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

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ABSTRACT Recent closures of rural obstetric units and entire hospitals have exacerbated concerns about access to care for more than twenty-eight million women of reproductive age living in rural America. Yet the extent of recent obstetric unit closures has not yet been measured. Using national data, we found that 9 percent of rural counties experienced the loss of all hospital obstetric services in the period 2004–14. In addition, another 45 percent of rural US counties had no hospital obstetric services at all during the study period. That left more than half of all rural US counties without hospital obstetric services. Counties with fewer obstetricians and family physicians per women of reproductive age and per capita, respectively; a higher percentage of non-Hispanic black women of reproductive age; and lower median household incomes and those in states with more restrictive Medicaid income eligibility thresholds for pregnant women had higher odds of lacking hospital obstetric services. The same types of counties were also more likely to experience the loss of obstetric services, which highlights the challenge of providing adequate geographic access to obstetric care in vulnerable and underserved rural communities.

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Rural Americans are experiencing unique challenges in gaining access to health care. Among them are widespread health care workforce shortages¹ and the closure of more than eighty rural hospitals in the past decade, with many more hospitals remaining vulnerable to closing.^{2,3} Recent studies have focused on hospital and emergency department closures,^{2,4-6} and little research exists on the scope of hospital obstetric service closures, despite the fact that childbirth is the most common reason for hospitalization in the United States.⁷ The loss of hospital obstetric services raises concerns for rural residents' access to obstetric care,⁸⁻¹¹ as more than twenty-eight million women of reproductive age live in rural counties of the United States, and nearly half a million wom-

en give birth each year in rural hospitals.¹²

Rural hospitals face unique staffing and financial challenges in providing health care services.² Compared to urban hospitals, rural facilities serve a higher proportion of low- and moderate-income families,¹³ who may be eligible for Medicaid coverage or subsidized Marketplace coverage through the Affordable Care Act. These families might not have equal access to insurance coverage, as Medicaid income eligibility thresholds for pregnant women vary significantly by state—ranging from 138 percent to 380 percent of the federal poverty level in January 2017.¹⁴ Medicaid plays an important role in financing maternity care, covering nearly half of all US births¹⁵ and an even greater proportion of births to rural women.¹⁶ However, in most cases, Medicaid programs pay less than private health plans

for pregnancy and childbirth care,¹⁷ which intensifies the financial challenges for rural hospitals—whose obstetric care payer mix is dominated by Medicaid. Differences in Medicaid income eligibility across states and lower reimbursements from Medicaid compared to private payers could exacerbate existing disparities in access to obstetric care, particularly in rural communities.

Compared to urban US women, rural women experience disparities in obstetric care access and outcomes.¹⁸ For example, rural hospitals report higher rates of postpartum hemorrhage and of blood transfusion during labor and delivery, compared to their urban counterparts.¹⁹ Maternal and infant mortality rates in the most rural areas of the United States are measurably higher than those in large metropolitan areas.²⁰ More than half of rural women, compared to 7 percent of urban women, must travel more than thirty minutes to reach their nearest hospital obstetric services.²¹ Extensive travel distances may contribute to increased risks of infant mortality and pregnancy complications in rural areas.^{22,23} Therefore, the loss of hospital obstetric services that result in greater travel distances for rural women has the potential to negatively affect maternal and infant outcomes. All maternal and infant deaths are tragic; those related to impaired access to care are abhorrent.

The closures of rural obstetric units may disproportionately affect vulnerable communities. Understanding the geography of obstetric unit closures is an essential first step in identifying disparities in access to obstetric care and developing appropriate policy responses. There has been a downward trend in the number of hospital-based obstetric services and wide variation across states in rural availability of these services.^{24,25} However, the sociodemographic community characteristics associated with loss of hospital-based obstetric care in rural areas are not well understood. Given the stated interest by members of Congress in addressing rural health care issues,²⁶ national data on the scope of the loss of rural hospital obstetric services and the community characteristics associated with that loss are urgently needed to inform current policy discussions. We examined the scope of obstetric unit and hospital closures that resulted in loss of obstetric services in rural US counties in the period 2004–14, identifying county- and state-level factors associated with the loss of services.

Study Data And Methods

DATA AND STUDY POPULATION We used five sources of data for this study: the 2003–14 American Hospital Association (AHA) Annual Survey,

the Centers for Medicare and Medicaid (CMS) Provider of Services file, the Area Health Resources Files for county-level characteristics in 2004 and 2014, the data from the Kaiser Commission on Medicaid and the Uninsured for state income eligibility thresholds for pregnant women in the same two years, and Census Bureau data for 2000 and 2010.

Loss of hospital obstetric services was defined as either full closures of hospitals with obstetric units or closures of only the obstetric units in hospitals that otherwise remained open. Full hospital closures were identified based on 2004–14 data from the AHA Annual Survey. The provision of obstetric services was defined in a four-step process, through which hospitals met all of the following criteria as reported in the AHA Annual Survey for each year: self-reported provision of obstetric services (labor and delivery care), at least level 1 status for maternity care (that is, the provision of services for uncomplicated maternity and newborn cases), at least one dedicated obstetric bed in the hospital, and at least ten births per year. Fifty-eight rural hospitals had discrepancies among the four indicators in the AHA data and were coded based on data from the CMS Provider of Services files that indicated whether or not the hospitals provided obstetric services by staff members or under an arrangement with providers in each year.

We identified 1,249 rural hospitals that provided obstetric services in the 2004 AHA data. These hospitals were located in 1,086 rural counties, with 158 counties having multiple hospitals. Another 898 rural counties never had hospital-based obstetric care during the period 2004–14. The AHA hospital-level data were aggregated at the county level and linked to county-level data from the Area Health Resources Files on the numbers of women of reproductive age and births, clinician supply, household income, and poverty status. Census data were used for the racial and ethnic composition of county-level populations.

We used federal Office of Management and Budget designations to categorize counties as metropolitan (containing an urban core of at least 50,000 residents), micropolitan (rural counties containing an urban core of at least 10,000 but fewer than 50,000 residents), or noncore (all other rural counties) in 2004. All 1,984 rural US counties and county equivalents—646 micropolitan and 1,338 noncore areas—were included in the study (for a listing of the counties and their designations, see online Appendix Exhibit A1).²⁷ Counties were further categorized by whether or not they were adjacent to urban areas. We use *rural* to refer to all rural counties (both micropolitan and noncore) and *micropolitan* and *non-*

core to refer to specific types of rural counties.

OUTCOME MEASURE Our outcome of interest was the county-level status of hospital obstetric services during the study period, categorized in three groups: no services, if the county never had in-hospital obstetric services; continual services, if at least one hospital in the county had obstetric services;²⁸ and full closure, if all in-county hospital obstetric services closed.

COUNTY AND STATE VARIABLES This study was exploratory in nature, but it included covariates based on the literature about demand- and supply-side contextual factors^{8,9} as well as on local sociodemographic and economic characteristics. The demand-side factors included the numbers of births to county residents and of women ages 15–44 (that is, women of reproductive age) in the county. The supply-side factors included the number of obstetricians and certified nurse midwives per 10,000 women in this age range and the number of family physicians per 10,000 county residents.

To determine the association between the local population's racial and ethnic composition and the availability of obstetric services, we also included the percentages of each county's female residents ages 15–44 who were non-Hispanic white, non-Hispanic black, Hispanic, American Indian or Alaska Native, Asian, or other. County-level socioeconomic status was measured by median household income and percentage of residents whose income was below the federal poverty level (that is, in poverty). We included one state-level variable: Medicaid income eligibility thresholds for pregnant women, measured as a percentage of the federal poverty level.²⁸

STATISTICAL ANALYSIS To examine bivariate relationships between county characteristics and hospital obstetric services status, we used Fisher's exact tests and two-group *t*-tests. In multivariate analysis, we used a variance inflation factor to identify possible multicollinearity by examining correlations between all variables of interest. The ratios of obstetricians and certified nurse midwives had high collinearity (more than 10), as did median household income and percentage of residents in poverty. So, using an iterative process, we developed a series of multivariate multinomial logistic regression analyses, and we present results from the final model with the lowest value of Akaike and Bayesian information criteria.²⁹

The final model included the numbers of births and women ages 15–44, numbers of obstetricians per 10,000 women ages 15–44 and family physicians per 10,000 residents, race and ethnicity of women ages 15–44, and median household income, along with state Medicaid income eligibility thresholds for pregnant

women. To normalize a skewed distribution of median household income, we log-transformed the income variable in the model. We used standard errors clustered by census region to estimate 95 percent confidence intervals, as counties are clustered within states and regions. We present *p* values that indicate a rejection of the null hypothesis and an association between a variable and the loss of hospital-based obstetric services in a county.

All analyses were conducted using SAS, version 9.4, and Stata, version 13.1.

LIMITATIONS This study had some limitations. First, the county-level availability of hospital obstetric services might not fully capture access to care for rural women. As shown in the results, counties varied significantly in size and geographic boundary, and women who live near county borders could obtain health care in an adjacent county.

Second, the study focused on the loss of obstetric care in hospital settings and did not include other settings such as freestanding birth centers—which accounted for 2 percent of total births in a year.³⁰

Study Results

Forty-five percent (898) of rural counties did not have any hospitals with obstetric services at any point during the period 2004–14, and 9 percent (179) of the counties experienced the loss of all in-county hospital obstetric services during the study period (Exhibit 1). In 2014, 1.8 million women ages 15–44 lived in counties that never had any hospitals providing obstetric services in the study period, and slightly more than 600,000 women lived in counties that lost those services—for a total of 2.4 million women of reproductive age living in counties with no in-hospital obstetric services. In 2004, rural counties with continual hospital obstetric services had significantly more women of reproductive age, compared to counties that had full closures or never had hospitals. The counties with continual services also had more births, more obstetricians and certified nurse midwives per 10,000 women ages 15–44, and higher median household income.

In 2004, counties that lacked hospitals with obstetric services had many fewer family physicians per 10,000 residents than counties with continual hospital obstetric services or counties with full closures of their hospital obstetric services (Exhibit 1). In 2004, compared to counties in the two other categories, those that had no hospital obstetric services at any point during the study period had higher percentages of women ages 15–44 who were non-Hispanic black,

EXHIBIT 1

County characteristics in 2004 and 2014, by status of county hospital obstetric services

	No services		Continual services		Full closure	
	2004	2014	2004	2014	2004	2014
Women ages 15–44	1,990,845	1,785,371	6,333,753	5,876,708	662,223	603,144
Mean number of:						
Women ages 15–44 (thousands)	2.22****	1.99****	6.98	6.48	3.74****	3.37****
Annual births	143****	130****	443	424	241****	221****
OB/GYNs per 10,000 women ages 15–44	0.39****	0.36****	3.23	3.56	1.40****	1.12****
CNMs per 10,000 women ages 15–44	0.34***	0.67***	0.87	1.72	0.73**	1.01***
Family physicians per 10,000 residents	1.85****	1.85****	3.47	3.57	3.33****	2.84****
Percent of women ages 15–44						
Non-Hispanic white	78.87***	76.03***	82.12	78.08	82.36	78.94
Non-Hispanic black	9.34****	9.12****	6.92	7.10	8.17****	8.01****
American Indian or Alaska Native	3.21**	3.57**	2.28	2.55	2.43	2.89*
Asian	0.41**	0.62**	0.78	1.09	0.41	0.65
Native Hawaiian or Pacific Islander	0.03	0.06	0.08	0.10	0.04	0.05
Hispanic	7.46****	9.65*	6.93	9.83	5.81****	8.31****
Other	0.69**	0.96	0.88	1.25	0.77	1.15
Median household income (2014 dollars)	\$40,588****	\$42,066****	\$45,384	\$44,801	\$42,863****	\$43,112**
Residents in poverty	15.29%**	18.67%**	14.03%	17.23%	14.38%	17.48%
Medicaid eligibility threshold for pregnant women ^a	175.01****	201.93**	180.48	218.23	179.02**	214.44**

SOURCE Authors' analysis of data for 2003–14 from the American Hospital Association Annual Survey; for county-level obstetric services status, 2004–14, from the Centers for Medicare and Medicaid Services' Provider of Services files; for county-level numbers of reproductive-age women and births, clinician supply, household income, and poverty status, 2004 and 2014, from the Area Health Resources Files; for Medicaid income eligibility, 2004 and 2014, from the Kaiser Commission on Medicaid and the Uninsured; and for the county-level race/ethnicity measure, 2000 and 2010, from the Census Bureau. **NOTES** There were 898 counties that had no in-county hospital obstetric services in the study period ("no services"). There were 907 counties that had at least one in-county hospital that provided obstetric services in the study period ("continual services"). There were 179 counties in which all in-county hospital obstetric services closed during the study period ("full closure"). Significance refers to differences in county characteristics in the same year compared to counties with continual hospital obstetric services during 2004–14. Standard deviations can be found in Appendix Exhibit A2 (see Note 27 in text). OB/GYN is obstetrician/gynecologist. CNM is certified nurse midwife. ^aState-level income eligibility threshold under Medicaid (percent of the federal poverty level). * $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$ **** $p < 0.001$

lower median household incomes, and higher percentages of residents in poverty.

Compared to micropolitan counties, noncore counties were much more likely to have no hospital obstetric services (17.6 percent versus 58.6 percent) (Exhibit 2). Noncore counties were also much more likely than micropolitan counties to lose hospital-based obstetric services during the study period (150, or 11.2 percent, versus 29, or 4.5 percent). Fifty-nine percent of noncore counties not adjacent to an urban area—the most isolated rural counties—had no hospital obstetric services in 2004, and this share increased by 10 percentage points (to 469 counties) during the study period, rising to 69 percent in 2014.

Full closures of hospital obstetric services were particularly prevalent in some states—especially North Dakota and South Carolina, where over 20 percent of rural counties lost in-hospital obstetric services during the study period (Exhibit 3). Across all states, counties that never had hospital obstetric services in the study period tended to be smaller in terms of area. Across the country there were several clusters of contiguous counties that had no obstetric services dur-

ing the study period. In some of these clusters, neighboring counties also experienced full closures, which could have exacerbated access issues in these geographic areas. Some clusters occurred along state borders. For example, a cluster of counties with no obstetric services or full closures occurred in southern North Dakota, and the nearest continual obstetric services were across state lines in South Dakota. However, almost all counties with full closures were adjacent to at least one county with continual services.

When we controlled for other county characteristics and state differences, we found that the odds of never having a hospital with obstetric services were significantly lower in counties with more women of reproductive age; more obstetricians and family physicians per 10,000 such women or residents, respectively; and higher median household income, and in states with higher Medicaid income eligibility thresholds for pregnant women, compared to the odds of an average rural county's having continual services (Exhibit 4). The odds were higher in counties in the lowest quartile of birth volume (90 or fewer annual births) and those with a higher

percentage of non-Hispanic black women of reproductive age.

The county characteristics associated with full closures of hospital obstetric services during the study period were similar to those of counties that never had access to these services, but the significantly higher odds of full closures held only for lower birth volume and higher percentage of women ages 15–44 who were non-Hispanic black. Counties with lower odds of full closures had higher ratios of obstetricians and family physicians and greater concentrations of reproductive-age Asian women.

Discussion

This study identified gaps in the availability of hospital-based obstetric services across rural America and provided evidence of exacerbated disparities in local access to obstetric services in vulnerable rural communities. We found that 45 percent of all rural US counties, where nearly two million women of reproductive age lived in 2004, had no hospital-based obstetric services in the period 2004–14. Another 9 percent of counties, where more than 650,000 reproductive-age women lived in 2004, lost obstetric services during the study period, leaving more than half of all rural US counties without obstetric services.

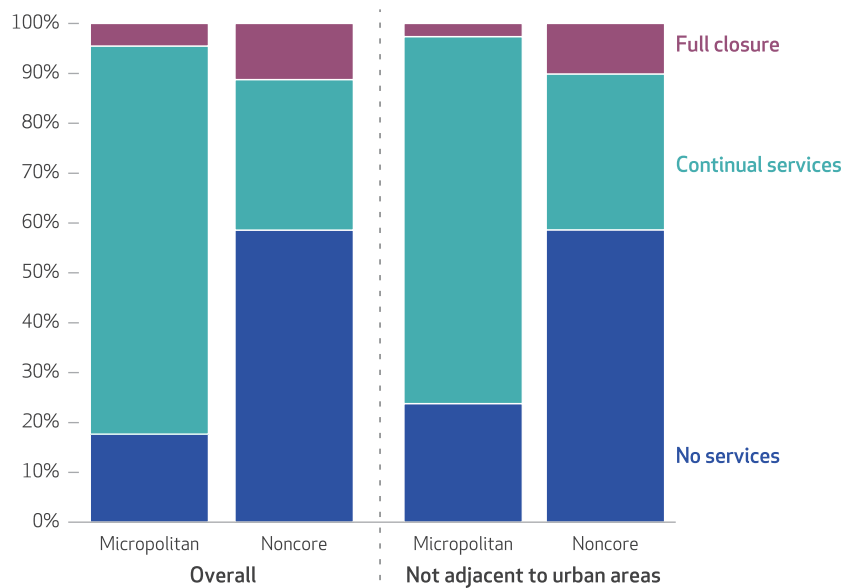
While the issue of rural hospital closures is not new,⁶ the loss of obstetric services reported in this study occurred in the context of rising maternal mortality rates in the United States³¹ and a renewed focus on rural health and well-being.²⁶ The chance of lacking hospital obstetric services was much higher in noncore counties, compared with micropolitan counties, and 59 percent of the most isolated rural counties—noncore counties not adjacent to an urban area—had no hospital obstetric services in 2004, while an additional 10 percent lost their obstetric services by 2014. Not only were the service losses more prevalent in noncore counties than in other rural counties, but these losses occurred on top of the substantial travel distance to hospital obstetric services and workforce shortages in the most remote rural areas, which predated the closures measured in this analysis.^{21,32}

This study also found significant differences in the availability of hospital obstetric services by county sociodemographic characteristics. In rural US counties, where there are fewer women of reproductive age, there are fewer maternity care providers and births; thus, there are also fewer hospitals providing obstetric services, and for the pregnant residents of these areas, the nearest hospital with obstetric services may become farther away from home with each closure.

We found that counties with higher propor-

EXHIBIT 2

Percentages of rural counties by status of hospital obstetric services, 2004–14



SOURCE Authors' analysis of data for 2003–14 from the American Hospital Association Annual Survey and for 2004 for metropolitan and nonmetropolitan designation from the Office of Management and Budget. **NOTES** There were 646 micropolitan counties (rural counties with an urban core of 10,000 to <50,000 residents) overall and 269 that were not adjacent to urban areas. There were 1,338 noncore counties (all other rural counties) overall and 682 that were not adjacent to urban areas. "Full closure," "continual services," and "no services" are defined in the Notes to Exhibit 1.

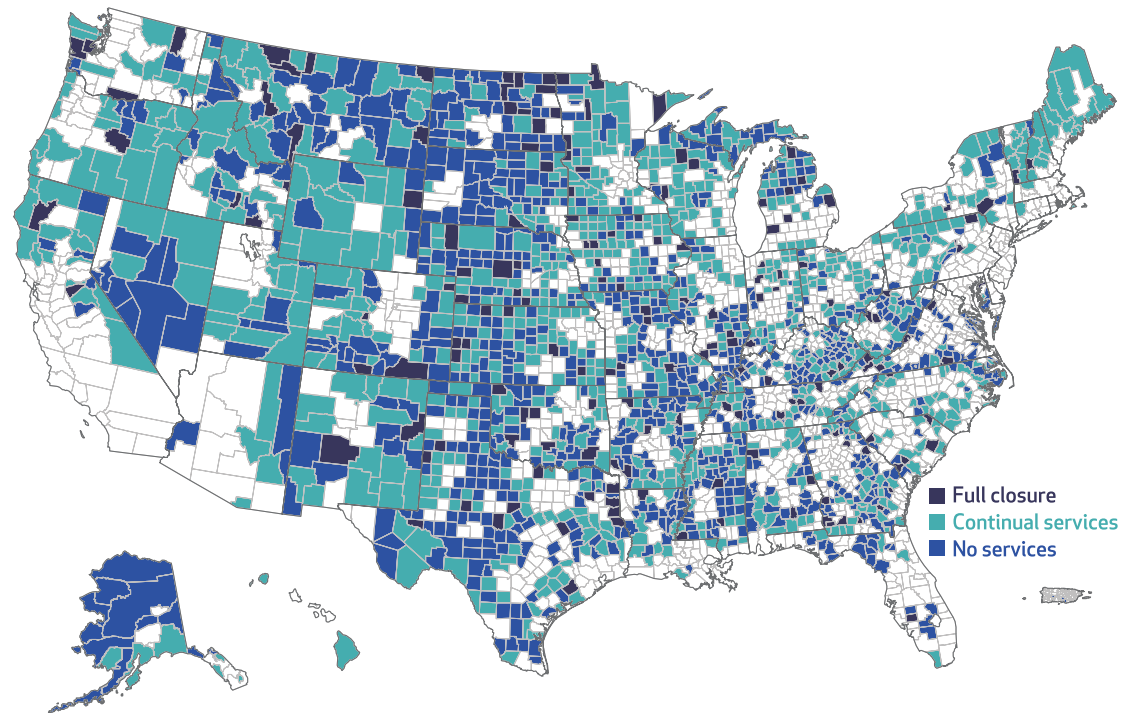
tions of non-Hispanic black women and lower median household incomes had higher odds of losing all hospital obstetric services. This highlights the disproportionate barriers that rural women in vulnerable communities face in gaining access to hospital obstetric services. Indeed, black women and Medicaid beneficiaries in rural areas have less access to nonlocal high-acuity obstetric care than do white or privately insured rural women—even when black women and those on Medicare have high-risk clinical conditions (such as preterm or multiple births) that may warrant advanced care in urban hospitals.³³ The increasing loss of hospital-based obstetric services in rural counties could exacerbate existing racial and income disparities in obstetric care, thereby increasing concerns about maternal and infant outcomes in vulnerable communities.^{34,35}

Policy Implications

State policies may influence the availability of hospital-based obstetric services, as this study revealed an association between higher Medicaid income eligibility thresholds for pregnant women and lower odds of loss of obstetric services. States vary considerably in their rurality

EXHIBIT 3

Hospital obstetric services in US counties, 2004–14



SOURCE Authors' analysis of data for 2003–14 from the American Hospital Association Annual Survey, for 2004–14 for county-level obstetric services status from the Centers for Medicare and Medicaid Services' Provider of Services files, and for 2013 for metropolitan and nonmetropolitan designation from the Office of Management and Budget. **NOTES** "Full closure," "continual services," and "no services" are defined in the Notes to Exhibit 1. Urban counties are not in the study sample.

and income distribution. State Medicaid policies can affect the availability of hospital obstetric care in rural settings, where proportions of low-income families (who qualify for Medicaid programs) are higher than in urban areas. Pregnant women can qualify for Medicaid if their incomes fall below a state's eligibility threshold—which in 2004 ranged from 133 percent of poverty in ten states, including North Dakota, to 275 percent in Minnesota. State variability in these thresholds has increased over time, ranging from 138 percent of poverty to 380 percent in 2017.²⁸ Rural families whose incomes are similar but who live on opposite sides of state borders might not have equal access to insurance coverage during pregnancy. Greater access to Medicaid coverage during pregnancy may contribute to the financial viability of obstetric services provision in rural areas. While Medicaid reimbursement rates for childbirth are lower than private health insurance payments, the stability of reliable public payments may contribute to predictability for rural hospitals, whereas the potential risk of providing services to uninsured pregnant women can exacerbate the financial vulnerability of rural hos-

pitals' obstetric units.

Variability in the presence and loss of hospital obstetric services across rural counties is due to many forces that may be beyond the control of a local community—for example, demand for services, workforce shortages, and financial challenges in providing health care services to lower-income families. Obstetric services are not unique in being vulnerable to those forces, and rural health care in general is particularly vulnerable to reductions in state and federal budgets and workforce supply, in addition to demographic changes.³⁶ This is especially salient in light of current debates about the future of the Affordable Care Act and its protections for those with preexisting conditions (such as pregnancy or previous cesarean section) and inclusion of maternity care as an essential health benefit, as well as proposals to convert Medicaid to a block grant or institute a per capita cap on Medicaid expenditures. Changes affecting these policies could have serious implications for state budgets, Medicaid coverage, and payments related to childbirth and for grappling with financial challenges to providing obstetric services. The implications could be particularly acute in rural

EXHIBIT 4
Adjusted odds ratios of hospital obstetric services status, by county-level characteristics, 2004–14

	No services versus continual services	Full closure versus continual services
No. of women ages 15–44 (thousands)	0.67****	0.92
No. of annual births		
90 or fewer	3.20**	5.02****
91–200	1.56	2.75**
201–400	1.31	2.00**
More than 400	1.00	1.00
No. of OB/GYNs per 10,000 women ages 15–44	0.70****	0.86****
No. of family physicians per 10,000 residents	0.62****	0.88****
Percentage of women ages 15–44		
Non-Hispanic white	1.00	1.00
Non-Hispanic black	10.16****	4.25****
American Indian or Alaska Native	3.81*	1.74
Asian	0.04*	0.03*
Hispanic	0.15****	0.30
Other	1.57	1.08
Log of median household income (per thousands of 2014 dollars)	0.43*	0.75*
Medicaid income eligibility threshold for pregnant women (per 10 percent of federal poverty level)	0.94****	0.98

SOURCE Authors' analysis of data for 2003–14 from the American Hospital Association Annual Survey; for county-level obstetric services status, 2004–14, from the Centers for Medicare and Medicaid Services' Provider of Services files; for county-level characteristics, 2004, from the Area Health Resources Files; for Medicaid income eligibility, 2004, from the Kaiser Commission on Medicaid and the Uninsured; and for the percentages of women ages 15–44 by race/ethnicity, 2000, from the Census Bureau.

NOTES "Full closure," "continual services," and "no services" are defined in the Notes to Exhibit 1. There were 1,984 counties. 95% confidence intervals can be found in Appendix Exhibit A3 (see Note 27 in text). The F statistic was 14.683. The pseudo R-square was 0.4985. Significance was derived from a multinomial logistic regression, clustering in the census region. OB/GYN is obstetrician/gynecologist. * $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$ **** $p < 0.001$

areas, where a greater proportion of births are Medicaid-funded.¹⁶

Historically, obstetric services have often been among the first of a hospital's service lines to be cut when finances require such measures.^{9,37} This may leave pregnant women and their families bearing the inconvenience and costs associated with longer travel times to seek maternity care and potential negative outcomes associated with increased distance, such as higher risk of infant mortality and unplanned out-of-hospital births.²³ However, when birth volumes fall so low that clinical competence and quality cannot be maintained, closures—coupled with strategic planning and regionalization of care—may best support the health of rural women and families.³⁸ For example, telemedicine technologies have the potential to offer rural patients immediate access to specialty or higher-risk obstetric consultation, reducing the need to travel if these services are no longer available locally.³⁸ Such technologies may give low-volume rural hospitals ready access to referral, consultation, and outreach education from larger regional hospitals so that skills and patient safety can be maintained locally.³⁹

Striking a balance between access to obstetric

care without having to travel a substantial distance and ensuring sufficient volume of services for the maintenance of clinician skills and financial viability is difficult and imprecise.¹⁹ Patients' needs in obstetrics may change rapidly and without warning, leaving rural women without immediate access to needed care, and—as our data show—lack of access to nearby hospital-based obstetric care disproportionately affects more isolated rural communities and those with higher percentages of lower-income and non-Hispanic black women. Yet hospitals and clinicians rightfully assert that it is neither practical nor feasible to maintain the high levels of care competency and services required for an obstetric unit when birth volume falls below critical levels.¹⁹ Thus, policies designed to address the obstetric care needs of rural communities must balance this tension between access and volume or quality by ensuring effective referral and transfer services, developing regional perinatal networks, maximizing the availability of obstetric care providers (for example, examining state scope-of-practice laws as they pertain to nurse practitioners and midwives), and encouraging meaningful conversations about risks and bene-

fits for pregnant women and communities that need to decide whether local childbirth services are necessary. Certainly, rural women's access to obstetric care services is an issue of clinical, community, and personal relevance.

Conclusion

Fewer than half of all rural counties in the United States had hospital-based obstetric care services as of 2014. About one in ten rural counties (179) lost hospital-based obstetric services between 2004 and 2014. Of those, 150 were noncore counties, including 69 in geographically isolated areas, where gaining access to care may be espe-

cially challenging. The substantial decline in county-level availability of hospital-based obstetric services in rural areas raises concerns about rural women's access to maternity care. Additionally, the lack of in-hospital obstetric care was not uniformly distributed across rural counties: Counties with lower median incomes, those with greater percentages of non-Hispanic black women, and states with lower Medicaid income eligibility thresholds for pregnant women were the most likely to lack or lose obstetric services. This should raise concerns that counties that may already be socioeconomically disadvantaged face compounding challenges in ensuring access to necessary care. ■

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