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# **The Rural Obstetric Workforce in US Hospitals: Challenges & Opportunities**

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# Background: Rural Obstetric Care

- Childbirth is the most common and costly reason for hospitalization in the US
  - Half a million babies are born each year in rural hospitals
  - Total costs of ~\$30 billion annually for hospital care; half of births covered by Medicaid
- Decline in access to obstetric services at rural hospitals
  - More than half (54%) of rural counties have no obstetric services, closures more common in remote, rural communities (only 40% of noncore counties have OB services)
  - Variability across states; in 2014, more than two-thirds of rural counties in Florida (78%), Nevada (69%), and South Dakota (66%) had no in-county hospital OB services.
- Among rural hospitals that do provide obstetric services, there a need for data on patterns of care, quality of care, and workforce.



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# Research Questions

Who attends births in rural hospitals?

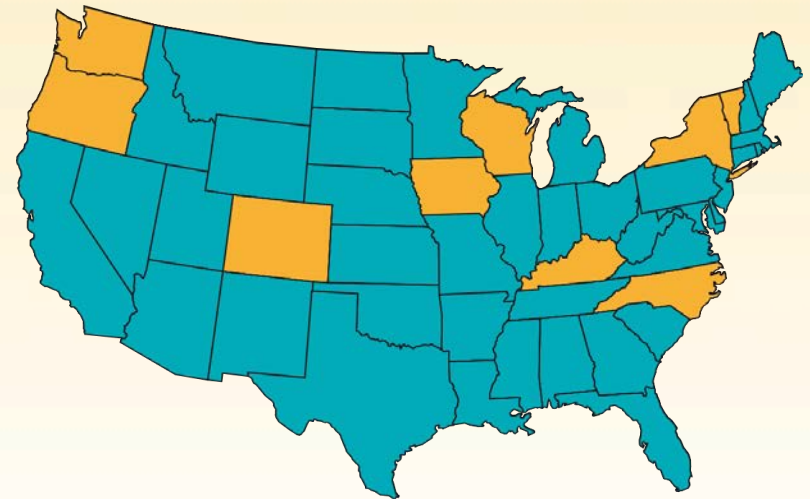
- What types and combinations of clinicians are delivering babies in rural hospitals?
- What is the relationship between hospital birth volume and staffing models?
- What staffing challenges are rural hospitals facing?



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# Data

- HCUP SID data included all hospital births to rural residents in nine states
- Telephone survey of all 306 rural hospitals in these 9 states with at least ten births in 2010 conducted Nov 2013 – Mar 2014
  - Advisory Committee of rural obstetric nurse managers
  - Content: closed and open-ended questions on delivery volume, types & numbers of attending clinicians, staffing challenges & changes
  - Response rate 86% (n=263)



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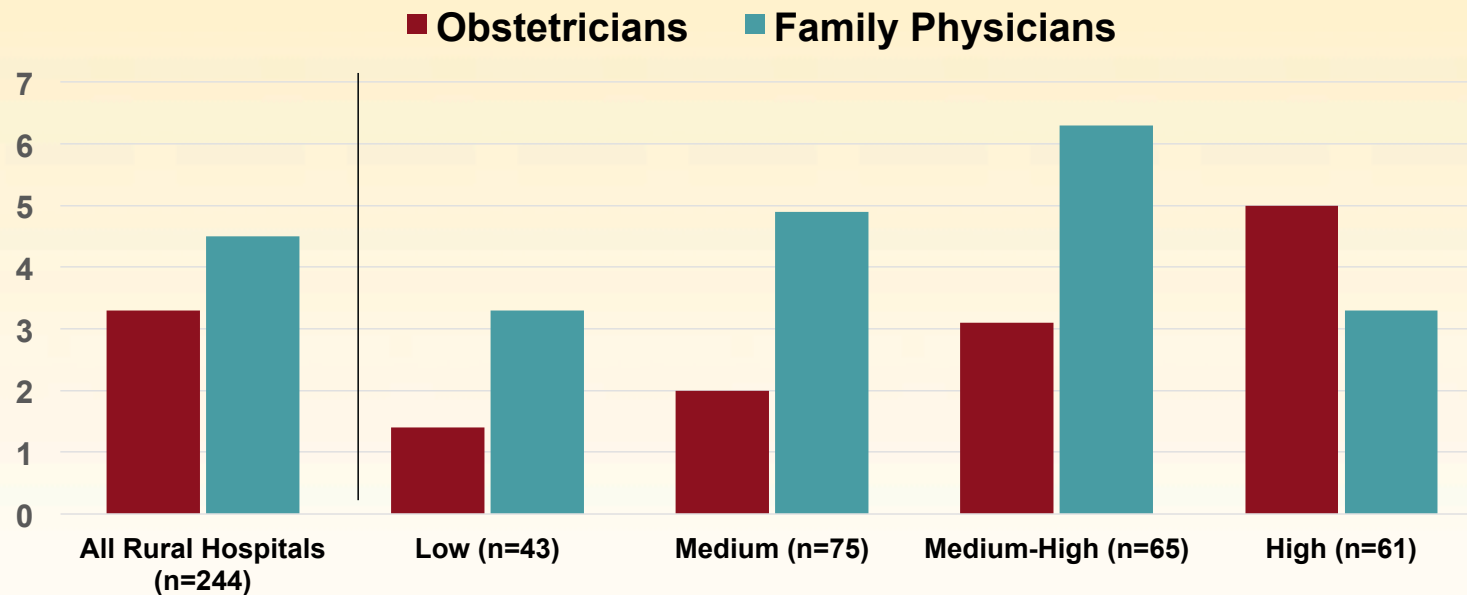
# Methods

- Hospital annual birth volume quartiles:
  - low (10-110), medium (111-240), medium-high (241-460), or high (> 460)
- Multivariable regression analysis of associations between hospital birth volume and obstetric workforce
- Qualitative analysis of workforce changes and staffing challenges



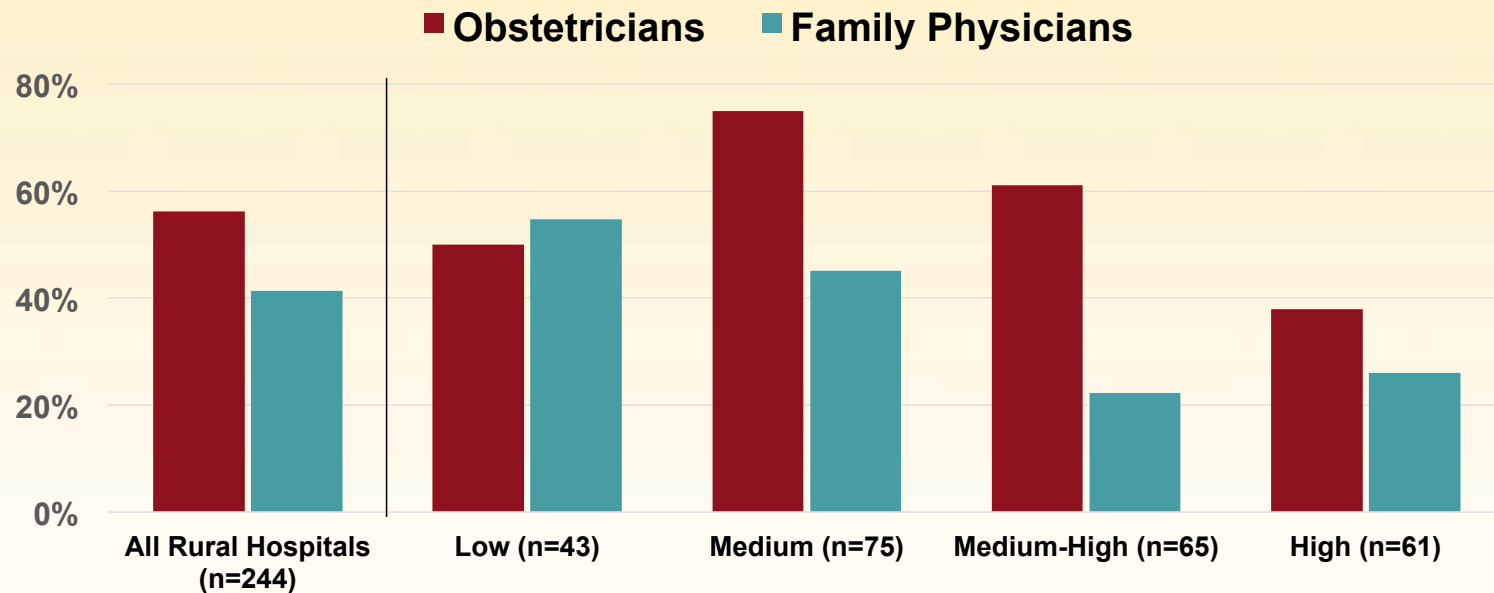
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# Results: Average Number of OBs/FPs in Surveyed Rural Hospitals, by Birth Volume



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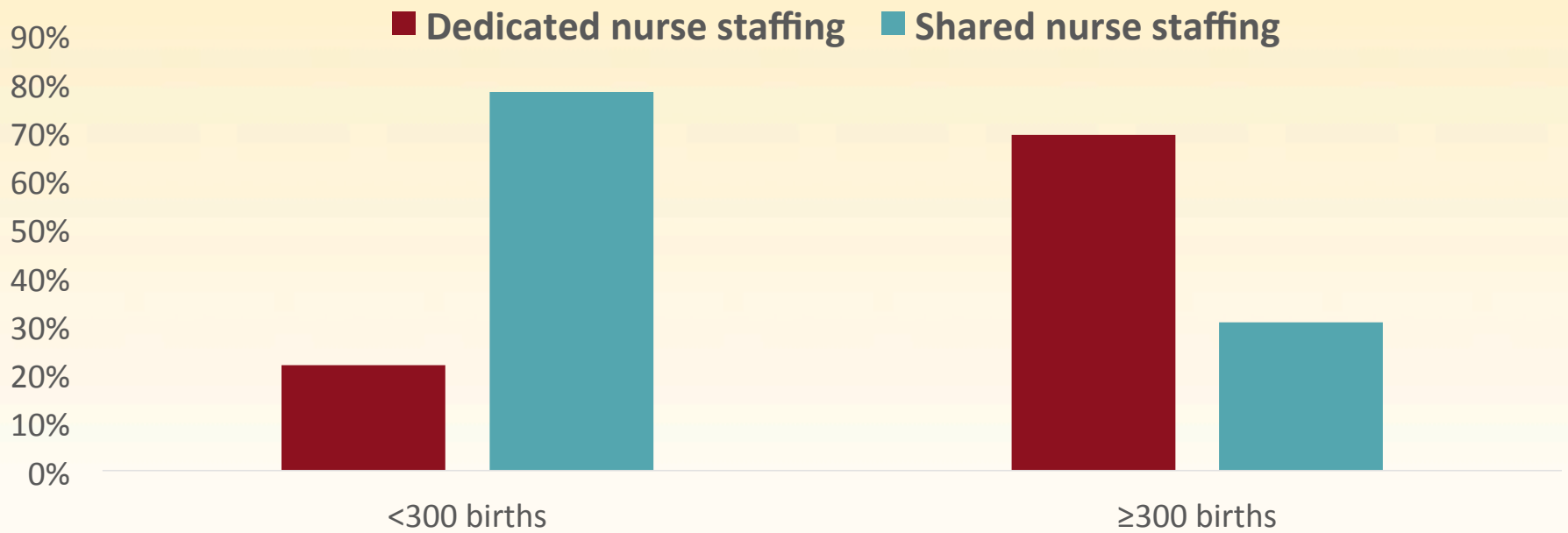
# Results: Percent of OBs/FPs Employed by Surveyed Rural Hospitals, by Birth Volume



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# Results: Dedicated and Shared Nurses, by Birth Volume



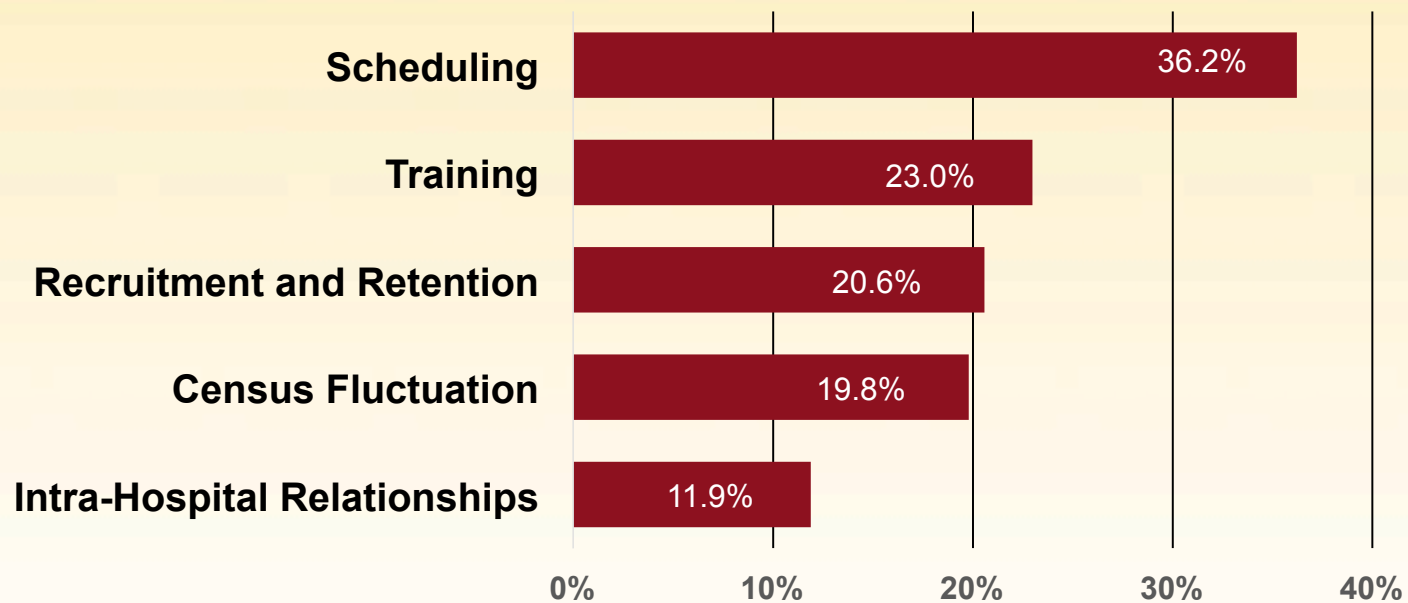
## Results: Midwifery in Rural Hospitals

- CNMs attend deliveries at one-third of rural maternity hospitals in 9 US states, with significant variability across states.
- In rural maternity hospitals with CNMs, midwives practice alongside obstetricians in 86% of hospitals and with family physicians in 44% of hospitals
- Larger volume rural hospitals were more likely to have CNMs attending births.



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# Results: Percent of Surveyed Rural Hospitals Citing Particular Staffing Challenges (n=244)



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# Summary of Findings

- Hospitals with lower birth volume (<240 births per year) are more likely to have family physicians and general surgeons attending deliveries
- Hospitals with a higher birth volume more frequently have obstetricians and midwives attending deliveries
- Employment of physicians decreases as birth volume increases
- $\frac{3}{4}$  of rural hospitals with <300 births a year have shared nurse staff
- Midwives attend deliveries in  $\frac{1}{3}$  of rural hospitals
- Workforce challenges reported by surveyed hospitals are related to their rural location and low birth volume.



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# The Way Forward – National Policy

- Federal policy efforts to address workforce shortages.
  - Improving Access to Maternity Care Act



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# The Way Forward – State Policy

- Medicaid policy
- State scope of practice laws
- State and local efforts
  - Subsidies; “home-grown” rural workforce
  - Education and training; rotations that include obstetrics in rural areas
  - Capacity building/training: CME support
  - Collaboration between clinicians, health care systems



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## For Additional Information

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# Thank You!

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