

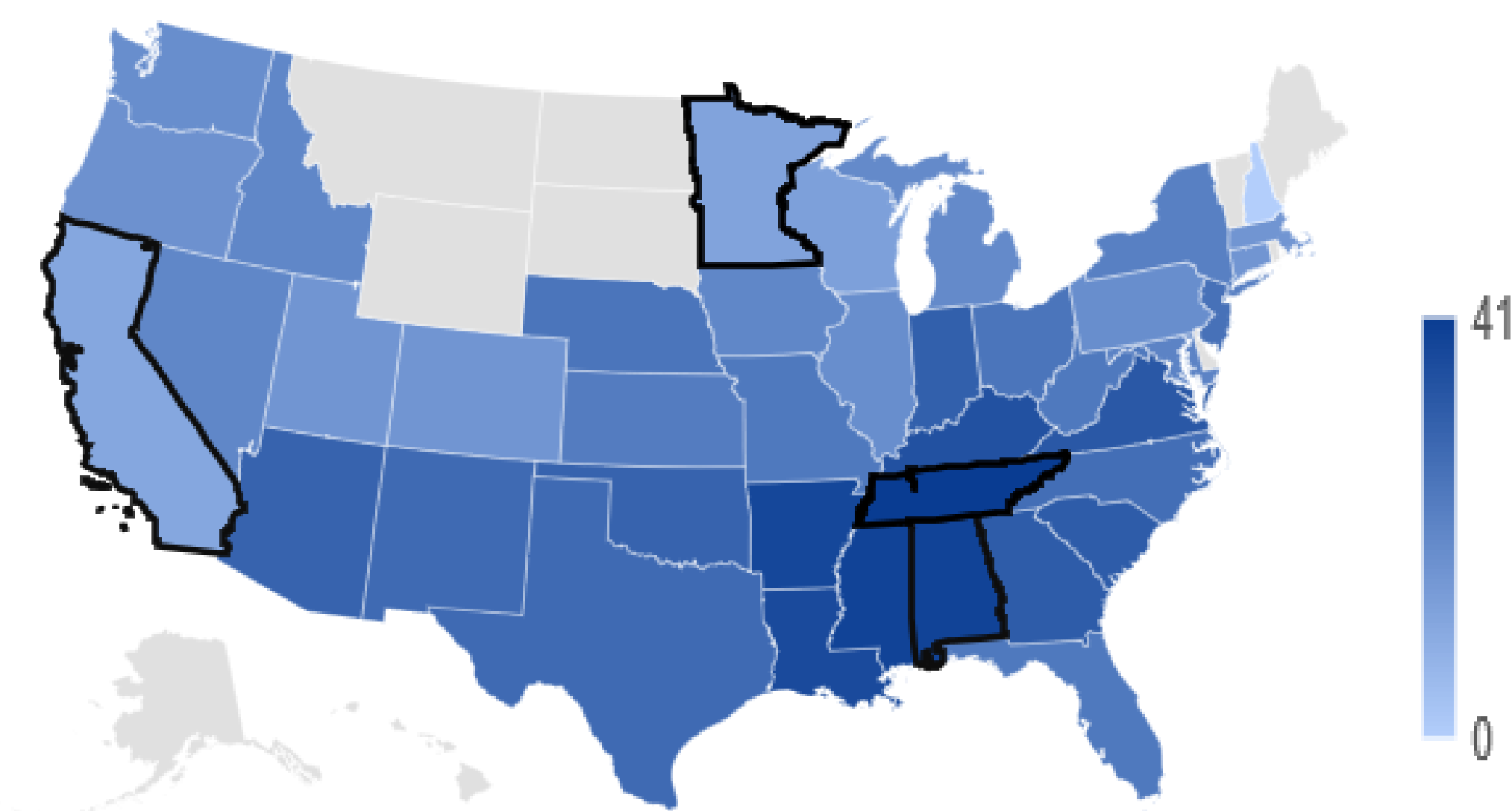
Introduction

Maternal mortality ratio has been relatively constant in the last 6 years in the United States¹, however is still higher than in other developed nations². The purpose of this study is to evaluate potential variables that have not been previously explored to gain insight into the variance of maternal mortality ratios between the states with the 2 highest, Alabama (AL) and Tennessee (TN), and the 2 lowest maternal mortality ratios, California (CA) and Minnesota (MN). These variables include access to public funded care (eligibility, prenatal and postnatal care, and immigration status), availability of OB providers and facilities in urban vs rural counties. There is minimal research that links all these factors together to help explain the difference in maternal mortality ratio.

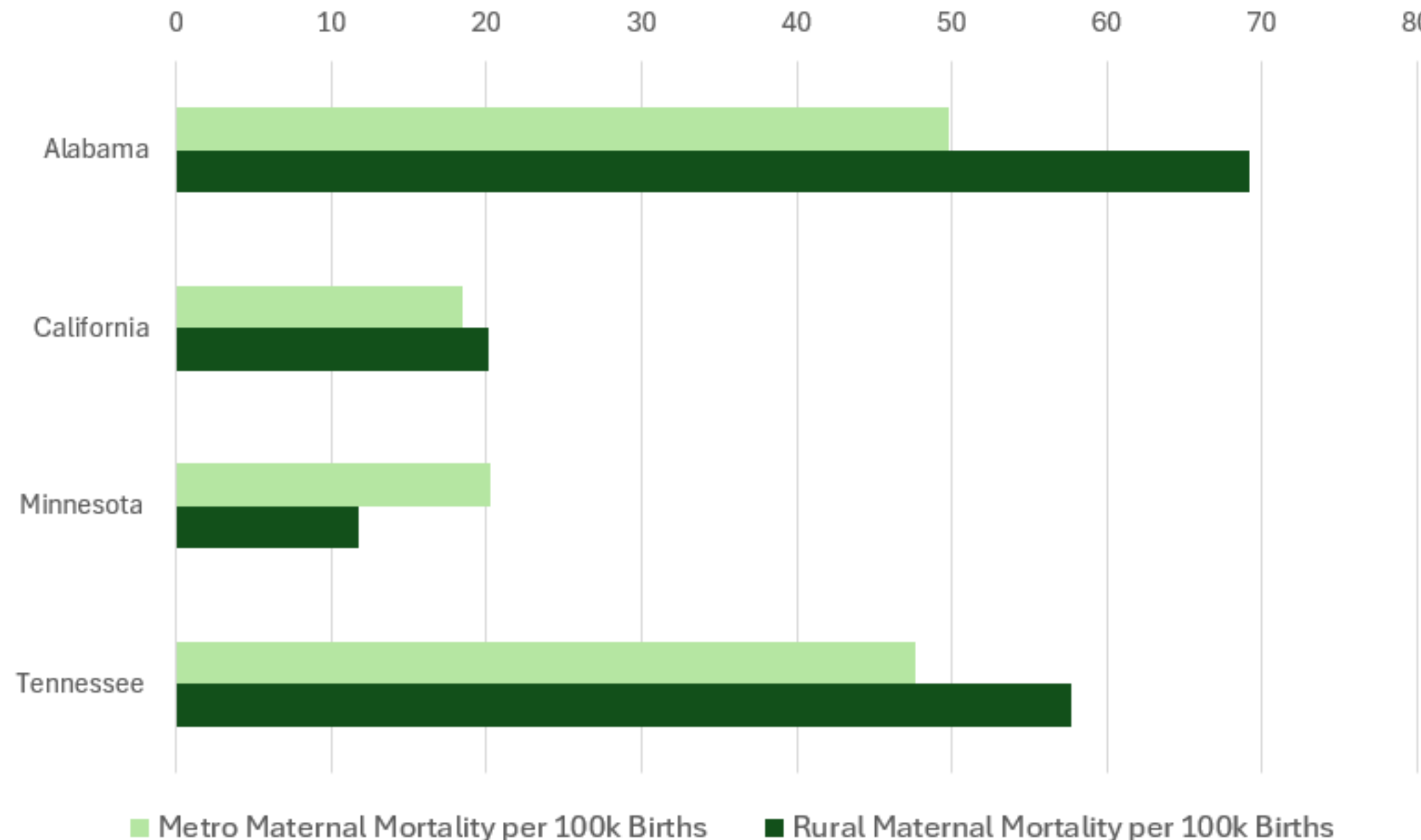
Objectives

This research aims to compare the OB deserts, providers and birthing facilities, in California, Alabama, Tennessee, and Minnesota. The goal of this study is to highlight the harsh inequities for pregnant individuals living in OB deserts within the different states. Medicaid and CHIP are constantly evolving the parameters of their coverage, in addition to the recent expansion to cover prenatal and postpartum care up to a year. However, this research proves that despite additional funding, pregnant individuals may not have the facilities to utilize that funding. This research serves as a call to examine the current landscape in order to best direct the additional funding.

Maternal Mortality per 100,000 Births¹³



Rural vs Metro Maternal Mortality Ratios⁵



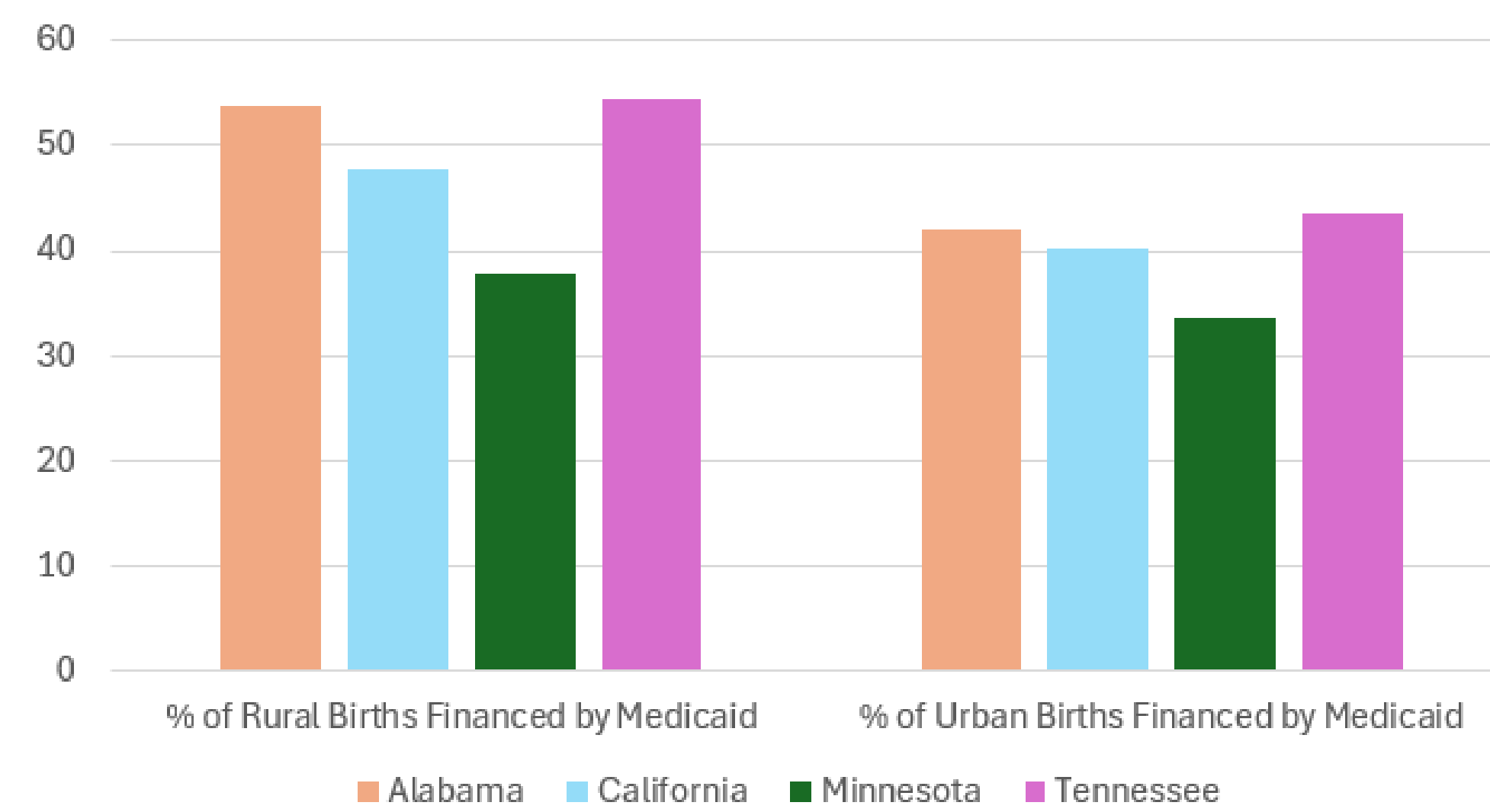
Acknowledgements

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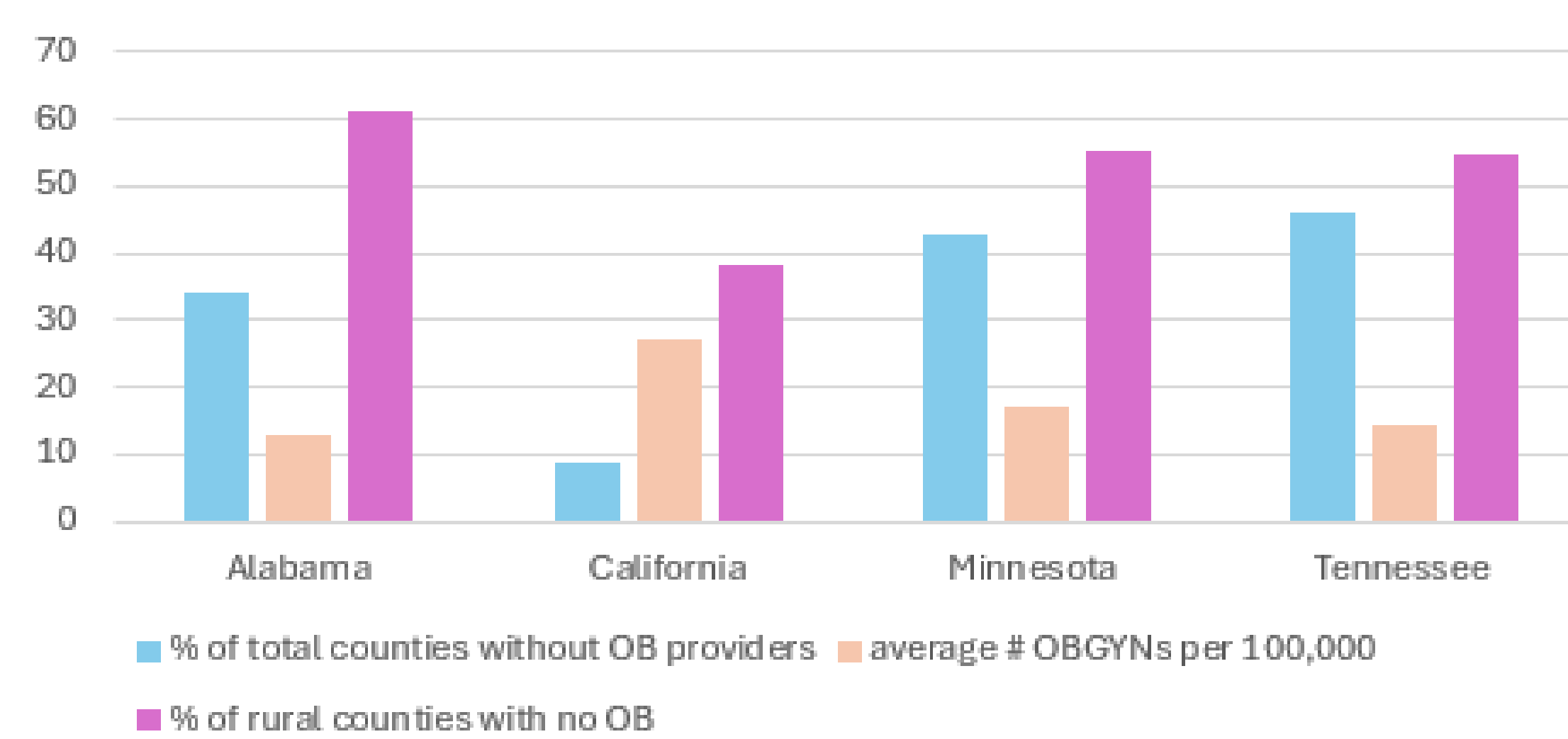
Materials and Methods

The data was collected from CDC Wonder, KFF, and analyses recently published in peer reviewed journals. The data was compiled and analyzed in Excel. Approved by WesternU IRB: 2425944-1. Search terms included “Maternal mortality,” “Medicaid + Maternal,” and “OB deserts”.

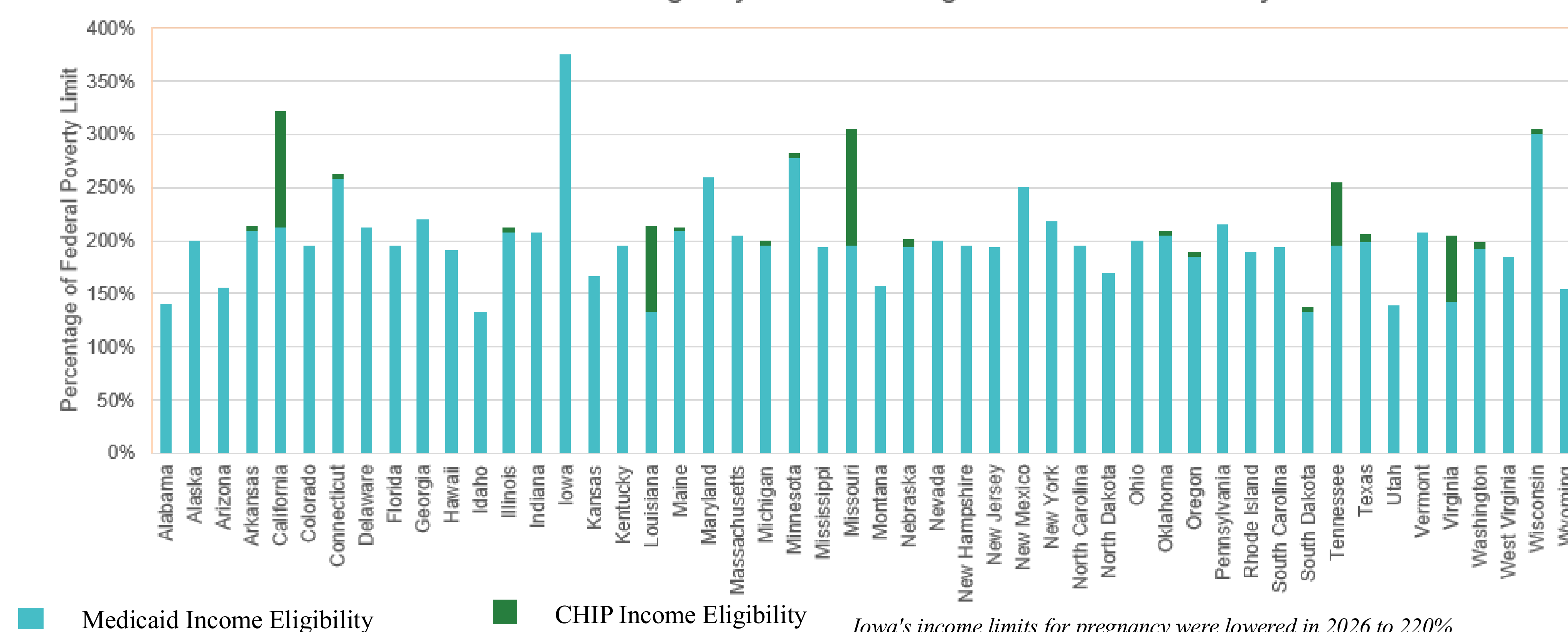
Urban vs Rural Medicaid Usage^{5,12}



OB Deserts⁶



Medicaid and CHIP Income Eligibility as a Percentage of the Federal Poverty Limit¹⁷

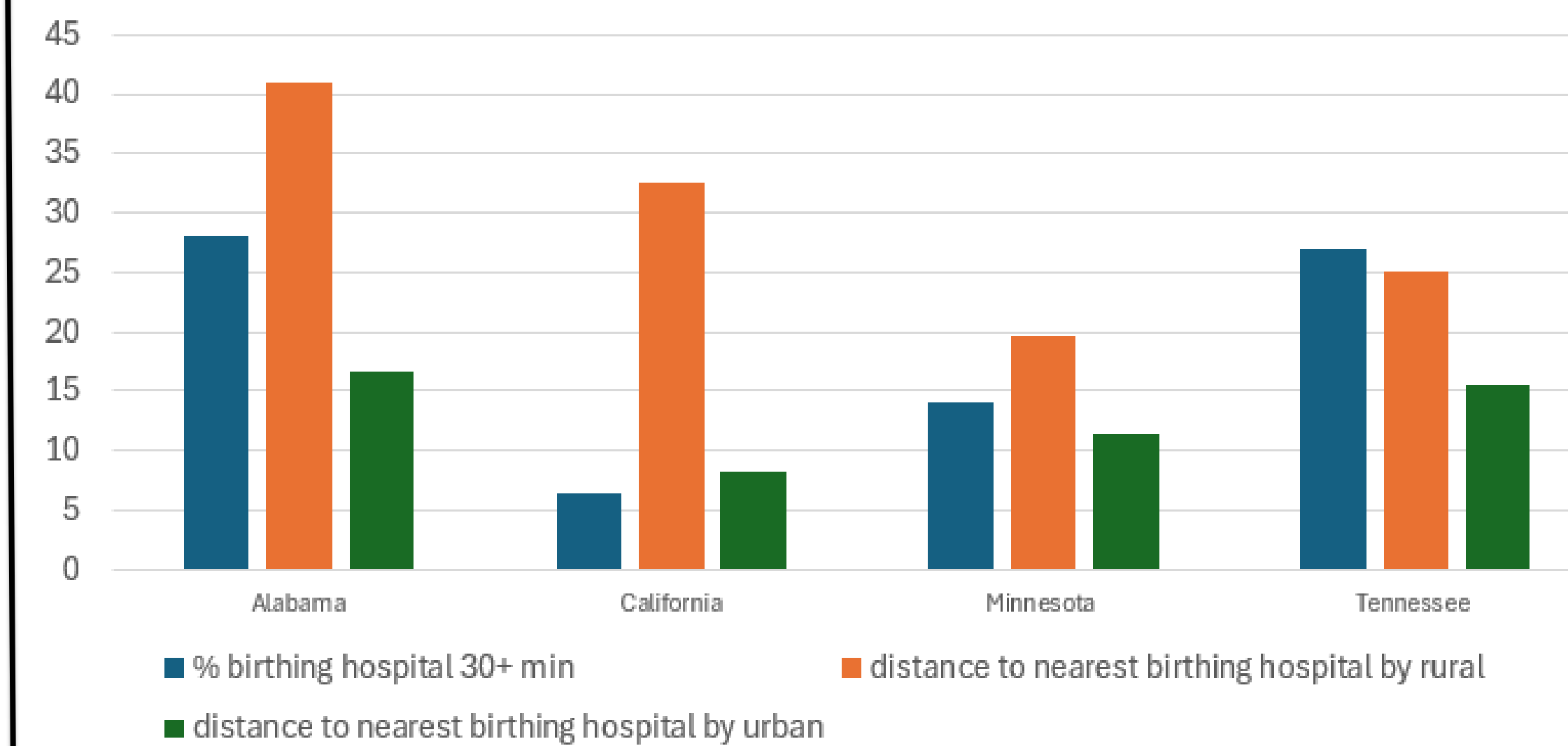


Iowa's income limits for pregnancy were lowered in 2026 to 220%

Results

- Medicaid insured women are 82% more likely to experience maternal mortality and severe maternal morbidity than their private health sector peers³
- Immigrant women may not qualify for publicly funded healthcare if they have been lawful permanent residents for under 5 years⁴
- Maternal mortality ratios/ 100,000 births: 54.2 (AL), 18.4 (CA), 18.5 (MN), and 49.8 (TN)⁵
- Average number of OBGYNs/ 100,000: 12.8 (AL), 27.3 (CA), 17 (MN), 14.5 (TN); significant when comparing CA to AL, MN, TN
- Percentage of counties without OB providers: 34 (AL), 9 (CA), 43 (MN), 46 (TN); significant between the US average, the states, and between the four states analyzed.
- The percentage of the population with a birthing hospital more than 30 minutes away: 28% (AL), 6.4% (CA), 14.1% (MN), 27% (TN)⁶; significant between urban and rural.
- Rural and Metro Maternal Mortality Ratios were significantly different in all states.
- Percent of rural counties with no OB is significant between the states
- Average of the US. Medicaid/CHIP coverage rate by Metro vs rural is significant in all states except AL.
- Percentage of births financed by Medicaid in rural vs urban areas are significant.

Distance to Nearest Birthing Hospital⁶



Conclusions

Medicaid expansion of financial coverage is vitally important to improving obstetrical care, but it has not equalized maternal mortality rates. The lack of OB facilities and providers in the deserts may hinder the beneficial impacts of expansion on postpartum coverage. The research highlights the need to further bridge the gap in OB facilities and the paucity of providers to decrease the difference in maternal mortality ratios in rural versus urban counties.

References

1. Centers for Disease Control and Prevention. (2026, April 22). *Provisional maternal death rates*. Centers for Disease Control and Prevention. <https://www.cdc.gov/nchs/nvss/vsrr/provisional-maternal-deaths-rates.htm>
2. Tikkanen, R., Gunja, M. Z., FitzGerald, M., & Zephyrin, L. C. (n.d.). Maternal mortality and maternity care in the United States compared to 10 other developed countries. <https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries>
3. Improving maternal health care would save lives and prevent economic. (n.d.). https://www.jec.senate.gov/public/_cache/files/e8830e55-b345-455b-a5fa-5c16ddb7353c/maternal-mortality-final-1-.pdf
4. Fabi R, Narváez Mena K, Desir A, White M, Wherry L, Steenland M. Public Coverage of Postpartum Services for Immigrants. JAMA Health Forum. 2025 Apr 4;6(4):e250702. doi: 10.1001/jamahealthforum.2025.0702. PMID: 40279113; PMCID: PMC12032572.
5. Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database. Data are from the Natality Records 2016-2024, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/natality-expanded-current.html> on May 31, 2026 9:04:53 PM
6. March of Dimes. (n.d.). Nowhere to go: Maternity Care Deserts across the US 2024 report. https://www.marchofdimes.org/sites/default/files/2024-09/2024_MoD_MCD_Report.pdf
7. Telesford, L., Telesford, L., Twitter, E. W., & Cox, C. (2025, October 6). How does the quality of the U.S. health system compare to other countries?. Peterson-KFF Health System Tracker. <https://www.healthsystemtracker.org/chart-collection/quality-u-s-healthcare-system-compare-countries/#longterm-health-outcomes>
8. DiMeo A, Logendran R, Sommers BD, Beecroft A, Herencia YP, Bazan M, Wade C, Sprinkle J, Sullivan MM, Molina RL. Navigating the Labyrinth of Pregnancy-Related Coverage for Undocumented Immigrants: An Assessment of Current State and Federal Policies. Am J Public Health. 2024 Oct;114(10):1051-1060. doi: 10.2105/AJPH.2024.307750. Epub 2024 Aug 15. PMID: 39146520; PMCID: PMC11375342.
9. Johnson DL, Carlo WA, Rahman AKME, Tindal R, Trulove SG, Watt MJ, Travers CP. Health Insurance and Differences in Infant Mortality Rates in the US. JAMA Netw Open. 2023 Oct 2;6(10):e2337690. doi: 10.1001/jamanetworkopen.2023.37690. PMID: 37831450; PMCID: PMC10576209.
10. Kffsamanthaa. (2025, August 12). 5 key facts about immigrants and Medicaid. KFF. <https://www.kff.org/racial-equity-and-health-policy/5-key-facts-about-immigrants-and-medicaid/>
11. Bureau, U. C. (2024, October 25). U.S. foreign-born population. Census.gov. <https://www.census.gov/library/visualizations/interactive/foreign-born-population-2018-2022.html>
12. *Births financed by Medicaid by Metropolitan Status: KFF State Health facts*. KFF. (2025, August 9). <https://www.kff.org/medicaid/state-indicator/births-financed-by-medicaid/?currentTimeframe=0&sortModel=%7B%22colId%22%3A%22Location%22%2C%22sort%22%3A%22asc%22%7D#>
13. *Maternal deaths and mortality rates per 100,000 live births: KFF State Health facts*. KFF. (2025b, August 9). <https://www.kff.org/state-health-policy/data/state-indicator/maternal-deaths-and-mortality-rates-per-100000-live-births/?currentTimeframe=0&sortModel=%7B%22colId%22%3A%22Location%22%2C%22sort%22%3A%22asc%22%7D>
14. Guttmacher Institute, State insurance coverage of abortion under Medicaid, State Laws and Policies (as of January 2026), 2026. <https://www.guttmacher.org/state-policy/explore/state-insurance-coverage-abortion-under-medicaid>.
15. *Presumptive eligibility: KFF State Health facts*. KFF. (2025c, August 9). <https://www.kff.org/state-health-policy/data/state-indicator/presumptive-eligibility/?currentTimeframe=0&sortModel=%7B%22colId%22%3A%22Location%22%2C%22sort%22%3A%22asc%22%7D>
16. Santos PMG, Narayan A, Hong AS, et al. Landscape of Emergency Medicaid and Health Care Coverage for Undocumented Immigrants in the US. JAMA Intern Med. 2025;185(7):866–873. doi:10.1001/jamainternmed.2025.0604
17. *Medicaid and chip income eligibility limits for pregnant women as a percent of the Federal Poverty Level: KFF state health facts*. KFF. (2025, August 9). <https://www.kff.org/affordable-care-act/state-indicator/medicaid-and-chip-income-eligibility-limits-for-pregnant-women-as-a-percent-of-the-federal-poverty-level/?currentTimeframe=0&sortModel=%7B%22colId%22%3A%22Location%22%2C%22sort%22%3A%22asc%22%7D>