Testimony of Jonathan Orszag

Before the Missouri Department of Insurance

In the Matter of the Acquisition of Control of Humana Inc. by Aetna Inc.

May 16, 2016

Presentation Overview

1. Contrary to Dr. Gruber's testimony, there is substantial competition between Traditional Medicare and Medicare Advantage ("MA"), which means that the proposed transaction will not harm competition in the provision of Medicare products
2. Empirical evidence, based on data from Missouri, demonstrates that Traditional Medicare, combined with the option of a Medicare Supplemental ("MedSupp") and a Prescription Drug Plan ("PDP"), would constrain any theoretical exercise of market power by Aetna/Humana with respect to MA plans

* The Centers for Medicare & Medicaid Services (CMS) refers to Traditional Medicare as "Original Medicare." Throughout this deck, I use the term Traditional Medicare to refer to Original Medicare.

DR. GRUBER'S TESTIMONY DEMONSTRATES THAT TRADITIONAL MEDICARE AND MA COMPETE

Dr. Gruber Concludes That Competition Between Traditional Medicare and MA is "Incomplete" Based on Four Pieces of Evidence

1. The nature of Traditional Medicare and MA products is different
2. Studies showing higher payments to MA plans are passed on to consumers at less than 100%
3. Study showing changes in MA payments in 2010 demonstrates that MA plans respond to the exit of PFFS plans
4. Studies showing that pass-through and consumer surplus respond to changes in MA competition

Dr. Gruber's Conclusion That Medicare Competition Is "Incomplete" Does Not Show That The Proposed Transaction Would Harm Consumers

- The studies that Dr. Gruber relies upon are based on <u>old</u> data that is not specific to Missouri

- Moreover, even taken at face value, the economic analysis that Dr. Gruber relies upon is consistent with substantial competition between Traditional Medicare and MA and the conclusion that the proposed transaction would not harm consumers

Dr. Gruber's Report Agrees That Traditional Medicare Competes with MA

1

Report to the Missouri Department of Insurance regarding Competition in the Medicare Advantage and Individual Exchange Markets

Jonathan Gruber, MIT

5/6/16

At the same time, MA plans do not operate in a totally segregated market. Medicare enrollees have a choice at open enrollment of whether to enroll in the FFS or MA plans. While the majority of enrollees choose FFS, a large share choose MA. And there is movement between the two options by seniors.

back. The fact that such switching between TM and MA takes place provides evidence that there is some competition between these sectors. But the differential rates of switching suggest that this may

more restrictive set of providers, relative to the free choice provided under TM. Clearly, the sizeable and growing share of MA, and the fact that individuals have free annual choice across these options, implies some competition between these options. At the same time, the very differentiated nature of these products implies that there are limits on such competition.

PRODUCT DIFFERENTIATION

Products Can Differ Substantially Even in Highly Competitive Markets

1

Report to the Missouri Department of Insurance regarding Competition in the Medicare Advantage and Individual Exchange Markets

Jonathan Gruber, MIT

5/6/16

In addressing the competitiveness of TM and MA plans, a natural starting point is to compare the nature of the products and the patients who choose them. This is not dispositive, as products can differ substantially even in highly competitive markets. But competition will nevertheless be a less effective constraint on price the more differentiated are products and their consumer bases.

Medicare.Gov Website Shows Medicare Beneficiaries Competitive Options

Your Medicare coverage choices

Note

Are you new to Medicare? Before you choose your coverage, learn about the different parts of Medicare and steps to get you started with Medicare.

There are 2 main ways to get your Medicare coverage— Original Medicare (Part A and Part B) or a Medicare Advantage Plan (Part C). Some people get additional coverage, like Medicare prescription drug coverage or Medicare Supplement Insurance (Medigap). Use these steps to help you decide what coverage you want:

Step 1: Decide if you want Original Medicare or a Medicare Advantage Plan (like an HMO or PPO)

- You can choose Original Medicare.
- You can choose a Medicare Advantage (MA) Plan.

Step 2: Decide if you want prescription drug coverage (Part D)

- You chose Original Medicare in Step 1.
- You chose a Medicare Advantage (MA) Plan in Step 1.

Step 3: Decide if you want supplemental coverage

- You chose Original Medicare in Step 1.
- You chose a Medicare Advantage (MA) Plan in Step 1.

https://www.medicare.gov/sign-up-change-plans/decide-how-to-get-medicare/your-medicare-coverage-choices.html

Medicare's "Plan Finder" Tool Presents Traditional Medicare and MA as Side-by-Side Alternatives

Step 4 of 4: Refine Your Plan Results

My Current Profile | Update Search

Zip Code: 65109

Current Coverage: New To Medicare

Current Subsidy: No Extra Help [?]

Important Coverage Information

This is a summary of the types of plans available in your area. Use the checkboxes to select the types of plans you'd like to view. You may also use the filters on the left to narrow your search. Using filters may eliminate some options, including plans with the lowest estimated annual costs. You should also consider other factors, such as provider network and Part B premium amount which may be reduced for some plans.

Refine Your Search

Update Plan Results

- Limit Your Monthly Plan Premium
- Limit Your Annual Drug Deductible
- Select Drug Options
- Select Star Ratings
- Select Coverage Options
- Select Special Needs Plans
- Change Health Status
- Select Plans By Company

Update Plan Results

Summary of Your Search Results

There are a total of 37 plans available in your area including Original Medicare.

Please select one or more plan types to continue.

Select All	Available Plans Based On Your Filters	Number of Plans Available: 36
☐	Prescription Drug Plans (with Original Medicare) [?]	26 plan(s) available
☐	Medicare Health Plans with drug coverage [?]	8 plan(s) available
☐	Medicare Health Plans without drug coverage [?]	2 plan(s) available

Continue To Plan Results

Original Medicare

Original Medicare (H0001-001-0)

Includes Part A (Hospital Insurance) and/or Part B (Medical Insurance) - Excludes Part D Drug Coverage

Estimated Annual Drug Costs: [?]	Monthly Premium: [?]	Deductibles: [?] and Drug Copay [?] / Coinsurance: [?]	Health Benefits: [?]	Drug Coverage [?], Drug Restrictions [?]	Estimated Annual Health and Drug Costs: [?]	Overall Star Rating: [?]
Retail Annual: $3,648 Mail Order Annual: N/A	Standard Part B: $104.90	Part B Deductible: $166	Doctor Choice: Any Willing Doctor Out of Pocket Spending Limit: Not Applicable	N/A	$7,110	Not Available

Prescription Drug Plans — Star Ratings

Medicare Health Plans with Drug Coverage — Star Ratings

8 plans were found in 65109 based on your search criteria.

Compare Plans

Sort Results by Lowest Estimated Annual Health and Drug Cost — Sort

Care Improvement Plus Medicare Advantage (PPO) (H6528-006-0)

Organization: Care Improvement Plus

Estimated Annual Drug Costs: [?]	Monthly Premium: [?]	Deductibles [?] and Drug Copay [?] / Coinsurance: [?]	Health Benefits: [?]	Drug Coverage [?], Drug Restrictions [?] and Other Programs:	Estimated Annual Health and Drug Costs: [?]	Overall Star Rating: [?]	
Retail Annual: $1,422 Mail Order Annual: N/A	$49.00 Drug: $17.50 Health: $31.50	Annual Drug Deductible: $100 Health Plan Deductible: $0 Drug Copay/ Coinsurance: $2 - $100, 30%	Doctor Choice: Any Doctor Out of Pocket Spending Limit: $6,700 In and Out-of-network $6,700 In-network	All Your Drugs on Formulary: No Drug Restrictions: No Lower Your Drug Costs MTM Program [?] : Yes	$4,700	*** 3 out of 5 stars	Enroll

CMS, Plan Finder, https://www.medicare.gov/find-a-plan/questions/home.aspx

Medicare Beneficiaries May Periodically Choose Between Traditional Medicare and an MA Plan

- Medicare beneficiaries periodically have the option to choose source of Medicare coverage
  - Newly eligible due to age (65 years old) or disability
    - Enroll when eligible (e.g., within 3 months of turning 65)
  - Annual enrollment/disenrollment periods
    - Open enrollment period for Medicare Advantage and Medicare prescription drug coverage
      - Annually (October-December)
      - Change from Traditional Medicare to an MA plan; Change from an MA plan to Traditional Medicare; Change from one MA plan to another MA plan
    - Medicare Advantage Disenrollment Period
      - Annually (January-February)
      - Change from an MA plan to Traditional Medicare (but *not* vice versa)
- In each enrollment period, beneficiaries may choose between Traditional Medicare and MA (and associated coverage options)

Traditional Medicare and MA Plans Offer Similar Services

	FFS Medicare	Medicare Advantage
Costs	Medicare premium, deductible, coinsurance	Medicare premium, plan premium, deductible, copayment
Supplemental Insurance	Option to buy MedSupp policy	No option to buy MedSupp policy
Extra Services	Does not cover vision, hearing, or dental	Can cover vision, hearing, and/or dental
Network Size	Any provider in US that accepts Medicare	Network size depends on plan type; can be limited
Referrals for specialists?	No	Referral policy depends on plan type
Drug Coverage	Can be added through Medicare Part D	Drug coverage depends on plan type (MAPD v. MA); most Medicare Advantage plans include Part D coverage
Out-of-pocket limit	Can be limited through a MedSupp policy	Plans required to have annual out-of-pocket limit; plan covers full cost of care after limit is reached
Average cost	Average MedSupp premium $101.41, Average stand alone PDP premium $39.46; Stand alone PDP premiums range from about $11.40 to $174.70 dollars per month.	Average premium for an MA plan which includes Part D coverage is $38.56; most individuals have access to a free plan, while other plans can cost as much as $388.

Sources: Medicare Rights Center, National Association of Insurance Commissioners, CMS

PASS THROUGH

Less than 100% Pass Through Does not Imply Merger Harm

- Perfect competition is a textbook construct that is rarely achieved in reality
  - In fact, in perfectly competitive markets, if a single firm lowers its costs, the models show that pass-through is close to zero, not 100%.
- In imperfectly competitive markets, many mergers cause no harm
  - Determining effects depends on specific circumstances, which Dr. Gruber did not analyze.
- The *Horizontal Merger Guidelines* discuss conditions under which mergers in differentiated products markets – an example of an imperfectly competitive market – would not lead to consumer harm

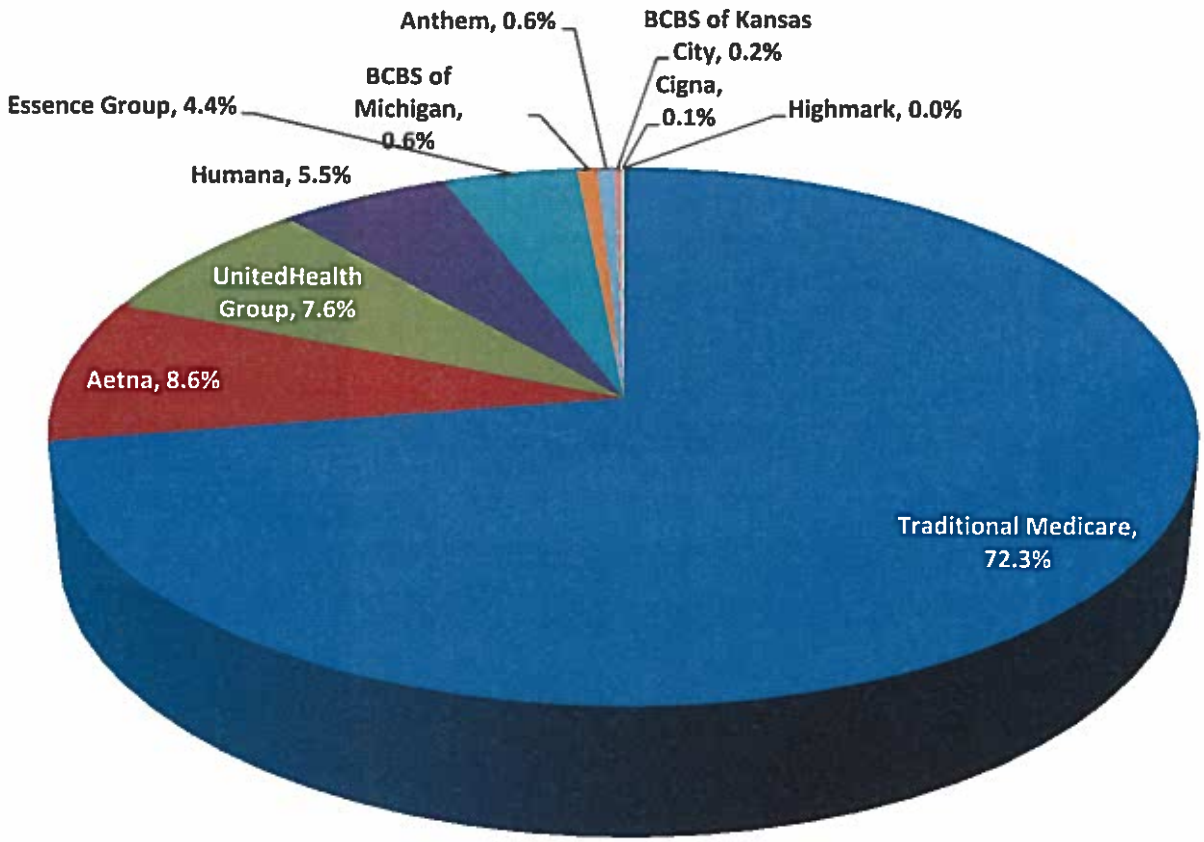
MA MARKET STRUCTURE

Dr. Gruber's Reliance on General Literature Cites Does Not Demonstrate Merger Harm

- Dr. Gruber bases his testimony on general findings in the academic literature that are not based on data specific to Missouri
- Empirical analysis of Missouri data indicates that the proposed transaction will not harm Medicare beneficiaries

ANALYSIS OF MEDICARE COMPETITION IN MISSOURI

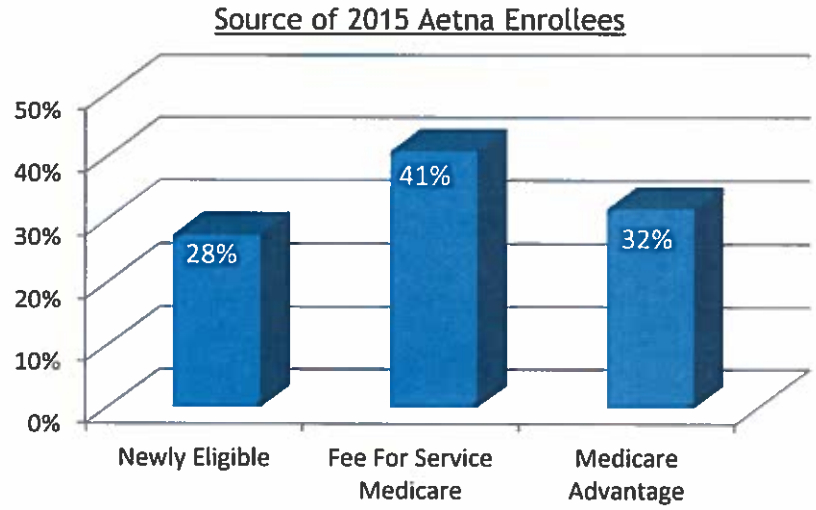
More than Two-Thirds of Medicare Beneficiaries in Missouri Choose Traditional Medicare

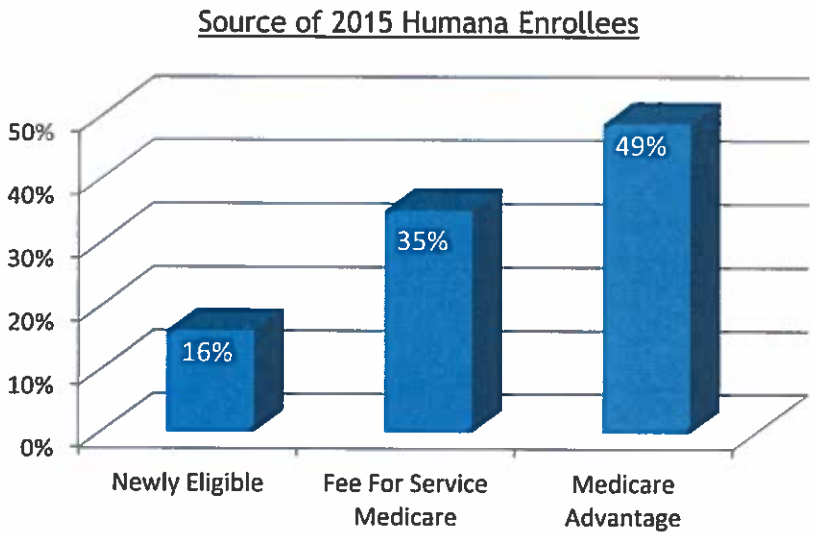


Note: This table includes those Medicare Advantage plans defined by CMS as "HMO/HMOPOS", "Local PPO", "PFFS", "Regional PPO", and excludes Special Needs Plans, Dual Eligible Plans, and Prescription Drug Plans.

Sources: Centers for Medicare and Medicaid Services (CMS), "Monthly Enrollment by Contract/Plan/State/County for Medicare Advantage," February 2016; CMS, "Plan Directory for Medicare Advantage, Cost, PACE, and Demonstration Organizations," February 2016.

Age-ins and Traditional Medicare Are an Important Source of Aetna and Humana "Switch-ins" in Missouri



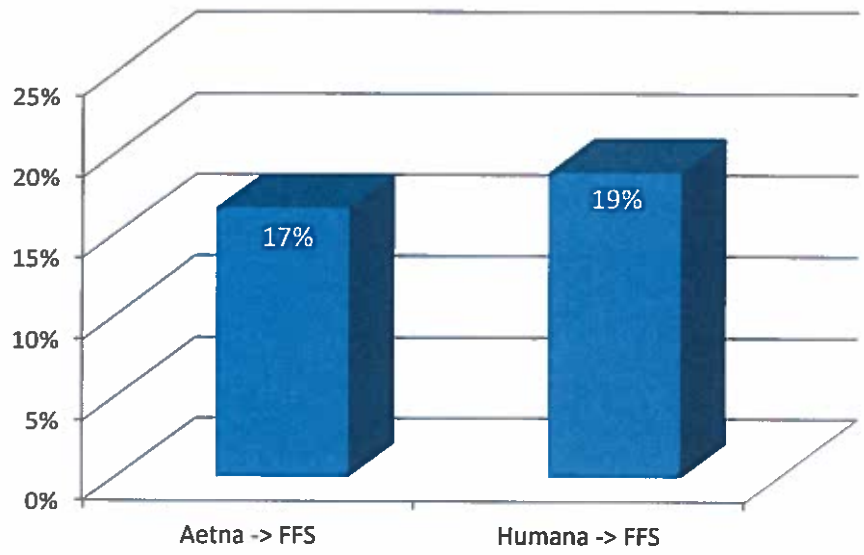


- New enrollees are an important source of business for MAOs, which must continuously replace departing members
  - New enrollees account for 22% of total Aetna MA enrollment and 36% of total Humana MA enrollment each year
  - Terminations account for 13% of total Aetna MA enrollment and 12% of total Humana MA enrollment each year
- MAOs attract new customers from several sources with a minority coming from other MAOs
  - Age-ins: 28%/16% of new Aetna/Humana MA enrollees
  - Switchers from Traditional Medicare:* 41%/35% of new Aetna/Humana MA enrollees
  - Switchers from rival MAOs: 32%/49% of new Aetna/Humana MA enrollees

* Source indicates the Medicare coverage situation of each Aetna or Humana MA enrollee immediately before enrolling in an Aetna/Humana MA plan. We identify switchers from FFS Medicare as those enrollees who are not newly eligible and who were not previously enrolled in an MA plan (though they may have been enrolled in a stand-alone PDP).

Sources: Aetna and Humana enrollment data, 2015

A Substantial Fraction of MA "Switch-Outs" Choose Traditional Medicare in Missouri



Notes: Analysis limited to individual non-SNP MA enrollees only; Switching rates calculated for Relevant Areas only; Switchers to FFS Medicare identified as switching from an MA or MAPD plan to a stand-alone PDP; Calculated based on Aetna's and Humana's DTRR data (2013 – 2015).

- Aetna's and Humana's disenrollment data demonstrate substantial switching to Traditional Medicare
  - 17% of customers who switch away from Aetna choose Traditional Medicare
  - 19% of customers who switch away from Humana choose Traditional Medicare

Diversion to Traditional Medicare Is Much Larger Than Diversion Between the Parties

Parameter	Curto et al. (2015)	Town and Liu (2003)
σ	0.32	0.58
Shares in Missouri 2R counties		
MA Penetration Rate	26%	26%
Share (Aetna|MA)	35%	35%
Share (Humana|MA)	22%	22%
Share (Other|MA)	43%	43%
Share (Aetna|Medicare)	9%	9%
Share (Humana|Medicare)	6%	6%
Share (Other|Medicare)	11%	11%
Diversion from Aetna to:		
Humana	13%	20%
Other MA	26%	39%
Traditional Medicare	61%	41%
Diversion from Humana to:		
Aetna	20%	28%
Other MA	24%	35%
Traditional Medicare	56%	37%

Notes: σ derived from Vilsa Curto, Liran Einav, Jonathan Levin, and Jay Bhattacharya (2015), "Can Health Insurance Competition Work? Evidence from Medicare Advantage," NBER Working Paper No. 20818, Table 5B (Column 3); Robert Town and Su Liu (2003), "The Welfare Impact of Medicare HMOs," The Rand Journal of Economics, 34(4): 719-736, Table 2. Shares calculated using data from Centers for Medicare and Medicaid Services (CMS), "Monthly Enrollment by Contract/Plan/State/County for Medicare Advantage," February 2016; CMS, "Plan Directory for Medicare Advantage, Cost, PACE, and Demonstration Organizations," February 2016. Shares include those Medicare Advantage plans defined by CMS as "HMO/HMOPOS", "Local PPO", "PFFS", "Regional PPO", and excludes Special Needs Plans, Dual Eligible Plans, and Prescription Drug Plans.

Traditional Medicare Constrains MA

- Application to Missouri data of recent models of *imperfect* or *incomplete* competition between Traditional Medicare and MA, including those cited by Dr. Gruber, show that substitution between Aetna/Humana and Traditional Medicare is higher than is substitution between Aetna and Humana.

- In other words, Traditional Medicare is a closer substitute to the MA offering of Aetna or Humana than the MA offerings of Aetna and Humana are to each other.

- Dr. Gruber's own sources and the *Horizontal Merger Guidelines* therefore indicate that Traditional Medicare is properly included in any relevant product market that includes both Aetna and Humana MA plans

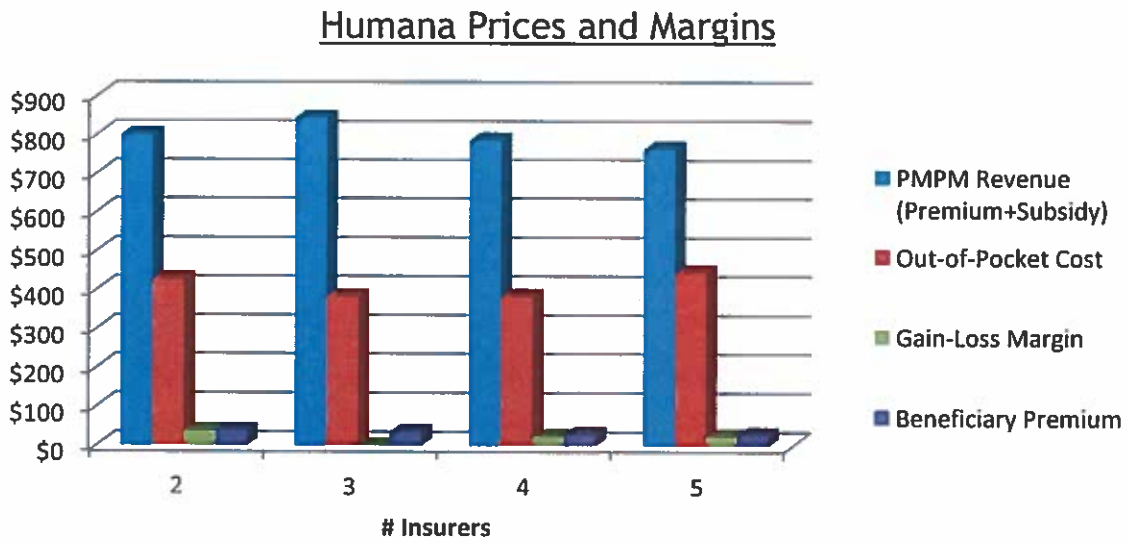
> "When applying the hypothetical monopolist test to define a market around a product offered by one of the merging firms, if the market includes a second product, *the Agencies will normally also include a third product if that third product is a closer substitute for the first product than is the second product*. The third product is a closer substitute if, in response to a SSNIP on the first product, greater revenues are diverted to the third product than to the second product."

Horizontal Merger Guidelines, § 4.1.1 [emphasis added]

MA Market Structure Does Not Influence Market Outcomes

- Econometric analysis demonstrates that incremental competition among MAOs does not affect market outcomes, such as per member revenues, out-of-pocket costs ("OOPC"), or margins
  - Entry (exit) of MAOs does not lead to lower (higher) per member revenues or premiums, all else equal
  - Comparison of otherwise similar counties with varying numbers of MAOs does not reveal any systematic relationship between per member revenues or premiums and MA competition – in particular, per member revenues and margins are not higher in counties with fewer MAOs, all else equal
- Econometric results are consistent with substantial competitive constraints from sources other than incumbent individual MA plans, including from Traditional Medicare as well as potential entry by other MAOs, such that the *incremental* effect of an additional MAO on market outcomes is minimal

There Is No Systematic Relationship Between MA Competition and Market Outcomes in Missouri



- There is no general relationship between Aetna's and Humana's MA revenue, prices, or margins and the number of insurers operating in the Relevant Areas in Missouri
- Econometric analyses holding other factors constant show similar outcomes

Econometric Analysis Confirms The Lack of Systematic Relationship Between MA Competition and Market Outcomes in Missouri

- The correlation between **per member per month revenue** (beneficiary premium + CMS subsidy) and measures of market structure (number of MAOs (linear), number of MAOs (flexible), MA HHI)* is economically small and generally not statistically significant
- The correlation between beneficiary **out-of-pocket costs** (beneficiary premium + deductibles and copays) and measures of market structure (number of MAOs (linear), number of MAOs (flexible), MA HHI) is economically small and generally not statistically significant
- The correlation between plan **gain/loss margins** and measures of market structure (number of MAOs (linear), number of MAOs (flexible), MA HHI) is economically small and generally not statistically significant
- The correlation between plan **medical expenses** and measures of market structure (number of MAOs (linear), number of MAOs (flexible), MA HHI) is economically small and generally not statistically significant. Such a result is consistent with our understanding from the business that medical expenses are driven primarily by the underlying distribution of the population health as well as provider contracts and not by the degree of competition
- The correlation between plan **non-medical expenses** and measures of market structure (number of MAOs (linear), number of MAOs (flexible), MA HHI) is economically small and typically positive, perhaps because more competition between MAOs lead to higher per member sales and marketing costs

See appendix for full results

APPENDIX: ECONOMETRIC RESULTS

There Is No General Relationship Between MA Competition and Market Outcomes in Missouri (Fixed Effect Analysis)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
VARIABLES	DepVar: LnRevenue	DepVar: LnRevenue	DepVar: LnRevenue	DepVar: LnOOPC	DepVar: LnOOPC	DepVar: LnOOPC	DepVar: Margin	DepVar: Margin	DepVar: Margin	DepVar: LnCostMed	DepVar: LnCostMed	DepVar: LnCostMed	DepVar: LnCostNonMed	DepVar: LnCostNonMed	DepVar: LnCostNonMed
# Competitors (MA)	-0.0043*			-0.0136*			-3.3136			-0.0092			0.0173**		
	[0.0024]			[0.0080]			[2.0212]			[0.0067]			[0.0067]		
# Competitors (1:2)		0.0457***			-0.0044			58.0928***			-0.0381*			0.0971***	
		[0.0155]			[0.0157]			[12.9043]			[0.0200]			[0.0274]	
# Competitors (2:3)		-0.0109**			-0.0080			-7.5093**			-0.0082			0.0116	
		[0.0041]			[0.0097]			[3.3137]			[0.0095]			[0.0102]	
# Competitors (3:)		0.0014			-0.0247**			0.0937			-0.0100			0.0219**	
		[0.0040]			[0.0108]			[3.0049]			[0.0106]			[0.0095]	
HHI (MA)			0.0624			0.1350			33.3364			0.1269			-0.2330**
			[0.0577]			[0.0906]			[49.0676]			[0.0970]			[0.0958]
Medical Costs	0.0013***	0.0013***	0.0013***	0.0001	0.0001	0.0001									
	[0.0001]	[0.0001]	[0.0000]	[0.0002]	[0.0002]	[0.0001]									
Non-Medical Costs	0.0015***	0.0015***	0.0015***	0.0045***	0.0045***	0.0046***									
	[0.0004]	[0.0004]	[0.0001]	[0.0011]	[0.0011]	[0.0004]									
CMS Benchmark Rate	0.0003***	0.0003***	0.0003***	-0.0001	-0.0001	0.0000	0.2114***	0.2146***	0.2223***	0.0003*	0.0003*	0.0004*	0.0003	0.0003	0.0003
	[0.0001]	[0.0001]	[0.0001]	[0.0002]	[0.0002]	[0.0003]	[0.0660]	[0.0650]	[0.0760]	[0.0002]	[0.0002]	[0.0002]	[0.0002]	[0.0002]	[0.0002]
plan_type==Local PPO	0.0107	0.0108	0.0106***	0.1033***	0.1033***	0.1028***	5.2807	5.3041	5.2203**	0.0093	0.0093	0.0090	0.0226	0.0226	0.0230***
	[0.0124]	[0.0124]	[0.0030]	[0.0223]	[0.0223]	[0.0049]	[11.0523]	[11.0455]	[2.4349]	[0.0320]	[0.0320]	[0.0062]	[0.0277]	[0.0277]	[0.0062]
plan_type==PFFS	0.0612***	0.0612***	0.0610***	0.1522***	0.1520***	0.1509***	48.7567***	48.7297***	48.6733***	0.0472	0.0472	0.0468***	0.0552	0.0552	0.0559***
	[0.0178]	[0.0178]	[0.0037]	[0.0228]	[0.0228]	[0.0059]	[15.8271]	[15.8538]	[3.1032]	[0.0516]	[0.0517]	[0.0088]	[0.0339]	[0.0338]	[0.0079]
plan_type==Regional PPO	0.0064	0.0064	0.0062	0.0784*	0.0782*	0.0776***	30.8305*	30.7794*	30.6798***	-0.2324**	-0.2324**	-0.2331***	-0.0514	-0.0515	-0.0503***
	[0.0222]	[0.0222]	[0.0049]	[0.0460]	[0.0460]	[0.0120]	[15.4174]	[15.4242]	[3.4814]	[0.0870]	[0.0870]	[0.0135]	[0.0384]	[0.0384]	[0.0082]
Offers Part D Coverage	0.0313	0.0312	0.0311***	-0.2774***	-0.2774***	-0.2772***	19.5391	19.5012	19.5095***	0.2387***	0.2387***	0.2386***	0.0854***	0.0853***	0.0856***
	[0.0199]	[0.0199]	[0.0039]	[0.0484]	[0.0484]	[0.0113]	[14.4395]	[14.4396]	[2.6399]	[0.0718]	[0.0718]	[0.0109]	[0.0208]	[0.0208]	[0.0052]
I(Aetna)	0.0167	0.0167	0.0168***	-0.0769***	-0.0769***	-0.0770***	10.7251	10.8307	10.6947***	-0.0601*	-0.0601*	-0.0601***	-0.1597***	-0.1595***	-0.1596***
	[0.0147]	[0.0147]	[0.0040]	[0.0255]	[0.0255]	[0.0054]	[11.2526]	[11.2605]	[2.5244]	[0.0312]	[0.0312]	[0.0059]	[0.0301]	[0.0301]	[0.0065]
Eligibles (000s)	-0.0052***	-0.0054***	-0.0052***	-0.0050	-0.0047	-0.0045	-4.2682***	-4.3511***	-4.2797***	-0.0044	-0.0044	-0.0044	-0.0073	-0.0074	-0.0073*
	[0.0017]	[0.0017]	[0.0016]	[0.0045]	[0.0045]	[0.0060]	[1.5656]	[1.5772]	[1.6193]	[0.0036]	[0.0036]	[0.0052]	[0.0054]	[0.0055]	[0.0039]
year==2014	0.0050	0.0058	0.0045	-0.0792**	-0.0795**	-0.0837***	5.9579	6.3065	5.7578*	0.0394	0.0393	0.0388***	0.2955***	0.2959***	0.2966***
	[0.0204]	[0.0205]	[0.0051]	[0.0338]	[0.0339]	[0.0154]	[15.3543]	[15.3659]	[3.2325]	[0.0283]	[0.0282]	[0.0085]	[0.0184]	[0.0186]	[0.0071]
year==2015	0.0225	0.0241	0.0221***				21.8624*	22.6208*	21.7392***	0.0161	0.0160	0.0158**	0.3695***	0.3706***	0.3701***
	[0.0217]	[0.0220]	[0.0065]				[11.8816]	[11.9701]	[2.9523]	[0.0232]	[0.0235]	[0.0076]	[0.0381]	[0.0385]	[0.0075]
year==2016	0.0099	0.0108	0.0095				15.3238	15.7159	14.9991***	0.0457**	0.0456**	0.0453***	0.3997***	0.4002***	0.4005***
	[0.0211]	[0.0212]	[0.0062]				[11.9891]	[12.0283]	[3.4049]	[0.0206]	[0.0206]	[0.0091]	[0.0289]	[0.0290]	[0.0081]
Observations	1,990	1,990	1,986	984	984	978	1,990	1,990	1,986	1,990	1,990	1,986	1,990	1,990	1,986
R-squared	0.943	0.943	0.934	0.881	0.881	0.843	0.214	0.215	0.143	0.717	0.717	0.677	0.812	0.812	0.799
Competition Variable	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI
Regression Type	OLS	OLS	IV	OLS	OLS	IV	OLS	OLS	IV	OLS	OLS	IV	OLS	OLS	IV
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Counties	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

Clustered standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

* We instrument for HHI using a vector representing the number of competing firms. Estimating the HHI regressions using OLS yields similar results.
** OOPC data are only available through 2014.

There Is No General Relationship Between MA Competition and Market Outcomes in Missouri (Cross-Sectional Analysis)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
VARIABLES	DepVar: LnRevenue	DepVar: LnRevenue	DepVar: LnRevenue	DepVar: LnOOPC	DepVar: LnOOPC	DepVar: LnOOPC	DepVar: Margin	DepVar: Margin	DepVar: Margin	DepVar: LnCostMed	DepVar: LnCostMed	DepVar: LnCostMed	DepVar: LnCostNonMed	DepVar: LnCostNonMed	DepVar: LnCostNonMed
# Competitors (MA)	0.0030			-0.0039			3.2827			-0.0320**			-0.0001		
	[0.0029]			[0.0049]			[2.7891]			[0.0129]			[0.0045]		
# Competitors (1-2)		0.0415**			-0.0529*			42.2365***			0.0251			0.0749***	
		[0.0157]			[0.0285]			[11.8444]			[0.0455]			[0.0229]	
# Competitors (2-3)		0.0040			-0.0120			5.2190			-0.0401			-0.0015	
		[0.0055]			[0.0090]			[5.0806]			[0.0274]			[0.0069]	
# Competitors (3+)		0.0020			0.0064			1.3436			-0.0245***			0.0009	
		[0.0036]			[0.0085]			[3.0337]			[0.0078]			[0.0068]	
HHI (MA)			-0.0334**			0.0482*			-35.9817***			0.3184***			-0.0011
			[0.0158]			[0.0249]			[12.6208]			[0.0404]			[0.0288]
Medical Costs	0.0013***	0.0013***	0.0013***	0.0001	0.0001	0.0001									
	[0.0001]	[0.0001]	[0.0000]	[0.0002]	[0.0002]	[0.0001]									
Non-Medical Costs	0.0016***	0.0016***	0.0016***	0.0045***	0.0045***	0.0046***									
	[0.0004]	[0.0004]	[0.0001]	[0.0010]	[0.0010]	[0.0004]									
CMS Benchmark Rate	0.0001	0.0001	0.0001*	0.0000	0.0000	-0.0000	0.0417	0.0400	0.0576	0.0002	0.0002	0.0000	0.0002*	0.0002*	0.0002***
	[0.0000]	[0.0000]	[0.0000]	[0.0001]	[0.0001]	[0.0001]	[0.0322]	[0.0320]	[0.0372]	[0.0001]	[0.0001]	[0.0001]	[0.0001]	[0.0001]	[0.0001]
plan_type=Local PPO	0.0095	0.0094	0.0095***	0.1027***	0.1030***	0.1027***	4.3011	4.1664	4.2732*	0.0068	0.0073	0.0071	0.0210	0.0210	0.0210***
	[0.0132]	[0.0132]	[0.0031]	[0.0220]	[0.0220]	[0.0045]	[11.7782]	[11.7814]	[2.4642]	[0.0371]	[0.0371]	[0.0063]	[0.0276]	[0.0276]	[0.0060]
plan_type=PFFS	0.0574***	0.0577***	0.0576***	0.1629***	0.1607***	0.1621***	45.3897***	45.9475***	45.8069***	0.0730	0.0711	0.0705***	0.0539	0.0537	0.0540***
	[0.0173]	[0.0176]	[0.0035]	[0.0279]	[0.0269]	[0.0052]	[14.8508]	[15.0160]	[2.8831]	[0.0590]	[0.0597]	[0.0079]	[0.0323]	[0.0324]	[0.0070]
plan_type=Regional PPO	0.0056	0.0057	0.0072	0.0836*	0.0826*	0.0810***	27.6066*	27.9684*	28.9461***	-0.1876	-0.1890	-0.1983***	-0.0502	-0.0504	-0.0500***
	[0.0186]	[0.0190]	[0.0047]	[0.0434]	[0.0432]	[0.0106]	[13.9282]	[14.1894]	[3.2613]	[0.1219]	[0.1198]	[0.0149]	[0.0422]	[0.0418]	[0.0078]
Offers Part D Coverage	0.0321	0.0322	0.0320***	-0.2729***	-0.2728***	-0.2724***	21.4091	21.5214	22.0199***	0.2548***	0.2546***	0.2498***	0.0866***	0.0866***	0.0866***
	[0.0196]	[0.0196]	[0.0036]	[0.0489]	[0.0485]	[0.0111]	[13.9573]	[14.0299]	[2.4822]	[0.0909]	[0.0901]	[0.0117]	[0.0233]	[0.0231]	[0.0050]
I(Aetna)	0.0189	0.0189	0.0188***	-0.0769***	-0.0770***	-0.0766***	11.6348	11.5744	11.4786***	-0.0553	-0.0549	-0.0543***	-0.1615***	-0.1615***	-0.1616***
	[0.0151]	[0.0151]	[0.0038]	[0.0247]	[0.0248]	[0.0051]	[11.7072]	[11.7192]	[2.4696]	[0.0347]	[0.0348]	[0.0060]	[0.0291]	[0.0291]	[0.0061]
Eligibles (000s)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.1232	0.1266	0.0876	0.0003	0.0003	0.0005**	-0.0000	-0.0000	-0.0000
	[0.0001]	[0.0001]	[0.0001]	[0.0002]	[0.0002]	[0.0002]	[0.1084]	[0.1073]	[0.0858]	[0.0002]	[0.0002]	[0.0003]	[0.0002]	[0.0002]	[0.0002]
year=2014	0.0061	0.0060	0.0061	-0.0861***	-0.0848***	-0.0872***	7.4961	7.1930	7.1800***	0.0453	0.0462	0.0480***	0.2965***	0.2965***	0.2965***
	[0.0197]	[0.0197]	[0.0048]	[0.0304]	[0.0305]	[0.0117]	[15.1670]	[15.0887]	[2.7025]	[0.0280]	[0.0286]	[0.0074]	[0.0176]	[0.0178]	[0.0055]
year=2015	0.0129	0.0127	0.0139**				15.2619	14.7831	15.8559***	0.0149	0.0163	0.0094	0.3641***	0.3641***	0.3641***
	[0.0211]	[0.0211]	[0.0064]				[11.3038]	[11.1332]	[2.7201]	[0.0245]	[0.0256]	[0.0073]	[0.0366]	[0.0368]	[0.0066]
year=2016	0.0061	0.0060	0.0063				13.1565	12.8713	13.0303***	0.0530**	0.0539**	0.0536***	0.4012***	0.4012***	0.4011***
	[0.0212]	[0.0213]	[0.0059]				[11.7936]	[11.7759]	[2.7438]	[0.0229]	[0.0234]	[0.0082]	[0.0270]	[0.0269]	[0.0062]
Observations	1,990	1,990	1,990	984	984	984	1,990	1,990	1,990	1,990	1,990	1,990	1,990	1,990	1,990
R-squared	0.940	0.940	0.939	0.869	0.869	0.868	0.154	0.155	0.150	0.650	0.650	0.657	0.805	0.805	0.805
Competition Variable	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI	nFirms_Linear	nFirms_Spline	HHI
Regression Type	OLS	OLS	IV	OLS	OLS	IV	OLS	OLS	IV	OLS	OLS	IV	OLS	OLS	IV
County FE	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Counties	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All

Clustered standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

* We instrument for HHI using a vector representing the number of competing firms. Estimating the HHI regressions using OLS yields similar results.
** OOPC data are only available through 2014.