012 (41.3%). When network restrictions are applied, i.e., UPMC members do not have AHN hospitals in their network choice set, UPMC members will disproportionately choose to seek care at UPMC hospitals.

Table 21: UPMC System Diversion Analysis Summary, 2012 & 2016

UPMC System Diversion Analysis Summary, 2012 & 2016		
Hospital	2012	2016
AHN	**41.3%**	**37.8%**
Allegheny General Hospital	16.2%	13.6%
Allegheny Valley Hospital	2.0%	1.1%
Canonsburg Hospital	0.8%	0.3%
Forbes Hospital	6.7%	6.2%
Jefferson Hospital	5.9%	4.7%
West Penn Hospital	9.7%	11.8%
Five County Area Hospitals	**34.1%**	**34.8%**
St. Clair Memorial Hospital	13.6%	14.1%
Heritage Valley Sewickley	5.1%	4.2%
Excela Health Westmoreland Regional Hospital	3.2%	3.3%
Heritage Valley Beaver	3.3%	3.1%
Butler Memorial Hospital	2.5%	3.0%
Other five-county hospitals	6.4%	7.2%
Other Western Pennsylvania Hospitals	**24.6%**	**27.4%**
UPMC System	**-100.0%**	**-100.0%**

Notes: Diversions are calculated for commercial patients residing in the WPA.
2012 assumes all-inclusive networks.
2016 Network Configuration assumes AHN hospitals are out-of-network for UPMC members and UPMC hospitals are out-of-network for Highmark Members.

Source: PHC4 Discharge Data

We also calculated the willingness-to-pay metric to assess the relative value that consumers place on UPMC compared with AHN. We found that since 2012, UPMC's WTP decreased by about 14% while AHN's WTP increased by almost 28%. Although UPMC's value is much higher than AHN in both 2012 and 2016, which may be influenced by UPMC being a larger hospital system than AHN, we find that the WTP gap between UPMC and AHN is closer in 2016 than in 2012, indicating that AHN's relative value has increased and it appears to be perceived as a more effective substitute for UPMC today than in 2012.

Although Highmark's affiliation with AHN was premised on developing an integrated delivery network that would improve quality of care, provide the right access to care and right treatments,

all at lower costs of care, in our view, Highmark has not yet fully delivered on these promises. Even in its most recent AHN Strategic and Financial Plan for 2017-2022 submitted to the Department in February 2017, as well as additional submissions to the Department, it continues to assert that "it is on its way to being in position to deliver to the market an insurance product that will offer a significant cost differential as compared to national competitors' products."[54] The missing cost savings in this calculus is that relating to the IDN, namely delivering and executing on models of care that provide the right care, at the right location, using the right treatment, at higher value for money. In offering narrower network products appropriately incentivized to attract members to switch from broader network products, Highmark is able to provide additional value for its members and consumers. However, Highmark still has more to accomplish to make good on its commitment to deliver on the implementation of the IDN that will create significant benefits to consumers.

E. Specific competitive conditions imposed with the 2013 Order[55]

Condition 1 and 2—Exclusive Contracting Prohibition: These conditions prohibited Highmark Pennsylvania domiciled health insurers from entering into a contract or arrangement with any Highmark Health provider that would require the provider to contract exclusively with the insurer. These conditions further assured that no Highmark entity may prohibit or limit any other Highmark Health provider from entering into any contract or arrangement with any insurer. In a vertically integrated healthcare system, such prohibitions may protect the ability of rivals at either the provider or insurer level to compete for contracts and other arrangements.

Nothing in this assessment indicates that either Highmark insurers or AHN have been adversely affected by this condition or that any consumer has been adversely affected. Highmark agrees that neither it nor consumers have been adversely affected by Conditions 1 and 2. However, Highmark has raised the issue that to impose this condition on it and AHN without similarly imposing a similar prohibition on other insurers or healthcare providers puts it at a competitive disadvantage in that others may consider or enter into such contracts or arrangements if it is in their self-interest. Highmark has not provided Compass Lexecon or the Department with any specific incidences in which its WPA rivals entered into some type of exclusive contracting arrangement that provided the rival with a competitive advantage over Highmark or AHN.

Condition 3—Provider/insurer Contract Length Limitation: This condition prohibits Highmark, without prior approval, from entering into any contract or arrangement with another provider where the length of the contract or arrangement exceeds five years. Contracts that substantially exceed normal or customary lengths have the potential to limit the ability of rival providers or

[54] Highmark Health's comments on the benefits/harms consumers have derived from the Commissioner's Approving Determination and Order (Order No. ID-RC-13-06).

[55] In this section, we provide a brief description of the conditions. The reader is urged to review the 2013 Order for the specific detail of each condition.

insurers to respond to competitive or market conditions and may inhibit competitive change. Since the 2013 Order, Highmark has made two requests to enter into contracts that exceed the five year term under the 2013 Order.

Highmark submits that it has been competitively harmed by this condition. It indicates that some smaller providers "seeking to maintain their independence, would prefer to enter into longer-term arrangements to assure themselves of a predictable source of revenue in a challenging competitive environment."[56] Highmark asserts that it has not been able to honor their requests.

In addition, Highmark also asserts that the condition has made it "reluctant" to invest in innovative and pro-consumer arrangements with providers because of the risk that it may not be able to ensure an appropriate return on the investment if the contract term with the provider is shorter than the expected period of recoupment.[57] Highmark provides a description of one incident in which it did not enter into a risk-sharing arrangement with a "large and disparate group of providers'" because Highmark determined that it would be unlikely to recoup its investment within five years. Highmark asserts that it did not seek the Department's approval on this particular transaction because it determined that it would likely not be approved, making the time and effort of seeking an approval unattractive.

From a competitive perspective, the intent of the condition was not to stifle any pro-consumer or pro-competitive activity. Without further details of this particular transaction and risk-sharing arrangement, it is difficult to assess whether consumers would have been better off with this transaction; thus, the abandonment of the transaction caused competitive harm to consumers. The Department may want to consider delving deeper into the specifics of this transaction to determine if a change to Condition 3 is warranted.

Conditions 5 and 6—Prohibition on Most Favored Nation ("MFN") Contracts or Arrangements: These conditions prohibited Highmark as an insurer from entering into an MFN contract with a provider, and similarly, prohibited a Highmark provider from entering into an MFN contract with an insurer. Prohibitions on MFNs in healthcare are generally considered by competition authorities and the Courts as anticompetitive.

At the time of the 2013 Order, neither Highmark nor WPAHS had any MFN contracts. Highmark agrees that a prohibition on MFN contracting is pro-competitive and is not a contract provision that is currently used in WPA and therefore, it has not been competitively disadvantaged by this condition. This assessment agrees with that view and further finds no indication that competition or consumers have been adversely affected. Highmark, however, asserts that other insurers and providers are not under similar conditions of competition.

[56] Highmark Health's Comments on the benefits/harms consumers have derived from the Commissioner's Approving Determination and Order (Order No. ID-RC-13-06).

[57] Highmark Health's Comments on the benefits/harms consumers have derived from the Commissioner's Approving Determination and Order (Order No. ID-RC-13-06).

Conditions 7-9—Firewall Policy: These conditions require that Highmark develop, maintain, and enforce a Department-approved firewall policy that would prohibit the transfer to Highmark of competitively sensitive information on rival insurers contracting with AHN, and prohibit the transfer to AHN of competitively sensitive information on rival providers contracting with Highmark. The underlying concept for firewalls under the 2013 Order is to restrict Highmark's knowledge of and ability to influence AHN's negotiations with rival insurers, and conversely, AHN's influence on Highmark's negotiations with rival hospitals. The firewall policy's intent is to mitigate competitive concerns arising from Highmark's ownership of a major provider of hospital services to competing healthcare insurance rivals. Similarly, the firewall policy is constructed to prohibit AHN's access to reimbursement contract rates and terms between Highmark and other providers.

Firewall policies are a highly effective tool to ensure competition in a vertical transaction. Antitrust authorities have included firewall provisions in several vertical merger cases and these provisions are among the most common type of remedy.[58] Highmark is required to report on its enforcement of its policy and alert the Department to any infractions. Based on our review, the firewall policy as developed and enforced by Highmark has been a competitive success in preventing the inappropriate transfer of competitively sensitive information.

Highmark agrees that firewall policies are pro-competitive, but raises the issue that other vertically-integrated healthcare systems in WPA should also be required to develop, maintain, and enforce such firewall policies. Without similar requirements on other vertically integrated healthcare systems, Highmark is being held to a competitive standard that others are not. We recommend that the Department consider avenues by which other vertically-integrated healthcare systems would be required to develop, maintain and enforce a firewall policy to provide that all competitors are similarly positioned.

Condition 20—Consumer Choice Initiatives: This condition provides that, without prior approval from the Department, Highmark is prohibited from entering into any contract or arrangement with a provider that prohibits or limits the ability of the insurer to use tools, such as tiered networks or

[58] See for example: Ramirez, Edith, "FTC Behavior Remedies," ABA Antitrust Fall Forum, November 17, 2011 at 8. An example of imposing firewalls in a vertical transaction is PepsiCo's acquisition of two of its largest bottler-distributors and subsequent exclusive license from the Dr Pepper Snapple Group (DPSG) to bottle, distribute and sell certain carbonated soft drink brands of DPSG in specific territories. The FTC expressed concern that as a consequence of its acquisition of the two large bottlers, PepsiCo would gain access to DPSG's "commercially sensitive confidential marketing and brand plans. Without adequate safeguards, PepsiCo could misuse that information, leading to anticompetitive conduct that would make DPSG a less effective competitor or would facilitate coordination in the industry." In order to address this concern, the consent agreement allows only PepsiCo employees who perform carbonated soft drink "bottler functions" access to the DPSG commercially sensitive information and prohibits PepsiCo employees involved in "concentrate-related functions" from seeing that information (see Analysis of Agreement Containing Consent Order to Aid Public Comment, *In the Matter of PepsiCo, Inc.,* FTC File No. 091-0133, February 26, 2010 at 1.). An example of an organizational firewall in a horizontal matter in hospital services was in Evanston's acquisition of Northwestern and Garland Park. In that matter as an alternative to divestiture, the FTC required each of the hospital systems to have separate teams for negotiating hospital rates with healthcare insurers. See *In Re Evanston*, FTC File No. 9315 (2007).

steering, that may assist the consumer in making informed healthcare decisions on the basis of quality of care and price. Consumer choice and other member cost-sharing initiatives, e.g., tiered network products, are procompetitive and consistent with healthcare reform efforts to incentivize consumers to consider the costs of healthcare in choosing providers with the objective of lowering overall healthcare expenditures.

Highmark agrees with the Department that such conditions promote competition, particularly price and quality competition. However, it asserts that no other insurer or provider is bound by such a condition and other insurers and providers should be place under a similar restriction.

From a competition perspective, we recommend that the Department consider whether such a condition should be imposed on other insurers and providers.[59]

IV. Learnings from the 2013 Order

A. Overall learnings from assessing the 2013 Order's impact on competition

After updating and examining developments and trends in the WPA healthcare insurance markets and healthcare delivery markets, we find that competition has been strengthened in each of these market segments as a result of Highmark's affiliation with AHN as approved by the 2013 Order and incorporated competition conditions.

We find no indication that either the 2013 Order or the affiliation has had an adverse effect on access to healthcare or healthcare insurance, quality of care available to consumer, or value for money in delivering healthcare or purchasing healthcare insurance.

Highmark has been subject to the 2013 Order's competitive conditions for over three years. Our competitive assessment indicates that these competitive conditions have not placed Highmark at a competitive disadvantage. In our view, Highmark legitimately asserts that, imposing these conditions on Highmark and AHN without also imposing the same competitive and consumer choice conditions on its rivals does not ensure a level playing field in competing for insureds or patients.

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[59] We note that in Highmark's submission, "Highmark Health's Comments on the benefits/harms consumers have derived from the Commissioner's Approving Determination and Order (Order No. ID-RC-13-06)," it also provided comments on the benefits and harm to consumers of the 2013 Order's other conditions, including (1) Condition 4—termination of current healthcare insurer contracts other than for cause, (2) Conditions 10 and 11—limitations on donations; financial commitment limitations, (3) Conditions 12-19—disclosure of financial commitments and other proprietary information, (4) Condition 25—costs and expenses of compliance. These conditions were not part of the mandate requested for this competitive assessment.

B. Vertical integrations and formation of integrated delivery networks

What guidance does the updated competitive review of the current state of competition in the WPA healthcare insurance and healthcare services markets provide to the Department in terms of evaluating any further potential developments of vertical integration, or formation of integrated delivery networks, among insurers and providers in WPA and/or elsewhere in Pennsylvania?

Integrated delivery networks or similar systems are widely accepted as a keystone for improving the continuum of care for patients and providing healthcare at the highest quality and value for money. Vertically-integrated systems are becoming more common and the WPA has two highly competitive, vertically-integrated systems operating within its geography. Moreover, both Highmark and UPMC are expanding their geographic reach further across the Commonwealth.

This assessment indicates that vertically-integrated healthcare systems can operate competitively including under circumstances where conditions are imposed that assist in mitigating some of the potential harm from vertically aligned buyers and customers that compete with other rivals. The competitive conditions imposed under the 2013 Order to address specific concerns have not resulted in placing Highmark or AHN at a competitive disadvantage. At the same time, however, its closest rival, UPMC which is also vertically-integrated, has been free to operate without such conditions. It is difficult for us to assess how competition would be different if UPMC had been under the same conditions since this would require access to confidential information that we did not have for purposes of this assessment.

Nonetheless, it is our view that the 2013 Order and its conditions have enhanced competition in WPA, resulting in AHN as a much stronger competitor capable of attracting more patients than the financially troubled WPAHS that existed prior to its affiliation with Highmark. Despite the termination of Highmark's provider contract with UPMC, Highmark has been able to compete successfully in maintaining and attracting new members with its narrow network products. Highmark has lost significant membership, but appears to be developing new and innovative network products to use in competing for members.

It is our view that the 2013 Order has been a success in terms of competition in the WPA and can be used as a model in evaluation of similar transactions in the future.

The primary authors of this Report, Susan Henley Manning, and Margaret E. Guerin-Calvert are with Compass Lexecon, LLC ("Compass Lexecon") and the Center for Healthcare Economics and Policy, a business unit of the Economics Practice at FTI Consulting, Inc. that specializes in healthcare economics and applied microeconomics. Assisting the authors with this report were Holly Saltrelli and Sabiha Quddus of the Center and other staff. The views and opinions presented are solely those of the authors and do not necessarily reflect the views of other professionals at Compass Lexecon or other organizations with which the authors are or have been affiliated.