Pennsylvania Insurance Department
Public Informational Hearing

Highmark Request for Modification of the Commissioner's Approving Determination and Order (Order No. ID-RC-13-06) Dated April 29, 2013, as Modified July 28, 2017

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Table of contents

Summary of supplemental comments 1

I. "What is the HHI of the Western Pennsylvania healthcare insurance and healthcare provider markets?" 2
I.A. Healthcare provider markets 2
I.B. Healthcare insurance markets 3
I.B.1. Insurance concentration in WPA is declining for both commercial insurance and Medicare Advantage 4
I.B.2. Commercial health insurance concentration in WPA is in line with comparable geographies 5
I.B.3. Medicare Advantage insurance concentration in WPA is largely in line with comparable geographies 8

II. Should the Conditions remain in place in order to address potential concerns that WPA is a difficult geography for Medicare Advantage insurers to enter? 12
II.A. AHN is not the most important hospital system for a Medicare Advantage insurer seeking to enter WPA 12
II.B. AHN's pricing to non-affiliated Medicare Advantage insurers for inpatient hospital services is below UPMC's 15

III. *Does the Order approving the recent Risant/Geisinger transaction provide a basis for applying Conditions to Highmark/AHN that are similar to the Risant Conditions?* 19

Appendix A. UPMC and AHN Medicare Advantage pricing 23

Appendix B. Additional materials 28

List of figures

Figure 1. PID questions and responsive findings regarding healthcare competition in WPA 1
Figure 2. WPA all-payer discharge shares by county, 2023 3
Figure 3. WPA commercial insurance HHI, by year 4
Figure 4. WPA Medicare Advantage HHI, by year 5
Figure 5. Commercial insurance HHIs by MSA, CMS Regions 2, 3, and 5 7
Figure 6. Commercial insurance HHIs in Pittsburgh and the 10 closest MSAs in CMS Regions 2, 3, and 5 by population 8
Figure 7. Medicare Advantage HHIs by county, CMS Regions 2, 3, and 5—under 20,000 enrollees 10
Figure 8. Medicare Advantage HHIs by county, CMS Regions, 2, 3, and 5—20,000+ enrollees 11
Figure 9. Shares by Medicare Advantage insurer, WPA counties with 20,000+ enrollees 11
Figure 10. WPA Medicare discharge shares by system, 2023 13
Figure 11. WPA Medicare discharge shares by system and region, 2023 14
Figure 12. WPA Medicare discharge shares by county, 2023 15
Figure 13. Casemix-adjusted 2023 inpatient prices—United Medicare Advantage 17
Figure 14. Casemix-adjusted 2023 inpatient prices—Aetna Medicare Advantage 18
Figure 15. County-level all-payer discharge shares for Geisinger relative to AHN, 2023 20
Figure 16. County-level all-payer discharge shares for CPA, NEPA, and WPA, 2023 21
Figure 17. Prices for DRG 193 (Simple Pneumonia and Pleurisy with MCC), 2023 23
Figure 18. AHN and UPMC inpatient Medicare Advantage pricing in WPA to United, 2023 24
Figure 19. AHN and UPMC inpatient Medicare Advantage pricing in WPA to Aetna, 2023 25
Figure 20. PHC4 Regions 28
Figure 21. Geisinger service area 28
Figure 22. CMS Regions 29
Figure 23. County-level Medicare Advantage enrollment shares for Geisinger Health Plan and Highmark 30
Figure 24. County-level commercial enrollment shares for Geisinger Health Plan and Highmark 31

Summary of supplemental comments

(1) These comments supplement written remarks I submitted on April 24, 2024 ("April 2024 Comments"), an in-person hearing held by the Pennsylvania Insurance Department (PID) on May 1, 2024, and a question provided by the PID to Highmark's counsel on May 15, 2024 regarding market concentration (i.e., "HHIs") in Western Pennsylvania (WPA) healthcare insurance and provider markets.[1] My additional comments relate to market concentration, Medicare Advantage competition and potential barriers to entry, and the recent Risant/Geisinger transaction. My central findings are summarized in Figure 1.

Figure 1. PID questions and responsive findings regarding healthcare competition in WPA

Topic	Key findings

I. "What is the HHI of the Western Pennsylvania healthcare insurance and healthcare provider markets?"	• For inpatient hospital services in WPA, the 2023 HHI is 2,232 based on all payers and 2,602 based on commercially insured patients only.
	  ○ UPMC, rather than AHN, is the main driver of the hospital services HHI.
	• For commercial insurance in WPA, the HHI as of 2023 is 2,314.
	  ○ Concentration in WPA metropolitan areas is in line with other metropolitan areas in the Midwest, Mid-Atlantic, and northeast CMS regions.
	• For Medicare Advantage insurance in WPA, the HHI as of 2024 is 2,533.
	  ○ Medicare Advantage insurance concentration in WPA counties is generally in line with comparable counties in the Midwest, Mid-Atlantic, and northeast CMS regions.
	  ○ Where Medicare Advantage HHIs in WPA are on the higher end relative to the three CMS regions, UPMC Health Plan, Aetna, or both usually have a higher share than Highmark.
	• Insurance concentration in WPA has declined significantly since the 2013 transaction.

II. Should the Conditions remain in place in order to address potential concerns that WPA is a difficult geography for Medicare Advantage insurers to enter?	• Highmark's Medicare Advantage rivals in WPA have already expanded significantly.
	• AHN is not the most important system for a Medicare Advantage insurer seeking to enter WPA.
	  ○ While it has grown since 2013, AHN's share of Medicare discharges in WPA is below 20%.
	  ○ AHN does not have the highest share of Medicare discharges in any WPA county.
	  ○ UPMC's share of Medicare discharges is 35% or higher in WPA overall and in each PHC4 regions in WPA.
	• Hospital price transparency data show that AHN's pricing for inpatient hospital services to non-affiliated Medicare Advantage insurers is below UPMC's pricing.

III. Does the Order approving the recent Risant/Geisinger transaction provide a basis for applying Conditions to Highmark/AHN that are similar to the Risant Conditions?	• Risant/Geisinger was formed in 2024, whereas Highmark/AHN has an 11-year track record.
	• Discharge shares for Geisinger hospitals and AHN hospitals are not comparable.
	  ○ Geisinger's discharge share exceeds 50% in 9 counties and exceeds 70% in 5 of those.
	  ○ AHN does not have the highest share in any WPA county, and its share is less than 30% in 28 of 29 WPA counties (and less than 40% in the 29th, Erie County).

[1] PID, "Highmark Request for Modification," https://www.insurance.pa.gov/Companies/IndustryActivity/CorporateTransactionsofPublicInterest/Pages/Highmark-Modification-Request.aspx; Diana L. Sherman, CPA, CFE, CISA, CITP, Deputy Insurance Commissioner, "RE: Highmark Health Modification Hearing – Remaining Questions," letter to William J. Sheridan, Esquire (May 15, 2024).

I. "What is the HHI of the Western Pennsylvania healthcare insurance and healthcare provider markets?"

(2) In a May 15 letter to Highmark's counsel, the PID posed the following question from Commissioner Humphreys: "What is the HHI of the Western Pennsylvania healthcare insurance and healthcare provider markets?"[2] I respond to this question for hospitals in section I.A, where I also show that the Allegheny Health Network (AHN) is not the main driver of high HHIs for hospital services. I respond for commercial health insurance in section I.B.2 and for Medicare Advantage insurance in section I.B.3; first, however, in section I.B.1, I show that commercial and Medicare Advantage HHIs have both declined significantly since the transaction. I also present data showing that concentration within WPA is generally in line with other states in the Midwest, Mid-Atlantic, and Northeast.

I.A. Healthcare provider markets

(3) For general acute care inpatient services in WPA, the 2023 HHI is 2,232 based on all payers (2,602 based on commercially insured patients).[3] UPMC, rather than AHN, is the largest driver of the HHI, by a significant margin:

- UPMC, with a 42% share, contributes 1,732 points to the WPA all-payer HHI.
- AHN, with a 19% share, contributes 372 points to the WPA all-payer HHI.

(4) Figure 2 shows county-level discharge shares for UPMC (plum), AHN (blue), and other hospital systems (grey) within WPA. Consistent with its smaller contribution to the HHI in WPA, AHN has a smaller share than UPMC in every WPA county where AHN is present.[4] The competition that AHN poses to the largest system in WPA acts to reduce, rather than contribute to, concentration.

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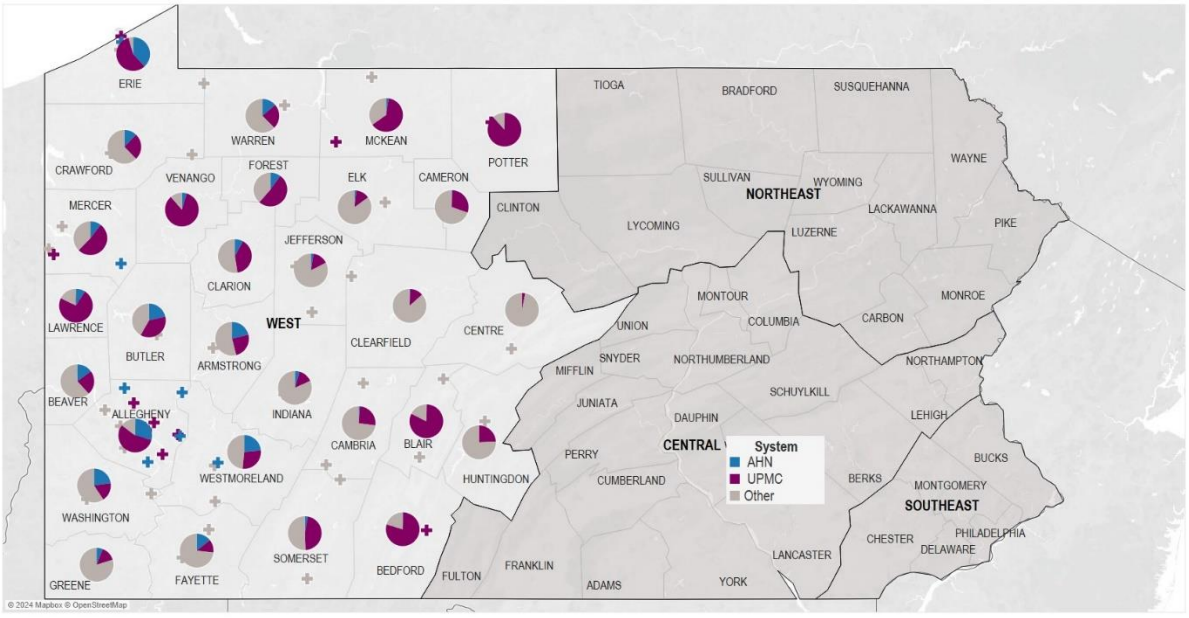
[2] Diana L. Sherman, CPA, CFE, CISA, CITP, Deputy Insurance Commissioner, "RE: Highmark Health Modification Hearing – Remaining Questions," letter to William J. Sheridan, Esquire (May 15, 2024).

The (HHI) is defined as the sum of the squared market shares of the participants in the relevant market. For example, if there are four firms in a market with shares of 60%, 20%, 10%, and 10%, the HHI is computed as $60^2 + 20^2 + 10^2 + 10^2 = 4{,}200$. It ranges from near 0 for a market with many fragmented sellers to 10,000 if there is only one seller with ($100^2 = 10{,}000$). *See* DOJ and FTC, *Merger Guidelines*, § 2.1, https://www.justice.gov/d9/2023-12/2023%20Merger%20Guidelines.pdf.

[3] I compute these HHIs as the sum of squared discharges shares by Pennsylvania hospital systems, where the shares are based on all general acute care patients who reside in the 29-county WPA region and select a Pennsylvania hospital in 2023 Q1–Q2.

[4] Among counties with significant discharge shares for UPMC and AHN, Erie County has the highest HHI (with a UPMC Hamot share over 50% and an AHN St. Vincent share under 50% share). But that is not due to the 2013 transaction. Prior to 2013, Erie had two competing, independent, and significant-sized hospitals. In 2011, UPMC acquired one of them and in 2013 AHN acquired the other. Now Erie has the same two hospitals but under new owners.

Figure 2. WPA all-payer discharge shares by county, 2023



Source: PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: Limited to general acute care (GAC) facilities and patients; *see* April 2024 Comments, Appendix A.1 for details.

I.B. Healthcare insurance markets

(5) Health insurance HHIs in WPA are as follows:

- Commercial insurance. The HHI in WPA as of 2023 is 2,314. Highmark, with a 38% share, contributes 1,475 points to the HHI and UPMC, with a 24% share, contributes 578 points.
- Medicare Advantage. The 2024 HHI is 2,533. UPMC, with a 31% share, contributes 976 points to the HHI; Aetna, with a share of 29%, contributes 865 points; and Highmark, with a 25% share, contributes 620 points.

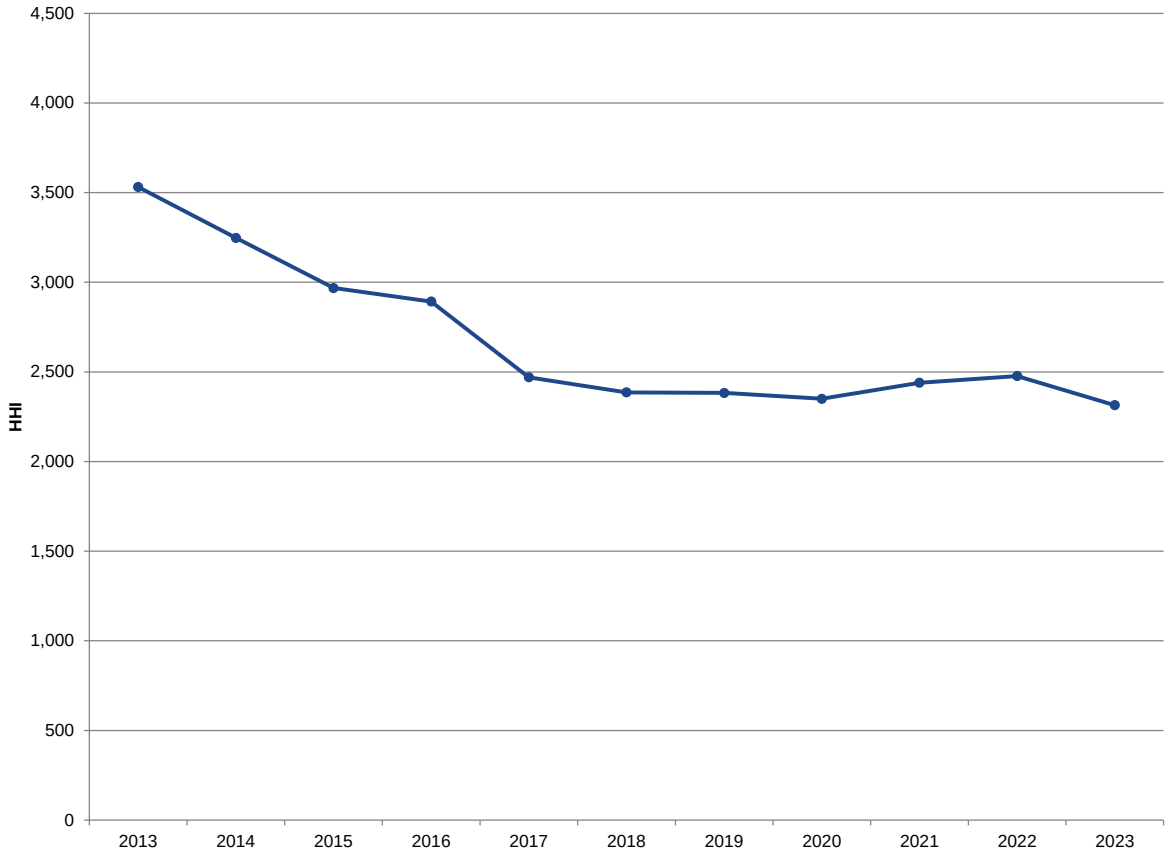
(6) In the remainder of this section, I show the following, for both commercial and Medicare Advantage insurance: (1) insurance concentration in WPA is declining over time and (2) insurance concentration within WPA is not exceptional but instead is generally in line with comparable areas throughout the Midwest, Mid-Atlantic, and Northeast. (For Medicare Advantage, concentration in higher-population counties in WPA is a partial exception; however, as I show below, Highmark is not the cause of the higher HHIs in those counties.)

I.B.1. Insurance concentration in WPA is declining for both commercial insurance and Medicare Advantage

(7) Figure 3 shows that the HHI for commercial insurance in WPA has decreased significantly—by over 1,000 points, or about one-third—since the 2013 Order. This is one example of a central point in my April 2024 Comments: market conditions in WPA today are substantially different—showing more competition—than in the 2011–2013 review period that led to the Order.

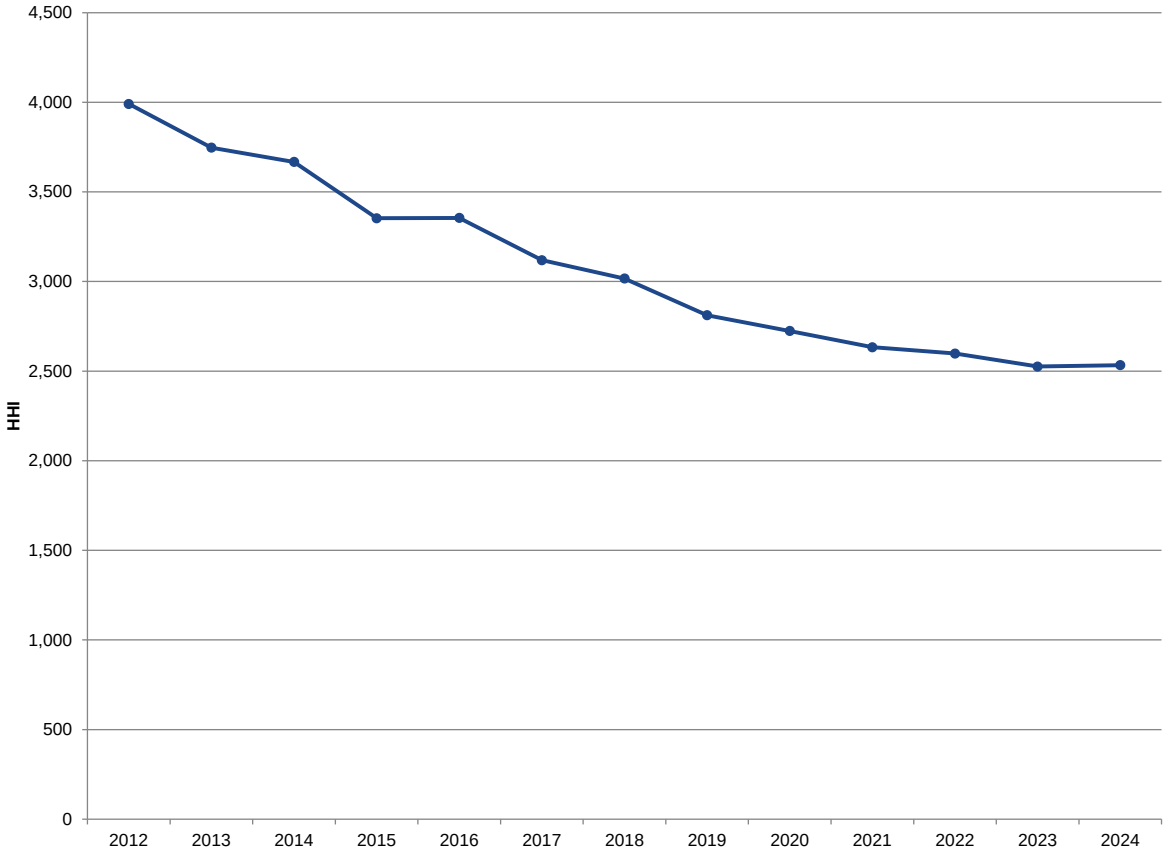
(8) Likewise, Figure 4 shows that the HHI for Medicare Advantage insurance in WPA has decreased significantly—also by over 1,000 points, or about one-third—since the 2013 Order.

Figure 3. WPA commercial insurance HHI, by year



Source: Interstudy data, 2013–2023.
Notes: Limited to fully- and self-insured commercial group enrollees (excluding ACA plans) in the 29-county WPA region. This HHI is derived from the shares presented in my April 2024 Comments at Figure 2.

Figure 4. WPA Medicare Advantage HHI, by year



Source: CMS data 2012–2024, includes all Medicare Advantage plan types except stand-alone prescription drug plans.
Notes: Limited to enrollees in the 29-county WPA region. This HHI is derived from the shares presented in my April 2024 Comments at Figure 4.

I.B.2. Commercial health insurance concentration in WPA is in line with comparable geographies

(9) In general, and likely reflecting economies of scale in the business of insurance, it is typical for three to six insurers to account for the bulk of commercial enrollment in a given geography. As a consequence, insurance HHIs are typically above 1,800 and frequently above 2,500.[5] This is evident in Figure 5, which shows commercial insurance HHIs for Metropolitan Statistical Areas (MSAs) in CMS Regions 2, 3, and 5.[6] These three CMS regions span the Midwest, Mid-Atlantic, and much of

[5] With six equally-sized sellers, the HHI will equal 1,667; with four equally-sized sellers, the HHI will equal 2,500.

[6] Antitrust agencies typically evaluate commercial insurance concentration at the metropolitan area, or MSA, level and Medicare Advantage concentration at the county level. Agencies typically evaluate commercial insurance by MSA because commercial insurance is employer-driven—a large employer in a city or county will typically draw workers from the surrounding suburbs and counties. *See* United States Census Bureau, "Metropolitan and Micropolitan / About," https://www.census.gov/programs-surveys/metro-micro/about.html. ("The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, together with adjacent

the Northeast (*see* Figure 22 in Appendix B for a map). As Figure 5 shows, HHIs in the large majority of these metropolitan areas exceed the threshold of 1,800 for a highly concentrated market in the 2023 Merger Guidelines.[7] Over 75% of these MSAs have an HHI above 2,000 and over 40% have an HHI above 3,000.

(10) Metropolitan areas within WPA, shown in red in Figure 5, are not at the high end of concentration. Instead, commercial insurance HHIs in WPA lie in the middle to lower end of the distribution. That is, WPA metropolitan areas are similarly or less concentrated in comparison to most other MSAs in the three CMS regions.

(11) Figure 6 focuses specifically on the Pittsburgh metropolitan area, which is where most of AHN's hospitals are located. Because Pittsburgh is also one of the larger MSAs in the three CMS regions, the comparison MSAs are the areas from Figure 5 that are closest in total population to Pittsburgh (five with greater population and five with lesser population). Pittsburgh is in the middle of the distribution of HHIs among comparably sized metropolitan areas in the three CMS regions.[8]

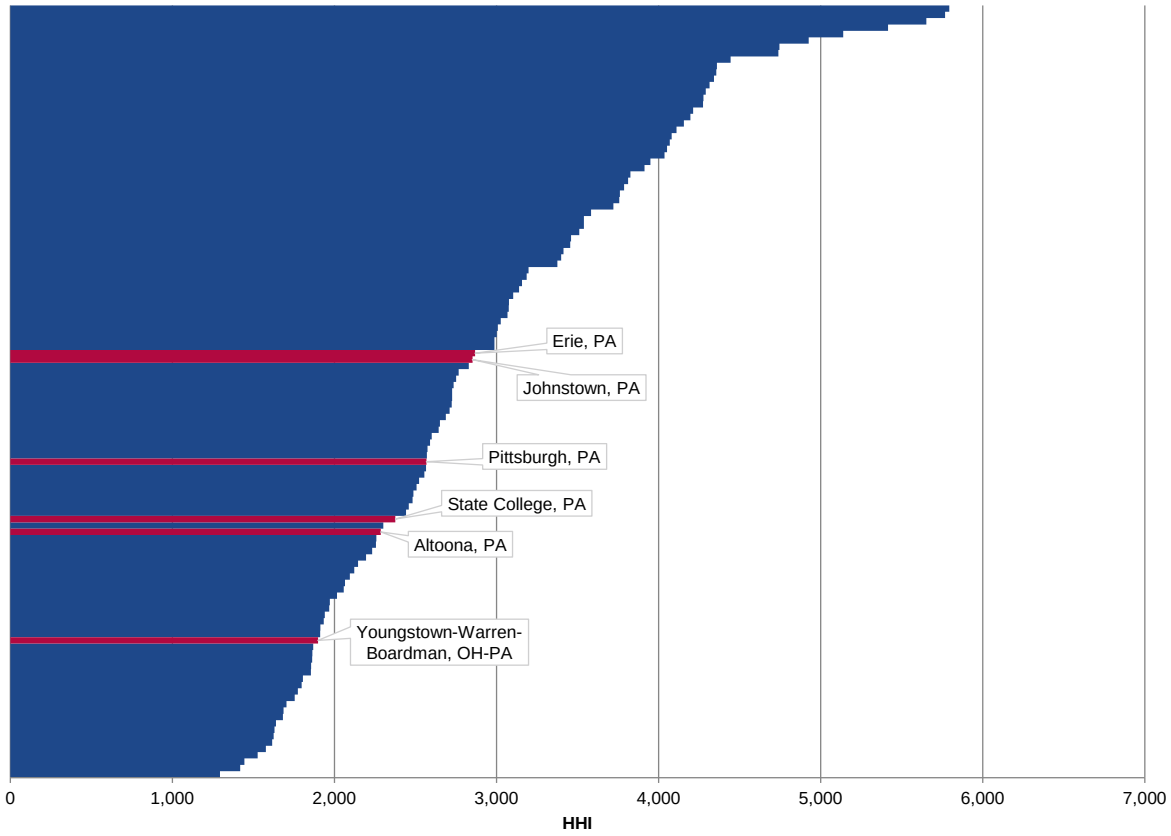
communities having a high degree of economic and social integration with that core."). *See also* Complaint, United States et al. v. Anthem, Inc. and Cigna Corp., No. 1:16-cv-01493, July 21, 2016, at 16 ("The proposed merger would harm large-group employers in at least the 35 metropolitan areas listed on the map below.").

In contrast, Medicare Advantage enrollees must choose a plan on offer in their county. *See* Complaint, United States et al. v. Aetna Inc. and Humana Inc., No. 1:16-cv-01494, July 21, 2016, at 11 ("CMS allows seniors to enroll only in those Medicare Advantage plans that have been approved for the county in which they live. Therefore, competition in each county is limited to the insurers that have applied to and been approved by CMS to operate in that county . . .").

7 DOJ and FTC, *Merger Guidelines*, § 2.1.

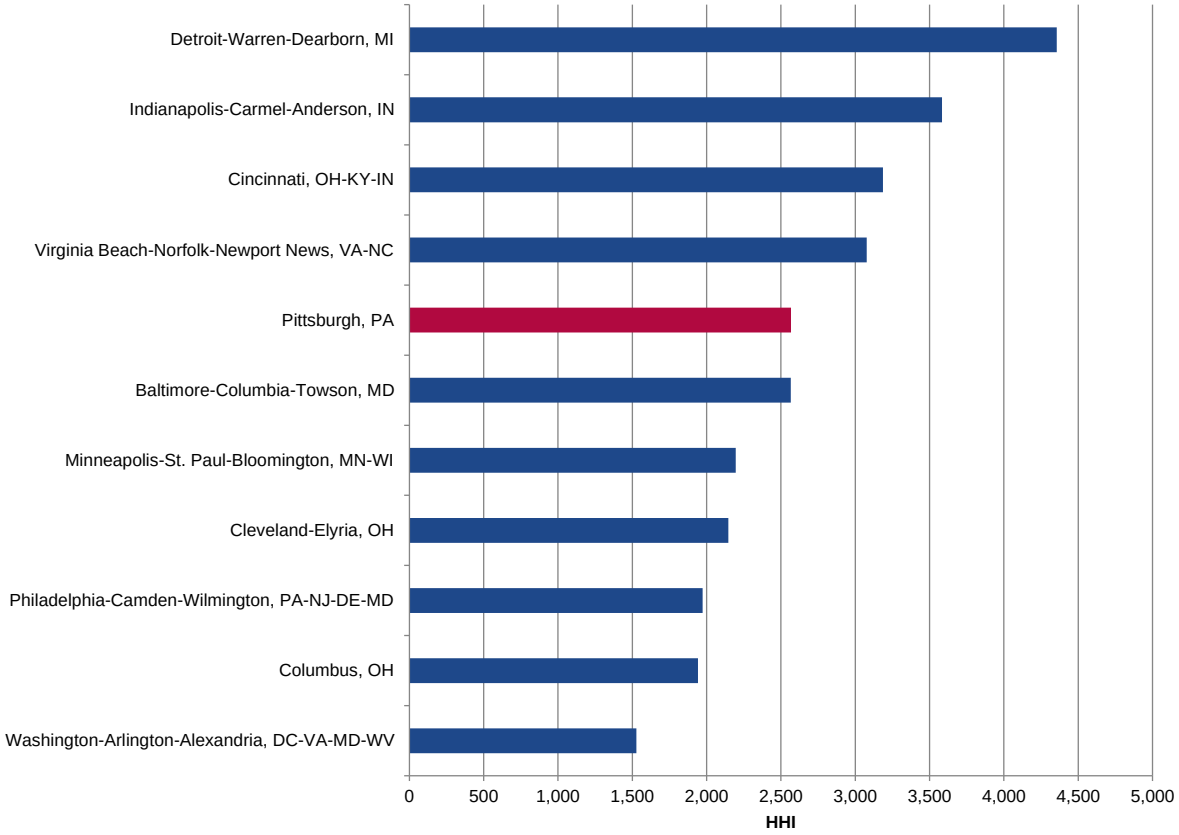
8 I have data on enrollment estimates by insurer as of January 2022 on a nationwide basis and, for Pennsylvania only, enrollment estimates for January 2023. The 2023 data show that the HHI in the Pittsburgh MSA fell from over 2,500 in 2022 to 2,356 in 2023, consistent with the trend of decreasing insurance concentration in WPA.

Figure 5. Commercial insurance HHIs by MSA, CMS Regions 2, 3, and 5



Source: Interstudy data, 2022; https://www.cms.gov/about-cms/where-we-are/regional-offices/cms-locations.
Notes: Limited to fully- and self-insured commercial group enrollees (excluding ACA plans) in MSAs that are primarily located in a state within CMS regions, 2, 3, or 5.

Figure 6. Commercial insurance HHIs in Pittsburgh and the 10 closest MSAs in CMS Regions 2, 3, and 5 by population



Source: Interstudy data, 2022; https://www.census.gov/data/tables/time-series/demo/popest/2020s-total-metro-and-micro-statistical-areas.html.
Note: Limited to fully- and self-insured commercial group enrollees (excluding ACA plans).

I.B.3. Medicare Advantage insurance concentration in WPA is largely in line with comparable geographies

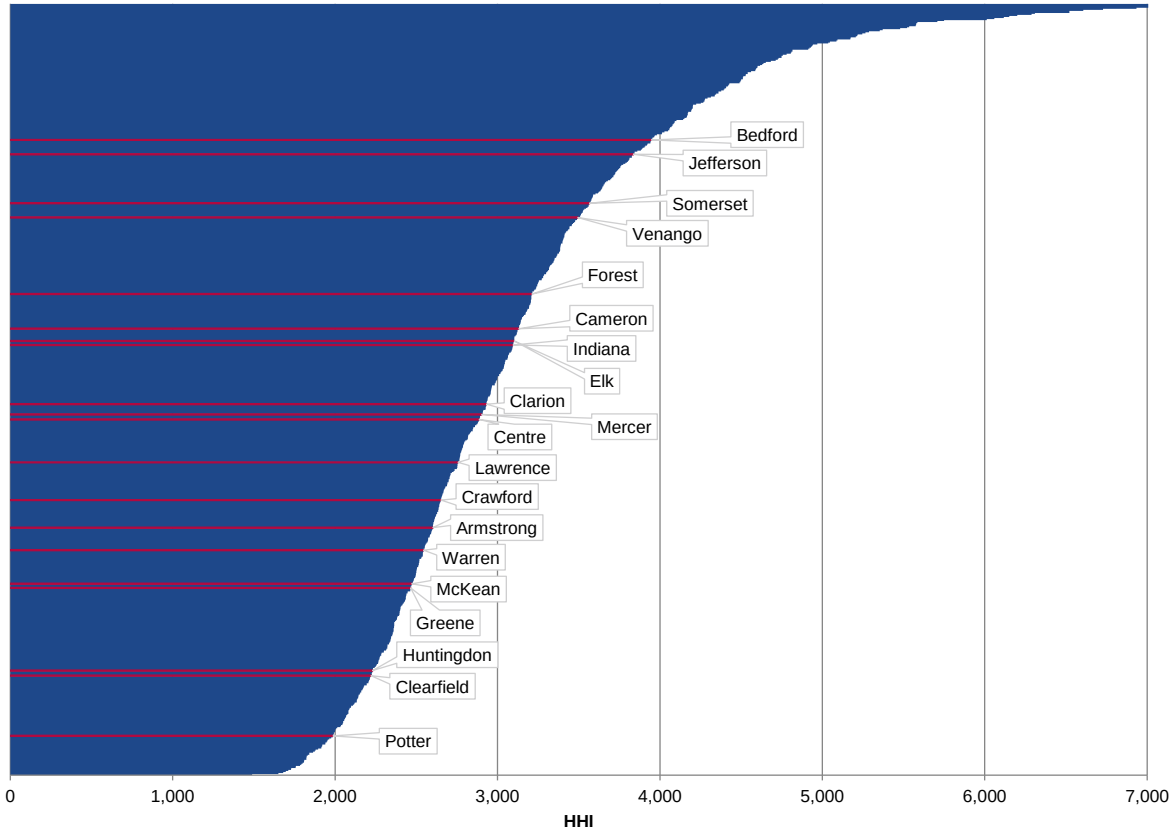
(12) Similar to commercial insurance, it is common for three to six insurers to account for the bulk of Medicare Advantage enrollment in a given county, resulting in HHIs that are usually above 1,800 and frequently above 2,500.[9] This is evident in the next two figures, which show Medicare Advantage HHIs for counties in CMS Regions 2, 3, and 5—first for counties with fewer than 20,000 enrollees and then for counties with 20,000 or more enrollees. The majority of counties have HHIs over 2,000 and many, particularly the lower-population counties, have HHIs over 3,000.

[9] *See supra* note 6.

- Counties with fewer than 20,000 Medicare Advantage enrollees (Figure 7). HHIs in WPA counties, highlighted in red, are squarely in line with other counties in CMS Regions 2, 3, and 5.[10]
- Counties with 20,000 or more Advantage enrollees (Figure 8). HHIs in WPA counties, highlighted in red, span the middle to higher end of HHIs relative to other counties in CMS Regions 2, 3, and 5.
- UPMC Health Plan and, to a lesser extent, Aetna—not Highmark—explain the higher-end HHIs among higher-population WPA counties. Figure 9 lists shares for each Medicare Advantage insurer for the 9 WPA counties with 20,000 or more enrollees (i.e., the counties in red in Figure 8). In the five counties with the highest HHIs, UPMC Health Plan, Aetna, or both, hold a higher Medicare Advantage enrollment share than Highmark. In contrast, Highmark holds the highest share only in two of the four remaining counties with lower HHIs.

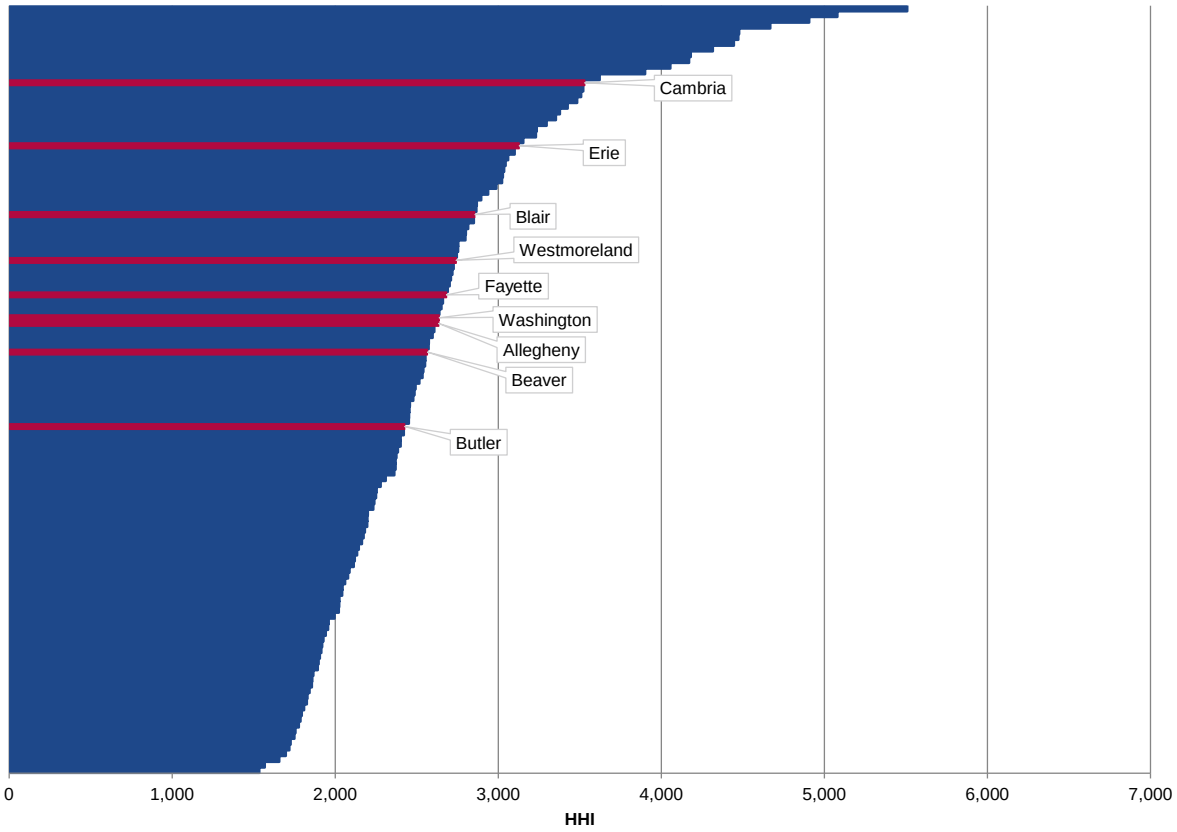
[10] UPMC Health Plan's share, and to a lesser extent Aetna's share, are the main drivers of the four higher-end WPA HHIs in Figure 7. Specifically, shares in the four highest-HHI counties are as follows: (1) Bedford County — 58% UPMC, 16% Highmark, 16% Aetna; (2) Jefferson County — 56% UPMC, 19% Aetna, 17% Highmark; (3) Somerset County — 53% UPMC, 21% Highmark, 18% Aetna; (4) Venango County — 47% UPMC, 34% Aetna, 8% Highmark.

Figure 7. Medicare Advantage HHIs by county, CMS Regions 2, 3, and 5—under 20,000 enrollees



Source: CMS Medicare Advantage enrollment data, February 2024, includes all Medicare Advantage plan types except stand-alone prescription drug plans.

Figure 8. Medicare Advantage HHIs by county, CMS Regions, 2, 3, and 5—20,000+ enrollees



Source: CMS data, February 2024, includes all Medicare Advantage plan types except stand-alone prescription drug plans.

Figure 9. Shares by Medicare Advantage insurer, WPA counties with 20,000+ enrollees

County	Medicare Advantage enrollment	Shares			
		UPMC Health Plan	Aetna	Highmark	All other
Cambria	27,355	53%	17%	20%	10%
Erie	39,460	15%	49%	19%	17%
Blair	20,245	45%	18%	21%	16%
Westmoreland	69,589	30%	32%	28%	10%
Fayette	21,764	32%	35%	18%	14%
Washington	35,779	24%	31%	32%	13%
Allegheny	187,426	34%	27%	26%	13%
Beaver	31,149	24%	27%	34%	14%
Butler	32,660	26%	31%	26%	17%

Source: CMS data, February 2024, includes all Medicare Advantage plan types except stand-alone prescription drug plans.

II. Should the Conditions remain in place in order to address potential concerns that WPA is a difficult geography for Medicare Advantage insurers to enter?

(13) During the May 1, 2024 hearing, Commissioner Humphrey referenced accounts that one or more Medicare Advantage insurers had found entry into WPA challenging because of difficulties contracting with providers in the region.[11] However, if AHN is not plausible as the leading factor behind any such challenges, then maintaining Conditions on AHN and no other WPA health systems is unlikely to make entry easier or more likely.

(14) In this section, I explain that AHN is unlikely to be the leading factor explaining why one or more Medicare Advantage insurers reportedly faced challenges in entering WPA.

- AHN is not the largest hospital system in WPA and is not even the largest hospital system in any individual county within WPA, as measured by inpatient discharges of Medicare patients.
- AHN's casemix-adjusted prices for inpatient services to non-affiliated insurers (i.e., prices that result from arm's-length negotiations) are below comparable prices for UPMC.

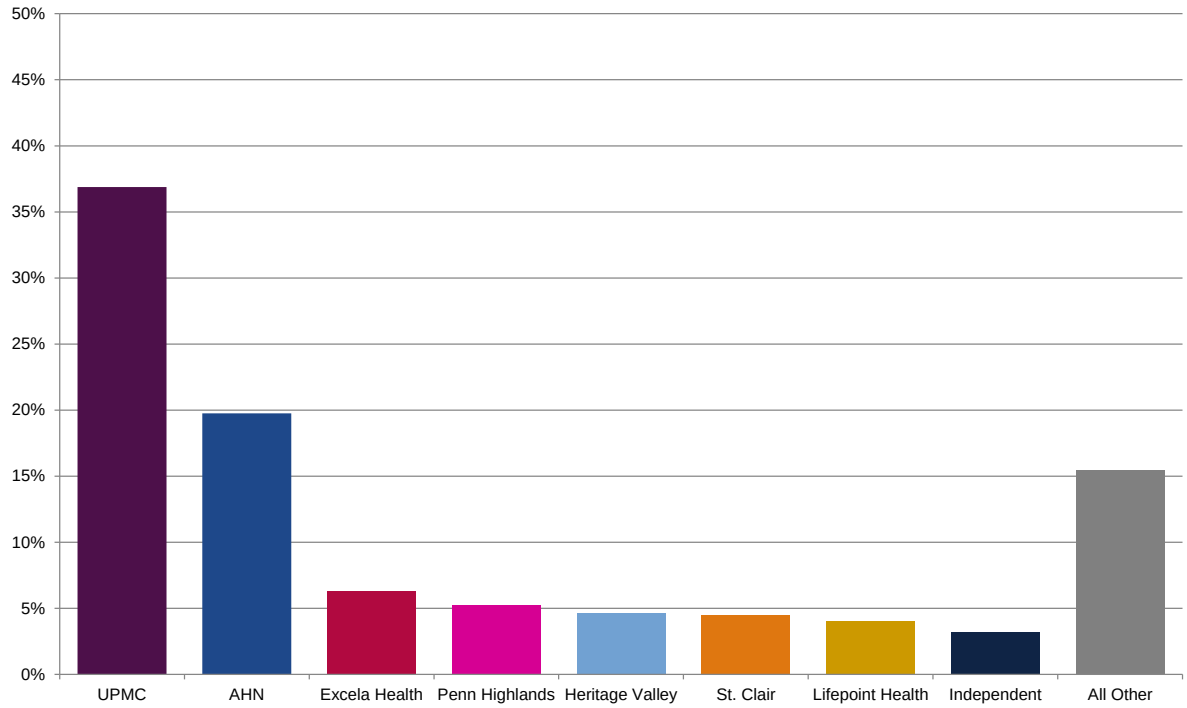
(15) Given that UPMC is both substantially larger than AHN and negotiates higher prices with Medicare Advantage insurers, AHN is unlikely to be the primary obstacle that such insurers may have faced in WPA. If AHN is not the primary impediment, then maintaining Conditions *on AHN alone* will not make its substantially easier or more likely for such insurers to enter.

II.A. AHN is not the most important hospital system for a Medicare Advantage insurer seeking to enter WPA

(16) Focusing on Medicare patients (both Original and Medicare Advantage), AHN accounts for slightly less than 20% of discharges in WPA. While AHN has grown relative to the 2010–2013 pre-transaction period, it is still significantly smaller than UPMC, which accounts for more than 35% of WPA discharges. Based on its higher share of discharges and greater number of hospitals in WPA, UPMC—which is not subject to Conditions under the 2013 Order—is likely the more critical hospital system for a Medicare Advantage insurer seeking to enter WPA. Figure 10 shows the relative sizes of UPMC and AHN, as well as the various independent and regional hospitals systems in WPA that are available to contract with current and prospective Medicare Advantage insurers.

[11] Highmark's Medicare Advantage competitors in WPA have already expanded significantly since 2013: (1) Aetna grew from a 12% share in 2012 to nearly 30% in 2024; (2) UPMC Health Plan's share grew 25% share in 2012 to over 30% in 2024; and (3) United grew from a near-zero share in 2014 to an 8% share in 2024. April 2024 Comments, Figure 4.

Figure 10. WPA Medicare discharge shares by system, 2023



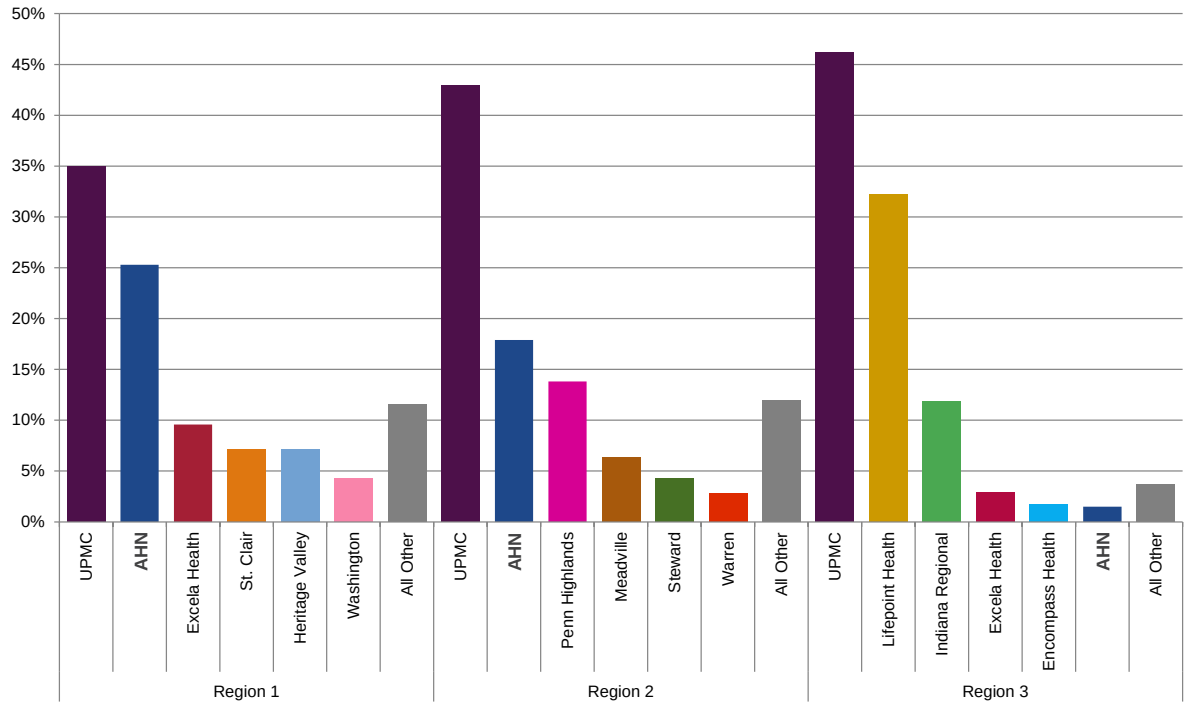
Source: PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: Systems with shares below 3% are grouped into "All Other." Shares include Original Medicare and Medicare Advantage discharges. Limited to GAC facilities and patients; *see* April 2024 Comments, Appendix A.1 for details.

(17) The same pattern depicted in Figure 10 applies to regions within WPA and to individual counties. The Pennsylvania Health Care Cost Containment Council (PHC4) defines three regions within WPA (*see* Figure 20 in Appendix B for a map). In Region 1, which includes Pittsburgh, AHN's share of Medicare discharges is 25%. In Region 2, which includes Erie, AHN's share is below 20%. In Region 3, which includes Altoona, AHN's share is negligible. In contrast, UPMC's share is 35% or higher in all three PHC4 regions in WPA. Each region also includes other, local hospital systems that are available to contract with Medicare Advantage insurers. *See* Figure 11.

(18) Finally, Figure 12 maps Medicare discharge shares by individual WPA county for UPMC, AHN, and other hospitals. AHN's share is below 25% in 27 of the 29 WPA counties. The exceptions are Erie (44%) and Allegheny (31%), but even in those counties, AHN's share of discharges is lower than UPMC's. Erie County accounts for about 6% of Medicare discharges in WPA.

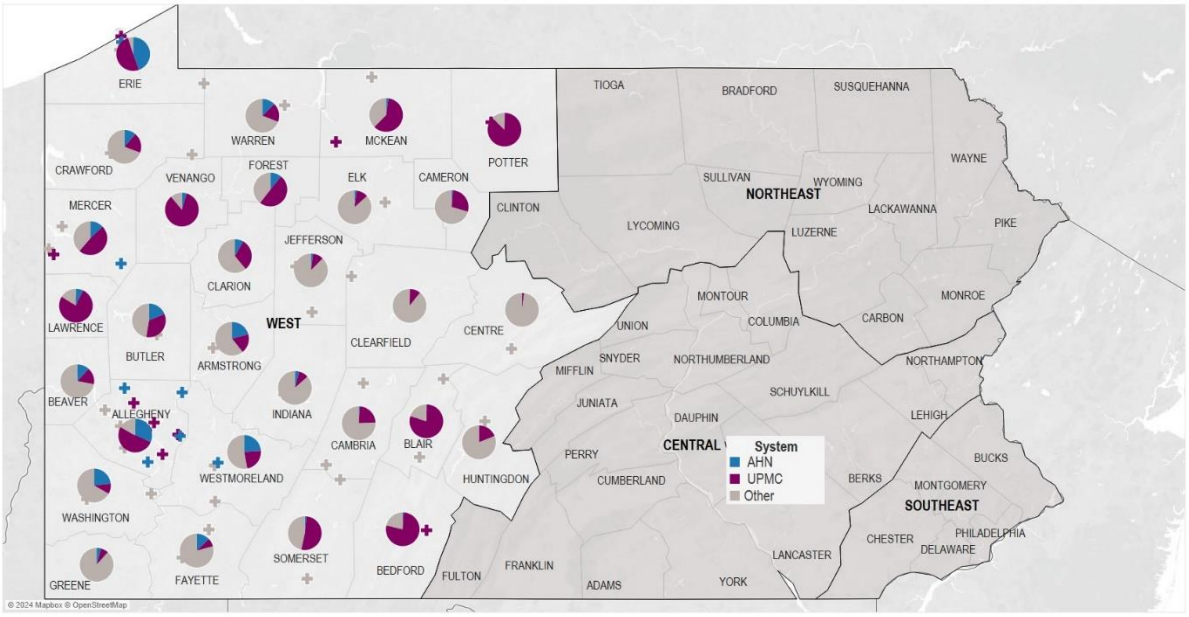
(19) In short, given its comparative lack of breadth and depth, AHN is not likely to be the primary driver of challenges Medicare Advantage insurers may have faced in attempting to enter WPA.

Figure 11. WPA Medicare discharge shares by system and region, 2023



Source: PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: Each region shows the top six systems by discharge shares; the remaining systems are grouped into "All Other." Shares include Original Medicare and Medicare Advantage discharges. Limited to GAC facilities and patients; *see* April 2024 Comments, Appendix A.1 for details.

Figure 12. WPA Medicare discharge shares by county, 2023



Source: PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: Shares include Original Medicare and Medicare Advantage discharges. Limited to GAC facilities and patients; *see* April 2024 Comments, Appendix A.1 for details.

II.B. AHN's pricing to non-affiliated Medicare Advantage insurers for inpatient hospital services is below UPMC's

(20) Since 2021, hospitals have been required to post the prices they negotiate with insurers, including for Medicare Advantage products.[12] I use this data, which is available from CMS, to compare inpatient pricing by AHN and UPMC hospitals in WPA with the two largest Medicare Advantage insurers in WPA that are not vertically integrated with a WPA: United and Aetna.[13] I focus on these two insurers rather than Highmark and UPMC Health Plan in order to evaluate the prices each hospital system obtains from an arm's-length negotiation with an unaffiliated insurer.

(21) United and Aetna pay higher prices for inpatient services to UPMC hospitals than to AHN hospitals.[14] As an example, consider a common inpatient condition, "Simple Pneumonia and Pleurisy with MCC" (DRG 193). For a DRG 193 discharge, prices to both United and Aetna exceed $9,000 for most UPMC hospitals and exceed $10,000 at several UPMC hospitals. The corresponding prices at most

12 CMS, "Hospital Price Transparency," https://www.cms.gov/priorities/key-initiatives/hospital-price-transparency.

13 April 2024 Comments, Figure 4.

14 I omit three UPMC hospitals (Somerset, Cole and Kane) that do not report prices for United or Aetna Medicare Advantage products. These hospitals account for 1.5% of UPMC's Medicare discharges. I also omit UPMC Bedford from the United charts because it only reports its prices for Aetna. UPMC Bedford accounts for 0.6% of UPMC's Medicare discharges.

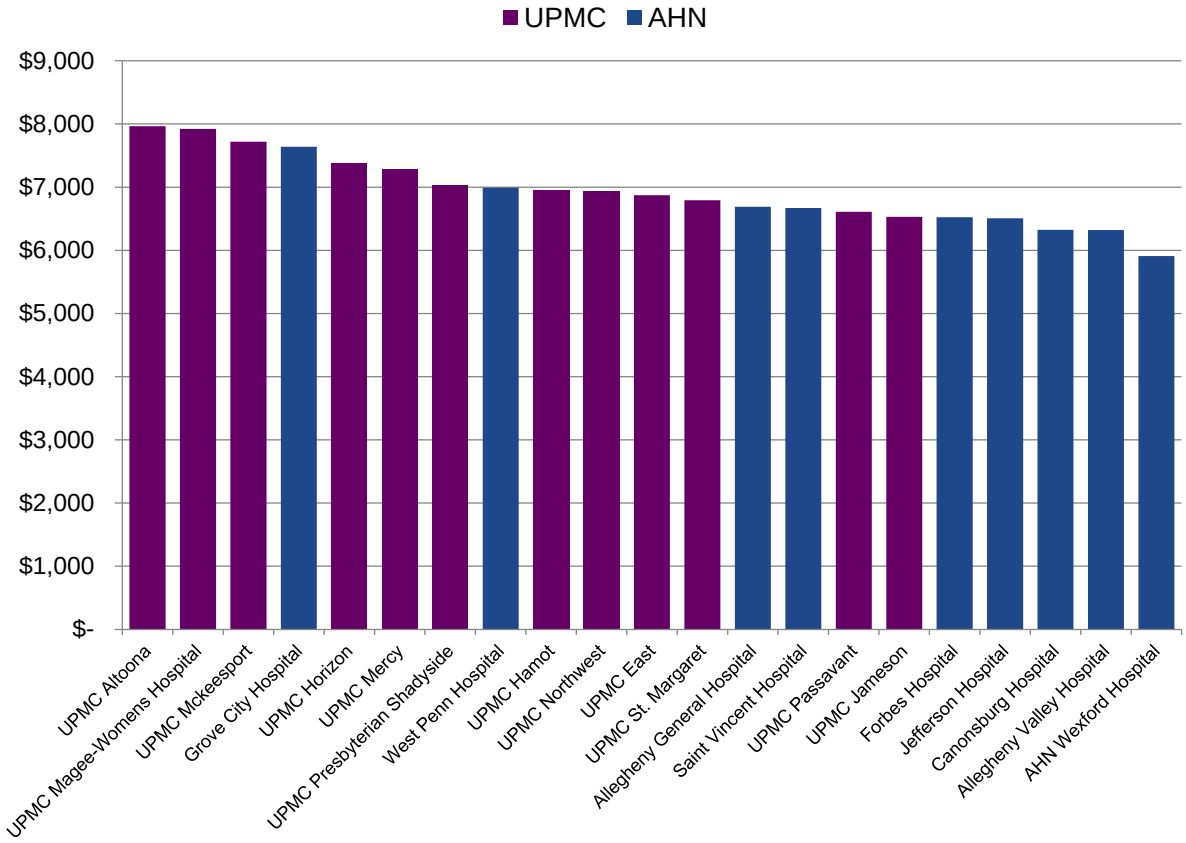
AHN hospitals are below $9,000 and several AHN hospitals are near or below $8,000. (For hospital-level pricing data for DRG 193, *see* Figure 17 in Appendix A.1.)

(22) To generalize the comparison, I compute average casemix-adjusted prices across the general acute care inpatient conditions treated at each hospital.[15] Results are in Figure 13 for United and Figure 14 for Aetna. Although the ordering of hospitals varies slightly, the takeaways from both are the same:

- For United, UPMC hospitals have the three highest prices, as well as eight of the top ten prices. In contrast, all of the five lowest-priced hospitals are AHN hospitals. (The AHN hospital with the highest price ranking, Grove City, is small at 450 Medicare discharges, or about 1.4% of AHN's total Medicare discharges.)
- For Aetna—and focusing on the lower UPMC price when two prices are reported—UPMC hospitals have the four highest prices as well as 10 of the 11 highest prices. In contrast, all six of the lowest-priced hospitals are AHN hospitals.
- Three UPMC hospitals are at the top of the pricing distribution for both United and Aetna: Altoona, Magee-Women's, and McKeesport. (These have the three highest casemix-adjusted prices for United and the second-, third-, and fourth-highest casemix-adjusted prices for Aetna.) These three UPMC hospitals account for 15% of all UPMC Medicare discharges in WPA.

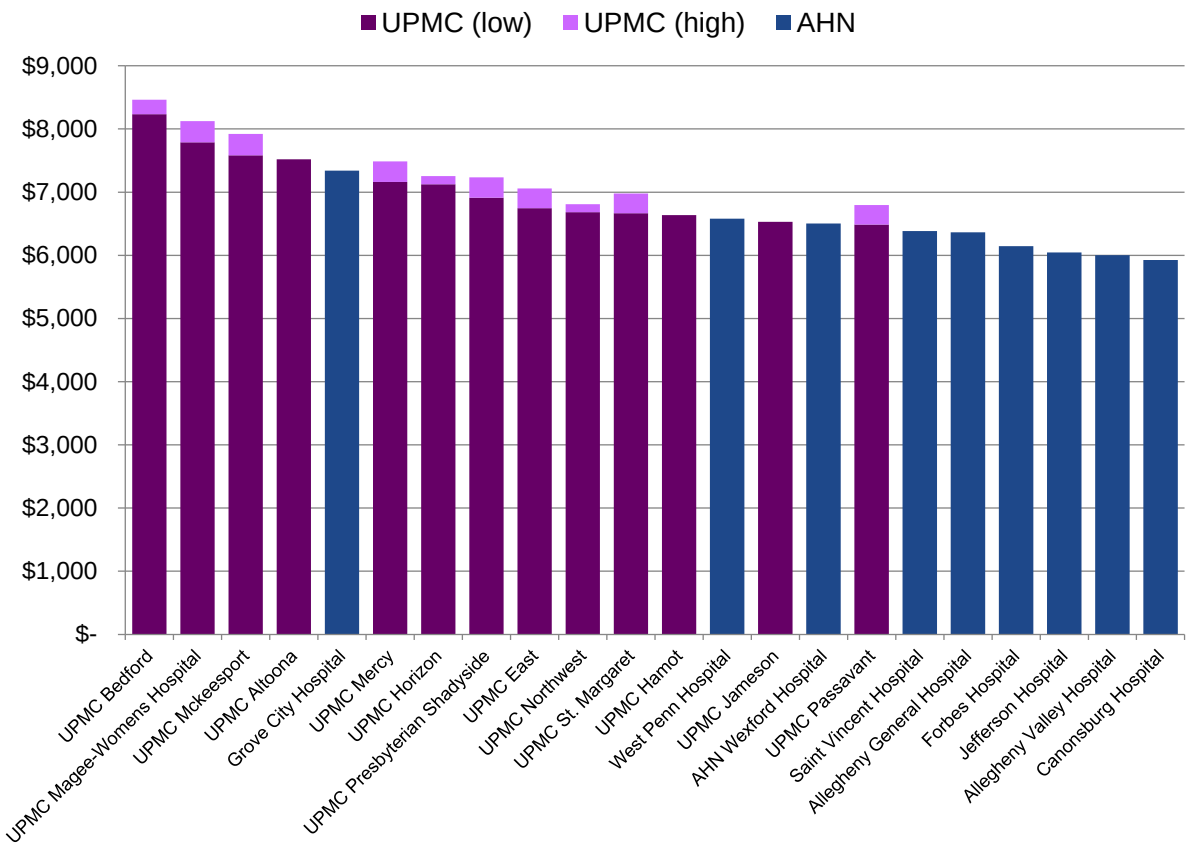
[15] CMS assigns weights to each DRG that represent "the average resources required to care for cases in that particular DRG, relative to the average resources used to treat cases in all DRGs." CMS, "MS-DRG Classifications and Software," https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/ms-drg-classifications-and-software. I use these DRG weights to construct casemix-adjusted prices; *see* Appendix A.3 for details.

Figure 13. Casemix-adjusted 2023 inpatient prices—United Medicare Advantage



Source: AHN and UPMC price transparency data; PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: *See* Appendix A for methodological details.

Figure 14. Casemix-adjusted 2023 inpatient prices—Aetna Medicare Advantage



Source: AHN and UPMC price transparency data; PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: Some UPMC hospitals have different prices for Aetna's "Medicare Advantage" and "Medicare Advantra" products. For those hospitals, dark and light purple shading indicates the lower and higher of the two prices. The bars are sorted based on the lower of the two prices. *See* Appendix A for methodological details.

III. *Does the Order approving the recent Risant/Geisinger transaction provide a basis for applying Conditions to Highmark/AHN that are similar to the Risant Conditions?*

(23) In this section, I show that the market positions of Risant/Geisinger's hospitals and AHN's hospitals in their respective geographies are not at all comparable. For example, Geisinger frequently accounts for the highest share of discharges in the counties surrounding its hospitals, but that is never the case for AHN.[16] More generally, compared with AHN's shares in WPA counties, Geisinger accounts for higher shares of discharges throughout most of its service area. Therefore, the importance of AHN to an insurer's provider network in WPA is likely less than the importance of Geisinger to an insurer's provider network in the Geisinger region.

(24) Figure 15 depicts the disparity in discharge shares between Geisinger and AHN hospitals.[17] Teal bars show Geisinger's shares in the counties that make up its self-defined primary and secondary service area (*see* Figure 21 in Appendix B for a map), and blue bars show the corresponding shares for AHN in each WPA county.

- Geisinger's discharge share exceeds 50% in nine counties and exceeds 70% in five counties. It also has the highest share in 11 of the 24 counties in its service areas.[18]
- AHN's share is less than 30% in all but one of the 29 counties in WPA and is uniformly below 40%. AHN does not have the highest discharge share in even one county, though it does have the second-highest share in five counties.

(25) Figure 16 maps discharge shares by county for AHN (blue), Geisinger (teal), and UPMC (plum).

- Geisinger is often the highest-share hospital system, particularly in the northern counties in Central Pennsylvania and around Scranton in Northeast Pennsylvania.
- UPMC (plum) is often the highest-share system—not only in WPA, but also in parts of Northeast and Central Pennsylvania.

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[16] Another significant distinction is that Risant was formed in 2024, whereas Highmark and AHN have an 11-year track record. In my April 2024 Comments, I evaluated that track record and showed that AHN has improved substantially—in terms of discharges, discharge shares, and quality—relative to the pre-transaction West Penn system. I also showed that Highmark Health has the financial ability and economic incentive to sustain AHN.

I am offering analyses of contrasts between Risant/Geisinger and Highmark/AHN; I am not offering an opinion on the policy basis for or economic logic of the Risant/Geisinger Conditions.

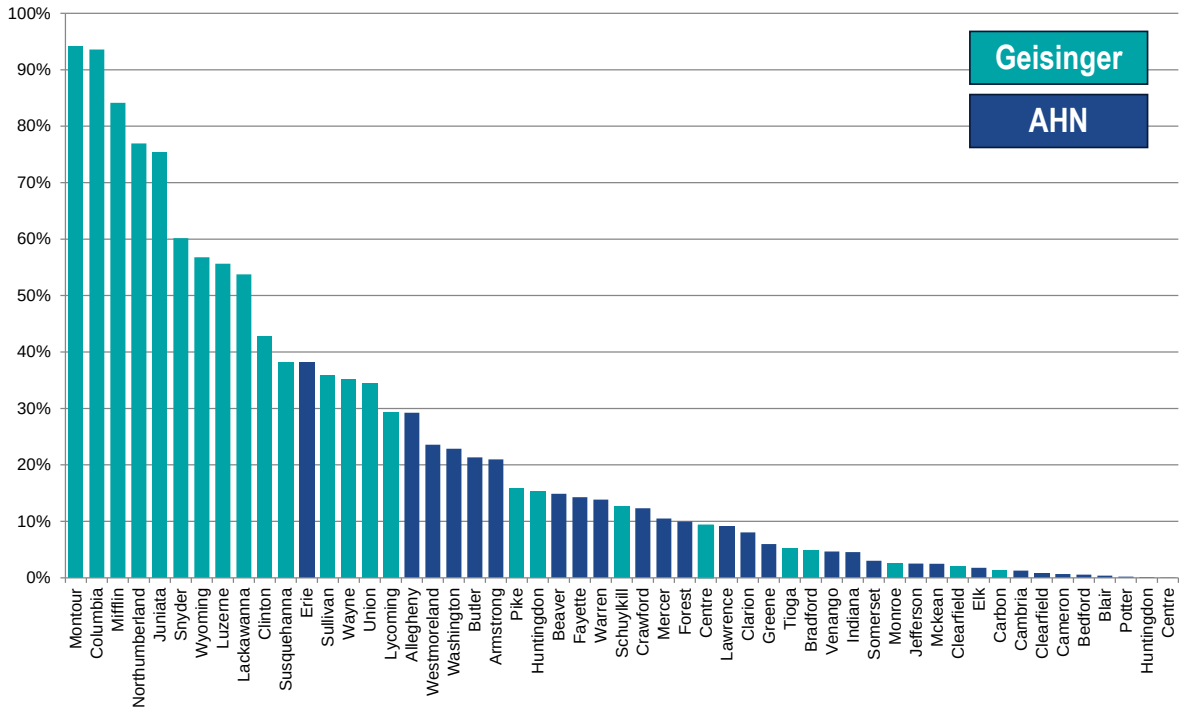
[17] Here, unlike in section II, I evaluate all-payer discharges because the focus is on the overall market positions of Geisinger and AHN hospitals rather than the importance of WPA hospital systems to Medicare Advantage insurers.

[18] I omit Geisinger-St. Luke's (GSL) from Geisinger's shares. GSL is a joint venture between Geisinger and St. Luke's University Health System (see https://geisingerstlukes.org/). Most GSL patients reside in Schuylkill County, where Geisinger's discharge share is 13% and GSL's is 21%, for a combined share of 33%.

- AHN (blue) is never the highest-share hospital system.
- AHN has a significant share of discharges—above 5% to 10%—in fewer counties than Geisinger or UPMC.

(26) The sharp distinctions between the market positions of the two systems' hospitals implies that the predicates for Conditions applicable to Risant/Geisinger, in all likelihood, do not carry over to Highmark/AHN.[19]

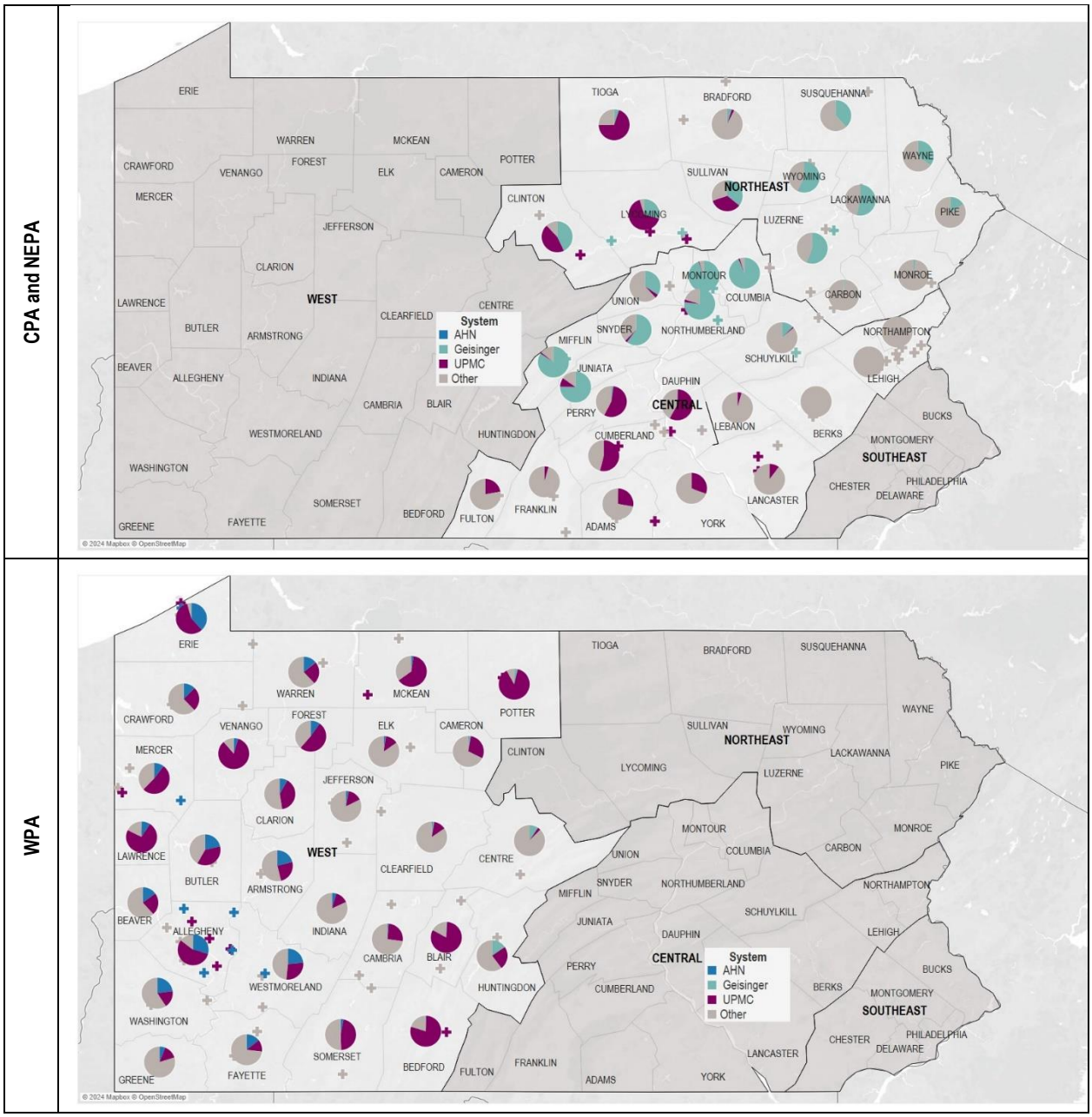
Figure 15. County-level all-payer discharge shares for Geisinger relative to AHN, 2023



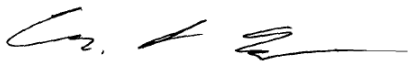
Source: PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: AHN counties are the 29 WPA counties. Geisinger counties are its primary and secondary service areas counties (*see* Figure 21). Limited to GAC facilities and patients; *see* April 2024 Comments, Appendix A.1 for details.

[19] On the insurer side, Geisinger Health Plan's Medicare Advantage enrollment shares exceed 40% in about a dozen counties in its primary and secondary service areas, whereas Highmark's highest Medicare Advantage enrollment share in any WPA county is 40%. For commercial products, Geisinger Health Plan's enrollment shares in and around the counties where its hospital discharge shares are highest—Montour, Northumberland, and Columbia—are on par with Highmark's commercial enrollment shares in WPA. In other counties in Geisinger's primary and secondary service areas, its commercial enrollment shares are lower than Highmark's shares in WPA. *See* Appendix B.2.

Figure 16. County-level all-payer discharge shares for CPA, NEPA, and WPA, 2023



Source: PHC4 inpatient discharge data (2023 Q1–Q2).
Notes: Limited to GAC facilities and patients; *see* April 2024 Comments, Appendix A.1 for details.



Cory S. Capps

May 22, 2024

Date

Appendix A. UPMC and AHN Medicare Advantage pricing

A.1. DRG 193 (Simple Pneumonia and Pleurisy with MCC) prices

Figure 17. Prices for DRG 193 (Simple Pneumonia and Pleurisy with MCC), 2023

Area	PHC4 region	Hospital	County	Medicare disch.	United	Aetna	
						Advantra	Advantage
Pittsburgh MSA	1	UPMC Magee-Womens Hospital	Allegheny	6	$10,590	$10,416	$10,852
	1	UPMC Mckeesport	Allegheny	46	$10,054	$9,879	$10,318
	1	UPMC Mercy	Allegheny	28	$9,688	$9,519	$9,942
	1	West Penn Hospital	Allegheny	17	$9,322	-	$8,784
	1	UPMC Presbyterian Shadyside	Allegheny	79	$9,289	$9,121	$9,541
	1	UPMC East	Allegheny	75	$8,998	$8,836	$9,241
	1	UPMC St. Margaret	Allegheny	41	$8,865	$8,704	$9,108
	1	Allegheny General Hospital	Allegheny	45	$8,849	-	$8,426
	1	UPMC Passavant	Allegheny	88	$8,584	$8,423	$8,824
	1	Forbes Hospital	Allegheny	58	$8,558	-	$8,069
	1	Jefferson Hospital	Allegheny	72	$8,532	-	$7,930
	1	Canonsburg Hospital	Washington	15	$8,214	-	$7,697
	1	Allegheny Valley Hospital	Allegheny	52	$8,209	-	$7,797
	1	AHN Wexford Hospital	Allegheny	23	$7,673	-	$8,446
Other WPA	3	UPMC Altoona	Blair	90	$10,438	$9,864	$9,864
	2	Grove City Hospital	Mercer	11	$9,921	-	$9,532
	2	UPMC Horizon	Mercer	44	$9,641	$9,473	$9,305
	2	UPMC Hamot	Erie	46	$9,121	$8,706	$8,706
	2	UPMC Northwest	Venango	52	$9,024	$8,862	$8,699
	2	Saint Vincent Hospital	Erie	58	$8,709	-	$8,338
	2	UPMC Jameson	Lawrence	76	$8,554	$8,554	$8,554
	3	UPMC Bedford	Bedford	45	-	$10,987	$10,691
	3	UPMC Somerset	Somerset	21	-	-	-
	2	UPMC Cole	Potter	13	-	-	-
	2	UPMC Kane	McKean	7	-	-	-

Source: AHN and UPMC price transparency data; PHC4 inpatient discharge data (2023 Q1–Q2).

A.2. Medicare Advantage pricing build-up

Figure 18. AHN and UPMC inpatient Medicare Advantage pricing in WPA to United, 2023

Area	PHC4 region	Hospital	County	Medicare discharges	Price
Pittsburgh MSA	1	UPMC Magee-Womens Hospital	Allegheny	1,506	$7,923
	1	UPMC Mckeesport	Allegheny	1,133	$7,719
	1	UPMC Mercy	Allegheny	4,091	$7,292
	1	UPMC Presbyterian Shadyside	Allegheny	17,907	$7,041
	1	West Penn Hospital	Allegheny	2,197	$6,993
	1	UPMC East	Allegheny	3,798	$6,872
	1	UPMC St. Margaret	Allegheny	3,904	$6,791
	1	Allegheny General Hospital	Allegheny	9,023	$6,690
	1	UPMC Passavant	Allegheny	7,034	$6,609
	1	Forbes Hospital	Allegheny	5,953	$6,522
	1	Jefferson Hospital	Allegheny	5,795	$6,508
	1	Canonsburg Hospital	Washington	732	$6,325
	1	Allegheny Valley Hospital	Allegheny	1,657	$6,321
	1	AHN Wexford Hospital	Allegheny	1,808	$5,908
Other WPA	3	UPMC Altoona	Blair	6,150	$7,964
	2	Grove City Hospital	Mercer	450	$7,639
	2	UPMC Horizon	Mercer	1,022	$7,384
	2	UPMC Hamot	Erie	6,429	$6,956
	2	UPMC Northwest	Venango	1,531	$6,933
	2	Saint Vincent Hospital	Erie	4,987	$6,669
	2	UPMC Jameson	Lawrence	2,003	$6,530
	3	UPMC Somerset	Somerset	921	-
	3	UPMC Bedford	Bedford	521	-
	2	UPMC Cole	Potter	298	-
	2	UPMC Kane	McKean	119	-
Pittsburgh MSA weighted average price				**AHN**	$6,554
				UPMC	$7,002
Other WPA weighted average price				**AHN**	$6,749
				UPMC	$7,076
All WPA weighted average price				**AHN**	$6,587
				UPMC	$7,025

Source: AHN and UPMC price transparency data; PHC4 inpatient discharge data (2023 Q1–Q2).

Figure 19. AHN and UPMC inpatient Medicare Advantage pricing in WPA to Aetna, 2023

Area	PHC4 region	Hospital	County	Medicare discharges	Advantra	Advantage
Pittsburgh MSA	1	UPMC Magee-Womens Hospital	Allegheny	1,506	$7,789	$8,124
	1	UPMC Mckeesport	Allegheny	1,133	$7,584	$7,922
	1	UPMC Mercy	Allegheny	4,091	$7,162	$7,488
	1	UPMC Presbyterian Shadyside	Allegheny	17,907	$6,912	$7,235
	1	UPMC East	Allegheny	3,798	$6,747	$7,059
	1	UPMC St. Margaret	Allegheny	3,904	$6,667	$6,978
	1	UPMC Passavant	Allegheny	7,034	$6,486	$6,795
	1	West Penn Hospital	Allegheny	2,197	-	$6,580
	1	AHN Wexford Hospital	Allegheny	1,808	-	$6,504
	1	Allegheny General Hospital	Allegheny	9,023	-	$6,365
	1	Forbes Hospital	Allegheny	5,953	-	$6,146
	1	Jefferson Hospital	Allegheny	5,795	-	$6,045
	1	Allegheny Valley Hospital	Allegheny	1,657	-	$6,004
	1	Canonsburg Hospital	Washington	732	-	$5,927
Other WPA	3	UPMC Bedford	Bedford	521	$8,463	$8,235
	3	UPMC Altoona	Blair	6,150	$7,522	$7,522
	2	Grove City Hospital	Mercer	450	-	$7,340
	2	UPMC Horizon	Mercer	1,022	$7,255	$7,125
	2	UPMC Northwest	Venango	1,531	$6,808	$6,683
	2	UPMC Hamot	Erie	6,429	$6,637	$6,637
	2	UPMC Jameson	Lawrence	2,003	$6,530	$6,530
	2	Saint Vincent Hospital	Erie	4,987	-	$6,384
	3	UPMC Somerset	Somerset	921	-	-
	2	UPMC Cole	Potter	298	-	-
	2	UPMC Kane	McKean	119	-	-
Pittsburgh MSA weighted average price				**AHN**		$6,242
				UPMC	$6,874	$7,194
Other WPA weighted average price				**AHN**		$6,463
				UPMC	$7,037	$7,012
All WPA weighted average price				**AHN**		$6,279
				UPMC	$6,925	$7,138

Source: AHN and UPMC price transparency data; PHC4 inpatient discharge data (2023 Q1–Q2).

A.3. Price calculation methodology

A.3.a. Data processing

(27) Starting in 2021, CMS began implementing requirements that all hospitals "provide clear, accessible pricing information online about the items and services they provide."[20] Most hospitals now post this information on their websites. The data list Medicare Severity Diagnosis Related Groups (MS-DRGs, often referred to simply as "DRGs"), which are three-digit codes which categorize inpatients with similar conditions.[21] For each DRG, a corresponding price to each insurance plan is listed. I use these data for the price calculations in section II.B.

(28) I focused on AHN and UPMC's prices for GAC hospitals in WPA. Both systems post separate files for each hospital on their websites.[22] I focus on the Aetna and United Medicare Advantage plans, because they are significant-sized insurers that are not integrated with either UPMC or Highmark Health, meaning that their prices reflect arm's-length negotiations.

(29) For reasons that are not entirely clear, several hospitals' data lack prices for an entire plan or for most DRGs. UPMC Cole, Kane, and Somerset list "N/A" values for most DRGs, so I exclude them.[23] UPMC Bedford lists "N/A" for United Medicare Advantage prices, so I exclude it from figures that display United's prices. AHN data do not have any missing or "N/A" values for the plans of interest.

(30) For Aetna, UPMC hospitals report two prices: one for "Medicare Advantage" and one for "Medicare Advantra." I report prices for both plans.

A.3.b. Casemix-adjusted price calculation

(31) AHN and UPMC's price data contain prices for 692 distinct DRGs that occur at varying frequencies for each hospital. To calculate an average price for each hospital-payer combination, I calculate a weighted average based on the frequency of each DRG at each hospital and adjust for casemix.

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[20] CMS, "Hospital Price Transparency," https://www.cms.gov/priorities/key-initiatives/hospital-price-transparency; CMS, "Hospital Price Transparency Enforcement Updates," https://www.cms.gov/newsroom/fact-sheets/hospital-price-transparency-enforcement-updates.

[21] "Currently, cases are classified into Medicare Severity Diagnosis Related Groups (MS-DRGs) for payment under the IPPS based on the following information reported by the hospital: the principal diagnosis, up to 24 additional diagnoses, and up to 25 procedures performed during the stay. In a small number of MS-DRGs, classification is also based on the age, sex, and discharge status of the patient." CMS, "MS-DRG Classifications and Software," https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/ms-drg-classifications-and-software.

[22] UPMC, "UPMC CMS Pricing Transparency Machine Readable Files," https://www.upmc.com/patients-visitors/paying-bill/pricing-transparency; AHN, "Price Transparency," https://www.ahn.org/patients-visitors/patients/financial-services/hospital-charges.

[23] The files describe "N/A" as "No contract or payment rate data available, or data field is not applicable."

1. For each hospital-payer combination, extract the price for each DRG from its hospital transparency files.
2. For each hospital, calculate the number of Medicare discharges (both Original and Medicare Advantage) associated with each GAC DRG in the first half of 2023. I exclude non-GAC discharges MDC 19 and 20 and DRGs 945, 946, 949, 950, 981, 999 (except when associated with MDC 23), and 795, consistent with the approach described in Appendix A.1 of my April 2024 Comments. I use these counts to compute the frequency of each DRG within each hospital.
3. Match DRG-level prices for each hospital and payer to the DRG frequencies from step (2).[24]
4. Apply the following standard formula to calculate casemix-adjusted prices.[25]

$$Casemix\text{-}adjusted\ price = \frac{\sum_{i=1}^{N} Price_i}{\sum_{i=1}^{N} DRG\ weight_i}\ or\ \frac{Total\ payments}{Total\ case\ weights}$$

5. To calculate the Pittsburgh, other WPA, and all WPA averages, I apply the formula above to all discharges associated with each system-region combination. That is, I divide total payments to the system by the total case weights at the system, rather than dividing total payments to a hospital by total case weights at a hospital.

[24] I exclude a small number of DRGs in cases where a hospital does not report prices. These account for 0.3% to 0.5% of discharges at each hospital.

[25] This formula computes casemix-adjusted prices by asking two questions: (1) How much was paid? (2) How many standardized units of service were provided? Dividing (1) by (2) gives the casemix-adjusted price, which is the price of a standardized inpatient hospital discharge. *See* CMS, Inpatient Prospective Payment System (IPPS), https://www.cms.gov/cms-guide-medical-technology-companies-and-other-interested-parties/payment/ipps ("The per-discharge payment amount" is determined by multiplying a "base payment rate" by "the MS-DRG relative weight.").

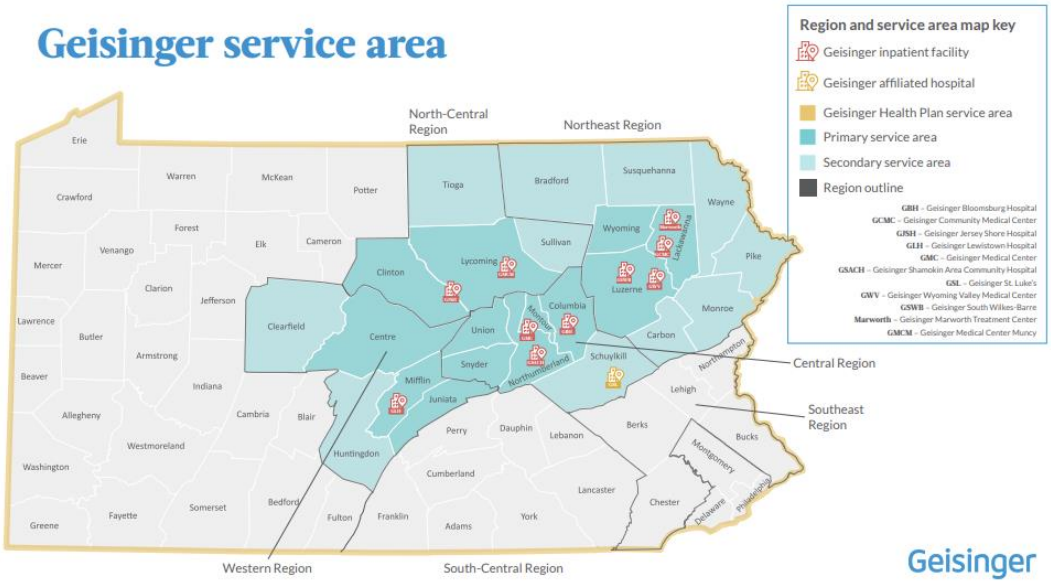
Appendix B. Additional materials

B.1. Region maps

Figure 20. PHC4 Regions

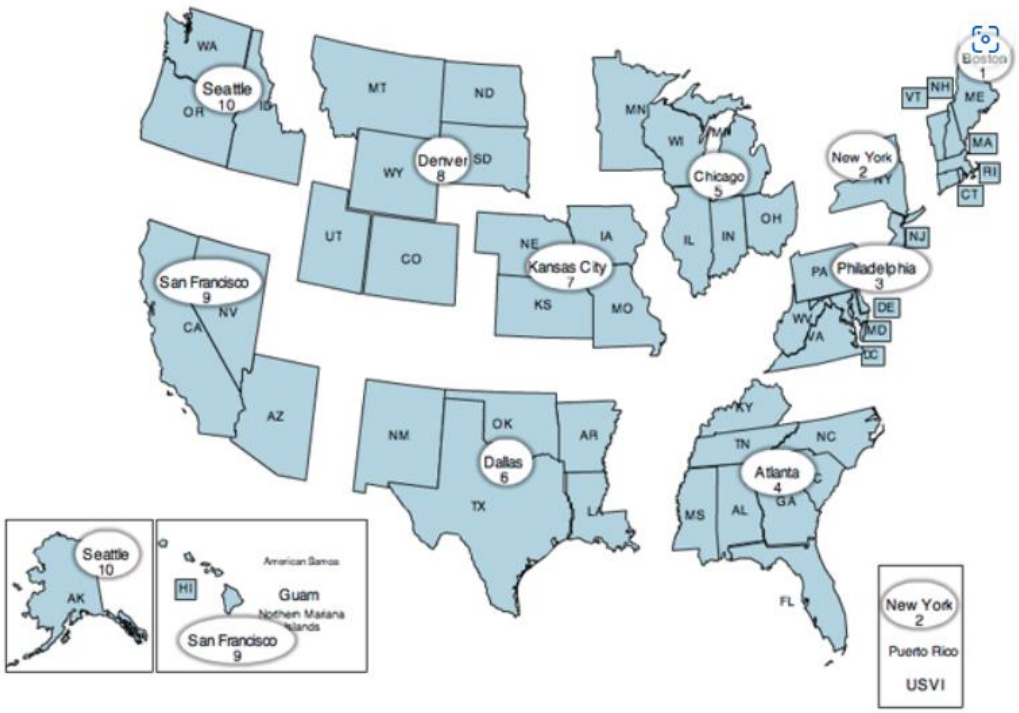
Source: https://www.phc4.org/wp-content/uploads/Map-Counties-by-Region.pdf.

Figure 21. Geisinger service area



Source: https://www.geisinger.org/-/media/OneGeisinger/pdfs/ghs/about-geisinger/pdfs/Geisinger-System-Map---August-2020.pdf.

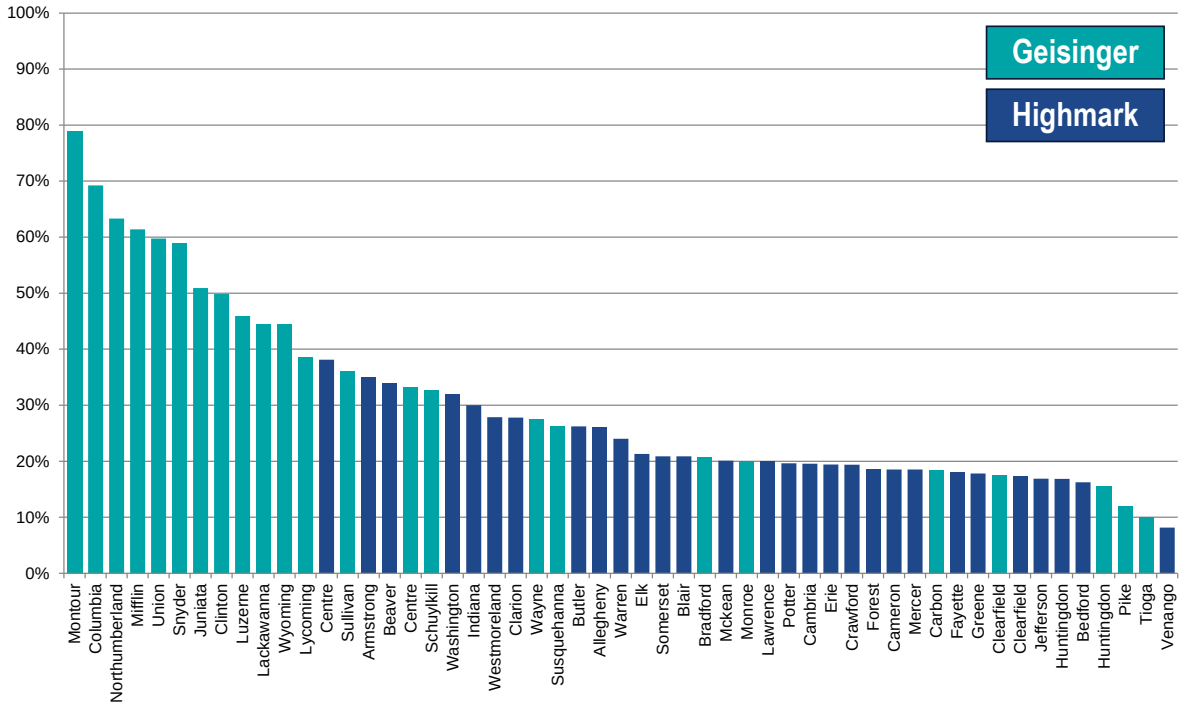
Figure 22. CMS Regions



Source: https://www.cms.gov/about-cms/where-we-are/regional-offices/cms-locations.

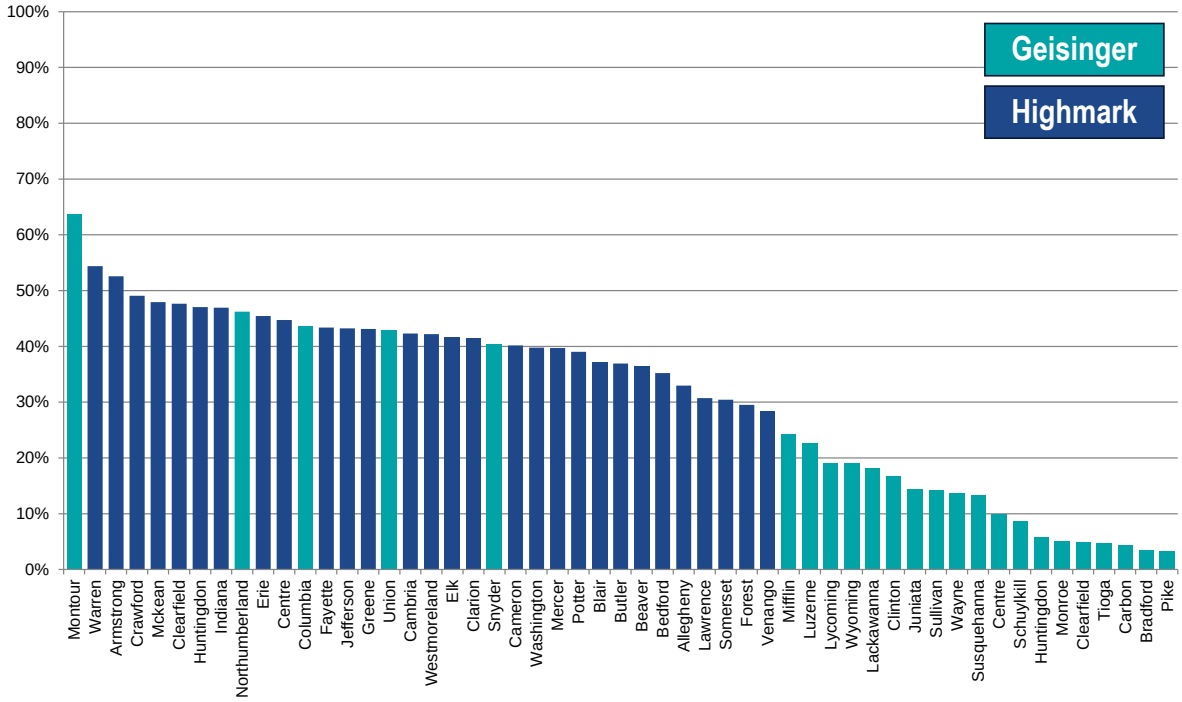
B.2. Geisinger Health Plan and Highmark enrollment shares by county

Figure 23. County-level Medicare Advantage enrollment shares for Geisinger Health Plan and Highmark



Source: CMS enrollment data, February 2024; https://www.cms.gov/data-research/statistics-trends-and-reports/medicare-advantagepart-d-contract-and-enrollment-data/monthly-ma-enrollment-state/county/contract.
Notes: AHN counties are the 29 WPA counties. Geisinger counties are its primary and secondary service areas counties (see Figure 21).

Figure 24. County-level commercial enrollment shares for Geisinger Health Plan and Highmark



Source: Interstudy data, 2023.
Notes: Limited to fully- and self-insured commercial group enrollees (excluding ACA plans). Highmark counties are the 29 WPA counties. Geisinger counties are its primary and secondary service areas counties.