MEDPAC

Advising the Congress on Medicare issues

Exploring the effect of Medicare Advantage on rural hospitals

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Rural health care providers have expressed concerns about MA growth in their markets

- Over the past 25 years, Commission staff has periodically visited rural communities to talk to hospital administrators, physicians, nurses, and local hospital board members; we also conducted focus groups with rural beneficiaries
- Beneficiaries are increasingly choosing MA over FFS Medicare
- However, representatives of 8 hospitals we visited over the past two years expressed concerns about MA expansion:
  - Prior authorization and denied claims
  - Beneficiaries bypassing rural providers
  - MA payments received not fully equal to FFS payments for the same service
- Consistently heard providers prefer FFS Medicare as a payer over MA as a payer

Note: MA (Medicare Advantage), FFS (fee-for-service).

Recent literature on MA's effect on rural hospitals is not consistent with what we hear on our site visits

- Two studies looked at changes in volume and finances following MA expansion:
  - One found that MA expansion was associated with declining inpatient volumes
  - A second found that MA expansion was associated with a slight improvement in indicators of financial stability
- A cross-sectional study found higher rural hospital margins in markets with higher MA penetration
- The literature is inconsistent and hard to reconcile with rural hospital administrators' strong preference for FFS Medicare payments over MA payments

Note: MA (Medicare Advantage), FFS (fee-for-service).
Source: Cataife, G., and S. Liu. 2025. Medicare Advantage penetration and the financial distress of rural hospitals; Henke, R. M., K. R. Fingar, L. Liang, et al. 2023. Medicare Advantage in rural areas: Implications for hospital sustainability; Kim, Y. H., K. L. Reiter, K. W. Thompson, et al. 2025. Medicare Advantage and rural hospital profitability.

Presentation roadmap

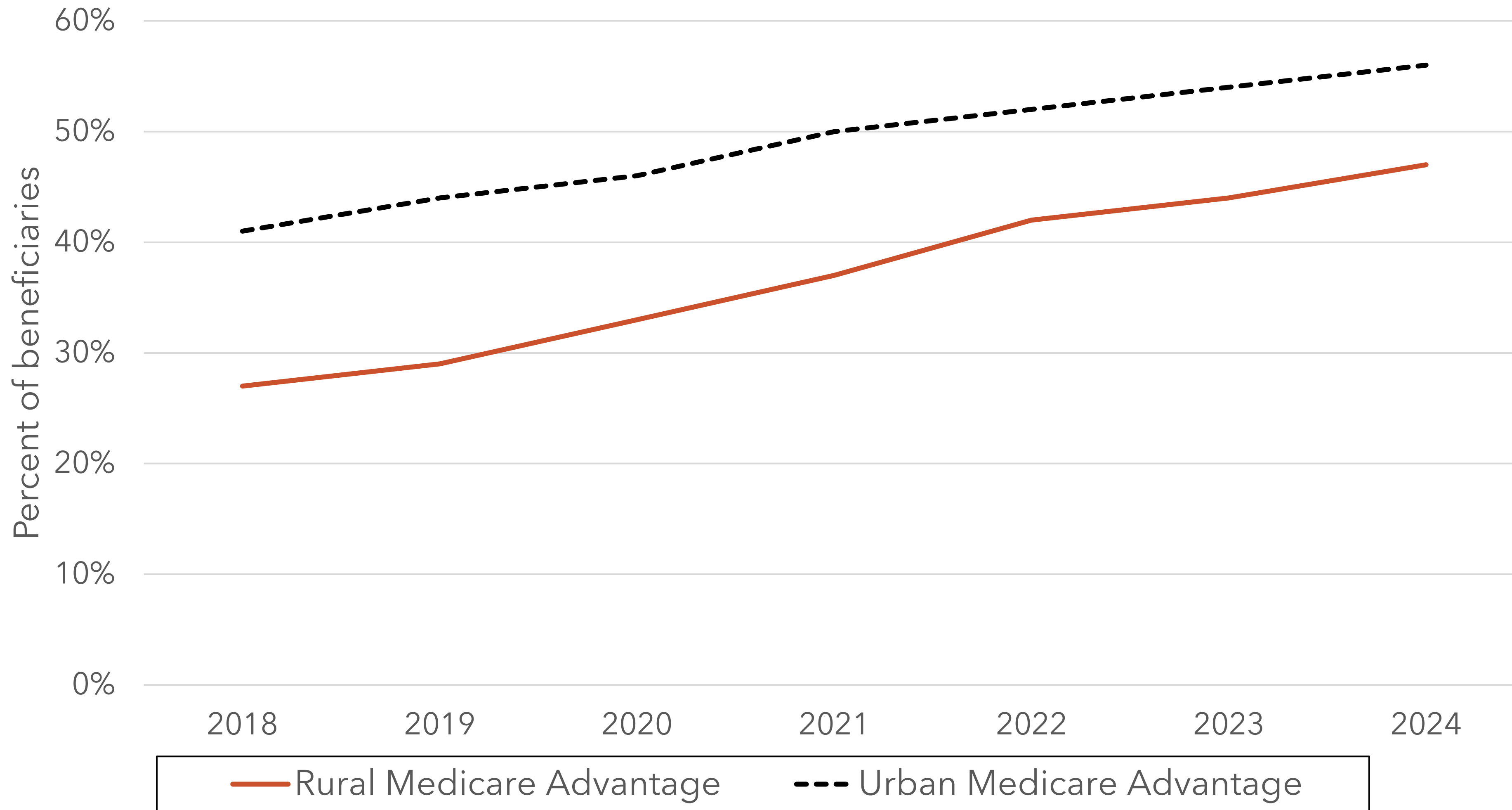
1. Special fee-for-service payments are important to rural hospitals
2. Medicare Advantage has grown rapidly in rural areas
3. MA beneficiaries bypass rural hospitals more often than FFS patients
4. Some evidence of declines in volume following MA expansion
5. No statistically significant effects on rural hospital finances through 2023
6. Discussion

Special Medicare payments are an important source of revenue for critical access hospitals

	Special payments as a share of Medicare FFS payments	Special payments by FFS and MA as a share of total revenue*	All-payer profit as a share of total revenue (average, 2014-2023)**	Medicare special payments as a share of total profits
CAHs	40%	18%	4.2%	429%
Rural PPS hospitals	11	3	4.5	67

Note: FFS (fee-for-service), MA (Medicare Advantage), CAH (critical access hospital), PPS (prospective payment system).
* Special payments from FFS and MA include disproportionate share payments, low-volume adjustments, outlier payments, special rural PPS adjustments, and the difference between cost-based CAH payments and PPS rates. In this model, we assume MA is currently making these special payments. We exclude teaching payments because CMS pays them directly to hospitals for MA patients. ** Total revenue and total profit are computed using revenue from all sources (including all payers, investments, and donations) except COVID relief funds. All effects are approximations.

MA has grown rapidly in rural areas



Note: MA (Medicare Advantage). MA enrollment reflects the share of all Medicare beneficiaries with both Part A and Part B coverage.
Source: MedPAC analysis of Medicare enrollment files.

Why is rural MA enrollment growing?

- Lower cost: Beneficiaries can obtain a maximum out-of-pocket limit without purchasing a Medigap plan
- Extra benefits: May include dental, hearing, reduced Part D premiums, prepaid debit cards for over-the-counter medications and, in some cases, groceries
- CMS relaxed rural network-adequacy requirements in 2021, which made it easier for firms to offer plans in rural areas

Note: MA (Medicare Advantage).
Source: MedPAC focus groups, MedPAC analysis of Medicare enrollment files, MedPAC March 2024 report to the Congress.

Analyzing rural hospital administrators' concerns regarding rural beneficiaries' bypass of providers

- Hospital administrators concerned that MA patients may bypass rural providers for lower-cost sites of care
- We define "bypass" as use of a provider that is 15+ miles away from a beneficiary's home than the nearest rural hospital
- Examined:
  - Emergency department visits
  - MRI scans
  - Inpatient admissions
  - Post-acute care that could have been provided in hospital swing beds

Note: MA (Medicare Advantage).
Source: MedPAC focus groups, MedPAC analysis of Medicare enrollment files, MedPAC March 2024 report to the Congress.

Rural bypass rates for inpatient and post-acute care: Higher for MA than FFS

	ED visits	MRI scans	Common inpatient admissions	Post-acute swing stays
Share of beneficiaries bypassing CAHs				
MA 15-mile bypass	21%	45%	60%	47%
FFS 15-mile bypass	14	44	37	30
Share of beneficiaries bypassing rural PPS hospitals				
MA 15-mile bypass	17	37	44	39
FFS 15-mile bypass	17	38	26	28

Note: MA (Medicare Advantage), FFS (fee-for-service), ED (emergency department), CAH (critical access hospital), PPS (prospective payment system). A "15-mile bypass" refers to receiving care at a location that is more than 15 miles farther from a beneficiary's home than the nearest hospital. "Common inpatient admissions" refers to pneumonia, heart failure, chronic obstructive pulmonary disease, kidney and urinary tract infections, and septicemia.

Source: MedPAC analysis of inpatient FFS claims, outpatient FFS claims, and MA encounter data.

MA growth is associated with reduced rural hospital inpatient and post-acute volume

	Log all-payer admissions	Log post-acute swing-bed days	Log combined inpatient, observation, and swing days
CAH regressions (10,296 observations, 2013–2023)			
MA penetration	−0.38**	−0.85**	−0.33**
Log population	0.18	0.17	0.30*
Rural PPS hospital regressions (5,379 observations, 2013–2023)			
MA penetration	−0.31*	−0.62	−0.07
Log population	0.66**	−0.91	0.53*

Note: MA (Medicare Advantage), CAH (critical access hospital), PPS (prospective payment system). Fixed-effect regressions using data from 2013 to 2023 with hospital and year fixed effects. Values are coefficient estimates from linear regression models that include hospital and year fixed effects. In addition to the variables in the table, models also control for census division-by-year fixed effects and the log of the county's unemployment rate. "MA penetration" is measured as the percentage of the Medicare population with Part A and Part B benefits that has enrolled in MA in the county (ranging from 0% to 100%).
* Refers to statistical significance level $p < .05$.
** Refers to statistical significance level $p < .01$.

Source: MedPAC analysis of 2013–2023 Medicare cost-report data.

No statistically significant effect on revenue, costs, or profits in fixed-effects regressions

	Log all-payer revenue	Log all-payer costs	All-payer profit margins
CAH regressions (10,296 observations 2013-2023)			
MA penetration	0.01 (0.08)	0.00 (0.09)	0.02 (0.03)
Log population	0.40**	0.36**	−0.01
PPS regressions (5,379 observations, 2013 to 2023)			
MA penetration	0.04 (0.14)	−0.02 (0.10)	0.03 (0.04)
Log population	0.57**	0.41**	0.13*

Note: CAH (critical access hospital), MA (Medicare Advantage), PPS (prospective payment system). Fixed-effect regressions examine data from 2013 to 2023 with hospital and year fixed effects. Values are coefficient estimates from linear regression models that include hospital and year fixed effects. In addition to the variables in the table, models also control for census division-by-year fixed effects and the log of the county's unemployment rate. "MA penetration" is measured as the percentage of the Medicare population with Part A and Part B benefits that has enrolled in MA in the county (ranging from 0 to 1).
* Refers to statistical significance level $p < .05$.
** Refers to statistical significance level $p < .01$.

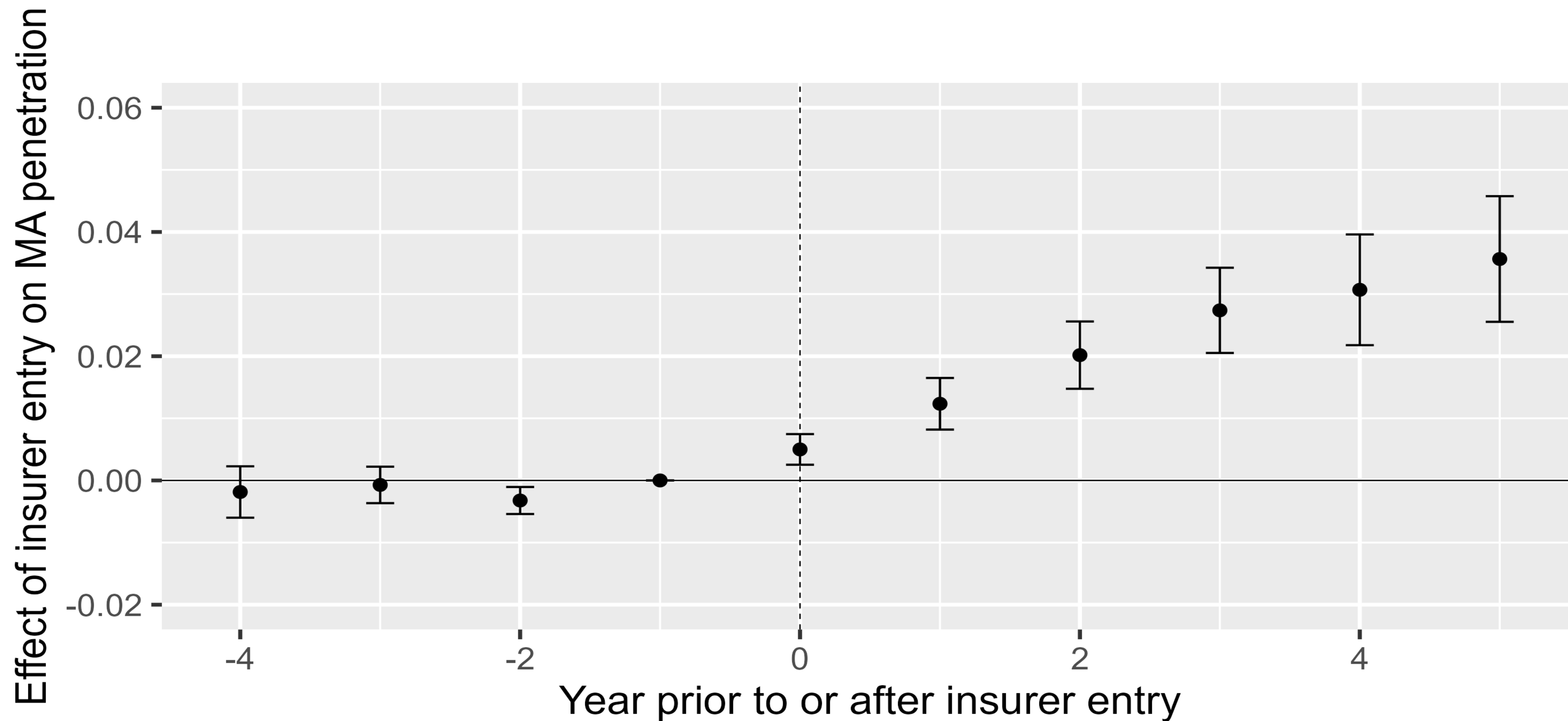
Source: MedPAC analysis of 2013–2023 Medicare cost-report data.

Concern with estimating the effect of MA penetration using a fixed-effects model

- Concern: MA penetration is nonrandom
  - E.g., MA growth may be correlated with changes in health of population
  - Cause for concern if changes in health are correlated with changes in hospital volume or profitability
- If so, effect of MA penetration could be biased
- To address this concern, we leverage entry of MA insurer into rural counties as quasi-random variation in MA penetration
  - We incorporate MA entry into an instrumental-variables framework

Note: MA (Medicare Advantage).
Source: MedPAC analysis of claims and cost report files.

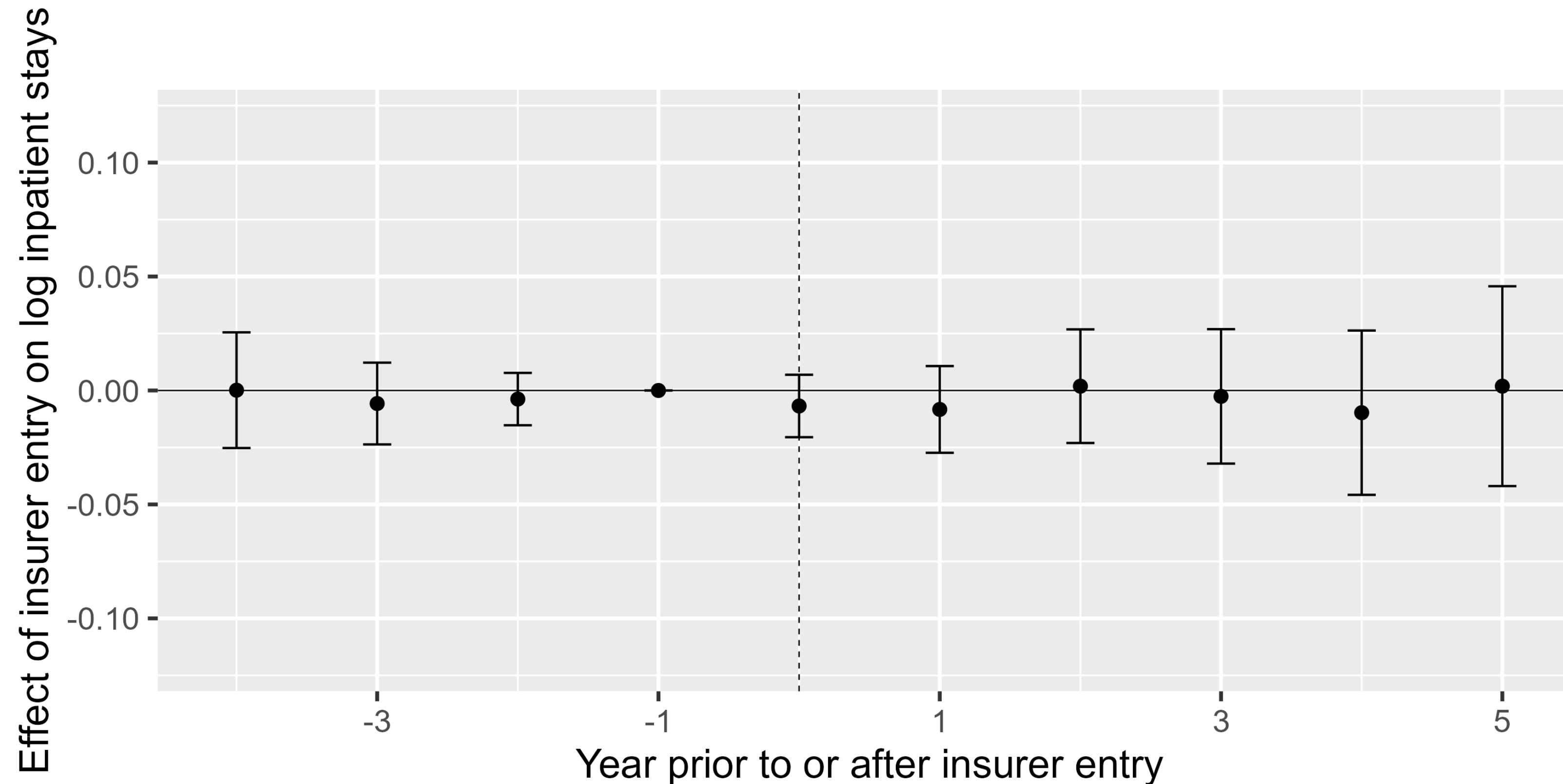
MA insurer entry increases MA penetration in rural counties



Note: MA (Medicare Advantage). Values are coefficient estimates from event study regression models. Lines indicate 95 percent confidence intervals. “MA penetration” is measured as a share of all Medicare beneficiaries with both Part A and Part B coverage enrolled in MA.

Source: MedPAC analysis of Medicare enrollment files and Medicare cost reports.

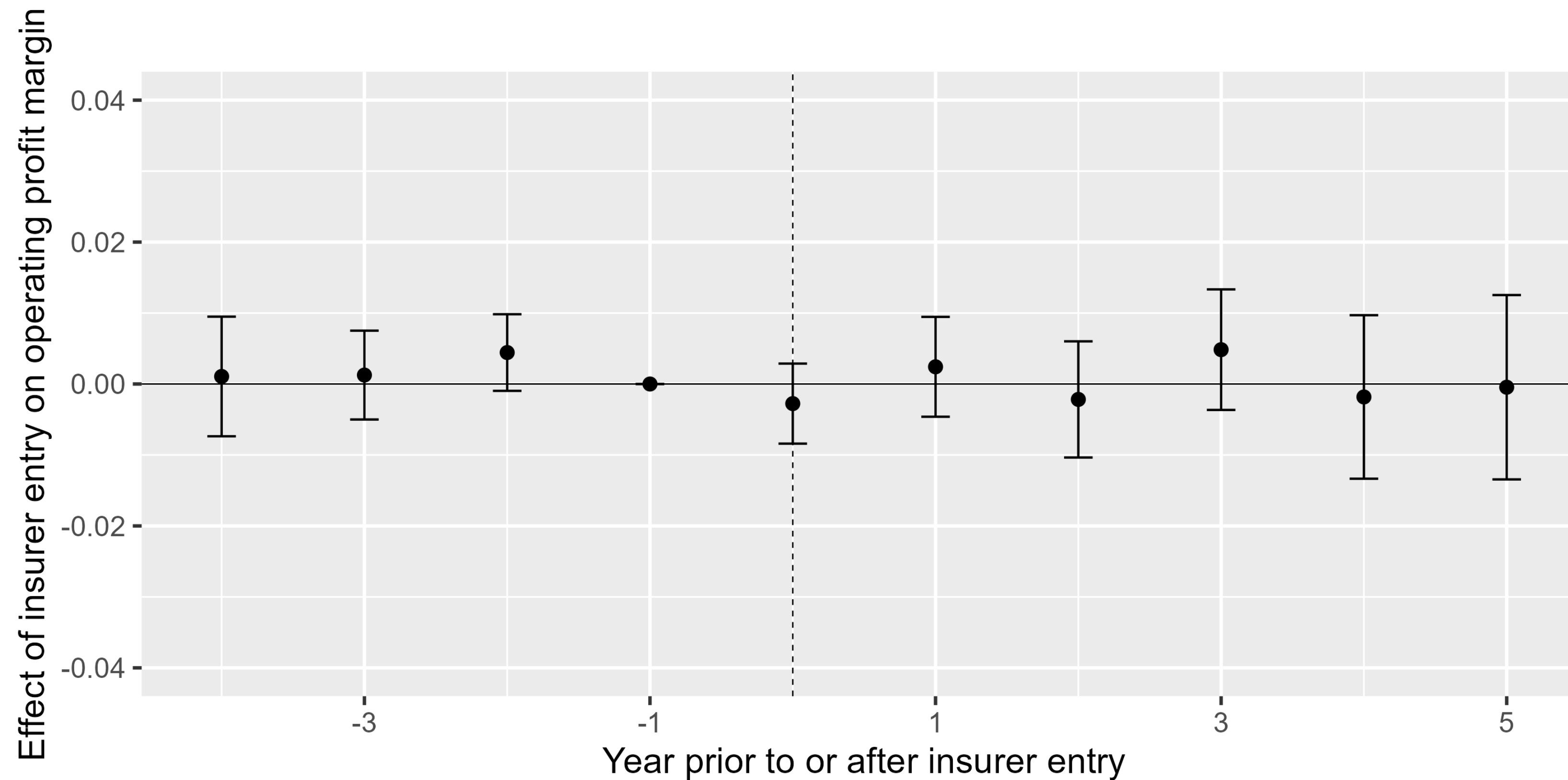
No statistically significant effect of MA insurer entry on inpatient stays in rural hospitals



Note: MA (Medicare Advantage). Values are coefficient estimates from event study regression models. Lines indicate 95 percent confidence intervals. MA penetration is measured as share of all Medicare beneficiaries with both Part A and Part B coverage enrolled in MA. Sample includes both critical access hospitals and rural prospective payment system hospitals.

Source: MedPAC analysis of Medicare enrollment files and Medicare cost reports.

No statistically significant effect of MA insurer entry on operating profit margin in rural hospitals



Note: MA (Medicare Advantage). Values are coefficient estimates from event study regression models. Lines indicate 95 percent confidence intervals. MA penetration is measured as share of all Medicare beneficiaries with both Part A and Part B coverage enrolled in Medicare Advantage. Sample includes both critical access hospitals and rural prospective payment system hospitals.

Source: MedPAC analysis of Medicare enrollment files and Medicare cost reports.

Why declining inpatient volume may have a minimal effect on revenue

- Some evidence that MA expansion results in fewer inpatient admissions at CAHs
- No statistically significant effect of MA expansion on revenue, costs, or profits
- Prices for FFS and potentially MA patients increase when volume declines and, in the case of PPS hospitals, when volume shifts from FFS to MA
  - PPS: Low-volume adjustments increase prices when volume declines, and the way uncompensated care payments are distributed increases prices when volume shifts to MA
  - CAH: Cost-based reimbursement and longer LOS for MA patients; MA appears to usually pay a per diem, not a DRG payment to CAHs

Note: MA (Medicare Advantage), CAH (critical access hospital), FFS (fee-for-service), PPS (prospective payment system), LOS (length of stay), DRG (diagnosis-related group).
Source: MedPAC analysis of claims and cost-report files. See MedPAC June 2022 comment letter on inpatient PPS proposed rule.

Discussion

- Questions
- Feedback on analytic findings
- Suggestions for further analysis

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