

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 in the country.

January 26

Hospital closures, Medicaid expansion to lead rural health meeting agenda

By Jaime 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 year. Some hospitals are worried about surviving. Alan Morgan, the executive director of the National Rural Health Association, says that while some hospitals are not to expand Medicaid under Obamacare, others are.

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. Women need a new model for prenatal care and more.

By Kelli B. Haywood

More Rural Hospitals Are Closing Their Maternity Units

HEALTH INC.

FROM KHN

2016 - 9:08 AM ET

Maternity unit closures plotted 'under radar'

Jon Ungoe-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

Print

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 a 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

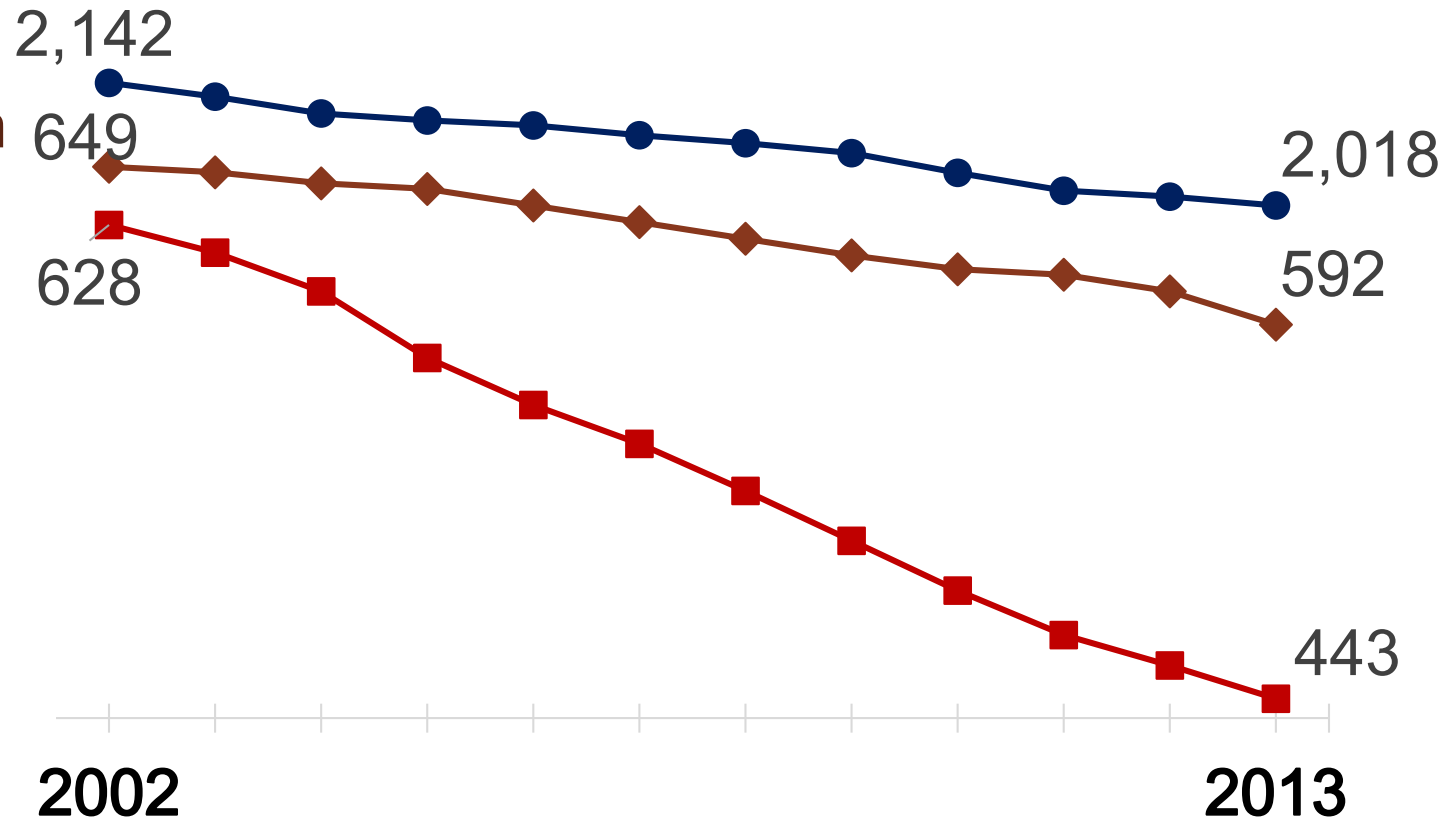
Thursday 21 January 2016 11:36 EST

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

At the Intersection of Health, Health Care and Policy

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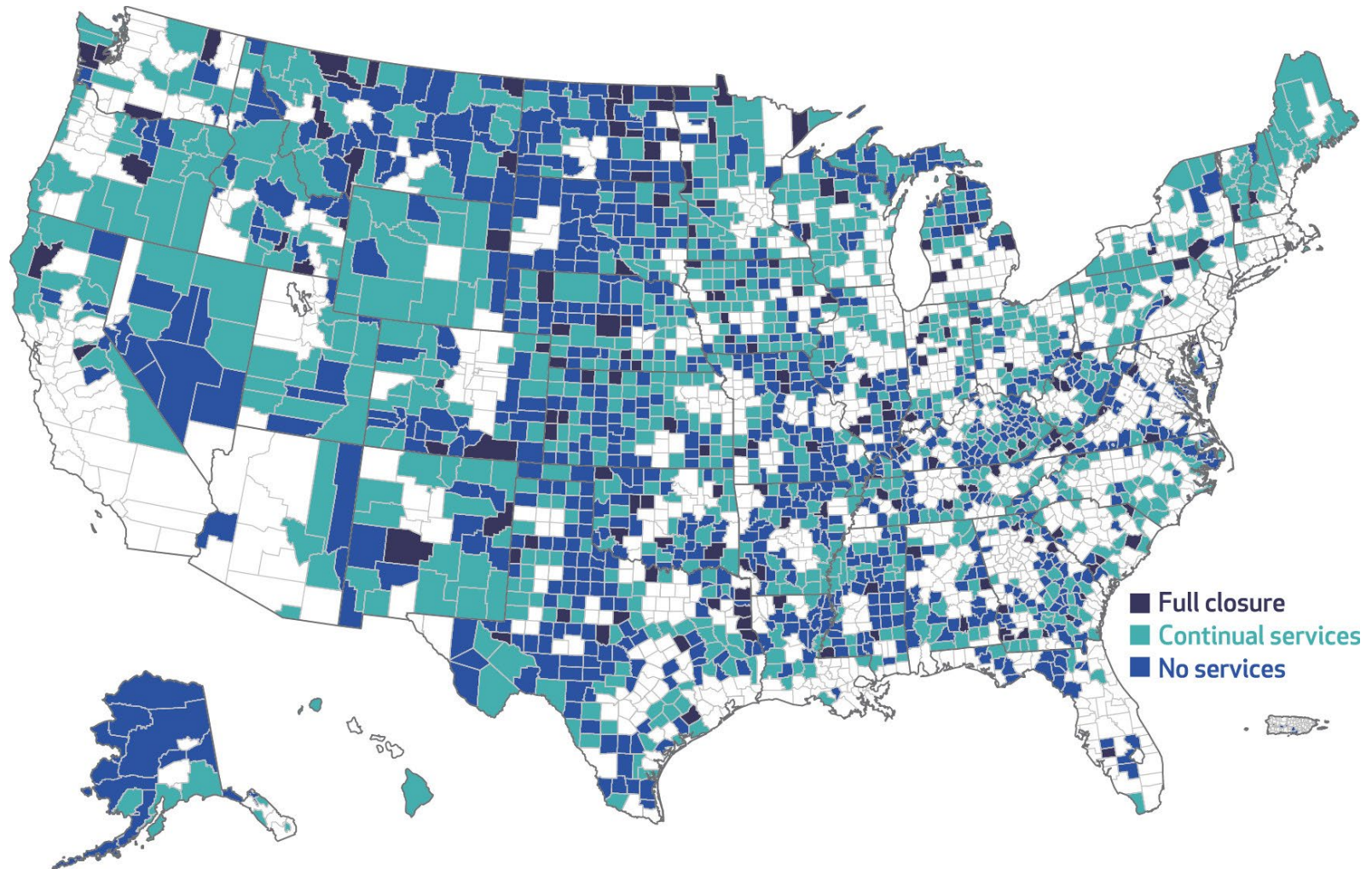
Access To Obstetric Services In Rural Counties Still Declining, With 9 Percent Losing Services, 2004–14

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

doi: 10.1377/hlthaff.2017.0338

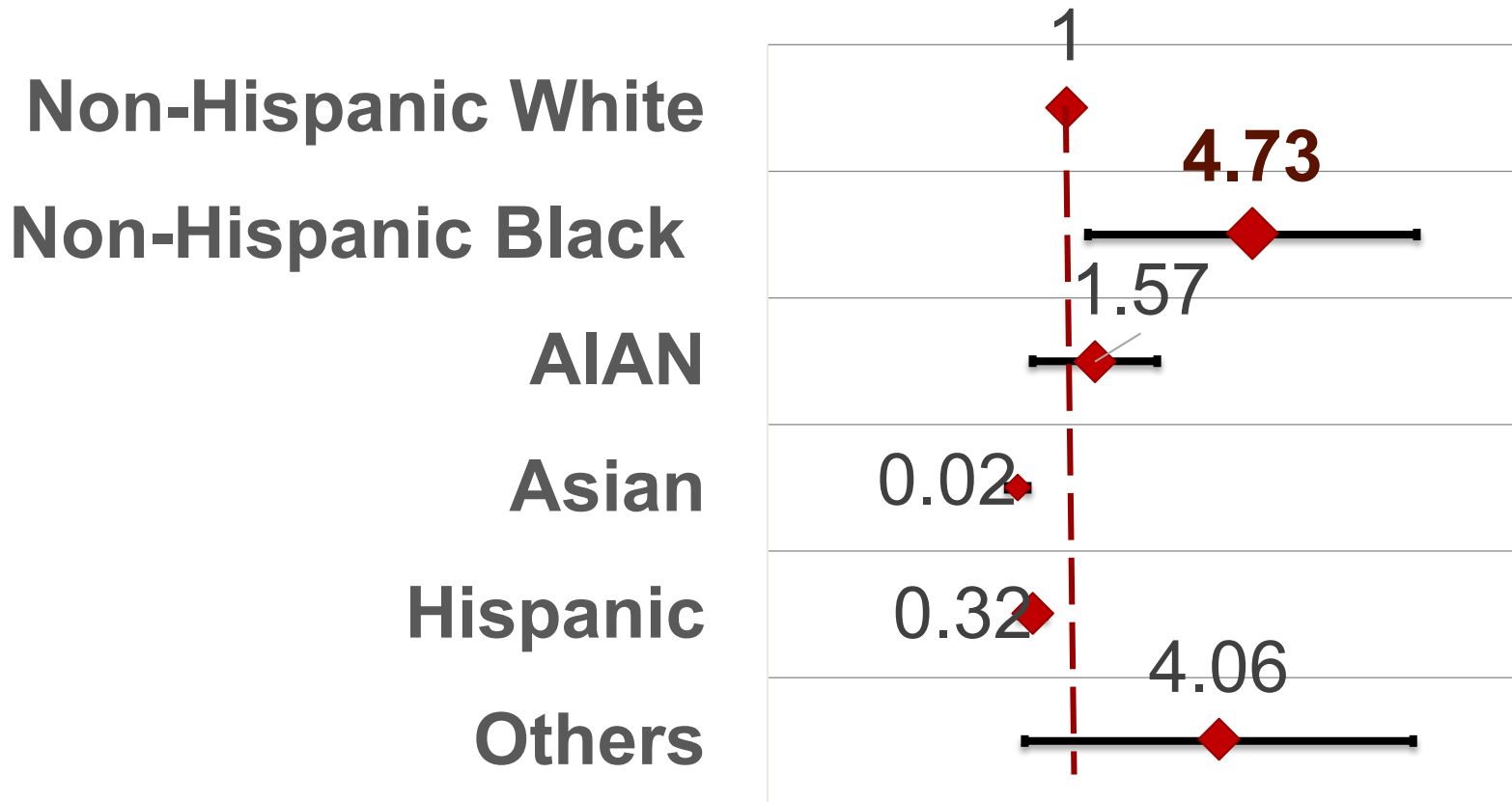
Rural communities affected by hospital obstetric unit closures

County Map of Rural Hospital Obstetric Units 2004-2014



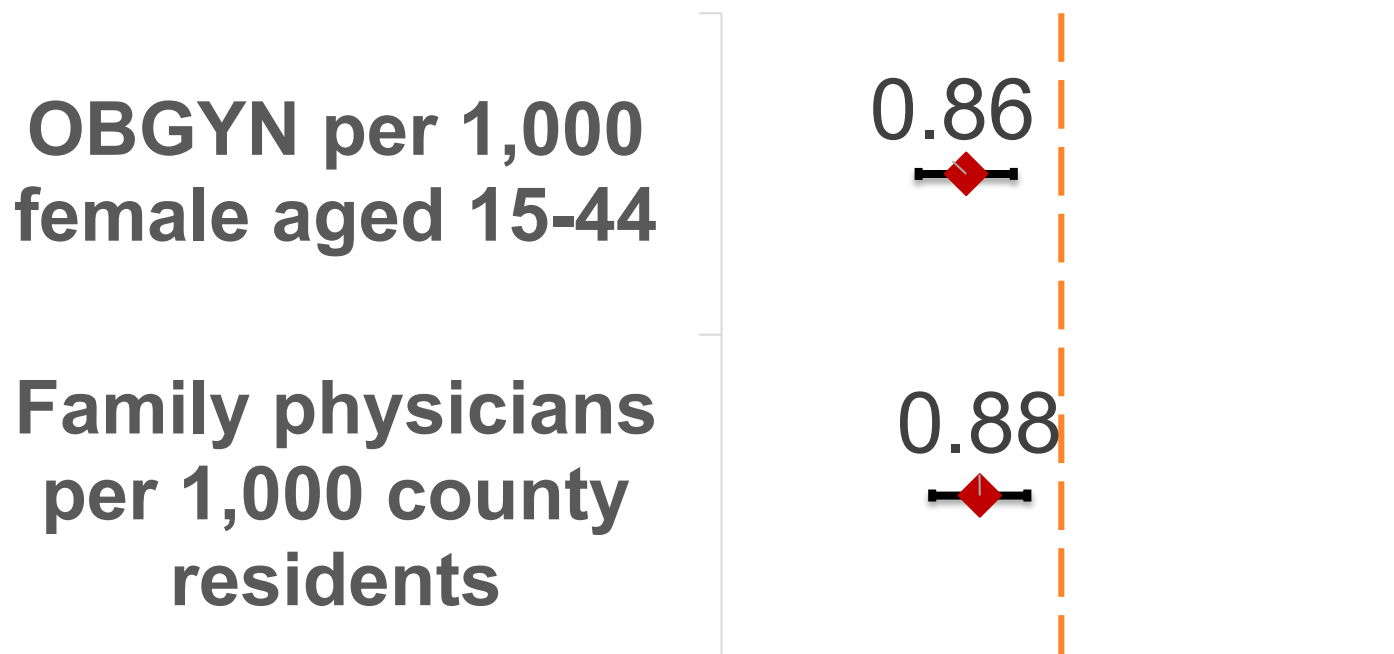
Black Communities Had Higher Odds of Closures

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

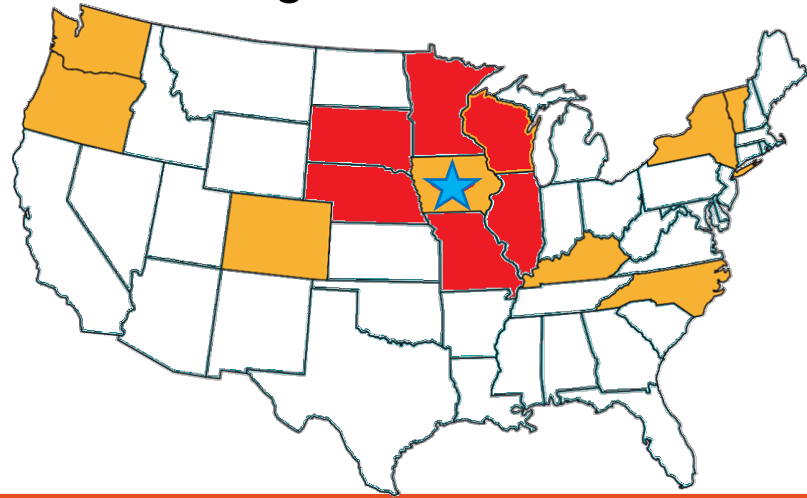
Study Sample

Statewide
Inpatient
Databases

All-Payer Hospital Discharge Data in 2002 and 2013

Maternal
Childbirth
Hospitalization

Linked Hospital
and County
Characteristics



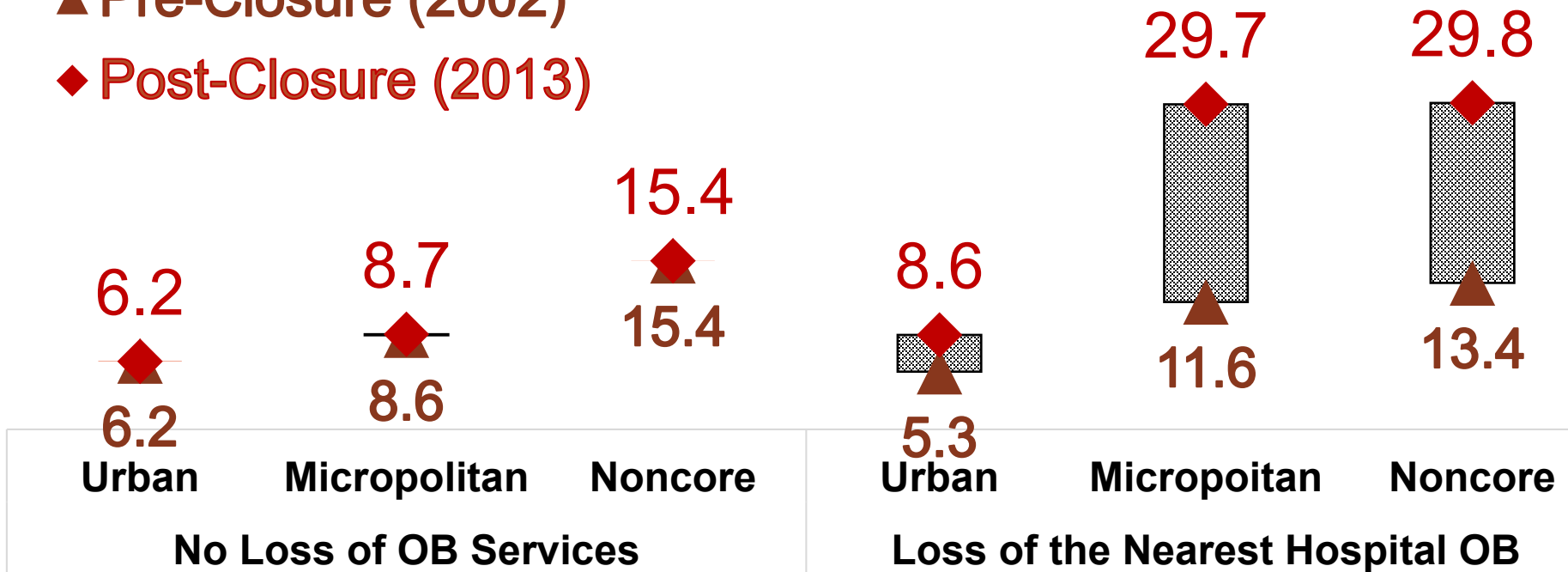
6,777 ZIP codes in 2002 and 2013

- 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

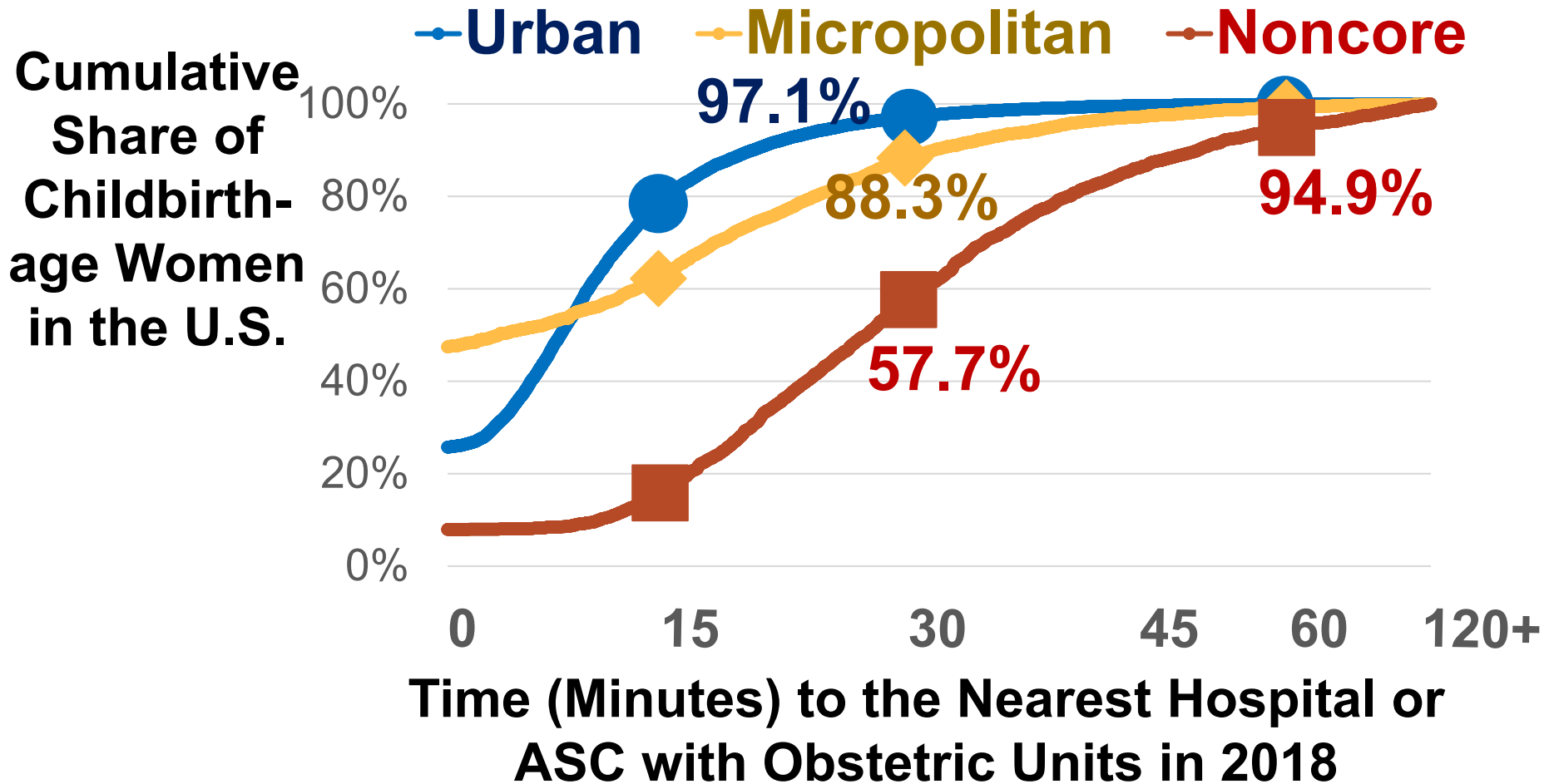
Care Provider Allocation

Payment Reform

How far is the nearest hospitals or ambulatory surgical centers with obstetric units in 2018?

Sources: CMS Provider of Services File 2018 and American Community Surveys 2017

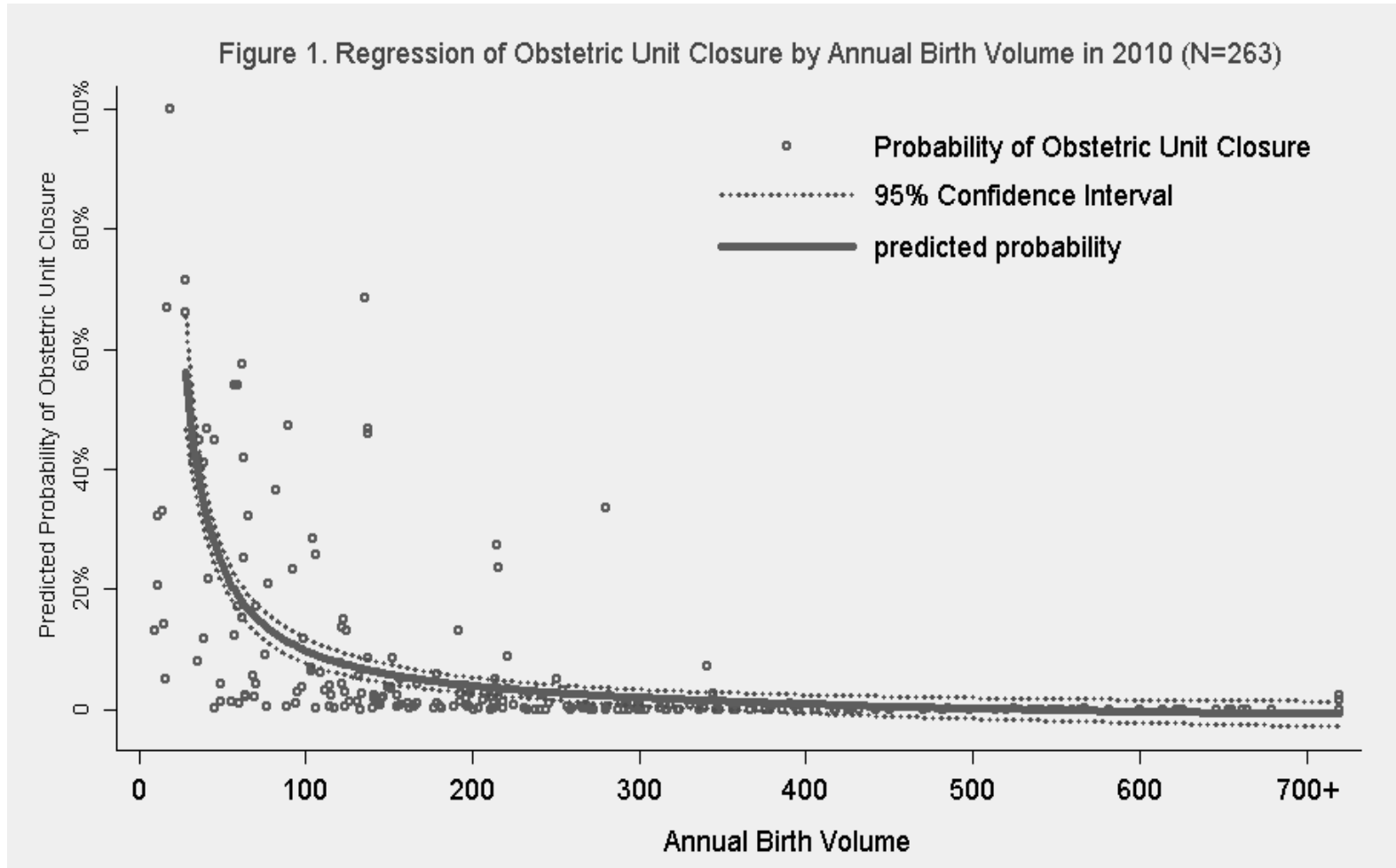
Drive Time to Nearest Hospitals or Ambulatory Surgical Centers with Obstetric Units in 2018, by Residence Rurality?



Supply of Family Physicians Matters

- **Losing Local Hospital Obstetric Units:** A lower supply of family physicians in a county was associated with vulnerability to providing hospital obstetric services.
- **Reliance of Family Physicians in Rural Hospitals:** Over half of rural hospitals had family physicians attending births, with a quarter that relied solely on them to provide obstetrics.
- **Nationwide Declines in Family Physicians is concerning:** The proportion of family physicians providing maternity care steadily declined from 20.7% in 2002 to 9.7% in 2010.


Lower birth volume hospitals are more likely to close OB Units.




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.

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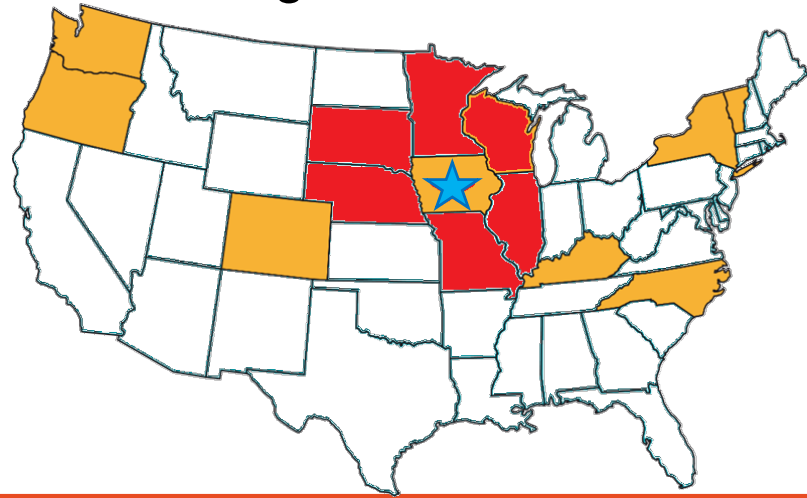
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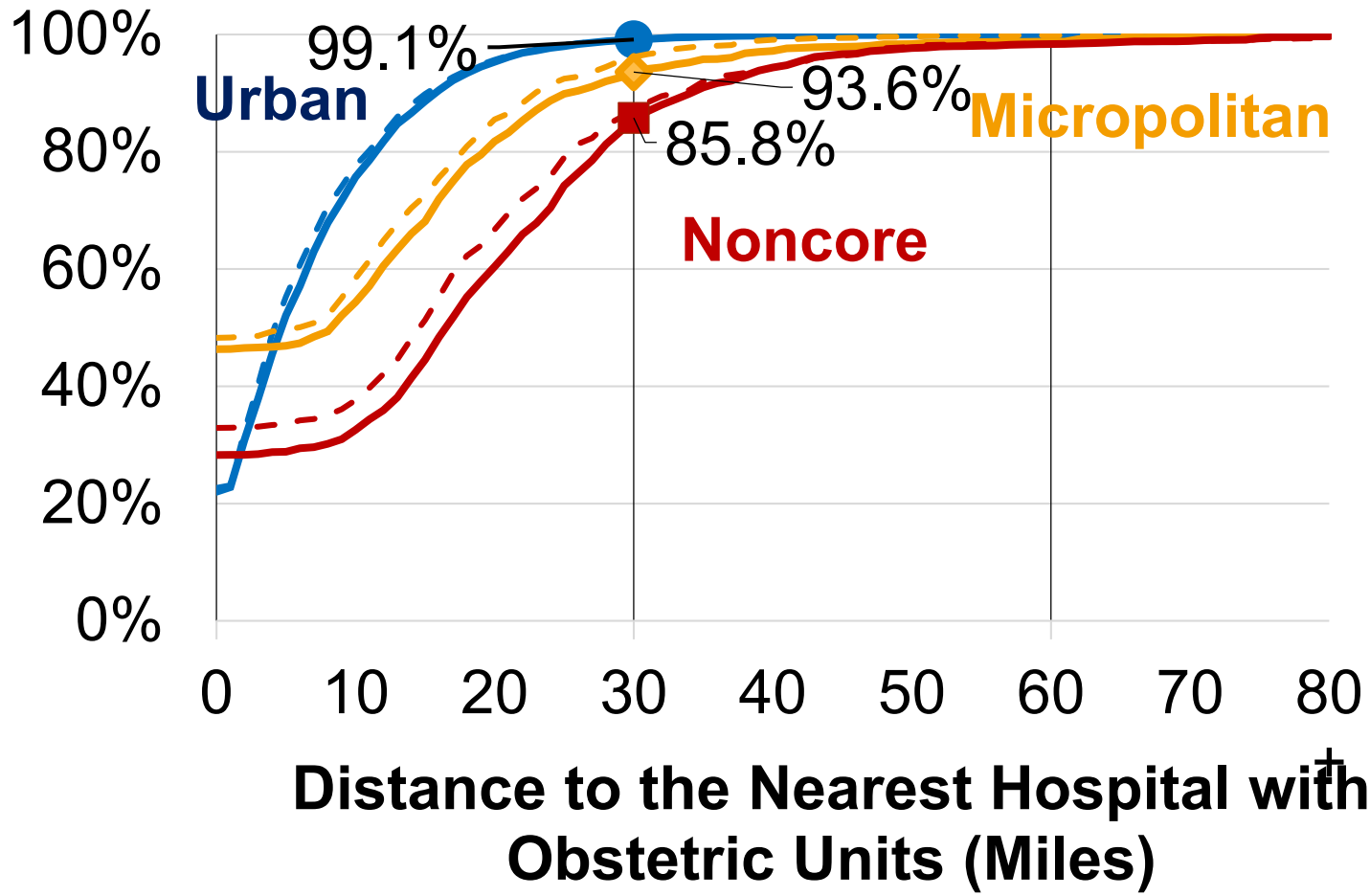


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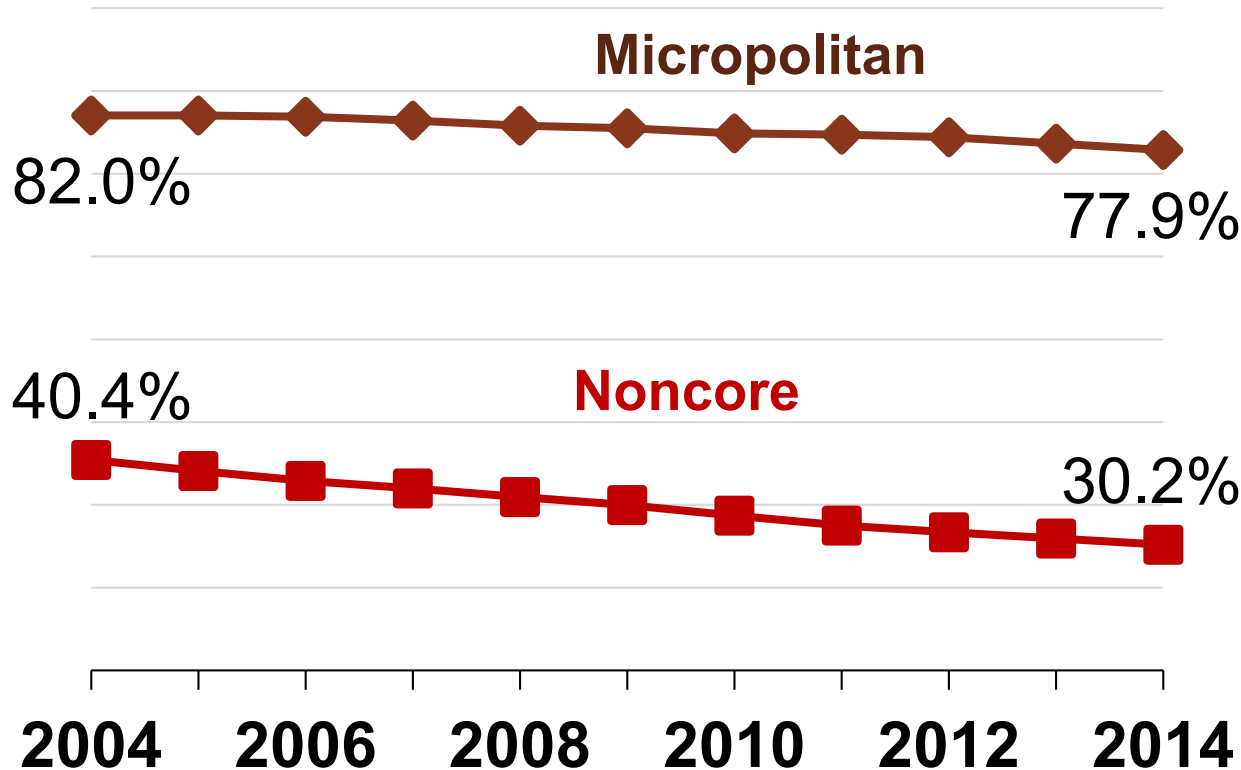
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Proximity to the Nearest Hospitals with Obstetric Units in 2002 and 2013, by Residence Rurality

Cumulative Share of Women with Childbirth hospitalizations in Nine Study States



Proportion of Rural Counties with Hospital Obstetric Services



Hung, P; Kozhimannil, K. B., Casey, M. M., & Moscovice, I. S. (2017). Closure of Hospital Obstetric Services Disproportionately Affects Less-Populated Counties. University of Minnesota Rural Health Research Center.

POLICY BRIEF
April 2017



Closure of Hospital Obstetric Services Disproportionately Affects Less-Populated Rural Counties

Payin Hung, MSPH
Katy Kozhimannil, PhD
Carrie Henning-Smith, PhD
Michelle Casey, MS

Purpose

The purpose of this study was to analyze the scope of obstetric unit and hospital closures resulting in loss of obstetric services in rural U.S. counties from 2004 to 2014.

Background and Policy Context

Over 18 million reproductive-age women (18-44) live in rural U.S. counties.¹ Access to obstetric care in rural communities is critical to ensuring good maternal and child health outcomes. Prior research shows that greater travel distances for obstetric services are associated with higher rates of newborn morbidity and mortality.²

In 2002, 43% of rural counties in the U.S. had no hospital-based obstetric services,³ despite the fact that over 98% of births occurred in hospitals.⁴ Additionally, the number of rural hospitals providing obstetric care has been decreasing.⁵ Published reports and media coverage both indicate that these obstetric care access problems are related to recent hospital and obstetric unit closures in rural areas,⁶ but the national scope of the access problems has not been quantified.

Data are needed to inform policy efforts, as no current research documents the current level and pace of hospital and obstetric unit closures. Better understanding of the extent of hospital obstetric unit closures in micropolitan and noncore rural counties nationally is a crucial first step to inform policy efforts in improving obstetric care access.

This is the first in a series of two policy briefs examining the closure of hospital obstetric services in rural areas; this policy brief takes a national perspective, whereas a companion policy brief documents state-level variability in access to hospital-based obstetric services in rural counties from 2004-2014.

Data and Analysis

Data for this analysis primarily come from the 2003-2014 American Hospital Association (AHA) annual survey and the Area Health Resource File (AHRF). We identified hospital obstetric service status each year using hospital-reported data on the number of births, provision of obstetric services, level of maternity care, and number

rhc.umn.edu