The effect of Medicare Advantage on hospital profitability

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RESEARCH OBJECTIVE

To examine the effect of Medicare Advantage (MA) on rural hospital profitability.

BACKGROUND

- **MA has grown tremendously**—in 2013, MA covered 29% of eligible Medicare beneficiaries, and, in 2023, it covered 51% of beneficiaries
- **Rural hospitals**, in particular, have expressed concerns about facing **financial challenges** from MA growth.
- Hospital financial stability is needed to preserve Medicare beneficiaries' access to care.
- The literature is mixed on the financial effects of MA, without any conclusive data on **the consequences of the growth in MA** for providers.

DATA AND SAMPLE

- Data: **Hospital cost reports (2012-2023)**
  - Independent variable: MA share of beneficiaries or inpatient days
  - Outcomes: operating revenues, costs, and profit margin
- Main sample: 1,295 critical access hospitals (CAHs) and 655 rural inpatient prospective payment system (IPPS) hospitals.
- Hospital has cost report in at least 11 of 12 years.

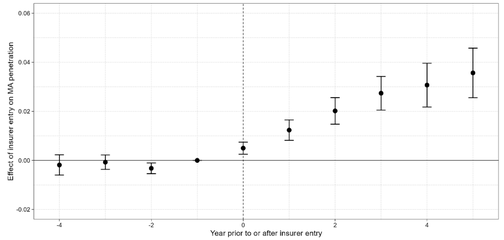
Table 1: Median characteristics of rural and urban hospitals meeting sample criteria

	Critical access hospitals	Rural IPPS hospitals	Urban IPPS hospitals
Number of hospitals	1,295	655	2,297
Medicare fee-for-service discharges	112	510	1,815
Reported MA Medicare discharges	41	394	1,893
All-payer discharges	250	1,822	8,312
Approximate Medicare (fee-for-service and MA) share of discharges	62%	51%	47%

STUDY DESIGN

- **Exposure to MA is not random**, e.g., may be correlated with health of underlying population, which may be correlated with hospital profitability.
- Thus, we exploit quasi-random variation in exposure to MA due to the timing of **MA insurer entry into a market**.
  - Entry of an MA insurer into a county increases the MA share (Figure 1), so we can leverage entry to examine how hospital profitability changes.
  - Entry: new insurer present in county and no exit from previous year.
- We incorporate this variation into an **instrumental variables (IV) approach**.
  - Key assumption: Entry of an MA insurer into a county only affects hospital profitability through its effect on the MA share of inpatient days

Figure 1: Effect of MA insurer entry on MA share of rural beneficiaries



PRINCIPAL FINDINGS

Figure 2: Effect of MA insurer entry on rural hospitals' operating profit margin

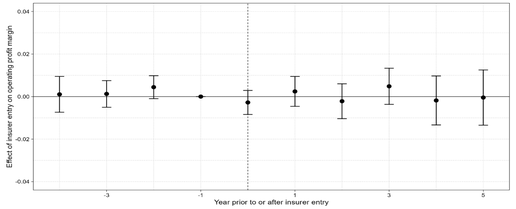


Table 2: Effect of MA share of on rural hospital profitability

	Log overall operating revenue	Log operating costs	Net operating profit margin (excluding relief funds)
Effect on critical access hospitals, 2013 to 2023			
County-level MA share	−0.44	−0.24	−0.11
	(0.69)	(0.63)	(0.22)
Number of observations	10,296	10,296	10,296
Effect on rural PPS hospitals, 2013 to 2023			
County-level MA share	−0.11	-0.50	0.34
	(0.71)	(0.68)	(0.26)
Number of observations	5,379	5,379	5,379

- **An increase in MA penetration does not have a statistically significant effect on hospitals' operating profit margins.**
  - No statistically significant effect for rural hospitals (Figure 2)
  - The confidence intervals are wide, suggesting we cannot rule out small effects
  - We can see the average IV estimates for the effect of the MA share on operating revenues, costs, and profit margins in Table 2.
- **Preliminary results suggest this null effect persists for all hospitals (including urban hospitals)**
- **The null effect holds when measuring MA penetration as a share of beneficiaries in the county or as a share of admissions at individual hospitals.**
- Part of the reason for limited effects of MA growth despite hospital administrators reporting denied claims may be that MA growth increases the level of uncompensated care payments due to the mechanics of how Medicare uncompensated care payments are computed and used in prices MA plans pay hospitals.

IMPLICATIONS FOR POLICY AND PRACTICE

For researchers: Leveraging **MA insurer entry may be a useful identification strategy** to investigate the effect of MA on other outcomes, such as health care utilization or outcomes.
For policy: There is no conclusive evidence that MA growth had a material effect on rural hospital finances through 2023.

CONCLUSION

- In counties with fewer than five MA insurers**, MA plan entry into a county increases county-level MA penetration**, rather than simply redistributing MA patients among plans.
- Leveraging this natural experiment, we observe **no statistically significant effect of MA exposure on rural hospital profitability.**
- **Further research is needed**:
  - How does MA affect other providers?
  - Do different types of MA plans (such as plans integrated with providers) have different effects on providers?

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