

# Access to Hospital Maternity Care Units in Rural America

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**Rural Maternal Health Forum**

**Washington, DC**

**June 12, 2019**



# Agenda

- **What:** Trend of hospital obstetric unit closures
- **Why:** Reasons for rural hospital obstetric units closures
- **Where:** Communities of these obstetric unit closures
- **How:** Association between hospital obstetric unit closures and accessibility



# Acknowledgement

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# What is happening to hospital obstetric care?

Rural mothers-to-be may have a harder time finding a hospital to give birth in

A hospital in Grand Marais may no longer be open, a growing trend among rural hospitals across the country.

January 26

**Hospital closures, Medicaid expansion to lead rural health meeting agenda**

By Jaamy Lee | April 19, 2014

Attendees at the National Rural Health Association annual meeting this week in Las Vegas will hear a lot about recent closures of rural hospitals in states such as Alabama, Louisiana and Texas.

There have been few rural hospital closures across the country over the past 15 years, but hospitals in the South have closed, including 10 in Alabama in the past few years. The closures are on a number of factors, including the loss of Medicaid funding and the inability to expand Medicaid under Obamacare.

**Closing Maternity Wards: Costly and Risky**

Health

04/27/2011

4 comments

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Maternity wards are closing in rural areas already underserved and women need a new model for prenatal care and more

By Kelli B. Haywood

**More Rural Hospitals Are Closing Their Maternity Units**

**Maternity unit closures plotted 'under radar'**

Jon Ungoed-Thomas

October 9 2016, 12:01am,  
The Sunday Times

**THE MORNING CALL**

Maternity wards few and far between in some parts of Pennsylvania

Health

**Rural hospitals getting out of the birthing business?**



Bob Collins

**Memorial Hospital of Salem County to close maternity ward**

Officials at The Memorial Hospital of Salem County in Mannington Township announced Tuesday, April 8, 2014, that the facility's maternity ward would close by May 31, 2014. (Staff Photo by Spencer Kent/South Jersey Times)

By Alex Young | South Jersey Times

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**Hospital Maternity Wards Are Closing Across U.S.**

By Naomi Abraham  
WeNews correspondent  
Friday, January 21, 2011

More women of child-rearing age are uninsured and dependent on medical assistance. That is tightening the financial noose around hospital maternity care and causing longer waits and travel time for pregnant women.

**Doctors' chief calls for string of maternity unit closures**

Denis Campbell Health policy editor

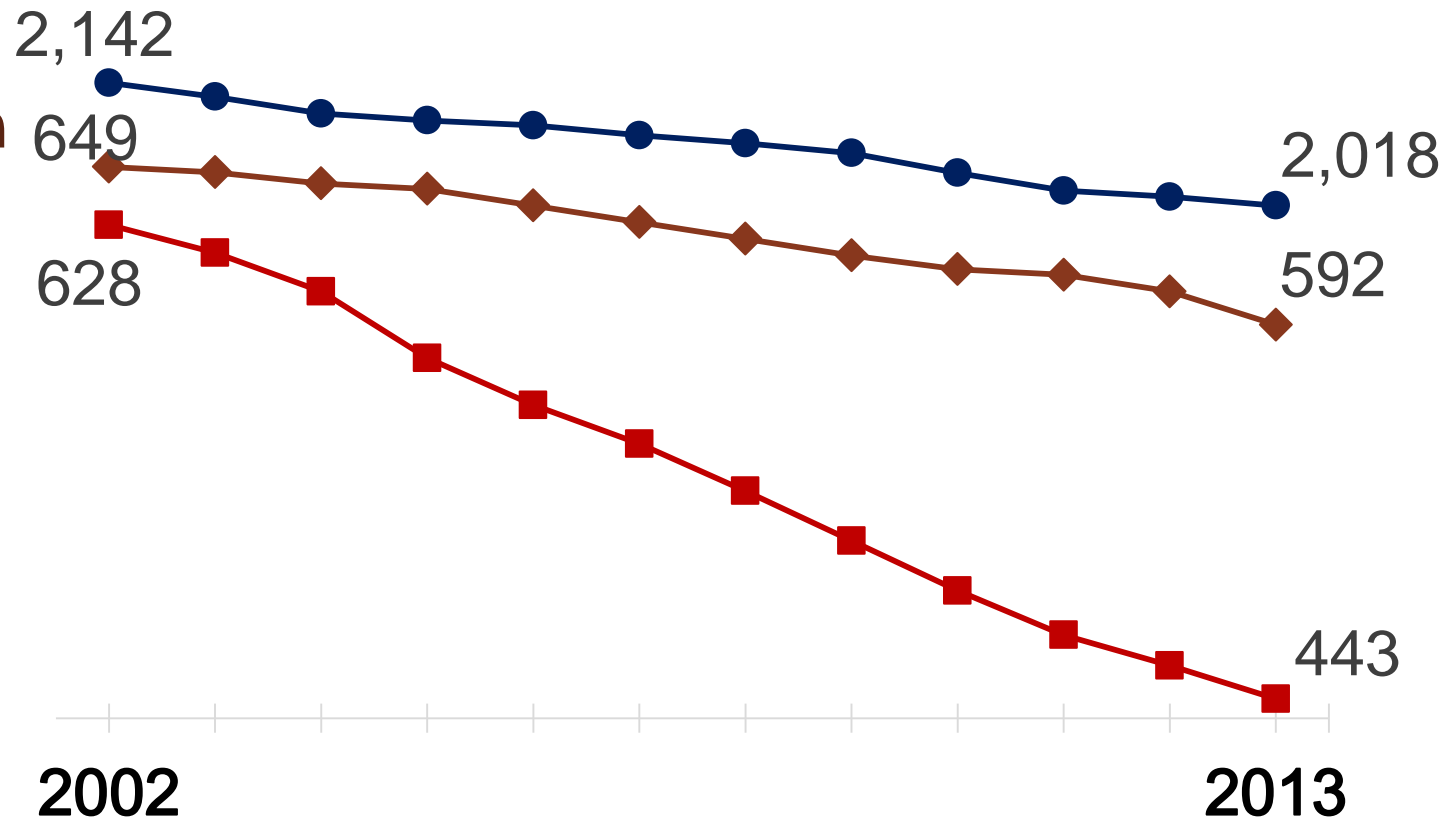
Thursday 21 January 2016 11:36 EST

# Number of Hospital-based Obstetric Units by Rurality

**Urban**

**Micropolitan**

**Noncore**



Source: Hung (2017) Discontinuation of Hospital-Based Obstetric Unit Services 2002-2013. University of Minnesota.

# Continuing~

## Munson plans to close maternity unit at Manistee hospital

A partnership between [Carolina Public Press](#) and [HuffPost](#)

### Rural Maternity Wards Are Closing, And Women's Lives Are On The Line

In the mountains of western North Carolina, pregnant women don't know where to deliver.

By Catherine Pearson and Frank Taylor

09/25/2017 05:45 am ET | Updated Sep 25, 2017

When Obstetrics Units Close, Rural Hospitals Save At The Expense Of Women's Health

Hospitals blame Texas Medicaid for low reimbursement rates. But when they close units, women have to travel hours to deliver and often skimp on prenatal care.

The Chestertown hospital no longer offers maternity or pediatric services. It no longer provides stents for heart patients or dialysis for patients suffering from kidney failure.

## Mich. hospital to close maternity ward; only 6 births in March

Associated Press | Published 8:20 p.m. ET April 30, 2019 | Updated 8:22 p.m. ET April 30, 2019

## Obstetrics unit at Santa Paula Hospital to close with business plummeting

[Kathleen Wilson](#), [Ventura County Star](#) | Published 7:00 a.m. PT May 31, 2019 | Updated 11:30 a.m. PT May 31, 2019

# Why are Rural Hospital Obstetric Units Closing?

- **Staffing issues**
  - Retention, recruitment, liability
- **Low birth volume**
- **Low reimbursement**
  - High proportions of patients on Medicaid
- **Financial issues**
  - Surgical and anesthesia coverage
  - Costs of operating the units
  - Budget cuts



Research Article

Why Are Obstetric Units in Rural Hospitals Closing Their Doors?

Peiyin Hung M.S.P.H. ✉, Katy B. Kozhimannil Ph.D., M.P.A., Michelle M. Casey M.S., Ira S. Moscovice Ph.D.

Hung, P., Kozhimannil, K. B., Casey, M. M., & Moscovice, I. S. (2016). Why are obstetric units in rural hospitals closing their doors?. *Health services research*, 51(4), 1546-1560.

# HealthAffairs

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At the Intersection of Health, Health Care and Policy

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Kozhimannil

Access To Obstetric Services In Rural Counties Still Declining, With 9 Percent  
Losing Services, 2004–14

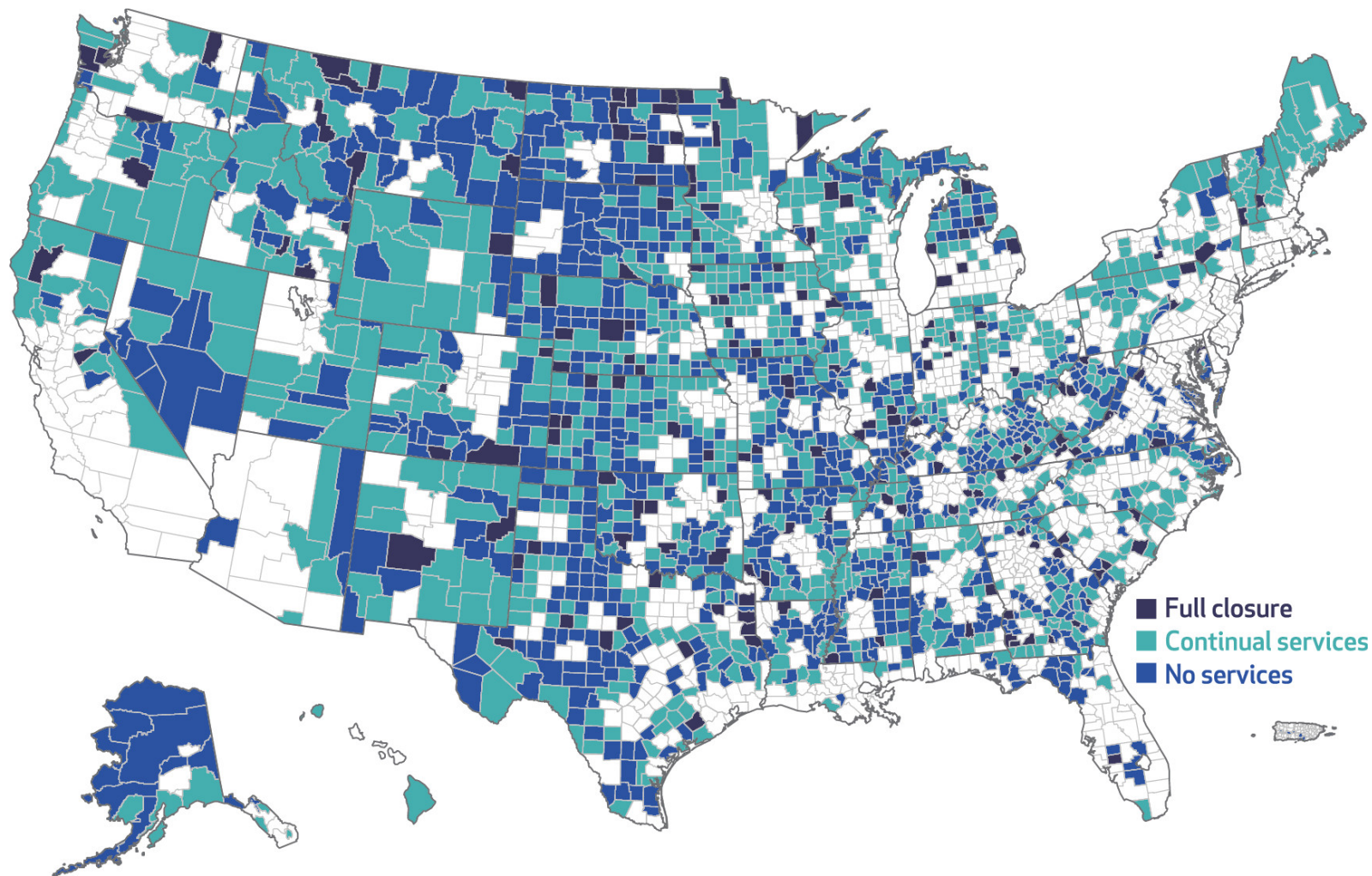
*Health Affairs* 36, no.9 (2017):1663-1671

doi: 10.1377/hlthaff.2017.0338

Rural communities affected by  
hospital obstetric unit closures



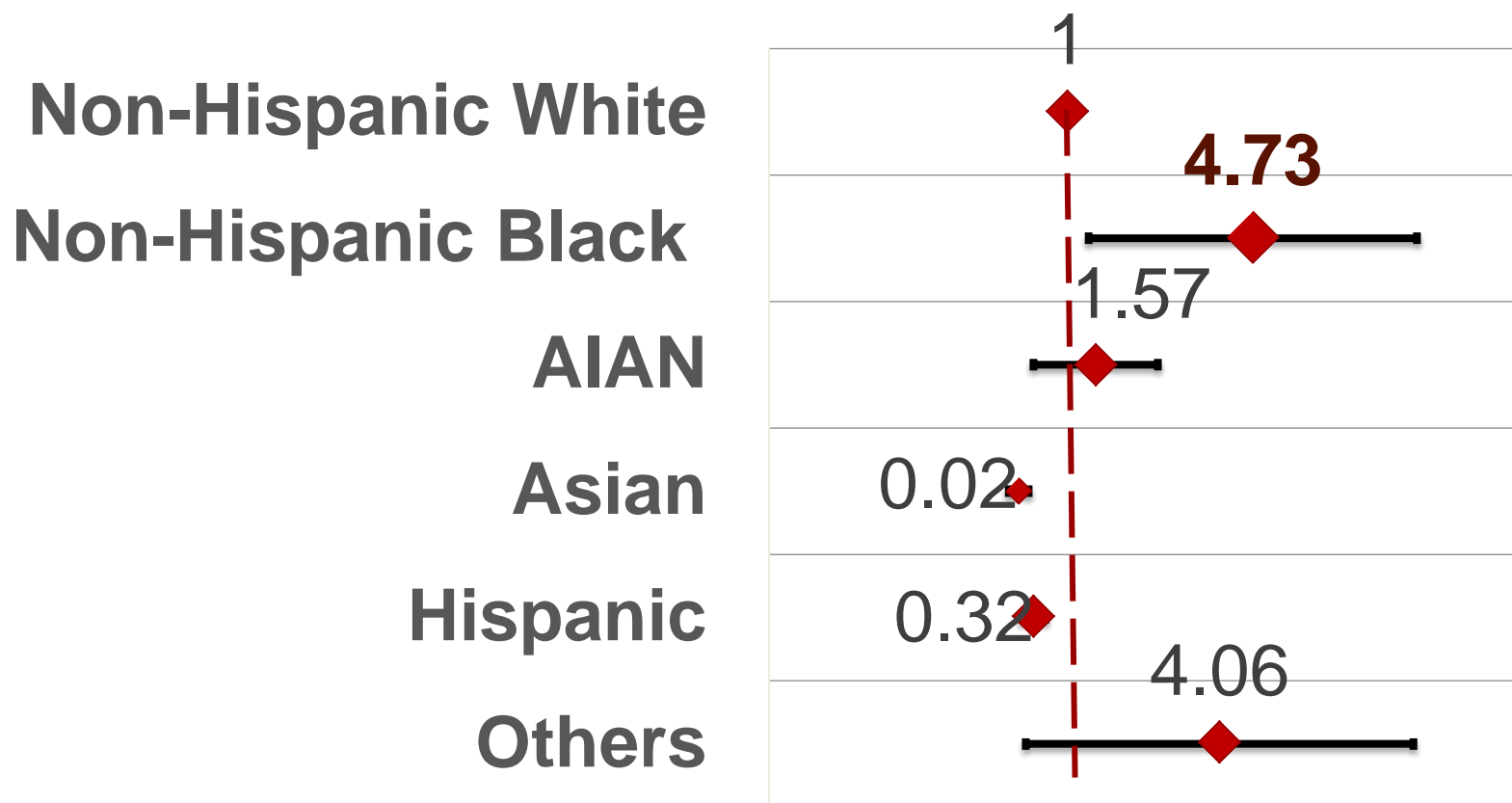
# County Map of Rural Hospital Obstetric Units 2004-2014





# Black Communities Had Higher Odds of Closures

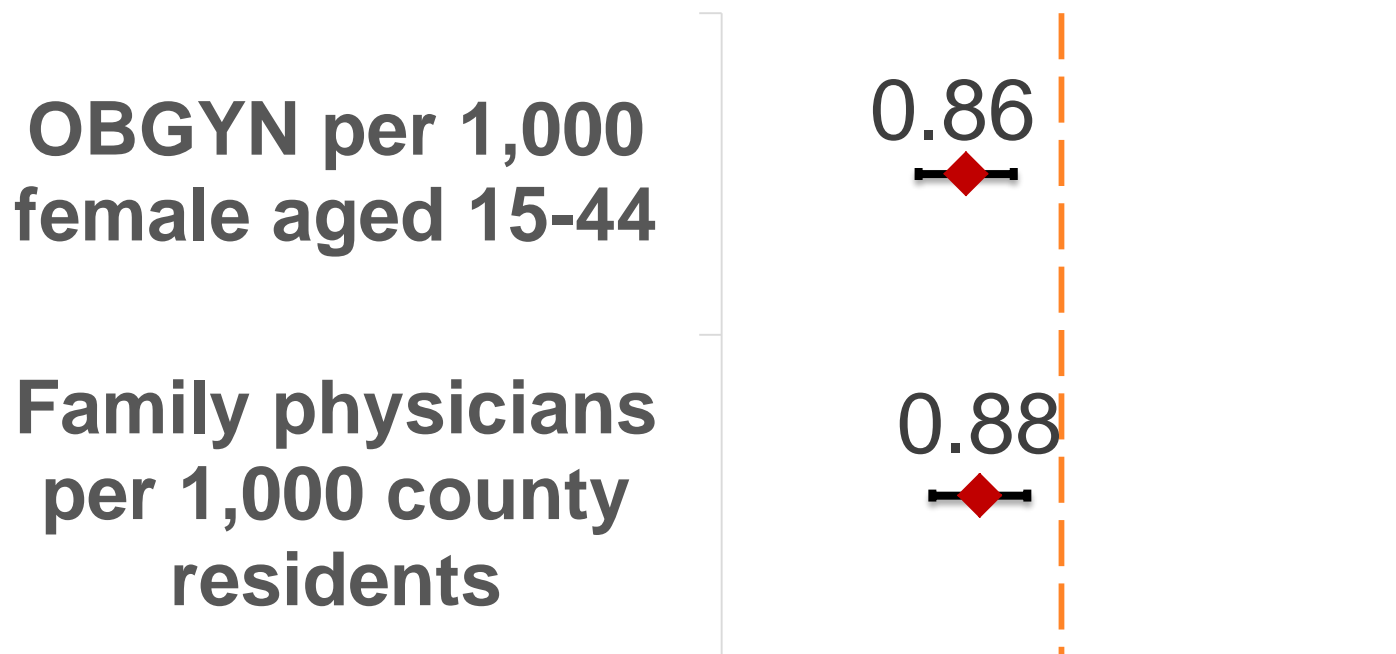
Adjusted Odds Ratio (95% CI)






# Higher Workforce Supply was Associated with Lower Odds of Full Closures


Adjusted Odds Ratio (95% CI)



Article | Published: 16 February 2018

# Rural-urban differences in access to hospital obstetric and neonatal care: how far is the closest one?

Peiyin Hung , Michelle M. Casey, Katy B. Kozhimannil, Pinar Karaca-Mandic & Ira S. Moscovice

*Journal of Perinatology* **38**, 645–652 (2018) | [Download Citation](#) 

# Spatial Accessibility to Hospital Obstetric Units

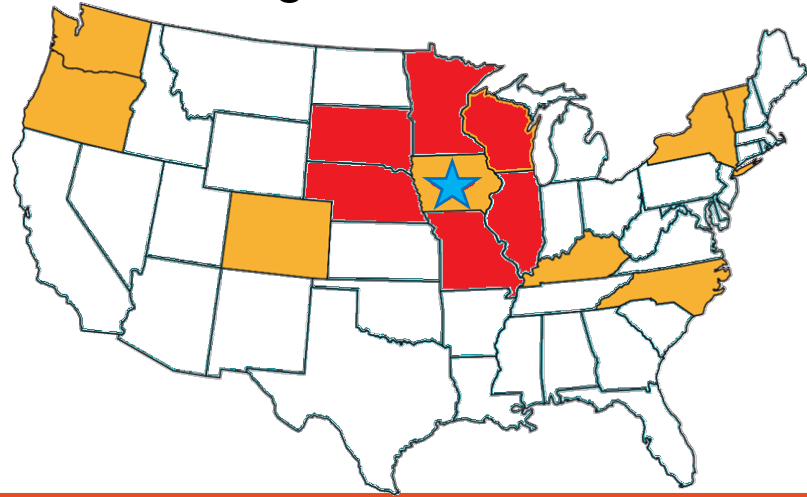
# Study Sample

Statewide  
Inpatient  
Databases

All-Payer Hospital Discharge Data in 2002 and 2013

Maternal  
Childbirth  
Hospitalization

Linked Hospital  
and County  
Characteristics



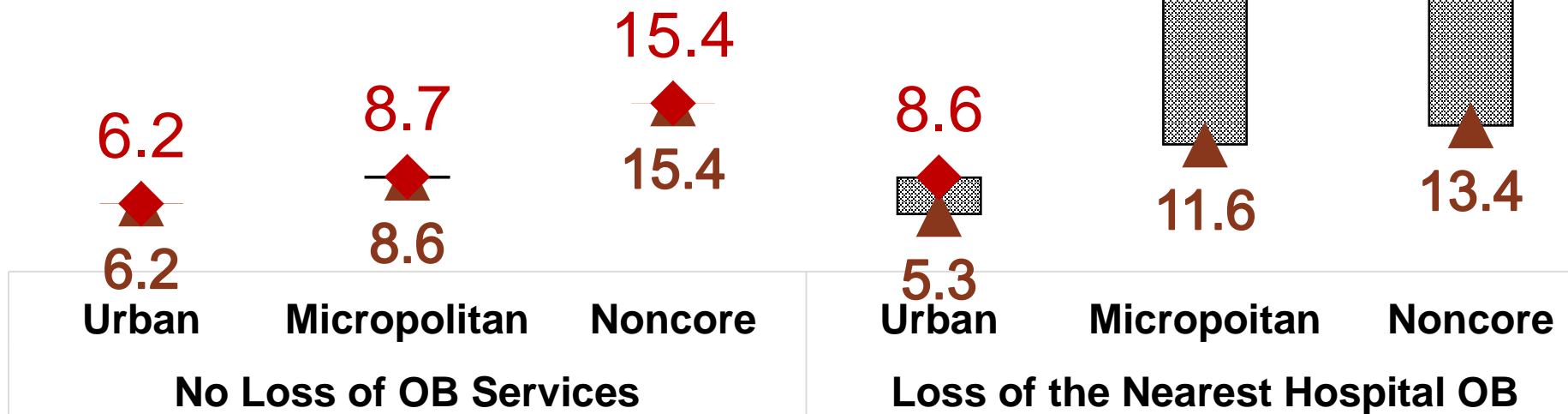
6,777 ZIP codes in 2002 and 2013

- 661,240 maternal childbirth hospitalizations in 2002
- 634,807 maternal childbirth hospitalizations in 2013

# Average Driving Distances (Miles) to Nearest Hospital Obstetric Units by Loss of Services & Residence Rurality

▲ Pre-Closure (2002)

◆ Post-Closure (2013)





# Implications

- **Low birth volume:** Additional rural hospitals may be vulnerable to obstetric unit closure in the future.
- **Staffing concern:** Challenges faced by rural communities in recruiting and retaining obstetric providers are concerning.
- **Community factor:** The overall financial status of the local population may influence a hospital's capacity or decision to maintain obstetric services.
- **Continuity of maternity care:** When hospital obstetric units close, it's important to ensure communication between local prenatal care providers and more distant hospitals and clinicians providing inpatient intrapartum care.
- **Driving distance** to the nearest hospital obstetric units: closures increased travel distance to obstetric care

# Future Research

## **Optimal distribution of hospital obstetric units**

- How far is too far?

## **Closures and perinatal care continuity**

- Differential effects by residential proximity to care

## **Evidence-based maternity care**



# Thank you!

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# Potential Solutions?

Education

Transportation

Transfer & Referral

Telemedicine

Care regionalization

Care Provider Allocation

Payment Reform