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In the Matter of the Proposed Acquisition of Control of  
ARCADIAN HEALTH PLAN, INC.,  
by HUMANA INC. and its wholly owned subsidiary HUMSOL, INC.

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Statement of Competitive Impact on the State of Washington

No. 12-0010

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Cory Capps, PhD

## Table of Contents

I. Executive summary.....	1
II. Qualifications .....	3
III. CMS enrollment data indicate no competitive concern outside Yakima County.....	3
IV. Competitive concerns are also minimal in Yakima County .....	6
IV.A. Low penetration rates for MA plans in Yakima suggest that Medicare FFS is a meaningful constraint on MA plans in Yakima.....	6
IV.B. Enrollment shares overstate the likely competitive effect of the merger because of the differentiated nature of Humana and Arcadian's products .....	7
IV.C. Entry and repositioning .....	10
IV.D. Any incentive to increase price or diminish quality in Yakima County would be attenuated, because Humana's primary MA product in Yakima County is a local PPO with enrollees in eight counties .....	12
V. Arcadian's costs are high and the proposed acquisition is likely to result in substantial efficiencies .....	13
Appendix A. Curriculum vitae of Cory S. Capps.....	15

## I. Executive summary

Counsel for Humana Inc. (Humana) have asked me to analyze the likely competitive impact on the State of Washington and its residents of the proposed acquisition of Arcadian Health Plan, Inc. (Arcadian), by Humana. I have done this analysis and I conclude, based on the analyses presented herein and my experience analyzing competition in markets for healthcare generally and, in particular, markets for both commercial and government insurance plans, that the proposed acquisition is not likely to substantially lessen competition or tend to create a monopoly in the “health coverage business” in the State of Washington.<sup>1</sup>

Within the broader arena of the “health coverage business,” the proposed acquisition would have no anticompetitive effect, because, among other factors, Arcadian’s business is limited to Medicare Advantage programs and Humana is not a major presence in health benefits lines of business in Washington overall. Insofar as Washington law might encompass an assessment of competitive effects within a narrower line of health benefits products, depending on the businesses lines of the merging parties, I have focused my more detailed analysis on the only customers and the only line of business in which both Humana and Arcadian both compete; namely, Medicare beneficiaries and the sale of Medicare Advantage plans.

I also conclude that the proposed acquisition is not likely to substantially lessen competition or tend to create a monopoly with respect to Medicare beneficiaries or the sale of Medicare Advantage plans. This conclusion is based on the analyses presented herein, which, in turn, are based on (1) enrollment data by carrier, product, and county; (2) information on the characteristics of the products offered in Washington by both Humana and Arcadian; (3) information on the administrative costs of Humana and Arcadian; and (4) information on enrollments and disenrollments for Humana and Arcadian. I also conclude that, because Arcadian is inefficient in comparison to Humana, the acquisition offers substantial potential benefits that are likely to be realized post-merger.

In brief, the proposed acquisition is unlikely to adversely affect Medicare beneficiaries for the following reasons:

- Based on Medicare Advantage (MA) data from the Centers for Medicare and Medicaid Services (CMS), there is limited competitive overlap between Humana and

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<sup>1</sup> Under Washington law, the “health coverage business” means the business of a disability insurer authorized under chapter 48.05 RCW, a health care service contractor registered under chapter 48.44 RCW, and a health maintenance organization registered under chapter 48.46 RCW, entering into any policy, contract, or agreement to arrange, reimburse, or pay for health care services.

Arcadian in the sale of MA plans in the State of Washington.<sup>2</sup> Specifically, Yakima County is the only county in Washington State where both parties account for more than a very small proportion of MA enrollment.

- Medicare fee-for-service (FFS) also provides a degree of competitive constraint on Medicare Advantage plans that would not be eliminated by the proposed transaction. The strength of this constraint is, all else equal, greater where MA penetration is lower, and, in Yakima County, MA penetration is substantially below the national average. That is, seniors in Yakima County are more likely than average to select Medicare FFS.
  - Moreover, as a result of ongoing regulatory changes, such as the introduction of Medicare Part D plans and provisions in the Patient Protection and Affordable Care Act, Medicare Advantage programs face increased competition from the Medicare FFS program.
  - Humana planning documents confirm that it recognizes a need to offer MA benefit plans with costs substantially below those of the Medicare FFS program, so that its offerings will be financially attractive to Medicare FFS program beneficiaries.
- Whereas Humana's principal offering is an MA PPO plan, Arcadian only offers an MA HMO; this suggests that Humana and Arcadian are not close competitors within the MA space in Yakima. Other plans in Yakima operate HMO benefit plans that are more likely to be closer competitive substitutes to Arcadian than Humana. This lack of close competition between Humana and Arcadian is confirmed by the analysis of diversions presented below.
- Humana and Arcadian face competition from a number of other significant competitors in Yakima County. Several of these carriers, as well as carriers without current MA enrollment in Yakima County, have substantial operations in other parts of the state and could readily expand their Medicare Advantage offerings or enrollment in Yakima County. These carriers are well positioned to meaningfully constrain any exercise of market power.
- Any incentive to increase price or diminish quality in Yakima County would be further reduced because Humana's primary MA product there is a local PPO with enrollees in eight counties. Any change in competitive conditions in just one county amounts to a small change in the competitive environment of the overall plan (CMS

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<sup>2</sup> Calculation of enrollment shares within specific product types and geographies is only an initial step in a full antitrust investigation. As the DOJ and FTC explain in the *Horizontal Merger Guidelines*, market share and concentration criteria "provide one way to identify some mergers unlikely to raise competitive concerns and some others for which it is particularly important to examine whether other competitive factors confirm, reinforce, or counteract the potentially harmful effects of increased concentration." *Merger Guidelines*, § 5.3.

rules require a plan to offer the same benefits structure and premium throughout the plan's service area).

- The proposed acquisition will likely result in substantial efficiencies, due to Humana's demonstrably and substantially lower administrative costs. These costs are predominantly variable in nature rather than fixed, which further reduces the likelihood of any anticompetitive effect.

## II. Qualifications

I am a Partner in the Antitrust and Healthcare Practices at Bates White Economic Consulting, a professional services firm that conducts economic and statistical analyses in a variety of industries and forums. I specialize in performing economic and statistical analyses of competition, market definition, and market power in antitrust cases, with a particular emphasis on the healthcare industry. I have served as an expert for the Department of Justice, the Federal Trade Commission, several state agencies, and a variety of private entities in the healthcare industry, including both providers and insurers, as well as in other industries. Before joining Bates White, I was a Staff Economist at the Economic Analysis Group in the Antitrust Division of the Department of Justice. While at the Department of Justice, I worked on a large number of antitrust cases, including cases involving hospitals, physician groups, and insurers. Prior to joining the Department of Justice, I was on the faculty at Northwestern University's Kellogg School of Management and, before that, at the Department of Economics at the University of Illinois at Urbana-Champaign. I have a PhD in Economics from Northwestern University and a BA in Economics from the University of Texas at Austin.

A copy of my curriculum vitae appears in Appendix A.

## III. CMS enrollment data indicate no competitive concern outside Yakima County

CMS publishes state-, county-, and product-level MA enrollment data, which I use as a starting point to assess the degree of competitive overlaps between Humana and Arcadian.<sup>3</sup> Figure 1 summarizes the MA enrollment data at the state level. This simple tabulation highlights three implications about the degree of competitive overlap in this transaction:

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<sup>3</sup> Centers for Medicare & Medicaid Services, "Medicare Advantage/Part D Contract and Enrollment Data, Overview," <https://www.cms.gov/mcradvpartdenrolldata>. CMS regulates and oversees Medicare Advantage plans, including Medicare Advantage Special Needs Plans ("SNPs").

- Humana and Arcadian operate MA plans that serve relatively low numbers of enrollees in Washington.
  - Arcadian, with just under 2,700 enrollees in the State of Washington (as of February 2012), is the twelfth largest MA carrier in the state and is many times smaller than the larger MA carriers in the state.
  - Humana is the fourth largest MA carrier in the State of Washington and is just over one half the size of the second largest carrier and just over one third the size of the largest carrier.
- Using the Herfindahl-Hirschman Index (HHI) concentration standards set forth in the Department of Justice and the Federal Trade Commission's *Horizontal Merger Guidelines*, the merger will result in a small increase in concentration with respect to MA plans—roughly 24 points.<sup>4</sup> According to the *Merger Guidelines*, “mergers involving an increase in the HHI of less than 100 points are unlikely to have adverse competitive effects and ordinarily require no further analysis.”<sup>5</sup>

Note that these calculations, conservatively, exclude Medicare FFS entirely. Insofar as Medicare FFS exerts some competitive constraint on MA plans, these shares will overstate the degree of competitive overlap between Humana and Arcadian and the degree of concentration in the state and in individual counties.

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<sup>4</sup> The antitrust agencies commonly measure concentration using the Herfindahl-Hirschman Index (HHI), which is calculated as the sum of the squared market shares of each firm in a market and ranges from 0 (least concentrated) to 10,000 (monopoly). *Merger Guidelines*, § 5.3.

<sup>5</sup> *Merger Guidelines*, § 5.3.

**Figure 1: 2012 MA enrollment by carrier in Washington State**

Carrier	Washington State enrollment	Percentage of total Washington State enrollment
UnitedHealth Group, Inc.	68,062	27.7%
Group Health Cooperative	49,784	20.3%
Cambia Health Solutions, Inc.	28,081	11.4%
<b>Humana Inc.</b>	<b>27,512</b>	<b>11.2%</b>
Community Health Plan of Washington	17,226	7.0%
Puget Sound Health Partners, Inc.	16,093	6.5%
Kaiser Foundation Health Plan, Inc.	11,886	4.8%
Munich American Holding Corporation	10,517	4.3%
Molina Healthcare, Inc.,	4,960	2.0%
Essence Group Holdings Corporation	4,379	1.8%
Health Net, Inc.	3,230	1.3%
<b>Arcadian Management Services Inc.</b>	<b>2,680</b>	<b>1.1%</b>
Providence Health & Services	1,341	0.5%
CareOregon, Inc.	33	0.0%
<b>Total</b>	<b>120,501</b>	<b>100.0%</b>

Source: CMS Medicare Advantage/Part D Contract and Enrollment Data for February 2012. CMS masks enrollment information when a specific plan has 10 or fewer enrollees within a county; as a result, the figures above slightly understate total enrollment.

I also examine enrollment at the county level to further investigate the extent of competitive overlap.<sup>6</sup> As shown in Figure 2, the only two counties where Arcadian and Humana both have MA enrollees are Spokane and Yakima.

- In Spokane County, there are 22,109 MA enrollees; this indicates that the combined firm would have a share of about 12% and that the merger would increase the HHI by about 77 points, under the assumption that MA-only is an appropriate relevant product market for this acquisition. Such a small change suggests that the merger is extremely unlikely to adversely affect competition.
- In Yakima County, there are only 6,781 MA enrollees; this indicates that the combined firm would have a share of about 53% and suggests that the degree of overlap between the merging parties is in the range where further exploration is appropriate, under the assumption that MA-only is an appropriate relevant product market for this acquisition. Arcadian has 552 MA enrollees in Yakima County, or about 8.1% of total MA enrollment in the county.

<sup>6</sup> I study counties because (1) the service areas of MA plans' are defined at the county level, meaning that plan service areas comprise one or more counties and (2) the set of MA plans that a potential enrollee can select from is determined by her county of residence. This is not to say that concentration at the state level is not informative; it may give important insight into the set of "market participants" for any particular county. See *Merger Guidelines*, § 5.1.

Figure 2: 2012 MA enrollment by county for Arcadian, Humana, and all other carriers

County	Arcadian		Humana		All other carriers	
	Enrollment	MA Share	Enrollment	MA Share	Enrollment	MA Share
Benton	694	21.1%		0.0%	2,591	78.9%
Clark		0.0%	3,026	12.2%	21,815	87.8%
Cowlitz		0.0%	969	13.6%	6,137	86.4%
Franklin	173	19.4%		0.0%	718	80.6%
Island		0.0%	332	8.2%	3,702	91.8%
King		0.0%	8,601	13.2%	56,324	86.8%
Kitsap		0.0%	1,279	25.0%	3,829	75.0%
Pierce		0.0%	4,064	15.5%	22,105	84.5%
Snohomish		0.0%	4,383	12.4%	30,858	87.6%
<b>Spokane</b>	<b>1,261</b>	<b>5.7%</b>	<b>1,487</b>	<b>6.7%</b>	<b>19,361</b>	<b>87.6%</b>
Whatcom		0.0%	337	3.4%	9,526	96.6%
<b>Yakima</b>	<b>552</b>	<b>8.1%</b>	<b>3,034</b>	<b>44.7%</b>	<b>3,195</b>	<b>47.1%</b>

Source: CMS Medicare Advantage/Part D Contract and Enrollment Data for February 2012

#### IV. Competitive concerns are also minimal in Yakima County

As noted above, examining shares is only a starting point in an antitrust analysis of a merger or acquisition. In this section, I describe features of the competitive environment in Yakima County that indicate that harm to competition is also unlikely there.

##### IV.A. Low penetration rates for MA plans in Yakima suggest that Medicare FFS is a meaningful constraint on MA plans in Yakima

The Medicare Advantage penetration rate in Yakima County in February 2012 was 20%.<sup>7</sup> In other words, 80% of eligible Yakima seniors choose not to enroll in any MA plan and instead enroll in the Medicare FFS program.<sup>8</sup> This relatively low penetration rate means that, faced with the choice between Medicare FFS and an MA plan, a large majority of eligible seniors chooses Medicare FFS. That is, Medicare FFS likely imposes a greater competitive constraint on MA plans in Yakima than in it does other areas where MA penetration is higher.

<sup>7</sup> By comparison, the overall MA penetration rate in the state is 28%, 31% in Spokane County, and 30% in King County.

<sup>8</sup> By way of comparison, in 2008 the Department of Justice challenged UnitedHealth Group's acquisition of Sierra Health Services. That merger primarily affected Clark and Nye Counties, in Nevada. In 2008, MA penetration rates in these two counties were 36.4% and 45.9%, and the merging carriers would have had a post-merger share of enrollment of 94%. See Centers for Medicare & Medicaid Services, "MA State/County Penetration File for June 2008," available at <http://www.cms.gov/MCRAdvPartDEnrolData/Downloads/MA%20Penetration%20-%20June%202008.zip> and U.S. Department of Justice, "Competitive Impact Statement," *U.S. v. UnitedHealth Group*, No. 00322 (D.D.C. February 25, 2008), available at <http://www.justice.gov/atr/cases/f230400/230448.htm>.

Moreover, because of ongoing regulatory changes, Medicare Advantage programs face increased competition from the Medicare FFS program. This began in 2006 with the introduction of Medicare Part D plans that allowed seniors enrolled in Medicare FFS to obtain prescription drug coverage. More recently, under provisions of the Patient Protection and Affordable Care Act (PPACA), Medicare FFS enrollees will face no copayments for many covered preventive care services; this benefit was previously available only to seniors enrolled in MA plans.<sup>9</sup> At the same time, funding to MA plans is also scheduled to decrease, which will likely narrow the gap between the range of benefits that MA plans can offer and the coverage offered by Medicare FFS.<sup>10</sup>

#### **IV.B. Enrollment shares overstate the likely competitive effect of the merger because of the differentiated nature of Humana and Arcadian's products**

As noted in the *Merger Guidelines*, “[i]n differentiated product industries, some products can be very close substitutes and compete strongly with each other, while other products are more distant substitutes and compete less strongly.”<sup>11</sup> In this sense, an analysis of shares in Yakima County will overstate the competitive overlap of the two parties if the products they offer to enrollees are more distant substitutes than the products offered by competing carriers. As I explain in this section, this is indeed the case in Yakima County.

MA plans are significantly differentiated in terms of breadth of provider network, case management, member premiums, and out-of-pocket expenses. Nearly all MA plans fall into one of the following categories:<sup>12</sup>

- **Health Maintenance Organization (HMO) plans** cover health care services provided within a specified network of providers. Except for emergencies, these plans do not cover care received outside the network. Most HMOs require the beneficiary to have or choose a primary care physician (PCP) in the plan network. The PCP provides general medical care and authorizes referrals to in-network specialists. HMOs typically have relatively low out-of-pocket costs.
- **Point-of-Service (POS) plans** are similar to HMO plans but add the option of seeing out-of-network providers at a reduced level of benefits. POS plans often require

<sup>9</sup> Centers for Medicare & Medicaid Services, “Medicare Preventive Services, Quick Reference Information: Preventive Services,” available at [http://www.cms.gov/MLNProducts/downloads/MPS\\_QuickReferenceChart\\_1.pdf](http://www.cms.gov/MLNProducts/downloads/MPS_QuickReferenceChart_1.pdf).

<sup>10</sup> For a summary of the funding changes enacted in PPACA and estimates of the impact on Medicare Advantage plans law, see “Health Policy Brief: Medicare Advantage Plans,” *Health Affairs*, June 15, 2011, available at [http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief\\_id=48](http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=48).

<sup>11</sup> *Merger Guidelines*, § 6.1.

<sup>12</sup> United Healthcare, “Medicare Advantage Plans,” <https://www.uhmedicareolutions.com/health-plans/medicare-advantage-plans>.

members to choose a PCP to manage their care. Out-of-pocket costs for POS plans are typically higher than for HMO plans, but lower than for PPO plans.

- **Preferred Provider Organization (PPO) plans** allow enrollees to see providers for all covered services outside the provider network, as long as the provider accepts Medicare. PPO plans are structured so that enrollees have an economic incentive to use providers within the provider network, but they also provide coverage for out-of-network care. Selection of a PCP and referrals to specialists are usually not required. In exchange for this added flexibility, PPO plans generally have higher high out-of-pocket costs.
- **Medicare Private Fee-For-Service (PFFS) plans** often have no pre-defined network of participating providers. Enrolled beneficiaries can select any doctor, hospital, or other types of providers willing to accept the plan’s payment terms.

As illustrated in Figure 3, in Yakima County, Arcadian offers only an HMO plan while Humana offers PPO and PFFS plans.<sup>13</sup> This distinction suggests that the merging parties may not be close substitutes or that shares of MA enrollment may overstate the degree of substitutability between them.

**Figure 3: 2012 MA enrollment in Arcadian and Humana plans in Yakima County, by plan type**

Carrier	Plan type	Enrollment
Arcadian Management Services Inc.	HMO/HMOPOS	552
Humana Inc.	Local PPO	2,615
	PFFS	419

Source: CMS Medicare Advantage/Part D Contract and Enrollment Data for February 2012. CMS masks enrollment information when a specific plan has 10 or fewer enrollees within a county; as a result, the figures above slightly understate total enrollment.

The degree of differentiation can be quantified empirically by analyzing “win/loss” data that provide information on where members go when they disenroll from an MA plan.<sup>14</sup> Specifically, these data can be used to calculate “diversion ratios,” which reflect the degree of substitution between two products.<sup>15</sup> Win/loss data and corresponding diversion ratios are presented in Figure 4 and Figure 5.

<sup>13</sup> In 2012, Arcadian’s HMO H5416-009 (with 519 Yakima County enrollees) has a \$25 monthly premium, while Humana’s PPO H6609-013 (with 2,615 Yakima County enrollees) has a \$59 monthly premium.

<sup>14</sup> I use two data sets for each carrier—data on Adds and Drops—and identify switches between Humana and Arcadian by matching the beneficiary Medicare IDs. I eliminate intra-carrier plan switches and members who die. Adds are counted as matched when the beneficiary enrolls with the counterparty carrier within two months (in either direction) of the drop date. Adds to plans outside of Yakima County are also counted as matched, which is a conservative assumption (i.e., it results in higher diversions).

<sup>15</sup> Formally, the diversion ratio between two firms is the percentage of the sales that one firm would lose in response to raising its price that would shift to the merger partner. For example, if Firm A would lose 100 customers in total in

**Figure 4: Diversions from Arcadian to Humana in Yakima County, December 2008–August 2011**

Total drops from Arcadian	Drops from Arcadian to Humana	Diversión ratio
115	15	13.0%

Source: Matching based on Medicare ID from Arcadian and Humana enrollment and disenrollment records.

**Figure 5: Diversions from Humana to Arcadian in Yakima County, December 2008–December 2010<sup>[1]</sup>**

Total drops from Humana	Drops from Humana to Arcadian	Diversión ratio
70	3	4.3%

Source: Matching based on Medicare ID from Arcadian and Humana enrollment and disenrollment records.

<sup>[1]</sup> The end period of this analysis is truncated to December 2010 to account for the fact that Arcadian was under a CMS-imposed enrollment freeze during the first half of 2011.

These diversions are substantially lower than the diversions one would expect based on just the share information in Figure 2. That is, under the assumptions of (1) no differentiation between MA products and (2) no competitive restraint from Medicare FFS, the *expected* diversions would be 49% (Arcadian to Humana) and 15% (Humana to Arcadian). The *observed* diversions are much smaller:

- Arcadian to Humana. Humana accounts for about 49% of the non-Arcadian MA enrollment in Yakima ( $44.7\% \div (1 - 8.1\%) = 49\%$ ). Absent differentiation between Humana and Arcadian and absent any constraining influence from Medicare FFS, the diversion from Arcadian to Humana should be roughly 49%. As shown in Figure 4, the *actual* diversion from Arcadian to Humana is much lower, about 13.0%.
- Humana to Arcadian. Arcadian accounts for about 15% of the non-Humana MA enrollment in Yakima ( $8.1\% \div (1 - 44.7\%) = 15\%$ ). Absent differentiation between Humana and Arcadian and absent any constraining influence from Medicare FFS, the diversion from Arcadian to Humana should be roughly 15%. As shown in Figure 5, the *actual* diversion from Humana to Arcadian is much lower, about 4.3%.

The observed degree of switching between Humana and Arcadian is significantly *less* than what their shares of MA enrollment would indicate. This indicates that the MA-only shares *overstate* the degree of substitutability between Humana and Arcadian and, therefore, overstate the risk of harm to competition from the proposed acquisition. The likely explanation for the low observed diversions is a combination of two factors. First, the products that Humana and Arcadian offer in Yakima are differentiated and likely appeal to different members of the eligible population. Second, the diversions implied by MA-only

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response to a given price increase and 20 of those customers would shift to Firm B, the diversion ratio between Firm A and Firm B is 20%. See *Merger Guidelines*, § 6.1.

shares take no account of Medicare FFS when, in fact, many members of MA plans do switch to Medicare FFS (although Medicare FFS draws a smaller percentage of enrollees than its 80% share of enrollment among the eligible population would indicate, the absolute level of substitution to Medicare FFS is still meaningful).

#### **IV.C. Entry and repositioning**

Entry and repositioning of non-merging firms is another factor to consider when evaluating mergers.<sup>16</sup> As explained in the *Horizontal Merger Guidelines*, a firm need not be currently selling a product or service in the relevant market to be considered a market participant. Moreover, the *Merger Guidelines* recognize that firms currently active in the relevant product may expand output or reposition their products in response to a reduction in output by the merged entity.<sup>17</sup>

In this case, a number of MA carriers already operating in Yakima County appear to be well positioned to expand their enrollment to discipline any attempt to exercise market power by the merged entity. In particular, as shown in Figure 6, the three carriers other than the merging parties with enrollment in Yakima County all have significant enrollment in other areas of the state. Notably, Group Health and Cambia have larger shares outside of Yakima County than in Yakima County. And, while Community Health Plan has a smaller share of MA enrollment outside of Yakima County than in Yakima County, it has MA enrollment in 27 Washington counties. These facts suggest that these carriers are well-positioned to rapidly increase enrollment in Yakima County in response to any attempt to exercise market power (and that they may well do so in any case).

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<sup>16</sup> *Merger Guidelines*, § 9.

<sup>17</sup> *Merger Guidelines*, § 5.1:

Firms that are not current producers in a relevant market, but that would very likely provide rapid supply responses with direct competitive impact in the event of a SSNIP, without incurring significant sunk costs, are also considered market participants. These firms are termed "rapid entrants" . . . Firms that produce the relevant product but do not sell it in the relevant geographic market may be rapid entrants. Other things equal, such firms are most likely to be rapid entrants if they are close to the geographic market.

**Figure 6: MA enrollment of Yakima County carriers in other Washington counties**

Carrier	Yakima County		All other Washington counties		
	Enrollment	Share	Enrollment	Share	Number of counties
Humana Inc.	3,034	44.7%	24,478	10.2%	9
Community Health Plan of Washington	1,766	26.0%	15,460	6.5%	27
Group Health Cooperative	915	13.5%	48,869	20.4%	17
Arcadian Management Services Inc.	552	8.1%	2,128	0.9%	3
Cambia Health Solutions, Inc.	514	7.6%	27,567	11.5%	25
9 other carriers <sup>18</sup>	0	0.0%	120,501	50.4%	2 - 21
<b>Total</b>	<b>6,781</b>	<b>100.0%</b>	<b>239,003</b>	<b>100.0%</b>	

Source: CMS Medicare Advantage/Part D Contract and Enrollment Data for February 2012.

Group Health is particularly notable. Its 5-star rating provides it with more flexibility to expand, because a 5-star rating allows an MA carrier to market to and enroll beneficiaries throughout the year, while other carriers can only enroll beneficiaries during a seven-week period beginning in mid-October.<sup>19</sup> In addition, as a result of its 5-star rating, Group Health receives bonus payments that must be used to improve the quality or expand the services offerings of its plans, making Group Health's offerings more attractive.

Furthermore, a number of carriers that do not currently have enrollment in Yakima County do have significant statewide enrollment. For example, as shown in Figure 7, UnitedHealth has MA enrollment in 13 Washington counties (including King, Lewis, and Pierce) and accounts for nearly 28% of statewide MA enrollment. Munich American, while accounting for only about 4% of statewide MA enrollment, has enrollment in 21 Washington counties (including Benton, King, Kittitas, Lewis, and Pierce). Considering the presence that these carriers already have in other areas of Washington, one or more of them could likely enter Yakima County, should competitive conditions change as a result of the transaction.

<sup>18</sup> The nine carriers with enrollment in Washington, but not in Yakima County, are UnitedHealth, Puget Sound Health Partners, Kaiser Foundation, Munich American, Molina, Essence, Health Net, Providence, and CareOregon. The number of Washington counties in which these carriers have enrollment range from 2 counties (Health Net and CareOregon) to 21 counties (Munich American).

<sup>19</sup> Mindy Yochelson, "Nine Medicare Advantage Plans Receive Five-Star Ratings in 2012, CMS Data Show," *Health Insurance Report*, October 19, 2011, available at <http://www.bna.com/nine-medicare-advantage-n12884903928/>.

**Figure 7: Statewide MA enrollment for carriers with no current MA enrollment in Yakima County**

Carrier	Washington enrollment	Percentage of total Washington enrollment	Washington counties with enrollment
UnitedHealth Group, Inc.	68,062	27.7%	13
Puget Sound Health Partners, Inc.	16,093	6.5%	9
Kaiser Foundation Health Plan, Inc.	11,886	4.8%	8
Munich American Holding Corporation	10,517	4.3%	21
Molina Healthcare, Inc.,	4,960	2.0%	6
Essence Group Holdings Corporation	4,379	1.8%	4
Health Net, Inc.	3,230	1.3%	2
Providence Health & Services	1,341	0.5%	3
CareOregon, Inc.	33	0.0%	2
<b>Total</b>	<b>120,501</b>	<b>49.0%</b>	<b>100.0%</b>

Source: CMS Medicare Advantage/Part D Contract and Enrollment Data for February 2012.

**IV.D. Any incentive to increase price or diminish quality in Yakima County would be attenuated, because Humana’s primary MA product in Yakima County is a local PPO with enrollees in eight counties**

When firms offer the same product at the same price to a large number of consumers, a merged firm may choose not to increase price if competitive overlap is restricted to a relatively small number of consumers. Said differently, the impact of even a large change in competitive conditions on a small set of customers will be attenuated when a firm is constrained to price uniformly to a broader set of customers.

Enrollment data indicate that, at least for Humana’s MA products, pricing is not predominantly determined by conditions in Yakima County. CMS requires MA carriers to offer the same plan design and structure throughout the service area of each plan. In this instance, Humana’s primary MA product in Yakima County is a local PPO (H6609-013) that covers eight counties.<sup>20</sup> This means that, post-merger, Humana could not increase the price or decrease the quality of Arcadian’s plan in just Yakima County; instead, it would have to do so throughout the eight Washington counties covered by Humana’s local PPO. Moreover, as shown in Figure 8, Yakima County accounts for a distinct minority, about 17%, of the total enrollment in Humana’s local PPO. This means that, were Humana to attempt to increase its price on its local PPO product, it would reduce its profits on 83% of its enrollment in the hopes of increasing its profits by a greater amount on just 17% of its enrolment—an unlikely prospect.

<sup>20</sup> In February 2012, Humana’s local PPO (H6609-13) accounted for 2,615 (86.2%) of the 3,034 Yakima county enrollees in Humana MA plans.

**Figure 8: Washington counties covered by Humana's primary plan in Yakima County, local PPO H6609-013**

County	Enrollment	Percentage of H6609-013 enrollment
King	6,502	42.1%
Yakima	2,615	16.9%
Pierce	2,535	16.4%
Snohomish	1,553	10.0%
Kitsap	1,027	6.6%
Spokane	648	4.2%
Island	291	1.9%
Whatcom	284	1.8%
<b>Total</b>	<b>15,455</b>	<b>100.0%</b>

Source: CMS Medicare Advantage/Part D Contract and Enrollment Data for February 2012.

## **V. Arcadian's costs are high and the proposed acquisition is likely to result in substantial efficiencies**

My review of the overlaps and competitive landscape in Yakima County, and Washington State more broadly, indicates that the acquisition does not raise any significant antitrust concern. Further mitigation of any such concerns is provided by the likely prospect of substantial efficiencies resulting from the merger. These efficiencies will likely benefit Arcadian enrollees not just in Yakima County but throughout Arcadian's footprint in the state.

The basis for my opinion that substantial efficiencies are likely is that MA bid data indicate that Arcadian has significantly higher administrative costs than Humana. These costs are not simply fixed overhead; they include substantial variable, or incremental, components. This indicates that a meaningful fraction of any cost savings is likely to be passed on to end consumers (i.e., MA enrollees). As a result of the merger, Humana is likely to achieve its own cost level on Arcadian lives, for three main reasons: (1) Humana's costs are demonstrably lower than Arcadian's, (2) Humana has a strong economic incentive to reduce costs on the acquired lives, and (3) Humana will move Arcadian's operations to its own platform, so there is every reason to expect that Humana will achieve cost levels comparable to what it already realizes on its existing base of enrollment.

Figure 9 summarizes these costs and shows that, in Yakima County as well as statewide, Humana has markedly lower administrative costs than does Arcadian. The difference in costs is stark: Arcadian's administrative costs are nearly double Humana's.

Figure 9: 2011 Humana and Arcadian administrative costs

Geography	Arcadian	Humana
Yakima	\$125.08	\$66.79
Washington State	\$124.51	\$69.90

Source: 2011 MA bids for Humana and Arcadian.

As noted above, it appears that a substantial proportion of likely cost savings is variable and not fixed. This distinction can be important because changes in variable (as opposed to fixed) costs immediately change pricing incentives of firms. Generally, variable cost savings are viewed as more relevant in merger analysis, at least in the short run.<sup>21</sup> To verify that a substantial portion of Arcadian's costs is in fact variable, I evaluated a "natural experiment" that arose from CMS's imposition of an enrollment freeze on Arcadian.

This enrollment freeze was imposed on November 19, 2010, after Arcadian had already formed its cost and enrollment projections for 2011. By comparing *realized* per enrollee administrative costs with *projected* per enrollee administrative costs, I can assess the fraction of Arcadian's administrative costs that is variable. Specifically I compare the (unanticipated) change in membership with the (unanticipated) change in administrative costs. I find (1) that membership saw a freeze-related decline of 16.6% and (2) administrative expenses saw a close-to-proportional decrease of 14.5%. In other words, this natural experiment implies that roughly 87% ( $14.5 \div 16.6$ ) of Arcadian's administrative costs are variable over a roughly one-year timeframe. Thus, not only are the cost savings substantial and likely to occur, they are also likely to be passed on to end consumers.

The above testimony is true, correct and complete to the best of my knowledge and given subject to the laws of perjury of the State of Washington.



Name



Date

<sup>21</sup> "Efficiencies relating to costs that are fixed in the short term are unlikely to benefit customers in the short term, but can benefit customers in the longer run, e.g., if they make new product introduction less expensive." *Merger Guidelines*, n. 15.

## Appendix A. Curriculum vitae of Cory S. Capps

### Education

- PhD, Economics, Northwestern University
- BA, Economics, University of Texas at Austin

### Areas of expertise

- Industrial organization
- Antitrust
- Health economics
- Applied econometrics
- Innovation and technology

### Professional experience

- Partner, Bates White, LLC, 2009–present
- Principal, Bates White, LLC, 2007–2009
- Economist, Economic Analysis Group, Department of Justice, 2004–2007
- Associate Director, Center for Health Industry Management, Kellogg School of Management, Northwestern University, 2002–2004
- Research Assistant Professor, Department of Management and Strategy, Kellogg School of Management, Northwestern University, 2001–2004
- Visiting Economist, Economic Analysis Group, Department of Justice, 2001–2002
- Assistant Professor, Department of Economics, University of Illinois at Urbana-Champaign, 1999–2000

### Selected experience

- In *United States and State of Texas v. United Regional Health Care System*, retained as testifying expert on behalf of Department of Justice to analyze the competitive effects of United Regional's exclusionary contracts with health insurers. DOJ reached a settlement with United Regional that prohibits the hospital from entering into contracts that improperly inhibit commercial health insurers from contracting with United Regional's competitors.

- On behalf of the Federal Trade Commission, retained as a testifying expert to analyze the competitive effects of a proposed merger in the healthcare sector.
- On behalf of a health insurer, retained as a testifying expert to analyze issues of market definition, market power, and competitive effects.
- Member of the Economic Reference Group, Cooperation & Competition Panel, National Health Service, United Kingdom. Providing industry expertise and competition policy advice to the agency charged with overseeing the application of antitrust and consumer protection laws to the healthcare sector in the United Kingdom.
- Providing a client in the hospital industry with antitrust and industry expertise to assist it and the Department of Justice in investigating alleged anticompetitive conduct by competing firms. The investigation involves complex horizontal and vertical issues.
- Providing a hospital client with antitrust and industry expertise to define relevant markets and assess the competitive effects of alleged exclusionary conduct.
- Retained by the Rhode Island Department of Health to analyze the competitive effects of the proposed merger of the two largest hospital systems in Rhode Island: Care New England and Lifespan. The parties ultimately abandoned the proposed merger.
- Provided economic consulting support to Delta Air Lines and Northwest Airlines in connection with their proposed merger under investigation by the Department of Justice. Identified antitrust risks, analyzed price effects, and developed a retrospective merger analysis for the airline industry. The merger consummated without divestitures.
- Coauthored a report on behalf of Alberta Health Services in Alberta, Canada, identifying structural changes that would improve the performance of its system for procuring healthcare services.
- Performed market definition and competitive effects analyses on behalf of the Department of Justice in a merger investigation in the healthcare sector. Analysis of competitive effects included an econometric study to predict the likely shares incoming entrants would obtain in the market. Subsequent events have borne out the predictions of this analysis.
- Worked with testifying expert to conduct economic analysis on behalf of an ambulatory surgery center in a monopolization lawsuit alleging illegal bundling and tying. Analyzed the impact of exclusive contract arrangements between the defendant hospital system and one of its largest health plan beneficiaries. The case settled after the ambulatory surgery center's antitrust claims survived summary judgment.

- Advised the Netherlands Competition Authority (NMa) and the Netherlands Healthcare Authority (NZa) on competitive issues engendered by new legislation that partially deregulated pricing in the Dutch hospital sector.
- On behalf of a client in the financial data and software industry, analyzed bidding data and provided assistance to attorneys responding to agency requests in both the United States and Europe in connection with a transatlantic merger.
- Provided testimony on for-profit and nonprofit hospital pricing and on geographic hospital market definition before the DOJ/FTC Hearings on Health Care Competition, Policy, and Law, spring 2003.
- Performed market definition and market share analyses, and assessed competitive effects and antitrust risk on behalf of a hospital considering several merger scenarios.
- Conducted economic analysis in *U.S. and State of Arizona v. Arizona Hospital and Healthcare Association and AzHHA Service Corporation*. Advised Department of Justice officials on settlement and enforcement issues.
- Conducted economic analysis in *United States v. UnitedHealth Group Inc. and PacifiCare Health Systems, Inc.* Advised Department of Justice officials on settlement and enforcement issues.

### **Papers and publications**

- “Price implications of hospital consolidation.” *The Healthcare Imperative: Lowering Costs and Improving Outcomes*, Ch. 5, Institute of Medicine of the National Academies (2010): 177–187
- “Buyer Power in Health Plan Mergers.” *Journal of Competition Law and Economics* 6, no. 2 (2010): 375–91
- “Hospital Closures and Economic Efficiency.” With David Dranove and Richard Lindrooth. *Journal of Health Economics* 29, no. 1 (2010): 87–109
- “A Competitive Process for Procuring Health Services.” With Leemore Dafny and David Dranove, *University of Calgary SPP Research Papers: The Health Series 2*, no. 5 (2009)
- “Defining Hospital Markets for Antitrust Enforcement: New Approaches and Their Applicability to The Netherlands.” With Marco Varkevisser and Frederik T. Schut. *Health Economics, Policy and Law* 3, no. 1 (2008): 7–29
- “Patient Admission Patterns and Acquisitions of ‘Feeder’ Hospitals.” With Sayaka Nakamura and David Dranove. *Journal of Economics and Management Strategy* 16, no. 4 (2007): 995–1030

- “Hospital Consolidation and Negotiated PPO Prices.” With David Dranove. *Health Affairs*, March/April 2004, 175–81
- “Competition and Market Power in Option Demand Markets.” With David Dranove and Mark Satterthwaite. *RAND Journal of Economics* 34, no. 4 (2003): 737–63
- “Geographic Market Definition in Hospital Merger Cases.” With David Dranove, Shane Greenstein, and Mark Satterthwaite. Joint Statement before the *Federal Trade Commission and Department of Justice Hearings on Health Care and Competition Law and Policy*, April 2004
- “Antitrust Policy and Hospital Mergers: Recommendations for New Approaches.” With David Dranove, Shane Greenstein, and Mark Satterthwaite. *Antitrust Bulletin*, Winter 2002, 677–714
- “The Silent Majority Fallacy of the Elzinga-Hogarty Criteria: An Application to Hospital Mergers.” With David Dranove, Shane Greenstein, and Mark Satterthwaite. *NBER Working Paper* No. 8216, November 2002

### **Working papers**

- “Economic Analysis of Tying and Bundling in Healthcare Cases”
- “Antitrust Treatment of Nonprofits,” with Dennis W. Carlton and Guy David

### **Recent presentations and panels**

- Panel discussion, *Antitrust—making the market work*, The National Congress on Health Insurance Reform, Washington, DC, January 2011
- Panel discussion, *Accountable Care Organizations and Market Power Issues*, hosted by America’s Health Insurance Plans, Washington, DC, September 2010
- *Taking the Temperature: Competition In Healthcare*, Cooperation and Competition Panel, National Health Service, “Healthcare Antitrust in the United States,” London, United Kingdom, September, 2010.
- American Society of Health Economists, “Antitrust Treatment of Nonprofits: Should Hospitals Receive Special Care?” Ithaca, NY, June 2010
- Antitrust in Healthcare AHLA/ABA Conference, “Tying and Bundling in Healthcare Cases,” Washington, DC, May 2010
- National Bureau of Economic Research *Healthcare Program Meeting*, “Antitrust Treatment of Nonprofits: Should Hospitals Receive Special Care?” Cambridge, MA, March 2010

- Department of Justice, Economic Analysis Group Seminar Series, “Antitrust Treatment of Nonprofits: Should Hospitals Receive Special Care?” Washington, DC, 2009
- Institute of Medicine Workshop, The Healthcare Imperative: Lowering Costs and Improving Outcomes, “The Approximate Effect of Hospital Consolidation on National Healthcare Expenditures,” Washington, DC, 2009
- 57th ABA Antitrust Law Spring Meeting, “Economic Analysis of Buyer Power in Health Plan Mergers,” Washington, DC, 2009
- American Health Lawyers Association Antitrust Practice Group, “Economic Perspective on Vertical Integration in Health Care and Antitrust,” Washington, DC, 2009
- International Health Economics Association, 6th World Congress, “Hospitals and the Market Environment,” Copenhagen, Denmark, 2007
- Annual Health Economics Conference, University Park, PA, 2006
- Southeastern Health Economics Study Group, Atlanta, GA, 2006

### **Courses taught**

- Intermediate Microeconomics
- Industrial Organization (PhD)
- Competition and Strategy in Technology Markets (MBA)
- Strategy and Organizations (MBA)
- Healthcare Markets (MBA)

### **Professional associations**

- American Economic Association
- Industrial Organization Society
- American Health Lawyers Association
- International Health Economics Association
- Phi Beta Kappa

### **Referee**

- RAND Journal of Economics

- Health Affairs
- B.E. Journal of Economic Analysis & Policy
- Journal of Economics and Management Strategy
- Journal of Industrial Economics
- Journal of Law and Economics