

Changes in Obstetrical Services Among Critical Access Hospitals

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Presentation Overview

- Background
- Purpose
- Methods
- Results
- Key Findings
- Conclusion



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Definition: “OB services”

- Obstetrical services can encompass many services
 - Pre-natal care
 - Labor and delivery
 - Neonatal intensive care
- Here, we define OB services as labor and delivery – the birth of a newborn



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Background

- Importance of Obstetrical Services
- Access in CAHs
- Financial Implications
 - Recent survey: administrators of CAHs reported “increasing OB beds” as having a negative impact on financial performance



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Purpose

- *To identify any change in the provision of obstetrical services by CAHs and to determine whether any changes could be explained by particular factors facing CAHs.*



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Methods

- Data
 - HCRIS (Medicare Cost Reports)
- Inclusion Criteria
 - Nursery Day ≥ 1
 - 8 Fiscal Years (2000 to 2009)
 - Days in Period >360 days
- Hospitals
 - CAHs & Rural PPS
- Sample Size = 1,374 Hospitals



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Measuring OB services

- Many ways to consider whether a hospital offers OB services
 - Provider of services – they say they do
 - Some minimum (relative) level – percent of days or charges from nursery
 - Some minimum (absolute) level – e.g. 2 nursery days / month
- Here, defined as at least one nursery day per year



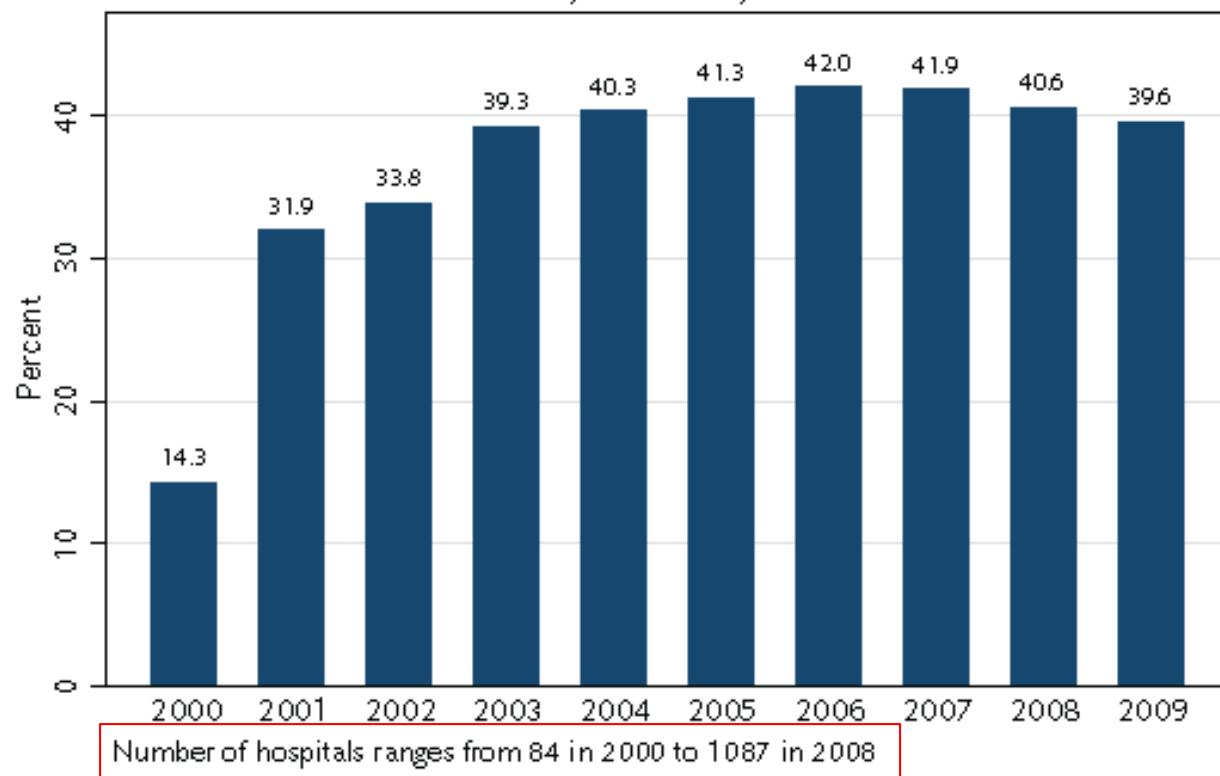
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Results

Percent of CAHs with at least one nursery day
By calendar year





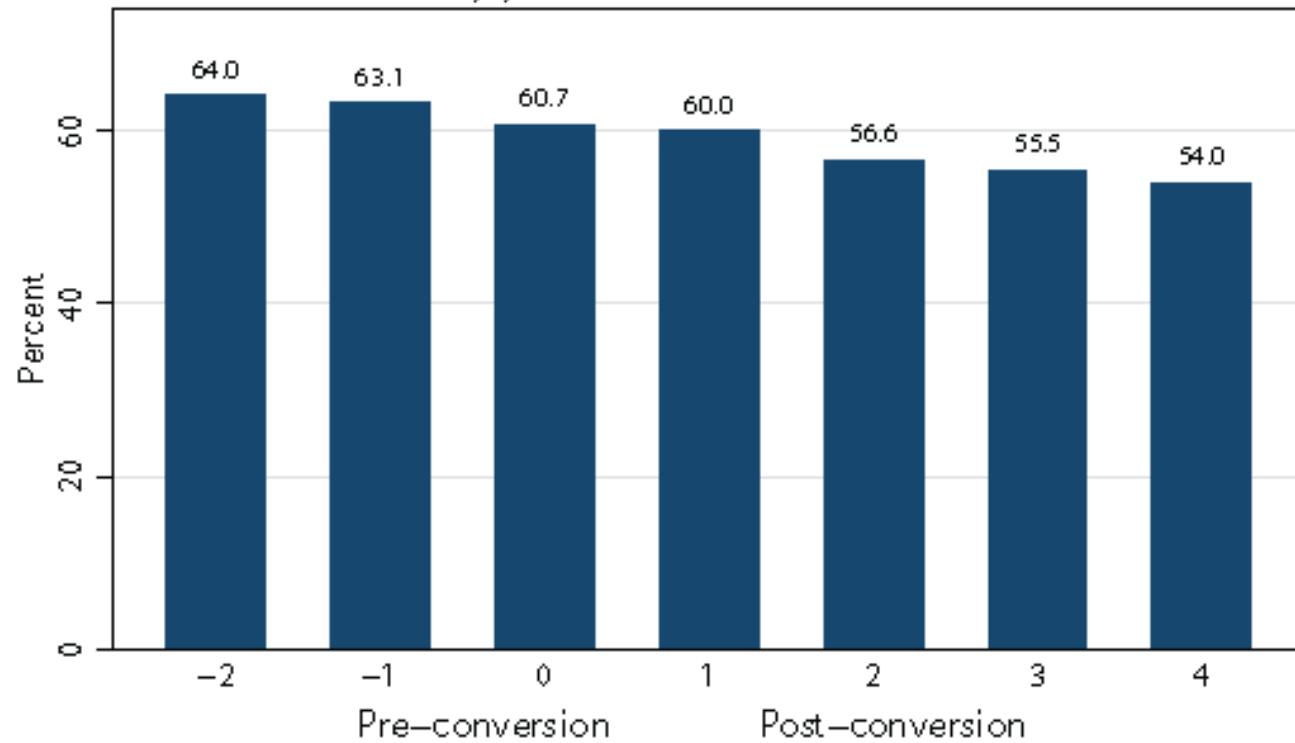
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Results

Percent of CAHs with at least one nursery day
By years since conversion to CAH



Data only for CAHs with at least two years of pre-conversion data.
Number of hospitals ranges from 298 (year 0) to 564 (year -2)

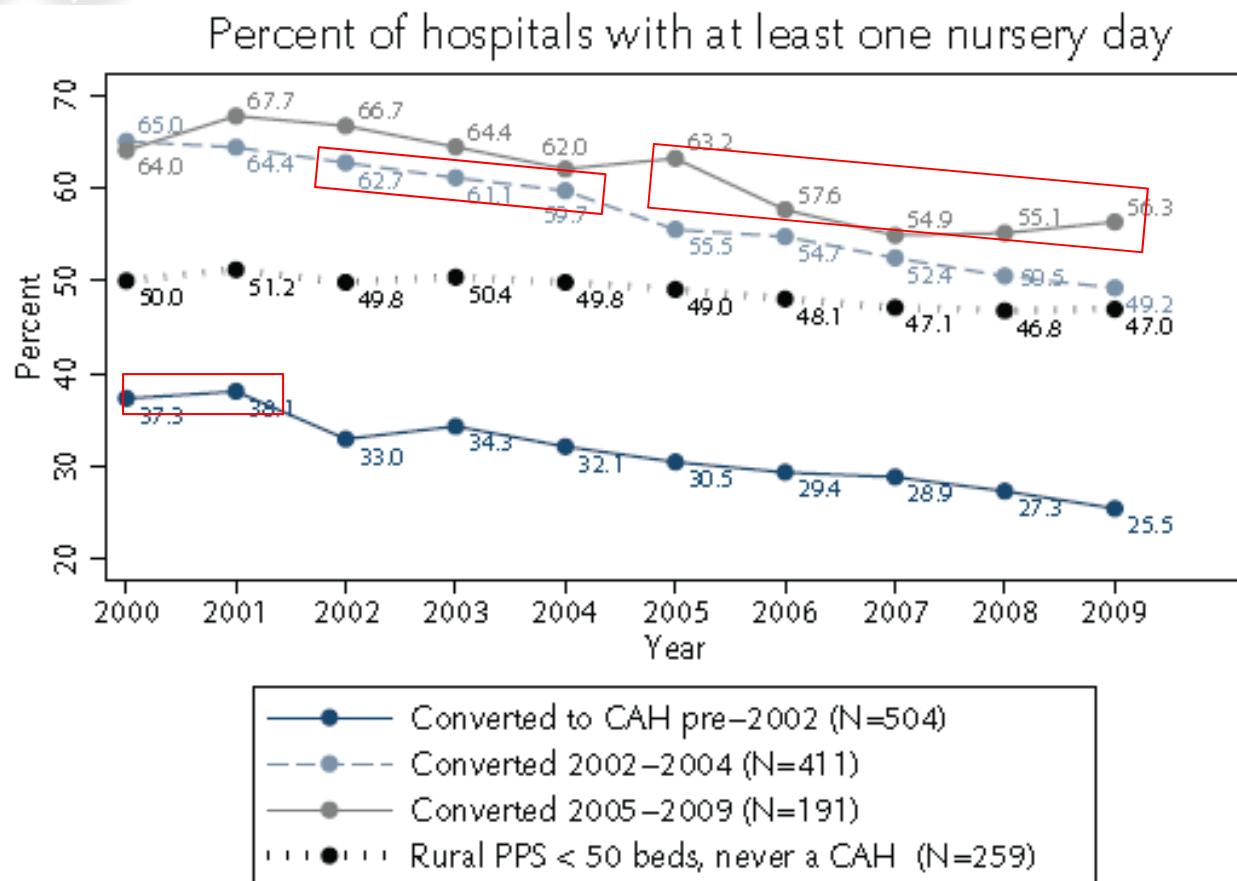


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Results





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Key Findings

- Increase in percent of CAHs with Nursery Days Between 2000 and 2006...
 - ...but this was due to a change in the “average” CAH over this time period
- As PPS hospitals converted to CAH, they tended to be less likely to have nursery day
- No Change in Obstetric Services among Non-CAHs



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Nursery in a cost-based setting

- From a cost allocation standpoint, direct and indirect hospital costs will be allocated to the nursery unit
 - E.g. portion of management cost allocated to nursery
- These costs get allocated by payer mix
 - Medicare payer mix among nursery days is quite low
- → Incentive to close nursery units from a financial perspective



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*...but lots of other (potential)
causes too*

- OB/GYN supply
 - (malpractice rates?)
- Surgeon backup availability
- RN supply
- Medicaid reimbursement level



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Key Findings

- Decrease in CAHs with Nursery Days Versus no-Nursery Days
- CAHs with Obstetric Services: Increase in Nursery Days.



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Hospital characteristics

- Which CAHS do not have OB?
- Among hospitals that were CAHs by 2009:
 - Time to/since conversion
 - Market characteristics: RUCA; sociodemographics (elderly, women of CBA, poverty); OB malpractice rate; market share
 - Hospital characteristics: (lagged) payer mix, size, has surgery
 - Region



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Preliminary results: does hospital offer OB?

- 1103 hospitals (5644 observations)
- Selected results:

Variable	OR	CI
Years pre-CAH	0.97	[0.858,1.096]
Years post-CAH	0.807**	[0.728,0.893]
Pct Elderly	0.944*	[0.896,0.994]
Poverty	0.961**	[0.939,0.983]
MedicareShare	0.991*	[0.982,0.999]
MedicaidShare	1.044**	[1.013,1.077]
HasSurgery	2.007**	[1.531,2.631]
Beds	1.064**	[1.043,1.084]
Malpractice premium	0.973**	[0.965,0.981]



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Discussion: Hospital Characteristics

- Only important time element – time since conversion to CAH
- Hospitals serving poorer, older communities less likely to offer OB
- Less Medicare, more Medicaid more beds means more likely to offer
- Higher malpractice implied less likely to offer OB
- (Not shown: more isolated RUCAs & Mountain division more; South less likely)



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Conclusion

- Obstetrical Services at CAH
 - Decrease in Obstetrical Services
 - Rationale for Reduced Services
 - Reallocation of Nursery Days
- Access to Obstetrical Services
- Policy Implications



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