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Assessment of Competitive Effects of a Hypothetical Termination of the 2013 Order's Competitive and Consumer Initiative Conditions

PUBLIC VERSION

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I. Introduction

The purpose of this Assessment of Competitive Effects of a Hypothetical Termination of the 2013 Order's[1] Competitive and Consumer Initiative Conditions (this "Report") is to describe and summarize the results of a 'but-for" analysis of the potential competitive effects that would occur if the Pennsylvania Insurance Department (the "Department") were to rescind the 2013 Order's competition and consumer choice initiative Conditions (collectively, the "Competitive Conditions").[2] We undertook this analysis at the request of the Department.[3]

The Approach to Our Analysis[4]

A but-for analysis is a hypothetical and mainstay of economic antitrust analysis that includes the assessment of the likelihood of anticompetitive effects from vertical affiliations and exclusionary conduct. This analysis is of a but-for world in which the Competitive Conditions of the 2013 Order no longer exist. In this but-for world, we examine whether, by virtue of their vertically affiliated (or integrated) status and in the context of market conditions, Highmark and AHN would have the ability and incentive to engage in the following three types of conduct.

- Engaging in potentially exclusionary practices to attempt to foreclose entry or expansion by new rivals or impede or disadvantage rivals from competing by

[1] The "2013 Order" means the Department's Approving Determination and Order No. ID-RC-13-06 dated April 29, 2013, as amended.

[2] For clarity, the Competitive Conditions evaluated specifically in this Report include Conditions 1 & 2 (exclusive contracting), 3 (contract length), 5 & 6 (most favored nation contracting), 7-9 (firewall), 20 (anti-steering/anti-tiering), 21 (community hospital impact reporting), and 23 (community health reinvestment) of the 2013 Order.

[3] Compass Lexecon's 2023 Report (the "2023 Report") assessed the competitive health insurer and healthcare provider landscape in the Western Pennsylvania Area ("WPA") as it existed during the period covered by the 2023 Report, i.e., where Highmark's conduct is subject to the Competitive Conditions. Compass Lexecon did not assess the competitive issues that may arise if Highmark or its affiliates were no longer subject to the Competitive Conditions. This requires an undertaking of a but -for analysis, which is the subject of this Report.

[4] Susan Henley Manning, PhD and Margaret E. Guerin-Calvert are the principal authors of this report conducted under an ongoing Compass Lexecon engagement with support for analysis from the staff at Center of Healthcare Economics and Policy, a business unit of the Economics Practice at FTI Consulting, Inc. specializing in healthcare economics and applied microeconomics. This analysis reflects the opinions and assessments of the authors, not of Compass Lexecon or FTI Consulting as a firm, nor does it necessarily reflect views of other professionals at Compass Lexecon, FTI Consulting or other organizations with which the authors are or have been affiliated.

raising rivals' costs.

- Exchanging of rivals' competitively sensitive information between Highmark as the buyer of rival healthcare provider services, and AHN as the seller of healthcare services to rival insurers, to attempt to foreclose entry or expansion by new rivals or raise rivals' costs to impede or disadvantage rivals from competing.
- Engaging in tacit coordination with Highmark/AHN's current WPA rivals, particularly UPMC, to diminish competition or to attempt to foreclose other rivals that may either seek to enter or increase their market presence in the WPA.

The but-for economic analysis assumes that the mechanisms by which Highmark and AHN would execute such conduct in the but-for hypothetical world would be principally through the exclusionary contracting and other practices no longer prohibited or constrained by the 2013 Order. Highmark could employ other mechanisms to augment its likelihood of success in the but-for world, but these are not the subject of this analysis.

Under the but-for analysis, we then examine the likelihood of anticompetitive effects, such as increased or maintained prices above competitive levels, reduced access to care, reduced quality of products and services offered, and reduced innovation, by undertaking the following tasks:

(1) Applying economic theory and principles commonly used by economists and federal antitrust regulators to the relevant facts in this matter in determining likely competitive outcomes in this hypothetical "but-for" world without the Competitive Conditions within markets across Pennsylvania, including the WPA market, which are vulnerable to anticompetitive conduct, considering Highmark's known growth plans;

(2) Examining how Highmark, insureds, and other health care providers may be affected; and

(3) Incorporating into the economic analysis relevant facts and new competitive dynamics, such as increased vertical symmetry and potential entry from other Blue Cross Blue Shield ("BCBS") insurers into the WPA.[5]

[5] In our analysis, we do not address the benefits derived from Highmark's 2013 affiliation with West Penn Allegheny Health System ("WPAHS", now AHN). The purpose of the Competitive Conditions was to enable the affiliation to proceed and the benefits from the affiliation to be realized while minimizing the risks from the transaction of potential anticompetitive effects due to the conditions of competition (i.e., presence of market power and the highly concentrated healthcare markets), under which Highmark and AHN competed.

Section II below summarizes our conclusions.[6] Section III presents the but-for economic analysis we undertook. We begin by examining the current market structure, market conditions, and ability to exercise market power, followed by examining the ability and incentive for Highmark to engage in exclusionary conduct under the hypothetical rescission of the Competitive Conditions We then examine the competitive effects that would result with a reasonable likelihood if the Competitive Conditions are rescinded, including considering: (i) the ability and incentive of Highmark/AHN to engage in anticompetitive conduct—attempted foreclosure of rivals or raising rivals' costs, exchange of competitively sensitive information, and tacit coordination and (iii) the anticompetitive harm that would result with a reasonable likelihood if Highmark/AHN were to engage in the types of exclusionary conduct and other practices currently prohibited under the 2013 Order. Appendix 1 presents a standard quantitative analysis assessing Highmark's incentive to raise its rivals' provider services costs as part of our economic analysis of Highmark/AHN's incentives to engage in anticompetitive conduct but-for the Competitive Conditions.

II. Summary of Conclusions

Overall, we conclude as follows:

- But-for the constraints imposed by the Competitive Conditions, there is a reasonable likelihood of anticompetitive harm to competition and healthcare consumers in the WPA.
- Without the 2013 Order's exclusionary contracting constraints, protections of consumer choice initiatives and firewall policy, there is a reasonable likelihood or increased risk of diminished competition and attempted foreclosure of rivals or raising rivals' costs. The vertically affiliated Highmark/AHN would have the ability and incentive necessary to maintain or enhance its market position and profitability by engaging in such conduct by using exclusionary contracting or practices to attempt to foreclose rivals or raise rivals' costs. Were Highmark/AHN to do so, there is a reasonable likelihood that this would result in anticompetitive harm by reducing competition and lead to higher prices and reduced services or quality of

[6] Throughout this report, we use the term vertical affiliation to include all legal combinations of the input and output entities within one related parent firm. We use this broader term "vertical affiliation" to capture both mergers and legal affiliations (inorganic) combinations, such as Highmark and AHN, and vertical integration (organic), such as UPMC, whereby a firm operating at either the provider (or insurer) level develops a new related insurer (or provider) business. The issues concerning the use of exclusionary contracting or practices discussed in this report apply to both organic and inorganic vertically-affiliated firms, as applied in the context of their specific market conditions.

services provided relative to what would exist but-for this conduct.

- There is a reasonable likelihood or increased risk that Highmark/AHN could engage in exchanging competitive sensitive information across its vertical affiliates. Were this to occur, there is a reasonable likelihood that this would lead to a dampening of competition and disadvantage Highmark/AHN's rivals and potential rivals, and lead to higher prices and reduced services or quality of services provided relative to what would exist but-for this conduct.
- There exists an increased risk of potential anticompetitive behavior via tacit coordination in the WPA facilitated by the WPA's market structure, conditions, and the potential exercise of market power:
    - While competition in these still highly concentrated WPA markets increased or has been maintained since 2013, no economic evidence has been provided, and we are not aware of any economic evidence, which supports such a material change in the conditions of competition that would lessen the risk of competitive harm should the Competitive Conditions be rescinded.
    - Although there are significant changes in market share across the WPA and across Pennsylvania for the largest six WPA insurers within the different categories of insured plans, UPMC and Highmark remain the two top insurers by a significant margin, except in Medicare Advantage where Aetna has displaced Highmark as the second largest insurer.
    - Although concentrations decreased somewhat since 2011/2012, concentrations remain at levels that are considered to be highly concentrated by antitrust economists and practitioners.[7]
    - Although both UPMC and AHN's shares changed some, UPMC remains the predominant healthcare provider in the WPA, with AHN as the viable second largest competitor. Market conditions have changed such that UPMC and Highmark-AHN are two increasingly similar and vertically aligned entities with high shares across levels of competition.

[7] Practitioners and economists typically define concentration by the Herfindahl-Hirschman Index ("HHI"). The HHI the sum of the squares of the market shares; The HHI increases with larger markets attributed to fewer numbers of market participants, reaching 10,000 in a market with a single firm. Markets with an HHI greater than 1,800 are considered highly concentrated by the recently issued Merger Guidelines, U.S. Department of Justice ("DOJ") and the Federal Trade Commission ("FTC"), Issued December 18, 2023 (hereafter "2023 Merger Guidelines") at https://www.ftc.gov/system/files/ftc_gov/pdf/2023_merger_guidelines_final_12.18.2023.pdf.

- WPA market concentrations for WPA hospital discharges decreased since 2013. Concentration levels across all potential defined markets remain high and well above the HHI level of 1,800 considered to be concentrated.

III. Analysis of the But-For World

A. The Hypothetical But-For World

Currently, Highmark/AHN is subject to the Competitive Conditions, i.e., Highmark/AHN may not engage in certain contracting practices that have the potential to result in competitive harm. Moreover, Highmark Inc. provides assurance to the marketplace and rivals of Highmark/AHN's compliance with conditions such as the firewall policy and exchange of competitively sensitive information in annual public filings. In this analysis, we set up the hypothetical but-for world in which the Competitive Conditions no longer constrain Highmark and AHN. We examine the likely ability and incentive for Highmark and AHN to engage in these potentially exclusionary practices, including the exchange of competitively sensitive information, given the current market structure and other factors relevant to market dynamics. We also examine the ability and incentive for Highmark and AHN to engage in tacit coordination with its current WPA rivals, particularly UPMC, including to diminish rivalry or to attempt to foreclose other rivals that may seek to enter or increase their market presence in the WPA. This hypothetical or but-for analysis is a mainstay of antitrust analysis in assessing the likelihood of anticompetitive effects, including from vertical affiliation and exclusionary conduct.[8]

Our application of this analysis is by nature prospective in the context of a but-for analysis. We cannot predict with certainty whether Highmark/AHN would in fact engage in these currently prohibited practices post-rescission. As is common in vertical affiliations reviewed for potential anticompetitive harm, we can only examine whether the ability and incentives to engage in such practices exist, and to determine if Highmark/AHN were to engage in these practices, would it result in anticompetitive harm to its rivals and WPA healthcare consumers.

B. Analysis of Market Structure and Market Power

By the nature of large, fixed costs, capital requirements and economies of scale, healthcare insurance and delivery markets tend to be concentrated. The structure of the market is a critical factor in assessing market power, market conditions, the potential to exercise market power, and the likelihood of anticompetitive harm if Highmark/AHN were

[8] For a discussion defining the but-for world, see https://www.competitioneconomics.com/wp-content/uploads/2016/11/Hastings-and-Williams-What-is-a-but-for-world.pdf.

to engage in the 2013 Order's prohibited conduct post-rescission.

In this Report, we re-examine market shares, volatility of ranking of market leaders, number of competitors, concentration, trend in concentration in the industry and ease of entry and exit into the market.[9]

1. Healthcare Insurance Markets

a) Market structure at the time of the 2013 Order

At the time of the 2013 Order, the WPA healthcare commercial insurance market consisted of Highmark with an approximate 60% share, and others including, UPMC, Aetna, HealthAmerica, UnitedHealthcare, Cigna, and, in some areas of the WPA, Geisinger (Table 1). The 2013 Report determined that Highmark's share of the WPA commercial healthcare insurance market remained around the 60% level during the preceding five years.

Table 1

WPA Commercial Insurance Market Shares 2011/2012				
	Commerically Insured			
Insurer	All	Group	Direct	Medicare Advantage
Highmark	65	65	74	55.5
UPMC	8	8	6	24.8
Aetna (HealthAmerica)	8	8	5	11.7
Geisinger	2	2	2	1.4
UnitedHealthcare	4	4	4	3.3
Cigna				--
Other	13	13	9	3.3
Compass Lexecon 2013 Report - Tables 4, 5, Appendix II 3				

Share data for 2011/2012 indicates that for overall commercial plan products 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. Several much smaller entities shared the remaining 13%.

These shares, however, varied by type of commercial customer. The 2013 Report estimated Highmark's share among group and direct plans to be in the mid-60s and mid-70s. In the WPA Medicare Advantage insurance market, Highmark's share at the time of the study was approximately 55.5%. UPMC's share was approximately 24.8%,

[9] These are the same factors identified in the assessment of the Highmark affiliation transaction in 2013.

HealthAmerica at 8.7%, United at 3.3%, Aetna at 3.0% and all others collectively totalled 4.7%.

a) Present market structure

Healthcare insurance market shares have changed significantly since the 2013 Order took effect. Table 2 present more recent data on WPA Commercial Group member shares.[10]

Table 2

WPA Commercial Insurance Most Recent Market Shares				
	Commercial Group 2023**		ACA*	
Insurer	WPA Group	Allegheny Cty	2017	2020
Highmark	38	35	9.1	13.1
UPMC	24	32	90.3	85.2
Aetna	12	10		
UnitedHealthcare	7	7		
Anthem	5	5		
Cigna	6	6		
Other	8	5	0.6	1.7
*Compass Lexecon 2022 Report - Table 2				
**Capps Submission. Some shares were imputed from graphs. - Figure 2				

Presently, Highmark remains the market leader in WPA Group member enrollment with a share of 38%, much less than its 60% share at the time of the 2013 Order. UPMC has gained significant share up to three times from its share in 2011/2012. Aetna also has gained share, although its share remains only half that of UPMC and less than a third of Highmark's enrolled group membership. Within Allegheny County, Highmark and UPMC shares are similar and three times that of their closest rival, Aetna. For purposes of our analysis, Allegheny County is an important geographic area of interest since that is the

[10] We rely on share data provided by Cory S. Capps, PhD for 2023 as these data are the most recent information available to us. Dr. Capps provides share data only, not number of members, for commercial group and Medicare Advantage. He does not provide overall membership shares or number of members for all commercial products, such as Medigap, ACA, or individual plans, or for managed Medicaid. In addition, Dr. Capps did not provide the underlying data that would allow us independently to verify his reported shares. PID Hearing, Supplemental Comments of Cory S. Capps, PhD, Bates White Economic Consulting, Washington, DC, May 22, 2024 (hereafter "Capps May 2024"); and PID Hearing, Supplemental Comments of Cory S. Capps, PhD, Bates White Economic Consulting, Washington, DC, April 24, 2024 (hereafter Capps April 2024).

primary area in which AHN operates.[11]

Highmark and UPMC have dominated the WPA ACA exchange market, and currently, together they account for over 98% of the market leaving less than a 2% share participation by other rivals.[12] However, the path from its introduction in WPA to the present has been volatile. In the first two years of 2014 and 2015, 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 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. By 2017, UPMC had overtaken Highmark in terms of members as Highmark pulled further out of the exchanges and UPMC pushed further into this market segment. After reworking its ACA product offerings, Highmark's share of ACA enrollees began to increase with Highmark achieving a double-digit share by 2020.

Commercial sales of Medicare Advantage products in the WPA also reflects share changes since 2011/2012. Highmark's share in 2017 was 39% compared with its 55.5% share in 2011/2012. Its share has since fallen to 25% in 2023 and 2024 (Table 3). UPMC has been a beneficiary of this share change. Its share has increased to 33% as of 2017 compared with 24.8% in 2011/2012, although it has declined each year thereafter. Aetna has displaced Highmark as the second largest Medicare Advantage insurer in the WPA. By 2023, Aetna had a four-percentage point lead over Highmark and increased its advantage by another two percentage points for the 2024 enrollment period. WPA Medicare Advantage is effectively divided among UPMC, Highmark, and Aetna. The combined share of all other participants is 13%, about half that of Highmark.[13]

[11] Another area of interest would be Erie, PA where AHN operates Saint Vincent hospital in competition with UPMC's health network. We do not have market share information on this discrete area.

[12] The ACA exchanges were not a factor in 2013. Pennsylvania introduced the ACA insurance exchanges in January 2014 and 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.

[13] Dr. Capps also provided share data for WPA Medicare Advantage enrollment shares, which are similar to the shares reported in Table 3.

Table 3

Medicare Advantage Share by Insurer in WPA

Insurer	Share 2017	Share 2023	Share 2024
Total	100%	100%	100%
UPMC	33%	32%	31%
Aetna	19%	29%	31%
Highmark	39%	25%	25%
United	3%	6%	6%
Humana	2%	4%	3%
Geisinger	2%	2%	1%
UMWA Health & Retirement	1%	1%	1%
Centene	0%	1%	1%
Other insurers	1%	1%	1%

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.

Aetna acquired Coventry Health Care, Inc., owner of HealthAmerica on May 7, 2013.

Source: Centers for Medicare and Medicaid Services (CMS), data as of June each year.

As to overall covered lives, including areas outside of Pennsylvania, Highmark Health reported 5.3 million Highmark enrolled members in 2023 compared with UPMC reporting it has 1.457 million members (Table 4). According to Standard & Poor, at yearend 2023, Pennsylvania enrollment represented 73% (3.9 million) of Highmark's total membership. We note that Highmark's commercial membership includes its Administrative Services Only ("ASO") contracts, i.e., members insured by others but claims administered by Highmark.[14] We do not have data which would enable us to calculate Highmark's commercial members in Pennsylvania excluding ASO covered lives.

[14] Highmark has more than 400,000 Medicaid members in Pennsylvania. https://www.highmark.com/wholecare/about-highmark-wholecare. To obtain a rough estimate of Highmark's total commercial enrollment in just Pennsylvania, we assume Highmark's Medicaid enrollment is 400,000 and subtract this estimate from Highmark's estimated total membership enrollment in Pennsylvania. This results in approximately 3.5 million commercial (non-Medicaid) members in Pennsylvania. Another source, which does not include Highmark's ASO members, NAIC Annual Statements filed with Department reports total Pennsylvania enrolled members for Highmark in 2021 at 1.45 million. This number includes both commercial and non-commercial insureds, i.e., Individual, Group, Title XVIII Medicare, Medicare Supplement, Federal Employees Health Benefit ("FEHB"), and Managed Medicaid.

Table 4

Highmark Insurance Enrollment by Type

	(000s)		
	2023 Actuals	2022 Actuals	Change
Commercial	3,871	3,817	54
Small Group	194	203	-9
Individual	210	173	37
Senior	482	469	13
Medicaid	560	639	-79
Total	5,318	5,301	17

Source: Highmark Health FY2023 Financial Performance, 4/3/2024

Note: Includes Pennsylvania, West Virginia, Delaware, New York

UPMC Insurance Enrollment by Type, Yearend

	(000s)		
	2023 Actuals	2022 Actuals	Change
Commercial	563	583	-20
Small Group			
Individual			
Medicare	211	201	10
Medicaid	683	745	-62
Total	1,457	1,529	-72

Source: UPMC Financials CY2023

Note: Includes Southwest, Northwest, North Central, Central, and West Central Pennsylvania, two counties in WNY, and Allegheny and Garret counties in MD and nearly counties in WVA.

b) Concentration levels at the time of the 2013 Order and most recently

Both healthcare insurance and provider markets in the United States generally are highly concentrated. In large part, this reflects the economies in scale and scope in providing these services. In addition, there has been significant consolidation in both healthcare insurance and provider markets across the United States.

The most recent Merger Guidelines issued in 2023 by the DOJ and FTC indicate threshold levels for concentrated markets and a presumption of anticompetitive effects if the post-merger HHI is greater than 1,800 HHI level and the change in HHI is greater than 100. The guidelines further indicate the conditions in which a merger's effect may be to eliminate substantial competition and increase coordination in such concentrated markets.[15]

Economists and antitrust practitioners, as well as the antitrust enforcers, generally recognize that markets with HHIs above 1,800 are considered concentrated. The higher the concentration, all else equal, the greater the concern that large firms within the market can exercise market power to substantially lessen competition.

High concentrations in healthcare insurance exists across Pennsylvania, and particularly, in the WPA. Although concentrations have decreased somewhat since 2011/2012, concentrations remain at levels that are considered to be highly concentrated by antitrust economists and practitioners.

Table 5 presents HHI concentrations for various insurer groups where information was available for these calculations. As the table shows, these insurance markets were highly concentrated at the time of the 2013 Highmark affiliation with WPAHS. Since then, these concentrations have decreased, but the most recent 2023 and 2024 data indicate these markets remain highly concentrated. These markets remain susceptible to an exercise of

[15] See 2023 Merger Guidelines.

market power and substantial lessening of competition.

Table 5

HHI Healthcare Insurance Concentrations						
Metric	2011/2012	2017	2020	2021	2023	2024
WPA Commercial	4,397				2,314	
WPA Group Commercial	4,397				2,306	
WPA Direct Commercial	5,573					
WPA Medicare Advantage	3,849	3,012			2,546	2,589
WPA ACA		8,237	7,434			
Allegheny County Commercial					2,472	
Top Six WPA Insurers--All PA Healthcare		2,912		2,961		
Top Six WPA Insurers--All PA Commercial		3,596		4,294		

SourceL Compass Lexecon 2013 and 2017 Report. CMS MA.; 2023/2024 concentration data calculated from data provided by Dr. Capps.

c) Ease of entry

Ease of entry is a critical factor in determining whether a firm has the ability to exercise market power, such as engaging in exclusionary conduct to effect rival foreclosure or raise rivals' costs to reduce competition. Economic theory recognizes that a monopolist or collusive group of firms would be unable to increase prices above competitive levels for a sustained period if entry into a market is achievable.[16]

Barriers to entry exist generally in healthcare insurance markets. Recognized barriers include state regulatory requirements, the cost of developing a viable provider network (i.e., network effects), the development of sufficient business to permit the spreading of risk, economies of scale, regulatory requirements, and capital requirements.[17]

For those healthcare insurers currently licensed to operate in Pennsylvania, state regulation of insurers, economies of scale, other regulatory requirements, capital requirements and development of sufficient business to spread risk are barriers that established insurers operating elsewhere in Pennsylvania would have already overcome. The primary entry requirement relevant to entering the WPA markets is the ability and cost of creating a viable network of providers that will attract members away from current rival insurers, such as Highmark and UPMC. A new entrant would need to negotiate in-network insurer-provider contracts with AHN and/or UPMC in order to potentially offer a viable health plan in the WPA. Moreover, these insurer-provider contracts would need to

[16] See Market Power Handbook, Competition Law and Economic Foundations, ABA Section of Antitrust Law, 2005 at Chapter VII.

[17] "Competition in health insurance: A comprehensive study of U.S. Markets", The American Medical Association, 2023 Update at https://www.ama-assn.org/system/files/competition-health-insurance-us-markets.pdf. The significance of entry barriers in insurance or healthcare delivery is fact specific.

be on terms, i.e., reimbursement rates or network configuration, which would allow the new insurer entrant to offer a health plan at prices (i.e., coverage, premiums, out-of-pocket costs) and services sufficiently attractive to cause enrollees in other competing plans to switch.

Effectively, any potential new WPA entrant's two primary rivals, Highmark and UPMC, control the two health systems either of which or both are necessary to obtain insurer-provider contracts needed to create a viable competitive insurer network in WPA. For this reason, markets dominated by two vertical affiliated firms are more likely to increase an entrant's barrier to entry.[18] We discuss the economics and factors affecting the ability and incentive to foreclose entry of new rivals later in this report.[19]

2. Healthcare Delivery Markets

a) Market structure at the time of the 2013 Order

Similar to health insurance, hospital provider markets tend to be highly concentrated. The WPA markets are no exception. Table 6 presents hospital inpatient admissions in WPA at the time of Highmark's affiliation with WPAHS, Jefferson Regional, and Saint Vincent hospitals and the 2013 Order. At that time, UPMC had a 39% share of the WPA hospital admissions and AHN (formerly WPAHS, Jefferson Regional, and Saint Vincent hospitals) had 19.1% of WPA admissions. We note that prior to the affiliation, WPAHS, Jefferson

[18] This may be more apparent in healthcare markets. As described by Dr. Capps, "[a]n IDN that includes the leading provider system in a geography could have an incentive to prevent a rival insurer from entering and could make strategic use of its leading system to make entry more difficult. The would-be rival insurer may then need to enter at both the provider and insurer levels of the supply chain. That would be costlier and riskier, and therefore less likely to occur, all else equal. Hospital-physician integration without an insurance arm could raise similar concerns, but likely to a lesser extent." See Cory Capps, Nitin Dua, Tetyana Shvydko & Zenon Zabinski, "Stacking the Blocks: Vertical Integration and Antitrust in the Healthcare Industry," CPI Antitrust Chronicle, May 2021.

[19] Dr. Capps opines that "AHN is not likely to be the primary driver of challenges Medicare Advantage insurers may have faced in attempting to enter WPA." (Capps May 2024). We disagree with this conclusion for the very reason that Dr. Capps' pricing analysis shows AHN's prices are below that of UPMC, which is relevant to the issue of barriers to entry and expansion by rivals in negotiating favorable provider contracts at point of entry. AHN's lower prices make contracting with AHN a likely first target for new or expanding Medicare Advantage rivals. As we discuss later in this report, the Competitive Conditions prohibit Highmark from engaging in exclusionary conduct that would facilitate foreclosing new entry or diminish the ability of incumbents effectively to expand. If these Competitive Conditions were rescinded, and Highmark/AHN were to use exclusionary contracting to foreclose new entrants, this would likely result in anticompetitive harm to competition and consumers residing in the WPA.

Regional and Saint Vincent were independent (i.e., not commonly controlled).[20]

Table 6

Hospital Inpatient Admissions in WPA April 2010-March 2011		
Hospitals/Systems	Admissons	Share
Total	**498,400**	100.0%
UPMC	194,290	39.0%
AHN	95,211	19.1%
Heritage Valley	26,436	5.3%
Washington Health	15,801	3.2%
Excela	33,687	6.8%
Butler Memorial Hospital	13,038	2.6%
St. Clair Memorial Hospital	15,559	3.1%
Other	104,378	20.9%
Source: Compass Lexecon 2013 Report - Appendix II 2		

Within WPAHS's primary draw area for patients, UPMC share was over 45%. The 2013 Report found UPMC's 39% share of WPA to be significant and consistent with that of a predominant firm.

b) Present Market structure

Since the 2013 Order, UPMC has acquired a large number of hospitals and health systems both within the WPA and beyond. This has increased its share of inpatient discharges (similar to admissions). As of 2022, the latest publicly available data from 2022, UPMC's share of WPA inpatient discharges was 40.6%. AHN's share increased slightly to 19.8% (Table 7).

These shares are based on all types of WPA inpatient discharges regardless of payer type, i.e., commercial, government (e.g., Medicare, Medicaid), self-pay, and charity care. Within this defined market, UPMC's share is 40.6% and AHN's share is 19.8%.

[20] At the time of the 2013 Report, Jefferson Regional's admissions were not available and were not included in calculating WPA share of admissions. Saint Vincent's share was 3.4% and WPAHS' share was 15.7%.

Table 7

2022 Hospital Capacity and Utilization for WPA Hospitals (29 County WPA)						
System	Hospital Count	Discharges	Share of Discharges	Patient Care Days	Share of Patient Days	Occupancy Rate
Total	**63**	**377,410**	**100.0%**	**2,302,316**	**100.0%**	**61.7%**
UPMC	**17**	**153,138**	**40.6%**	**1,066,585**	**46.3%**	**71.6%**
AHN	**10**	**74,708**	**19.8%**	**440,780**	**19.1%**	**66.1%**
Excela	**3**	**19,484**	**5.2%**	**97,703**	**4.2%**	**56.8%**
Duke LifePoint Healthcare	**4**	**16,706**	**4.4%**	**93,760**	**4.1%**	**41.7%**
Heritage Valley	**3**	**16,233**	**4.3%**	**83,099**	**3.6%**	**69.2%**
Penn Highlands	**7**	**18,120**	**4.8%**	**110,390**	**4.8%**	**58.9%**
Washington Health System	**2**	**9,201**	**2.4%**	**41,189**	**1.8%**	**50.0%**
Meadville Medial Center	**2**	**5,866**	**1.6%**	**29,927**	**1.3%**	**36.4%**
Steward Health Care System	**1**	**5,300**	**1.4%**	**29,350**	**1.3%**	**34.4%**
LECOM	**2**	**3,712**	**1.0%**	**32,131**	**1.4%**	**44.4%**
Upper Allegheny Health System	**1**	**894**	**0.2%**	**5,639**	**0.2%**	**55.2%**
Other	**11**	**54,048**	**14.3%**	**271,763**	**11.8%**	**50.6%**

Source: PA Department of Health Hospital Report 2022
Note: Occupation rate was calculated using Total Length of Stay divided by Bed Days Available

Excela has the next highest share at 5.2%, which is about a fourth of the share of AHN and about an eighth of the share of UPMC. Although both UPMC and AHN's shares changed some, UPMC remains the predominant healthcare provider in the WPA with AHN a viable second competitor.

UPMC's shares have increased, largely due to its acquisition of WPA community hospitals and opening of new facilities. Smaller community hospitals, the viability of which was a concern in 2013, have either closed, been acquired by UPMC, or seen their patient flows decline. AHN's share has increased due to opening of new facilities and improved quality of care and expansion of offered services.

UPMC's share of patient days is significantly above its share of discharges, indicating that its patients on average stay longer in its hospitals, likely due to greater complexity of services offered.[21] For AHN, its share of patient days is more similar to its share of discharges. UPMC's share of patient days is 46.3% compared with 19.1% for AHN. UPMC's 2022 occupancy rate was 71.6% compared with AHN's occupancy rate of 66.1%. Occupancy rate is a measure of how well bed resources are being used. An occupancy rate of 80-85% is generally considered to be full capacity.

Dr. Capps also provided selected non-public share data for 2023 showing UPMC's share of all-payor discharges at 42%, AHN's share at 19%, and all other hospitals combined share at 39%. These shares are similar to those reported in Table 7 above. We note that

[21] Patient care days is a metric of overall utilization for a hospital. It is calculated as the number of admissions multiplied by the number of days the patient was an inpatient. Share of patient days is calculated as the number of patient days divided by the product of number of beds multiplied by 365 days.

UPMC recently completed its acquisition of Washington Health System. Assuming similar shares post-acquisition, this would increase UPMC's share to 43.0%.[22] Dr. Capps also submitted information for WPA Commercial Inpatient Discharges for 2023 reporting UPMC's share at 47% and AHN's share at 21%, and all other hospitals with a combined share of 32%. He also provided data for Pittsburgh commercial discharges reporting UPMC's share at 44%, AHN's share at 28%, and all other hospitals with a combined share of 28%. Dr. Capps did not provide 2023 data on occupancy rates, patient days or share of patient days, which are important metrics of overall capacity and utilization.

c) Concentration levels and trend

WPA market concentrations for WPA hospital discharges have decreased since 2013 (Table 8). Concentration levels across all potential defined markets remain high and well above the 1,800-level considered to be concentrated, which is not disputed by Highmark or its economic expert Dr. Capps.

Table 8

Healthcare Inpatient Provider Market Concentrations

Healthcare Provider Shares	COMPASS LEXECON 2011/12 HHI	Capps PID Submissions 2013 HHI	Compass Lexecon 2022 HHI	Capps PID Submissions 2023 HHI
WPA Commercial inpatient discharges	2,353	2,495		2,602
Commercial discharges WPAHS 90% Draw Area	2,557			
All payor inpatient discharges WPAHS 90% Draw Area	2,619			
WPA All Payor Discharges		2,000	2,156	2,232
Pittsburgh Commercial Discharges		2,979		2,871

Source:
Compass Lexecon 2013 and 2017 Report. Updated data from PA Department of Health Hospital Report 2022.
Capps April 24, 2024 report. Some numbers are imputed from charts since Capps did not include Highmark or AHN shares or compute HHIs. Where available, we used updated HHIs and shares from Capps May report.
Capps May 22, 2024 report.

d) Ease of entry

Health systems, especially hospitals, face significant barriers to entry in Pennsylvania and elsewhere. These barriers include capital intensity, obtaining licensures and credentialing, and compliance with complex sets of other regulations. For non-hospital

[22] We rely on Dr. Capps' reported shares in this analysis. He did not provide the underlying non-publicly available data necessary for us independently to verify these results. See Capps Submission April 24, 2024 at Figure 8 for commercially-insured discharges and Figure 9 for all-payor discharges. These data are from PHC4.

providers, barriers to entry also may include licensure and scope-of-practice requirements. For all types of healthcare providers, obtaining credentialing from both non-government and government payors often poses a barrier to entry.

Excess capacity in a market may also be a barrier to new entry depending on the market. The 2013 Report found that the Pittsburgh Metropolitan Statistical Area (MSA) had among the highest rates of beds per population for MSAs with more than two million residents. The report also determined that WPA also had a high number of beds per thousand. Full capacity generally is defined as 80-85% occupancy rates. In 2022, overall occupancy rate in the WPA was 61.7% (Table 7). UPMC had the highest occupancy at 71.6%, followed by AHN at 66.1% and Excela at 56.1%. All other hospitals' occupancy rates were below 50%.

Based on the characteristics of hospital entry barriers described above, we conclude that barriers to new entry in the WPA hospital/health system market likely are significant. Similar to our findings with insurance barriers to entry, we find that a potential new entrant in the hospital provider space would need to obtain in-network insurer-provider contracts to capture the necessary patient volumes to make the new entrant viable. The new entrant's two primary hospital rivals are vertically affiliated with the largest healthcare insurers. For this reason, a market dominated by two vertical affiliated firms may increase an entrant's barrier to entry. We discuss the ability and incentive of foreclosing entry of new rivals later in this report.

C. Economic assessment of the ability and incentive to foreclose rivals or raise rivals' costs

Our but-for analysis is by nature prospective. We cannot predict with certainty whether Highmark/AHN will in fact engage in these currently prohibited practices post-rescission. As is common in vertical affiliations reviewed for potential anticompetitive harm, we can only examine whether the ability and incentives to engage in such practices exist, and to determine if Highmark/AHN were to engage in these practices, whether it would likely result in anticompetitive harm to its rivals and to consumers of health insurance and healthcare services. Elimination of the Competitive Conditions also would create significant uncertainty for rivals, e.g., whether Highmark and AHN will share competitively sensitive information on rival insurers or rival hospitals innovative plans, rates, or terms, which would have a dampening effect on competition.

a) Ability to foreclose or raise rivals' costs

Economists, antitrust practitioners, and enforcers have developed certain factors that can inform this inquiry into a vertical affiliation's ability and incentives to foreclose rivals. Market structure and the presence of market power are critical factors in assessing whether a vertically affiliated firm has the ability and incentive to engage in exclusionary

contracting and other practices to foreclose, either partially or fully, its rivals or potential rivals, or to use such practices to raise a rival's cost to protect its market position and profits. [23] Our analysis is set forth below.

The potentially foreclosed product (hospital/provider services) is an important input for the downstream (insurer) product. Insurer-provider contracting consists of three stages: First, hospitals/providers and insurers negotiate over network inclusion and reimbursement rates. Second, insurers set premiums and other product attributes that will entice consumers to enroll as members in the insurer's health plan. Third, hospitals/providers compete to draw patients to their facility and physicians, considering, among other factors, the network status of each hospital//provider and out-of-pocket costs to the patient.[24] Health insurers must create networks of providers to offer an insurance plan.

Likewise, hospital/providers must negotiate to be included in a health insurer's health plan. Such contracts are a source of expected volume for the hospital/provider. In addition, the contracts set forth the reimbursement rates and other terms that hospital/providers will receive for providing healthcare services to the insurer's members. In this context, health plan in-network status is a critical source of potential buyers of a hospital's/provider's services.[25]

Identification of downstream (insurer) rivals likely targeted for a foreclosure strategy of either raising price, restricting supply, or degrading quality. Broadly

[23] This is of necessity a fact-specific inquiry. In assessing the ability and incentive for a vertically affiliated firm to engage in foreclosure strategy through exclusionary contracting and other practices, we rely on factors identified as important for this type of inquiry. See, 2023 Merger Guidelines and Salop, S., and D. Culley (2016), "Revising the US Vertical Merger Guidelines: Policy Issues and an Interim Guide for Practitioners", Journal of Antitrust Enforcement, Vol. 4/1, pp. 1-41, https://doi.org/10.1093/jaenfo/jnv033. See also European Commission, Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2008/C 265/07). For discussion with regard to healthcare and factors or conditions that raise concerns see, ABA Antitrust Health Care Handbook (ABA, Fifth Edition) at 158-164, and 227-229 on vertical mergers. See also https://www.reuters.com/practical-law-the-journal/transactional/antitrust-analysis-vertical-health-care-mergers-2024-07-01/.

[24] Accounting for Complementarities in Hospital Mergers: Is a Substitute Needed for Current Approaches? Kathleen F. Easterbrook, Gautam Gowrisankaran, Dina Older Aguilar, Yufei Wu, 82 Antitrust L.J. Issue no. 2 (2019).

[25] The economics and healthcare literature includes assessment of negotiations and terms in different network configuration; see Ho, Kate, and Robin S. Lee. 2019. "Equilibrium Provider Networks: Bargaining and Exclusion in Health Care Markets." American Economic Review, 109 (2): 473–522.DOI: 10.1257/aer.20171288.

speaking, any current or potential insurer licensed to offer health insurance in Pennsylvania is a potential target for foreclosure strategy in the hypothetical but-for analysis. Potential targets might include an insurer that Highmark considers a potential maverick or disruptor to the market. [26] New entrants, such as Independence Blue Cross and Capital Blue, may fit this description as these potential competitors already are highly successful and have a large presence in other parts of Pennsylvania.

Degree of market power in the upstream (hospital/provider services) and downstream (insurer) market.[27] As the analysis above indicates, Highmark maintains significant market share in each of the primary types of healthcare insurance in the WPA—commercial group, individual, ACA, and Medicare Advantage. Although we recognize that Highmark's share has declined in these markets, it cannot be rejected that Highmark still maintains market power through its control over a critical upstream input (hospital/provider services) and as one or two vertically integrated insurer and provider entities in the WPA.[28]

In healthcare delivery, although AHN's share is only 19.8% compared with UPMC's share of 40.6%, AHN remains the only viable option to UPMC in many of WPA's local healthcare areas.

Availability of sufficient economic alternatives in the downstream (insurer) market for the upstream (hospital/provider services) rival to sell their output. Upstream hospital/provider rivals of AHN consist mainly of UPMC with some alternative community hospital providers in the WPA's localized geographic areas. UPMC has less need relative to non-vertically integrated rivals to enter into contracts for its provider services with other insurers because its own insurance arm provides significant member volumes to its healthcare providers. Community hospital rivals can negotiate insurer-provider contracts with UPMC and several national insurers—Aetna, UnitedHealthcare, and Cigna—and possibly with some smaller insurers with less material shares of the market.

Mechanisms of foreclosure. One available mechanism of full foreclosure is refusal to deal, i.e., the provider simply refuses to negotiate or enter into a contract with an insurer-

[26] The 2023 Merger Guidelines cites the elimination of a maverick as a primary factor in materially increasing the risk of coordination. See 2023 Merger Guidelines at Section 2.3.A

[27] Hospital/providers are the upstream entity offering health care services to end users. Insurers are downstream entities that are essentially collecting and creating a bundled network of upstream provider to offer to its customers as in-network for a health plan. End users are the consumers buying health plans which ultimately provide them access to the network of providers offered through an insurer's health plan.

[28] Recall in the 2013 Report, Compass Lexecon determined its economic analysis would not allow it to reject Highmark having market power in the WPA commercial healthcare insurer markets.

provider rival of its downstream (insurer) affiliated entity.[29] Likewise, insurers are under no obligation to negotiate or include any particular hospital/provider in their network health plans and could potentially limit or foreclose access to the market by a hospital unwilling to join a health plan's network.[30]

Short of simply not entering into in-network contracts, a vertically affiliated firm could use exclusionary contracting and other practices to accomplish the same objective. Raising rivals' costs through foreclosure may be accomplished through boycotts, tying, bundling products and services, most favored nation provisions ("MFNs"), or other practices including exchange of competitively sensitive information across the vertically affiliated firm, that may impede rivals' ability to compete.[31] The ability to make effective use of these mechanisms is enhanced in highly concentrated markets where another rival is also vertically affiliated.

In addition, two vertically affiliated firms competing as the dominant players in both the upstream and downstream markets may have the ability to raise barriers to entry by making it difficult for a firm to compete to enter the market at just one level along the vertical chain. Such outcomes will depend on the incentives and ability of the two vertically affiliated firms to engage in competitive versus coordinated conduct, and their incentive and ability to profit from deviations from any coordinated activity.[32]

b) Incentive to foreclose rivals or raise rivals' costs

The incentive to foreclose centers around eliminating competition such that the vertically

[29] In the U.S., most economists and antitrust practitioners reject the concept of "any willing buyer" or "any willing seller", which would require a health insurer to contract with any hospital/provider willing to offer its services to a health plan. Nonetheless, there are 35 states, but not Pennsylvania, which have some form of "Any Willing Provider" statutes. These include Alabama, Arkansas, Colorado, Connecticut, Delaware, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Massachusetts, Mississippi, Missouri, Montana, Nebraska, New Jersey, North Carolina, North Dakota, South Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, and Wyoming. Most of these statutes are limited to pharmacies and do not apply to insurer-hospital contracting. See https://healthcare-wiki.com/2023/06/29/35-states-with-any-willing-provider-laws/, accessed June 26, 2024.

[30] This does not consider the impact of public pressure, particularly on local government officials, to take measures to force or incentivize insurers and providers to negotiate in-network contracts, particularly for hospital/providers considered to be "must-have" by consumers.

[31] See, e.g., Managed Care Marketplaces: Growing Drivers of Payer-Provider Vertical Integration, Brian J. Miller and George L. Wolfe, The Antitrust Source, April 2017.

[32] We note that Dr. Capps addressed the prospect of coordination versus competition in his submissions. See Capps May 2024 Report.

affiliated firm can maintain or enhance its market power and achieve greater profitability. Several factors provide insight into the strength of these incentives. These considerations coalesce around the key inquiry of whether it would be profitable for the vertically affiliated firm to foreclose a rival or raise a rival's costs.[33] The vertically affiliated firm faces a trade-off between the profit lost in the upstream (provider) market due to a reduction of volume to actual or potential downstream insurer rivals and the profit gained in the long term from expanding the volume of insurer members downstream or being able to raise premiums (or out-of-pocket costs and deductibles) to consumers. This calculation depends on several factors:[34]

- The level of profits and margins of the combined vertically affiliated firms from its upstream (provider) and downstream (insurer) operations. The higher the downstream (insurer) margins, the higher the profit gain from increasing market share in the downstream (insurer) market at the expense of foreclosed rivals. Conversely, the lower the upstream (provider) margins, the lower the lost patient volumes from the foreclosed rival.
- The demand for the insurer's health plans that is likely to be diverted away from foreclosed insurer rivals to the vertically affiliated firm's downstream (insurer) business. The degree of diversion is closely related to the closeness of substitution between the targeted rival and the vertically affiliated firm. The vertically affiliated firm's incentive to target a rival depends on how strongly it competes with them. The closer the two firms compete in terms of product and service offerings the greater the likelihood that the vertically affiliated firm would benefit from limiting market access to a potential or existing targeted rival.[35]
- The profits the downstream (insurer) business of the vertically affiliated entity can be expected to gain from higher insurer prices as a result of the insurer rivals'

[33] The theoretical foundation for this follows: "Downstream foreclosure decreases the profit of the upstream unit of the merged entity, due to the lost sales for refusing to supply to the downstream competitor, but increases the profit of the downstream unit, which captures part of the downstream competitor's sales. Likewise, facilitating downstream collusion decreases the profit of the upstream unit of the merged entity, due to the lost sales associated with lower consumer demand, but increases the profit of the downstream unit, which is able to profitably co-ordinate a higher price margin with the downstream competitor. The same reasoning applies to upstream foreclosure and upstream collusion." OECD, Vertical Mergers in Technology, Media, and Telecom Sector, Background Note by the Secretariat, June 7, 2019 at 15, at https://one.oecd.org/document/DAF/COMP(2019)5/en/pdf.

[34] See European Commission, Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2008/C 265/07).

[35] See 2023 Merger Guidelines, § Section 2.3.A 1.

foreclosure. The gain may not need to be an increase but may reflect a maintenance of the price level that would be foregone if new entry were to occur. The higher the market share of the vertically affiliated insurer entity, the greater the base of sales on which to benefit from increased (or maintenance of) the insurer's profit margin.

Another relevant consideration is the likely response of other competitors in the market. If the vertically affiliated firm raises the price of the downstream hospital/provider input of the rival insurer, or refuses to deal with the rival insurer, the response of other alternative hospital/providers will be critical to whether the vertically affiliated firm has the market power to foreclose the rival insurer. Effectively, the other competitors must also have the incentive, either unilaterally or in coordination with the vertically affiliated insurer, to raise their hospital/provider prices in an effort to disadvantage or foreclose the rival. If other hospital/providers are willing to negotiate an insurer-provider contract with the new entrant sufficient to allow the entry into the marketplace, the efforts by the vertically affiliated firm will be thwarted. Moreover, the other insurers in the market must also have the unilateral or coordinated incentive to increase or maintain insurer prices at a level higher than would occur if the targeted rival entered the market.

The necessary alignment of incentives within the market becomes more apparent where the only other significant market competitor is also a vertically affiliated firm which has a similar incentive to block new entry or raise rivals' cost to protect its own market position and profitability.

c) Application of these Factors to Rescinding the Competitive Conditions

We conduct our analysis in the context of the but-for world, which assumes that Highmark/AHN is no longer subject to the Competitive Conditions of the 2013 Order. Our analysis consists of two parts. First, we apply the criteria above to determine whether Highmark/AHN has the ability and incentive to engage in foreclosing rivals or raising both incumbent and new rivals' cost strategies to increase its own overall firm profitability and market presence. Second, based on a determination that Highmark/AHN has the ability and incentive to engage in exclusionary conduct, we assess the likely competitive effects of Highmark/AHN's actions.

We cannot reject the proposition that the vertically affiliated Highmark/AHN has the ability to foreclose rivals or raise rivals' costs in the but-for world. Hospital/provider services are a critical input required by any new entrant into the WPA healthcare insurance markets. Effectively, Highmark through AHN, and UPMC control access to over 81% of this critical input in the WPA. There are not sufficient alternatives in the WPA that would enable a new insurer entrant to create a viable in-network plan without AHN, UPMC or both.

Importantly, AHN is the lower cost provider of these inputs which makes access to AHN's provider services a likely first-step key input for a new rival insurer to create a viable in-network health plan. Alternatively, a new entrant could bypass AHN and enter into contracts with UPMC. However, it is our assessment that UPMC's incentives as a vertically affiliated firm likely mirror those of AHN in terms of the potential gains from dampening or limiting competition in this highly concentrated marketplace.

We do not attempt to predict which firms would be likely targets of a foreclosure or raising rival's cost strategy by Highmark/AHN in the but-for world. As discussed above, theory would suggest that potential targets would be those that would be seen as potential mavericks or disruptors to Highmark's ability to exercise market power and maintain or increase its market presence. This may include Capital Blue or Independence Blue Cross that have recently been released from some BCBSA restrictions that may have impeded their possible entry.[36] These firms have resources and the reputation to act as disruptors in the WPA if they were not impeded by Highmark (and UPMC) in creating viable in-network non-Blue commercial health plans.[37]

Other possible entrants may be smaller Medicare Advantage plans. Based on concerns raised by the Commissioner at the Department's public hearing on May 1, 2024, we understand that such plans may be facing difficulties in entering the WPA market. Highmark's market share of Medicare Advantage has declined in recent years, primarily due to the strength of Aetna which has replaced Highmark as the second leading Medicare Advantage insurer, so Highmark may have an incentive to impede such entry. It is unlikely, however, that Highmark would view these smaller entrants as disruptors that would challenge Highmark's market position. That said, Highmark may have an incentive

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[36] Blue Cross Blue Shield Association settlement. See Blue Cross Blue Shield Settlement Website, Second Blue Bids, at https://www.bcbssettlement.com/secondbluebid.

[37] We cannot predict whether or not Capital Blue or Independence Blue Cross will attempt to enter the WPA and compete with Highmark and UPMC. We note that Capital Blue filed comments on Highmark Health's Request for Modification raising concerns about vertically-affiliated IDNs and their market impact on competition and healthcare costs. Capital Blue stated its belief that the PID should consider "whether IDNs need more, not less regulatory oversight" citing the "the sheer size of these organizations and the leverage they hold in the payer/provider market." See Capital Blue submission to the PID at https://www.insurance.pa.gov/Companies/IndustryActivity/CorporateTransactionsofPublicInterest/Documents/Highmark-Modification-2023/CommentCapitalBlueCross-02-13-24.pdf. Independence Blue Cross ("IBX") also submitted comments to the PID noting its concerns with vertically affiliated IDNs and inappropriate transfers of competitively sensitive information without the Competitive Condition's firewall policy. See IBX submission at https://www.insurance.pa.gov/Companies/IndustryActivity/CorporateTransactionsofPublicInterest/Documents/Highmark-Modification-2023/CommentIBX-01-26-24.pdf.

to raise Aetna and other's costs for provider services by engaging in currently prohibited exclusionary contracting or limiting consumer choice initiatives to limit Aetna's success in the WPA.

With the constraints imposed by the Competitive Conditions prohibiting or restricting certain contracting practices ex ante, as well as the firewall condition that prevents the vertical flow of competitively sensitive information, the vertically-affiliated Highmark/AHN has few options to effect foreclosure other than outright refusal to deal with these potential new entrants. The use of MFNs, exclusive contracting, excessive long term fixed contracts, and exchange of competitively sensitive information are recognized mechanisms in healthcare that have the potential to disadvantage, impede new entry and expansion, and raise rival's costs, all of which may result in anticompetitive effects of raising prices above competitive levels, reduce quality and access to healthcare.

Using a standard vGUPPI analysis to evaluate incentives, we examine whether the combined Highmark and AHN have a profit incentive to use their vertical affiliation to raise rivals' costs.[38] We provide an updated analysis similar to the one used in the 2013 Report in Appendix 1, which indicates that a 10% increase in AHN's reimbursement rates to Highmark's national carrier rivals would result in a shift in membership volume to Highmark and ultimately result in an estimated increase in net profits for the combined Highmark/AHN.

The Competitive Conditions may influence competitive conduct in the WPA through other means. UPMC operates in the same highly concentrated WPA insurance and healthcare delivery markets as Highmark and AHN. Although we have not conducted a similar but-for analysis examining specific UPMC incentives to engage in such conduct, the similarity in vertical structure and market positions as Highmark/AHN increases the likelihood that UPMC also may benefit from limiting new competition or rival expansion in WPA. If so, and if UPMC were to act on such assumed incentives to diminish or foreclose other rivals' ability to compete, the Competitive Conditions' constraints on Highmark/AHN, would limit Highmark/AHN's ability to accommodate UPMC's conduct, including by also engaging in exclusionary conduct. In this construct, new rivals impeded by UPMC's unilateral conduct would be able to turn to Highmark/AHN, which would decrease the likelihood that such a UPMC foreclosure strategy would be successful. Without the Competitive Conditions, AHN would have greater ability to accommodate this UPMC foreclosure strategy if it were

[38] The 2013 Report's vGUPPI (vertical gross upward pricing pressure index) analysis found that "a plausible basis for the possibility that the affiliated entity would have an incentive to increase reimbursement rates at WPAHS (now AHN) for national insurers that differ from those of WPAHS as an independent hospital because of the internalization of profits at both WPAHS and Highmark. This conclusion, by itself, does not indicate whether the affiliated entity would engage in this behavior, and if it did, whether it would be anticompetitive." 2013 Report at 81, fn 178.

also to engage in exclusive contracting and other practices to keep rivals out or raise rivals' costs to diminish competition.

We conclude from the analyses above that but-for the 2013 Order's exclusionary contracting constraints and protections of consumer choice initiatives, the vertically affiliated Highmark/AHN has the ability and incentive necessary to engage in attempted foreclosure of rivals or to raise rivals' cost to maintain or enhance its overall firm market position and profitability. If Highmark/AHN were to engage in such exclusionary conduct in an effort to foreclose or raise rivals' costs, it is reasonably likely that it would result in anticompetitive harm by reducing competition and lead to higher prices and reduced services or quality of services provided relative to what would exist except for this conduct.

D. Misuse of competitively sensitive information as exclusionary conduct

The ability of a vertically affiliated firm to misuse competitively sensitive information as a mechanism of exclusionary conduct depends on whether, post-affiliation, the upstream (hospital/provider) entity has access to the downstream (insurer) rival's information that it would not have had if the affiliation had not occurred. Likewise, the same applies to whether, post-affiliation, the downstream (insurer) entity has access to the upstream (hospital/provider) rivals' information that it would not have had if the affiliation had not occurred. In addition, the incentive to use this information to exclude or disadvantage rivals increases the more valuable the information is in terms of price setting, innovation, contract terms, and quality of products/services sold.

For example, after a hospital/provider becomes vertically affiliated with an insurer, the insurer may have an economic incentive to obtain competitively sensitive information on its insurer rivals that are negotiating with its upstream hospital/provider. This insurer might use this information to pre-empt rivals' innovative networks, health plan offerings, value-based contracting, and in doing so, may place the vertically affiliated insurer at a competitive advantage in marketing its health plans to consumers. The affiliated insurer may also demand that the affiliated hospital/provider not contract with the insurer's innovative rival or seek to influence the terms that the affiliated hospital/provider is negotiating with rival insurer so as to not place the affiliated insurer at a competitive disadvantage.

a) Application of this Factor to Rescinding the Competitive Conditions

We further assume for purposes of this analysis that Highmark/AHN is no longer subject to the 2013 Order's requirement that it implement, monitor, and report compliance with its firewall policy, which prevents the exchange of rivals' competitively sensitive information between Highmark and AHN. We then assess the likely competitive effects of its hypothetical actions.

By necessity, hospital/providers are privy to competitively sensitive information of healthcare insurers through the negotiating process for in-network inclusion in health plans. Hospitals must assess the likely volumes of patients that an insurer may send its way to determine an appropriate contract rate that enables the hospital to cover its cost of service for these member patients. Such information may include, for example, non-price terms such as plan design and characteristics (such as tiering structure), out-of-pocket coverage, deductible levels, other likely in-network providers, administrative and compliance terms, payment terms, innovative value-added plan designs, and prospective member volumes. All of this information would be highly useful for the downstream (Highmark) insurer entity to know in developing a competitive response to the rival insurer, particularly if the rival insurer is viewed as a potential maverick or disruptor.

Likewise, Highmark negotiates insurer-provider contracts with hospitals as part of its formation of in-network health plans. Information on the specifics and willingness of these providers to agree to certain contract terms and reimbursement rates is valuable information that AHN would find competitively useful in negotiating its own contracts with insurers that may also be negotiating to have in-network status within a health plan or responding to rivals' efforts to draw patients to their own healthcare delivery networks.

But-for the 2013 Order's firewall policy conditions, there would exist significant uncertainty in the marketplace about whether such information is handled appropriately. Elimination of the Competitive Conditions may create significant uncertainty for rivals, e.g., whether Highmark and AHN will share competitively sensitive information on rival insurers or rival hospitals innovative plans, rates, or terms, which would have a dampening effect on competition. This may result in a reduced willingness or incentive to engage with Highmark or AHN. Absent the firewall policy, Highmark and AHN could freely exchange competitively sensitive information about rivals.[39] Economic theory indicates that such exchange of competitively sensitive information results in a dampening or lessening of competition and can be an effective mechanism that risks disadvantaging Highmark/AHN's rivals and potential rivals. We have addressed above Highmark/AHN's incentives to engage in such anticompetitive behavior. We find that but-for the 2013 Order's firewall policy, if Highmark/AHN were to freely exchange competitively sensitive

[39] See Gerald A. Stein and Albert Jui Li. "Handling Competitively Sensitive Information in a Vertically Integrated Firm: Practical Advice for In-house Counsel." American Bar Association 10/29/2021 at https://www.americanbar.org/groups/antitrust_law/resources/magazine/2021-october/handling-competitively-sensitive-information/ for a discussion of the issues raised by vertical affiliation, and the role of firewall policies to limit the dissemination of competitively sensitive information and/or separate roles for key executives. Effective firewall policies are critical elements of enforcement activity and consent decrees in healthcare and non-healthcare matters the last few years by both state and federal regulators.

information across its vertical affiliates, this would there is a reasonable likelihood this conduct would result in a dampening of competition and disadvantage Highmark/AHNs rivals and potential rivals.

E. Coordination-- Dampening of competition through accommodation of conduct

Vertical affiliation may increase the ability and incentives of a firm to engage in coordinated behavior with its rivals. The ability and likelihood of coordination is greater in highly concentrated markets, particularly those in which firms in the market share similar cost structures and presence. Coordination may occur tacitly through accommodation of competitors' actions. For example, if the vertically integrated firm engages in exclusionary conduct to disadvantage a rival or thwart the entry of a new rival, other competitors in the market may accommodate this behavior if their incentives are aligned with disadvantaging the rival or keeping the rival from entering the market.

The ability and incentive to engage in coordination, either tacit or explicit, depends on several considerations as applied in a fact-specific inquiry:

- **Market structure**—Does the vertically integrated firm have the market power to disadvantage a targeted rival or keep the targeted rival out of the market if other market firms accommodate this behavior?
- **Gains from coordination—**Are there benefits that would make it profitable to limit access to the vertically integrated firm's products or services and would this substantially lessen competition or potential competition to the benefit of the vertically affiliated firm? In addition, if these benefits would not have been profitable for the entity that controlled the related product prior to the merger, does the incentive to target a rival derive from the vertical affiliation itself?
- **Alignment of competitors' incentives**—Would other market participants also benefit from the vertically affiliated firm's conduct to disadvantage or foreclose another rival?
- **Access to competitively sensitive information**—Does the vertically affiliated firm have access to competitively sensitive information about its rivals in the upstream and downstream market that it can share across the vertical chain that would aid in disadvantaging or foreclosing a rival?
- **Use of competitively sensitive information**--Would the vertically affiliated firm's access to its rivals' competitively sensitive information aid in facilitating coordination?
- **Existence of mavericks or disruptive players**—Are there mavericks or competitively disruptive players in the market that would thwart attempts at

coordination?[40]

A firm may also have less incentive to coordinate post-vertical affiliation. If the market is not concentrated and firms within the market are different in terms of vertical structure, cost symmetry, product or service offerings, and market presence, the vertically affiliated firm may not have an incentive to engage in coordination because the benefits are not realizable or sustainable. In addition, a market's vulnerability to coordination is lessened if there are mavericks or disruptors in the market and incentives are not aligned. Furthermore, the less likely a firm's ability to monitor, detect, and react to a competitor's actions, the less vulnerable the market is to coordination.

a) Application of this Factor to Rescinding Competitive Conditions

For the purpose of this but-for analysis, we assume that Highmark/AHN would use exclusionary contracting and other exclusionary practices to facilitate tacit coordination with other market competitors. We examine the likelihood that such practices would result in anticompetitive harm to rivals and consumers.[41]

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[40] See Salop and Culley (2016) ("There is not a similar concern about eliminating the downstream division of the merged firm acting as a maverick unless its maverick behavior involves a willingness to support new entry into the upstream market. If the downstream division of the merged firm were a maverick, there would be no incentive to use the merger to eliminate its maverick behavior, since the downstream division would be made worse off and the upstream division of the merging firm would not gain from downstream coordination."). See also "The Economics of Tacit Collusion," Marc Ivaldi, Bruno Jullien, Patrick Rey, Paul Seabright, Jean Tirole. Final Report for DG Competition, European Commission, March 2003. ("Many characteristics can affect the sustainability of collusion. First, there are some basic structural variables, such as the number of competitors, entry barriers, how frequently firms interact, and market transparency. Second, there are characteristics about the demand side: is the market growing, stagnating, or declining? Are there significant fluctuations or business cycles? Third, there are characteristics about the supply side: Is the market driven by technology and innovation, or is it a mature industry with stable technologies? Are firms in a symmetric situation with similar costs and production capacities or are there significant differences across firms? Do firms offer similar products, or is there substantial vertical or horizontal differentiation?").

[41] Although economists and antitrust practitioners recognize that tacit collusion potentially results in competitive harm, the Supreme Court has decided that tacit collusion is not itself illegal under the Sherman Act or Clayton Act. The FTC has unsuccessfully challenged tacit collusion and invitations to collude under Section 5 of the FTC Act. This implies a role for efforts such as consent decrees or other provisions that provide clarity about effective controls to impede or

Economists and antitrust practitioners recognize that the likelihood of tacit coordination is greater in highly concentrated industries, including in some circumstances in healthcare insurance and provider services.[42] In addition to highly concentrated markets, other factors determining the risks of tacit coordination include prior actual coordination or attempted coordination, and elimination of a maverick. Frequent repeated interactions among competitors and alignment of interests also heighten the ability and likelihood of tacit coordination. In this context, we find the long-term insurer-provider contract between UPMC and Highmark Inc., along with symmetry of their vertical affiliation structure, contribute to the likelihood of tacit coordination were Highmark/AHN not subject to the Competitive Conditions. Specifically, as stated in our 2023 Report, "[w]ith two large and more symmetrical vertically-integrated healthcare delivery and financing networks competing against one another in Western Pennsylvania, competition can take one of two forms—intense competition or tacit collusion, or more specifically, diminished competition as rivals tend to accommodate rather than react to competitor's actions in order to raise price or reduce the quantity or quality of products and services."[43]

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eliminate the risk of potential tacit coordination in cases given that ex post antitrust enforcement against tacit collusion is difficult. The FTC and U.S. DOJ have made efforts to strengthen antitrust enforcement of tacit collusion, and Congressional legislation to directly address tacit collusion have been introduced but have not been enacted. For discussion of these theories of harm from vertical transactions or affiliations and use of consent decrees to address them see, Economic Analysis of Merger Remedies, GRC Merger Remedies Guide 5th Edition, October 2023 at Economic Analysis of Merger Remedies - Global Competition Review. See, also Bruce D Hoffman, 'Vertical Merger Enforcement at the FTC', FTC (10 January 2018), for efficacy of competitive conditions such as firewalls in consent decrees in vertical transactions to "curtail opportunities and incentive for anticompetitive behavior" and their efficacy in use. [Citing to FTC's Merger Remedies 2006–2012, pp. 7–8,17] at https://www.ftc.gov/system/files/documents/public_statements/1304213/hoffman_vertical_merger_speech_final.pdf.

[42] The 2023 Merger Guidelines address the concept that more highly concentrated markets increase the likelihood and anticompetitive effects from tacit collusion ("in a concentrated market a firm may forego or soften an aggressive competitive action because it anticipates rivals responding in kind. This harmful behavior is more common the more concentrated markets become, as it is easier to predict the reactions of rivals when there are fewer of them."). See 2023 Merger Guidelines at § 2.3.

[43] Dr. Capps agrees that vertical integration can result in either competition or coordination, depending on market conditions. ("Vertical integration, such as the combination of a health insurer with a health provider, can affect firms' internal strategies and competitive incentives in ways that could either lessen competition or make firms more efficient and increase competition. The driver of any change in economic incentives is the combination of an upstream division with a downstream division."). Capps May 2024 Report.

We find that the 2013 Order works to constrain Highmark/AHN from engaging in tacit coordination with its rivals. The 2013 Order's prohibition on using exclusionary contracting practices and protections of consumer choice initiatives constrain mechanisms that Highmark/AHN might use in tacit coordination with its rivals, such as UPMC, to disadvantage new entrants or raise other rivals' costs. Except for the Competitive Conditions, there would exist an increased risk of potential anticompetitive behavior via tacit coordination in the WPA.

IV. Conclusions

Overall, we find that except for the constraints imposed by the 2013 Order, there is a reasonable likelihood of anticompetitive harm to competition in both the healthcare insurance and delivery markets as well as to consumers in the WPA.

We conclude:

- Without the 2013 Order's exclusionary contracting constraints and protections of consumer choice initiatives, the vertically affiliated Highmark/AHN would have the ability and incentive necessary to maintain or enhance its market position and profitability by engaging in foreclosure of rivals or raising rival's costs strategies. If Highmark/AHN were to do so, it is reasonably likely that it would result in anticompetitive harm by reducing competition and lead to higher prices and reduced services or quality of services provided relative to what would exist but-for this conduct.
- Without the 2013 Order's firewall policy, if Highmark/AHN were to freely exchange competitively sensitive information across its vertical affiliates, or if its rivals were significantly concerned that such information would likely be exchanged, it is reasonably likely that this would result in anticompetitive harm by dampening competition and disadvantaging Highmark/AHNs rivals and potential rivals, and lead to higher prices and reduced services or quality of services provided relative to what would exist but-for this conduct.

Based on our but-for analysis of the reasonable likelihood of anticompetitive harm if the Competitive Conditions were no longer in effect, it is reasonable to conclude that the Competitive Conditions have not outlived their utility to the benefit of competition and consumers in limiting the risk of anticompetitive healthcare contracting practices in the WPA and exchange of competitively sensitive information.

APPENDIX 1

(Confidential Business Proprietary-Trade Secret data has been redacted)

Empirical Profitability Analysis of Highmark Health Hypothetical Price Change to Rival Insurers

Overview: This appendix provides a summary of the empirical analyses conducted to assess the profitability of a hypothetical price increase by the vertically integrated Highmark Health for evaluation of post-affiliation incentives and analyses. The discussion below presents a detailed summary of the specific analyses used to calculate the hypothetical price increase of 10% and the net profit increase to Health Inc. as a whole after accounting for higher AHN reimbursement rates for Highmark's national carrier rivals.

Each of the rows in Table has an associated Label, Equation, and Values column. The Label column uses a letter to identify the row for ease of exposition and use in calculations (e.g., the first row of the table is the AHN Contribution Margin which is labeled "a" and used in a computation in the third row labeled "c"). The Equation column refers to various letters in the Label column and describes the calculation relevant to that row of the table (e.g., the third row of the table, which is labeled "c," shows the result of multiplying the values in the first two rows of the table labeled "a" and "b"). Lastly, the Values column shows the relevant numbers which are derived from the calculation described in the Equation column (e.g., in the third row of the table, which is labeled "c," the $[ ] figure is the average contribution margin per "national insurer" AHN admission, and it is computed as the AHN contribution margin multiplied by the average revenue per "national insurer" AHN admission).

The Table is organized into two sections. The first section provides the intermediate steps and corresponding figures that build up to the rows labeled "l" and "p." The rows labeled "l" and "p" provide estimates of the expected net AHN profits from the hypothetical increase in reimbursement rates and the increase in Highmark profits from enrollees diverted from national insurers due to a hypothetical increase in reimbursement rates, respectively. Those two rows are added together to arrive at the total estimated net Highmark Health profits from the hypothetical increase in reimbursement rates (the row highlighted in yellow) which in this specific example indicates estimated net Highmark Health profits of $[ ]. The second section outlines the additional information used in the analysis. Each labeled row of the Table is described in more detail below. All values are sourced from publicly available information.

Row labeled "a": AHN Variable Contribution Margin for commercial admissions of [ ]%. Sourced from Highmark Health's Condition 13 Non-Confidential filing (3/29/24).
Row labeled "b": Average Revenue per "National Insurer" AHN Admission (calculated number computed as row labeled "q" divided by row labeled "r" which is the same number as row labeled "s". This calculated number divides total revenue for "national

insurer" AHN admissions by the number of "national insurer" AHN admissions which averages $[ ] per admission). Sourced from Highmark Health's Condition 13 Non-Confidential filing (3/29/24).

Row labeled "c": Average Contribution Margin per "National Insurer" AHN Admission (calculated number computed as row labeled "a" multiplied by row labeled "b" – this calculation converts average margins as a percentage, [ ]%, into margins in terms of dollars,($[ ]).

Row labeled "d": Hypothetical Increase in Reimbursement Rates to All National Insurers. The hypothetical increase is 10 percent, which is the assumed amount by which AHN increases reimbursement rates charged to all of the national insurers.

Row labeled "e": Implied Elasticity – This is the assumed own-price elasticity of demand which in this framework refers to the sensitivity of the national insurance company's number of AHN admissions to changes in AHN reimbursement rates. The elasticity is calculated as one divided by the AHN variable contribution margin of [ ]%. In this example, 0.5 is added to the elasticity (in absolute value). A negative sign is applied to the expression. For an elasticity of –[ ], we are assuming that for every 1% increase in reimbursement rates, AHN admissions decrease by [ ]%.

Row labeled "f": Percentage Loss in AHN Admissions Due to the Hypothetical Increase in Reimbursement Rates (calculated number computed as row labeled "d" multiplied by row labeled "e". This calculation translates the 10% rate increase into a [ ]% decrease in AHN admissions based on the elasticity of –[ ]).

Row labeled "g": Decrease in the Number of Annual AHN Admissions Due to the Hypothetical Increase in Reimbursement Rates (calculated number computed as row labelled "f" multiplied by row labeled "r" – The [ ]% decrease in AHN admissions is multiplied by [ ], which is the annualized number of AHN admissions of national insurer enrollees in 2023, to arrive at [ ] admissions).

Row labeled "h": Loss in AHN Profits due to the Hypothetical Increase in Reimbursement Rates (calculated number computed as row labeled "c" multiplied by row labeled "g" – This calculation translates the estimated loss of [ ] admissions to lost AHN profits by multiplying [ ] by $[ ], the Average Contribution Margin per "National Insurer" AHN Admission, and obtaining an estimated loss of $[ ].

Row labeled "i": Gain in AHN Profits due to the Hypothetical Increase in Reimbursement Rates (calculated number computed as row labeled "d" multiplied by [ ]%, which is one minus [ ]%, multiplied by row labeled "q" – This computation shows the increase in revenue, which is equivalent to an increase in profits, for admissions that remain at AHN after a 10% increase in reimbursement rates)

Row labeled "j": Increase in the Number of Annual AHN Admissions Due to the Hypothetical Increase in Reimbursement Rates from Enrollees Switching to Highmark and Remaining with AHN (apparently preferred hospital system) – Some of the lost AHN admissions shown in row labeled "g" will be recaptured by enrollees switching from

a national insurer to Highmark under the logic that the enrollees have already exhibited a preference for AHN, and Highmark would likely be a lower cost option. Thus, we estimate this recapture of admissions via switching to Highmark as the [ ] lost annual WPAHS admissions (row labeled "g") multiplied by the assumed switching rate of 40% (same as in 2013) multiplied by Highmark's estimated share of its own and UPMC commercial enrollees (row labeled "w"), which is estimated at 61.3%, for a total of [ ] recaptured admissions. We are implicitly assuming that some former national insurer enrollees would switch to the UPMC plan even though AHN is likely their preferred provider.

Row labeled "k": Gain in AHN Profits Due to the Hypothetical Increase in Reimbursement Rates from Enrollees Switching to Highmark and Remaining with AHN (calculated number computed as row labeled "c" multiplied by row labeled "j" – This calculation translates the estimated gain of [ ] AHN admissions to increased AHN profits by multiplying [ ] by $[ ], the Average Contribution Margin per "National Insurer" AHN Admission and obtaining an estimated gain in AHN profits of $[ ].

Row labeled "l": Expected Net AHN Profits from the Hypothetical Increase in Reimbursement Rates (calculated number computed as rows labeled "h" plus "i" plus "k" which computes net profits to AHN from the losses and gains shown in those three rows the overall estimated net AHN profits in this example equals –$[ ]).

Row labeled "m": Absolute Value of the Decrease in the Number of AHN Admissions Due to the Hypothetical Increase in Reimbursement Rates (adjusted for the assumed switching rate of 40%) – This row reflects the mathematical operation of taking the absolute value of the figure in the row labeled "g" to show a positive number for estimated lost annual AHN admissions multiplied by the switching rate of 40% in our example (equal to [ ] admissions).

Row labeled "n": Conversion of Admissions Losses to Number of Potential Commercial Enrollees – In order to estimate the gains to Highmark from new enrollees that switch from a national insurer to Highmark, we need to convert AHN admissions to insurance plan enrollees. To accomplish this, we divide the row labeled "m" ([ ]) by the row labeled "t" (6%) where "t" is equal to the estimated percentage of commercial enrollees that become inpatients in a year. After performing this calculation, the estimated number of commercial enrollees is [ ].

Row labeled "o": Number of Lost Commercial Enrollees That Switch to Highmark (calculated number computed as row labeled "n" multiplied by row labeled "w" which converts total estimated new insurance plan enrollees to new Highmark enrollees, ([ ]).

Row labeled "p": Estimated Increase in Highmark Profits from Enrollees Diverted from National Insurers Due to Hypothetical Increase in Reimbursement Rates (calculated number computed as row labeled "o" multiplied by row labeled "z" which computes the

estimated increase in profits to Highmark from diverted national insurer enrollees – the estimated increase in Highmark's profits equals $[ ]).
Row highlighted in green: This row shows the total estimated net Highmark Health profits from a hypothetical increase in reimbursement rates to national insurers of 10%, which is the sum of rows labeled "l" and "p" and equals $[ ].

Row labeled "q": Total Revenue for "National Insurer" AHN Admissions – This figure is the annualized revenue received by AHN in 2023 for admissions of enrollees in national insurance plans. Sourced from Highmark Health's Condition 13 Non-Confidential filing (3/29/24).
Row labeled "r": Total Number of "National Insurer" AHN Admissions – This figure is the annualized number of WPAHS admissions in 2023 of enrollees in national insurance plans. Sourced from Highmark Health's Condition 14 Confidential filing (3/18/24).
Row labeled "s": Average Revenue per "National Insurer" AHN Admission (calculated number computed as row labeled "q" divided by row labeled "r" which computes the average revenue per "national insurer" AHN admission).
Row labeled "t": Percentage of Commercial Enrollees that Become Inpatients in a Year. This percentage is an estimate of the fraction of commercial enrollees that become inpatients in a year. Assumed no change since 2013.
Row labeled "u": Highmark's Estimated Share of Commercial Enrollees in WPA – This percentage is an estimate of Highmark's share of commercial enrollees in WPA in 2023. Sourced from Capps 2023 WPA Group Market Share, submitted April 24, 2024. .
Row labeled "v": UPMC's Estimated Share of Commercial Enrollees in WPA – This percentage is an estimate of UPMC's share of commercial enrollees in WPA in 2023. Source from Capps 2023 WPA Group Market Share, submitted April 24, 2024.
Row labeled "w": Highmark's Estimated Share of Its Own and UPMC's Enrollees (calculated number computed as row labeled "u" divided by sum of rows labeled "u" and "v" which computes Highmark's estimated share of its own and UPMC commercial enrollees in 2023)
Row labeled "x": Highmark's Per Member Per Month Commercial Revenue – This figure is Highmark's per member per month commercial revenue in WPA and is based on data from NAIC 2023 Mid-Year Results, U.S. Health Insurance Industry Analysis Report, Group Net Premium PMPM.
Row labeled "y": Highmark's Medical Loss Ratio – The medical loss ratio is the percentage of a health insurer's premium revenue that is spent on clinical services, and the number in this row is the estimate for 2023. Sourced from S&P, "Highmark Inc "A" Rating Affirmed Following Revised Capital Model Criteria, March 26, 2024.
Row labeled "z": Annualized Estimated Variable Margin (in $) per Commercial Enrollee

(calculated number computed as row labeled “x” multiplied by 12 and then multiplied by one minus the value in the row labeled “y” – this provides an estimate of Highmark’s annualized variable margin per commercial enrollee, which equals $894).

Change in Profits for Highmark/AHN with a 10 Percent Increase in Reimbursement Rates for AHN's Services to National Insurer Rivals

Metric	Label	Equation	2023 Assessment
AHN Variable Contribution Margin	a		[ ]%
Average Revenue per "National Insurer" AHN Admission	b	q/r	[ ]
Average Contribution Margin per "National Insurer" AHN Admission (in dollars)	c	a*b	[ ]
Hypothetical Increase in Reimbursement Rate to All National Insurers	d		10%
Assumed Elasticity2	e	-[(1/a) + (0.5)]	[ ]
Percentage Loss in AHN Admissions Due to the Hypothetical Increase in Reimb. Rates	f	d*e	[ ]
Decrease in the Number of Annual AHN Admissions Due to the Hypothetical Increase in Reimb. Rates	g	d*e*r or f*r	[ ]
Loss in AHN Profits from lost admissions due to the Hypothetical Increase in Reimb. Rates	h	c*g	[ ]
Gain in AHN Profits on remaining admissions due to the Hypothetical Increase in Reimb. Rates	i	d*(1 + f)*q	[ ]
Increase in the Number of Annual AHN Admissions Due to the Hypothetical Increase in Reimb. Rates from Enrollees Switching to Highmark and Remaining with AHN (apparently preferred hospital system)	j	-g*w*40%	[ ]
Gain in AHN Profits Due to the Hypothetical Increase in Reimb. Rates from Enrollees Switching to Highmark and Remaining with WPAHS (apparently preferred hospital system)	k	c*j	[ ]
Expected Net AHN Profits from the Hypothetical Increase in Reimb. Rates	l	h+i+k	[ ]
Absolute Value of the Decrease in the Number of AHN Admissions Due to the Hypothetical Increase in Reimb. Rates	m	-g*40%	[ ]
Conversion of Admissions Losses to Number of Potential Commercial Enrollees	n	m/t	[ ]
Number of Lost Commercial Enrollees That Switch to Highmark	o	n*w	[ ]
Estimated Increase in Highmark Profits from Enrollees Diverted from National Insurers Due to Hypothetical Increase in Reimb. Rates	p	o*z	[ ]
Total Estimated Net Highmark Health Profits from the Hypothetical Increase in Reimb. Rates		l+p	[ ]
Additional Information Used in the Analysis			
Total Revenue for "National Insurer" AHN Admissions	q		[ ]
Total Number of "National Insurer" AHN Admissions	r		[ ]
Average Revenue per "National Insurer" AHN Admission	s	q/r	[ ]
Percentage of Commercial Enrollees that Become Inpatients in a Year	t		6%
Highmark's Estimated Share of Commercial Enrollees in WPA	u		38%
UPMC's Estimated Share of Commercial Enrollees in WPA	v		24%
Highmark's Estimated Share of Its Own and UPMC's Enrollees	w	u/(u+v)	61.3%
Highmark's Per Member Per Month Commercial Revenue	x		$ 544
Highmark's Medical Loss Ratio (high estimate)	y		86.30%
Annualized Estimated Variable Margin (in $) per Commercial Enrollee	z	x*12*(1-y)	$ 894