

**HEALTHY
MOMS.
STRONG
BABIES.**



**NOWHERE TO GO:
MATERNITY CARE DESERTS
ACROSS THE U.S.**

2022 REPORT



MEET VANIA BIGLEFTHAND

For Vania Biglefthand and her husband Ray, access to care became a real problem on their journey to building a family. In Montana, where they live, the nearest birthing hospital is two hours away. Normal pregnancy routine such as going to a doctor and prenatal appointments was difficult and stressful. Their third pregnancy was going great—until at 29 weeks, Vania landed in the hospital on complete bed rest for a month. “Through that time,” she said, “a March of Dimes advocate helped me be comfortable in the hospital with classes and getting to know other NICU families who were there going through similar experiences.”

That community made an impact on her. “A lot of us got really close,” she said. “We’re still friends to this day. And it was comforting to know that I wasn’t alone. I had an outlet with other people to share our stories together.”

Her advice for other people who may not have access to care? “As a mom, being pregnant,” she said, “you know your body, you know something’s wrong. Speak up, no matter. Speak up for yourself and your baby.” Ray agreed. “Just keep fighting for it. You’ll eventually get there, but we’re all in it together.”



STACEY D. STEWART

PRESIDENT AND CEO
MARCH OF DIMES



DR. ZSAKEBA HENDERSON

SENIOR VICE PRESIDENT
AND INTERIM CHIEF
MEDICAL AND HEALTH
OFFICER
MARCH OF DIMES

There are nearly four million births in the United States each year. Access to quality maternity care is a critical component of maternal health and positive birth outcomes, especially in the face of a lingering pandemic. Now more than ever, maternity care in the U.S. is at a critical moment. Despite spending the highest percentage of our country’s gross domestic product on health care, the U.S. still faces increasing rates of maternal mortality and a lack of widespread support for policies supporting paid family leave and postpartum medical access. The 2022 Maternity Care Deserts Report explores the many facets of health care that affect how and where maternity care is provided in the U.S. and also confirms that access to maternity care is worsening throughout the country.

Nationwide, five percent of counties have less maternity access than just two years ago. These areas of combined low or no access affect up to 6.9 million women and almost 500,000 births in the U.S. In maternity care deserts alone—approximately 2.2 million women of childbearing age and almost 150,000 babies are affected. The latest data show that Florida had the most women impacted by improvements to maternity care access (over 92,000) while Ohio had the most women impacted by overall reductions in access to care (over 97,000). Maternity care deserts are counties where there is a lack of maternity care resources, where there are no hospitals or birth centers offering obstetric care and no obstetric providers. The 2022 report describes a two percent increase in counties that are maternity care deserts since the 2020 report. That is 1,119 counties and an additional 15,933 women with no maternity care.

In order to more comprehensively describe the challenges encountered by birthing persons in maternity care deserts, this year we have built upon the 2020 Report to further explore the complexities of receiving care in these counties. These include lack of broadband access and its impact on telehealth; the role of postpartum care in reducing maternal morbidity and mortality; the role of Federally Qualified Health Centers, family physicians and how they may fill gaps in maternity care; and the importance of chronic disease identification and management throughout pregnancy.

In maternity care deserts there is a higher risk for poor maternal and infant health outcomes. In the U.S. an average of two women die every day from complications of pregnancy and childbirth and two babies die every hour. In order to fight for the health of all moms and babies, we as a country need to invest in policy reform to improve access to high quality maternity care. At both the federal and state levels, March of Dimes has urged lawmakers to pass the Black Maternal Health Momnibus Act of 2021 to close gaps in maternity care to improve outcomes for every family. Lawmakers must join us to achieve #BlanketChange for better health access and to work towards achieving health equity. Visit marchofdimes.org/blanketchange to act now.

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POLICY SOLUTIONS AND ACTIONS

Approximately 12 percent of births occur in counties with limited or no access to maternity care. Action is needed to help ensure that all people receive the care and support they need before, during and after pregnancy. No single solution will address the problem of limited access to care; however, key opportunities include:

IMPROVE ACCESS TO QUALITY AND AFFORDABLE PRECONCEPTION, PRENATAL, INTRAPARTUM AND POSTPARTUM CARE

- **Expand Medicaid for individuals who fall at or below 138 percent of the Federal Poverty Level (FPL).** States that expand Medicaid may improve the health of people of childbearing age and their children by reducing racial and ethnic disparities in birth outcomes such as rates of prenatal and postpartum visit attendance, maternal mortality, low birthweight and preterm birth.
- **Raise parental income eligibility levels under Medicaid.** Non-expansion states have another option to improve access to postpartum coverage by raising income eligibility thresholds for parents. This could extend Medicaid eligibility to more low-income parents and partially close the coverage gap for non-expansion states.
- **Extend the Medicaid postpartum coverage period to 12 months.** The need for postpartum services exists well beyond the current federal law limit of 60 days after pregnancy. The *American Rescue Plan Act of 2021*, starting April 2022, gives states the option to extend postpartum coverage to pregnant people to one full year. Congress must now take the next step to make 12 months of postpartum coverage mandatory and permanent under all state Medicaid programs.
- **Expand access to and improve integration of the midwifery model of care in all states.** This can help improve access to equitable and culturally informed maternity care in under-resourced areas, lower costs, reduce unnecessary medical interventions that contribute to risks of maternal mortality and morbidity in initial and subsequent pregnancies, and improve the health of all moms and babies.
- **Expand equitable access to doula services through reimbursement and workforce development.** Doula support improves birth outcomes and may reduce maternal morbidity and mortality among women of color. In some states coverage of doula services is provided under private and public insurance programs, including Medicaid, the Children's Health Insurance Program (CHIP) and TRICARE. Payment levels should be sufficient to support the care provided. Efforts should be made to make the doula profession more accessible to birthing people.

- **Provide coverage for evidence-based telehealth maternal health services and support alignment of telehealth reimbursement approaches across payers.** A robust body of evidence shows largely positive outcomes associated with telehealth services in maternity care.
- **Enhance perinatal regionalization as a strategy to improve both maternal and neonatal outcomes.** By coordinating a system of care within a geographic area, pregnant people would receive risk-appropriate care in a facility equipped with the proper resources and health care providers. March of Dimes supports the 2022 Maternal Levels of Care Verification program, which provides a standardized description of maternity facility capabilities and personnel.
- **Strengthen network requirements for the Affordable Care Act (ACA) market plans.** Ensure that health insurance plans available through the ACA marketplace offer robust maternity care provider networks to improve maternal health care access and outcomes for pregnant and postpartum people.

PREVENTION AND TREATMENT

- **Address social determinants of health to reduce disparities and improve health outcomes.** Expand the scope of research on social determinants of health and policies as fundamental drivers for population-level maternal and infant health. Engage in health system reform, including educating providers on implicit racial bias; increase community engagement through inclusion, education, social activism and advocacy; and improve social and economic conditions (poverty, employment, low wages, housing) that contribute to underlying health inequities.

RESEARCH, SURVEILLANCE AND QUALITY IMPROVEMENT

- **Improve maternal mortality and morbidity data collection and surveillance and prioritize policy recommendations from Maternal Mortality Review Committees.** Updated data collection and surveillance should be active and consistent across all states.
- **Invest in and strengthen Perinatal Quality Collaboratives (PQC) to provide infrastructure that supports all U.S. states and territories having a PQC.** PQCs lead efforts to improve outcomes and the quality of maternal and infant care.

INTRODUCTION

Consistent, high-quality maternity care is essential to protect the health of all moms and babies. Maternity care encompasses health care services for women during pregnancy, delivery and postpartum.¹ With over 3.5 million births in the U.S. annually,² and rising rates of maternal mortality and morbidity, there is ample opportunity to improve maternal and birth outcomes in our country. The 2022 *Nowhere to Go: Maternity Care Deserts Across the U.S.* report is an update of the 2020 report and aims to increase education and raise awareness about maternity care deserts. Along with data and maternity care deserts classification updates, new topics touching on the postpartum period, the importance of telehealth and the intersection of chronic disease and pregnancy are included.

BACKGROUND

In 2020, approximately 900 women died of causes related to pregnancy in the U.S., with a 14.2 percent increase in deaths from the previous year³ and a 30.9 percent increase since 2018.⁴ Along with this, the number of women who experience pregnancy-related complications, or severe maternal morbidity, is steadily increasing, affecting at least 50,000 women each year.⁵ This is likely an underestimation as no new data at the national level has been available since 2014. Improving the landscape for maternity care continues to be of utmost importance as almost two-thirds (63%) of pregnancy-related deaths are preventable.⁶ Despite the success of other countries in reducing maternal mortality rates, the U.S. rate continues to increase and fare worse than other high-income countries.⁷ It's well established that there are racial and other disparities in pregnancy-related mortality that are not fully explained by individual-level factors such as age, Cesarean birth or chronic health conditions.⁸ Social and contextual factors are also important determinants of health that affect people over time and throughout life.⁹ Data continue to show that the county you live in can influence rates of pregnancy-related mortality.⁸ Working to improve access to quality and consistent maternity care by bringing awareness to maternity care deserts is one way in which March of Dimes strives to reduce preventable maternal mortality and morbidity for all pregnant people and improve the chances for the best possible start for every baby.

KEY FINDINGS

This report found that more than 146,000 babies were born in maternity care deserts.

- An additional 300,000 babies were born in counties with limited maternity care access.

More than **2.2 million women** of childbearing age live in maternity care deserts.

- **4.7 million** women live in counties with limited maternity care access.
- Medicaid covers nearly 50 percent of births in maternity care deserts, compared to 40.1 percent in counties with full maternity care access.
- The proportion of women living in counties below the national median household income is twice as high for maternity care deserts as it is in full access counties (90.1% and 45.2%, respectively).
- Women in maternity care deserts are more likely to have **asthma, hypertension and smoke tobacco** as compared to women in counties with full access to maternity care.

36 percent of all U.S. counties are designated as maternity care deserts in this report.

- Two in three maternity care deserts are rural counties (61.5%).
- Over 500,000 babies were born to women who reside in rural counties, while only **seven percent** of obstetric providers practice in rural counties.*
- Counties with low access to telehealth were **30 percent more likely** to be maternity care deserts.
- There are 13 states that have approved legislation to **extend postpartum Medicaid coverage** to 12 months, as 11 states have approved this legislation since the last report.**
- Five states are actively reimbursing doula services on Medicaid plans and seven are in the process of implementing **Medicaid doula benefits**.***

Changes since the 2020 Maternity Care Deserts Report include:

- Five percent of U.S. counties shifted to lower access in maternity care and three percent of counties shifted to higher access of care.
- Shifts in the number of obstetric providers was the primary driver for increases or decreases in access.
- 56 counties shifted to a lower level of access due to loss of obstetric providers, while 55 increased in access due to an increase of providers.
- Hospitals limiting obstetric services decreased access to care in 37 counties.
- Hospitals expanding obstetric services increased access to care in eight counties.
- Over **2.8 million women** of childbearing age and nearly **160,000 babies** were impacted by reduced access to maternity care.

* Includes obstetricians and CNMs; **Number of states updated as of July 13, 2022; ***Number of states updated as of August, 2022.

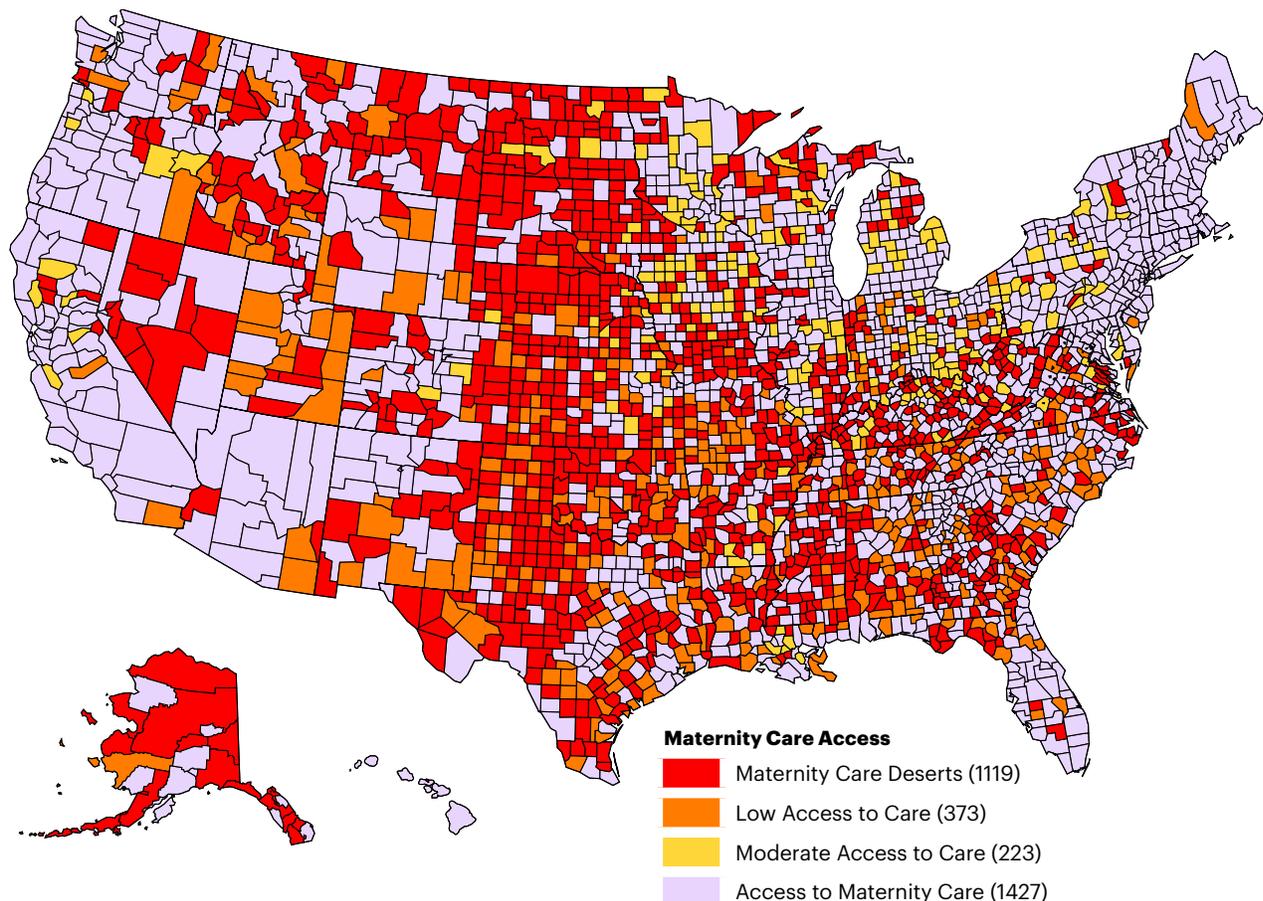
MATERNITY CARE DESERTS

In this report, March of Dimes defines a maternity care desert as any county without a hospital or birth center offering obstetric care and without any obstetric providers (Table 1). Obstetric (OB) providers included in the analysis of this report are obstetrician/gynecologists and certified nurse midwives/certified midwives (CNMs/CMs). People may have low access to appropriate preventive, prenatal and postpartum care if they live in counties with few hospitals or birth centers (one or fewer) providing obstetric care, few obstetric providers (fewer than 60 per 10,000 births) or a high proportion of women 18-64 without health insurance (10% or more). Moderate access to care is defined as living in a county with access to few hospitals/birth centers or OB providers and an adequate proportion of women without health insurance coverage (less than 10% of women). Full access to maternity care can be defined by availability of hospitals or birth centers providing obstetric care and availability of providers offering obstetric care (Figure 1). To further understand counties with full access to maternity care, we examined those counties' levels of uninsured women. We found that some counties clas-

sified as having full access to maternity care also have high rates of uninsured women. In the U.S., significant racial and ethnic disparities exist in maternal and infant perinatal outcomes. Disparities are also evident in access to care. Although the majority of women living in maternity care deserts are non-Hispanic White, 12.8 percent of Native American women who gave birth in 2020 lived in maternity care deserts. In 2020, one in 4 Native American babies (26.7%) were born in areas of limited or no access to maternity care services. Additionally, 1 in 6 Black babies (16.3%) were born in areas of limited or no access to care to maternity care services.

When comparing data from the 2018 Maternity Care Deserts Report to the 2022 report, 11 percent of U.S. counties have shifted in maternity care access classification (Figure 2). Five percent of counties have increased access and six percent show a decrease in access to care. Changes in obstetric providers affected the highest number of counties. Seventy-eight counties increased access to care and 83 counties decreased access to care. Hospital access also drove shifts in classification,

Figure 1: Maternity Care Deserts, 2020



Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2021.

Table 1: Definitions of maternity care deserts and access to maternity care

Definitions	Maternity care deserts	Low access to maternity care	Moderate access to maternity care	Full access to maternity care
Hospitals and birth centers offering obstetric care	zero	<2	<2	>2
Obstetric providers (obstetrician, CNM/CM) per 10,000 births	zero	<60	<60	≥60
Proportion of women 18-64 without health insurance*	any	≥10%	<10%	any

Notes: CNM/CM = certified nurse midwives/certified midwives.

*U.S. average is approximately 11%.

Source: Kaiser Family Foundation. <https://www.kff.org/womens-health-policy/fact-sheet/womens-health-insurance-coverage-fact-sheet/>

as 48 counties had decreased access to care while nine counties increased access to care. Fourteen counties experienced increased access to maternity care due to the presence of birth centers between 2020 and 2022. Twenty-five counties increased access to care due to a combination of improved access to obstetric providers, hospitals and birth centers, while 26 counties experienced decreased access to care due to a combined loss of obstetric providers and hospitals.

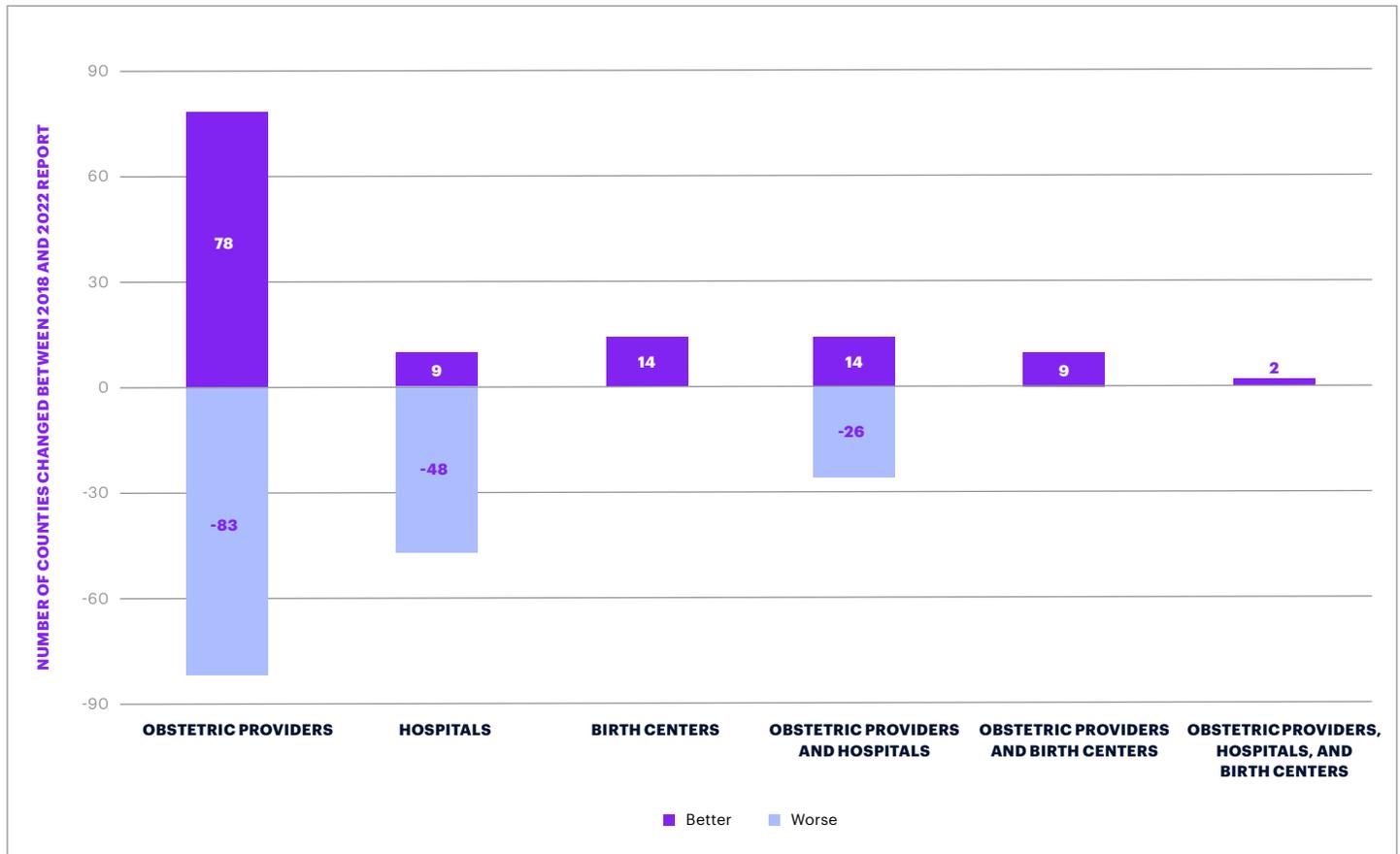
Between 2020 and 2022, a total of 247 counties (8%) shifted maternity care classification, with 94 counties across the U.S. having increased access, and 153 having decreased access. Shifts occurred for varying reasons such as changes in the number of providers or in health insurance. Of the U.S. counties that had increased level of access, 55 counties shifted classification due to an increase in obstetric providers. Eight counties changed classification due to an increase in hospitals, five counties due to additional birth centers and 11 counties due to a combination of increases in obstetric providers, birth centers or hospitals. On the other hand, five percent of counties had a lower level of access between 2020 and 2022. The distribution of this decrease in access is as

follows: 56 counties due to fewer obstetric providers, 37 counties due to a decrease in hospitals and 20 counties due to a combination of obstetric providers and hospitals. No counties shifted down due to a loss of birth centers in the two-year period.

Of the 341 total counties that have changed in maternity care designation between 2018 and 2022, 60 counties have had continual change, or changed every two years. Four counties showed decreased access in both the 2020 and 2022 reports; loss of obstetric providers was the primary driver for repeated shifts in classification.

The cumulative effect of COVID-19 on maternity care access is not yet fully measured or understood. Much of the data analyzed in this report to assess maternity care access will reflect data collected prior to the beginning of the pandemic and shouldn't be interpreted as a direct result of COVID-19.

Figure 2: Change in county maternity care classification between 2018 and 2022 Nowhere to Go: Maternity Care Deserts Across the U.S. Reports



Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2021.

Table 2: Distribution of counties, women (15-44 yrs.) and births by access to maternity care

	Maternity care deserts		Low access to maternity care		Moderate access to maternity care		Full access to maternity care		Total
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	
Counties	1,119	35.6	373	11.9	223	7.1	1,427	45.4	3,142
Women 15-44 yrs.	2,247,963	3.5	3,030,528	4.7	1,670,549	2.6	57,593,119	89.2	64,542,159
Births	146,597	3.9	197,628	5.3	103,932	2.8	3,299,843	88.0	3,748,000

Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2021; National Center for Health Statistics. Final natality data, 2020; U.S. Census Bureau, County Population by Characteristics, 2020.

ACCESS TO HIGH QUALITY CARE

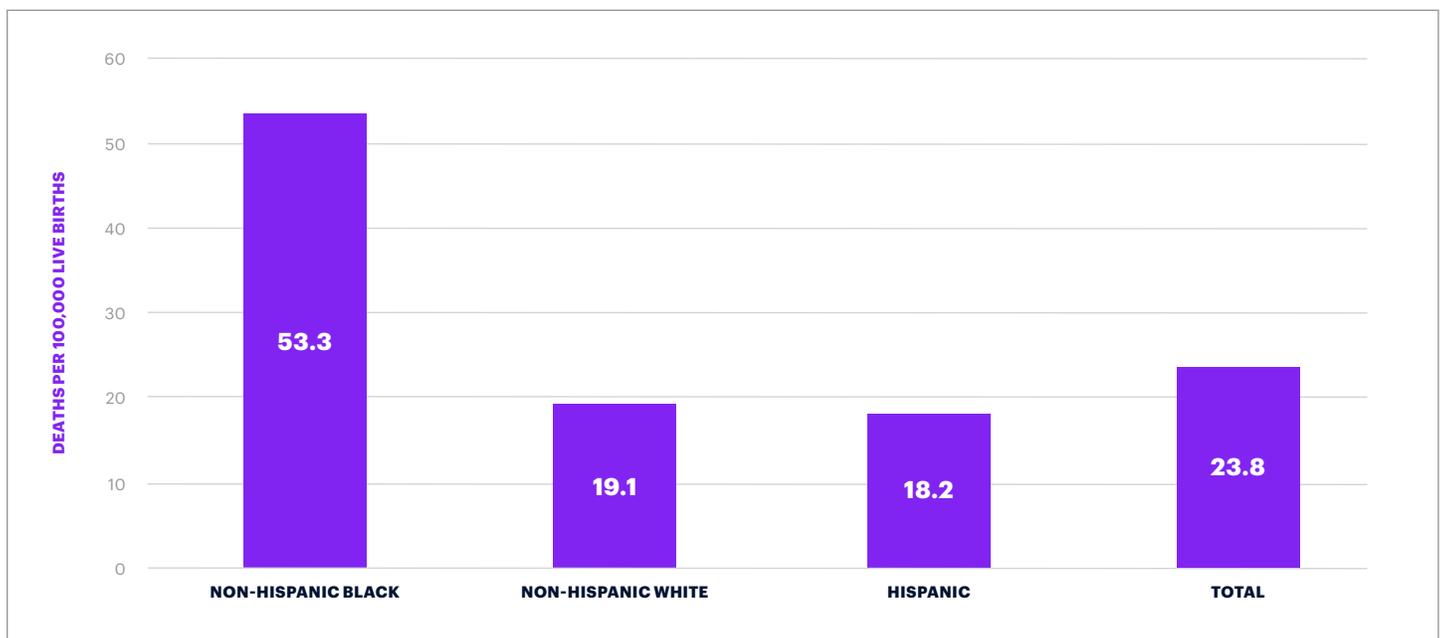
The issues of affordability and geographic access is important when defining gaps in maternity care across the U.S.; however, the concept of quality maternal care is inextricably linked to the issues of access to maternity care and eliminating maternity care deserts. Quality maternal care can be generally described as providing safe, effective, timely, efficient, equitable and person-centered care.

Data describe a landscape that points to a lack of equity in quality maternal care. Prior to childbirth, racial and ethnic disparities in maternity care exist. One in four Native American women (24.2%) and 1 in 5 Black women (20.1%) did not receive adequate prenatal care in 2020, compared to only 1 in 10 White women (9.9%). Additionally, Hispanic and Asian and Pacific Islander women were less likely to receive adequate prenatal care when compared to White women (17.3 and 11.3%, respectively).¹⁰ After childbirth, differences in health outcomes for minority women persist. In 2020, the maternal mortality rate for non-Hispanic Black women was 55.3 deaths per 100,000 live births, nearly three times the rate for non-Hispanic White women.⁴ Additionally, severe maternal morbidity (SMM), or unexpected outcomes of labor and delivery that result in significant short or long-term health consequences, affects approximately 50,000 women in the U.S. each year.⁵ SMM occurs twice as often in Black women as compared to White women, even after taking into consideration social, economic factors and co-existing medical conditions.^{8,9}

Although minority women are more likely to have co-existing illnesses and lower levels of socioeconomic status, this does not fully explain the inequity in rates of SMM and maternal mortality.¹¹ Recent data suggests that factors within a hospital and between different facilities contribute to different outcomes of care and contribute to differences in health outcomes.¹² Data show that hospital quality differs between facilities that mainly serve Black, Hispanic or Native American women compared to those that serve a mostly White-patient population.¹³

Quality improvement (QI) initiatives in hospitals, such as standardization of care through safety bundles, utilizing protocols/checklists, and staff training on implicit bias can improve care.¹¹ In one large scale multi-hospital QI initiative to reduce SMM due to obstetric hemorrhage, a reduction in overall SMM was accomplished and Black women experienced the greatest reduction as compared to Black women prior to the initiative.¹⁴ This initiative focused on improvements at the hospital level; even with these improvements Black women had the highest rates of SMM. Because there are many points in which care quality can be affected, it is important to look for quality improvements from the pre-conception period to postpartum. To focus on race-based disparities in maternity care, March of Dimes launched an [implicit bias training for healthcare professionals](#) in 2019. Mitigating health care professionals' implicit bias in the various care delivery settings for pregnant people is an

Figure 3: Maternal mortality rates by race and Hispanic origin, United States, 2020



Source: National Center for Health Statistics, *Maternal Mortality Rates in the United States, 2020*.

CHARACTERISTICS OF MATERNITY CARE DESERTS

Table 3: Access to maternity care and economic characteristics

Characteristic	Maternity care deserts (n=1119 counties)	Low access to maternity care (n=373 counties)	Moderate access to maternity care (n=223 counties)	Full access to maternity care (n=1427 counties)
	Mean	Mean	Mean	Mean
Median household income	\$50,206	\$51,687	\$58,596	\$60,604
Women without health insurance (18-64 yrs.)*	13.7%	16.5%	7.5%	11.1%
Population in poverty**	16.0%	17.0%	13.1%	14.2%
Urban Counties	18.6%	30.6%	37.7%	53.2%

*Source: U.S. HRSA, Area Health Resource File, 2021, data from 2019. **Source U.S. HRSA, Area Health Resource File, 2021, data from 2015-2019.

Table 4: Urban and rural county maternity care deserts characteristics

Characteristic	Urban counties (n=208 counties)	Rural counties (n=911 counties)
	Mean	Mean
Median household income	\$54,715	\$49,174
Women without health insurance (18-64 yrs.)*	13.0%	13.9%
Population in poverty**	15.0%	16.3%

*Source: U.S. HRSA, Area Health Resource File, 2021, data from 2019. **Source U.S. HRSA, Area Health Resource File, 2021, data from 2015-2019.

important component to creating and sustaining a culture of equity within health care institutions.

Perinatal Quality Collaboratives (PQCs) across the nation are another source for QI in maternity care. PQCs can adapt and address critical current and emergent perinatal health issues facing our nation. The PQC is a network of teams working to improve quality of care for moms and babies. March of Dimes supports the development, funding and collaboration of national and state-based PQCs.

The COVID-19 pandemic brought numerous and rapid changes to maternity care globally. A systematic review focusing on effects of the pandemic on maternity providers found that they experienced organizational and mental health challenges.¹⁵ Staff shortages, restructuring of where and how care was delivered, shortage of personal protective equipment, caring for COVID-positive pregnant people and restriction of support during childbirth were all reported as challenges during pandemic care.¹⁵ Mentally, providers reported strain to provide normal care due to higher workload and emotionally supporting patients. Numerous stressors during the height of the pandemic likely had some effect on quality of care during that time.

In terms of access, the requirements of the Affordable Care Act (ACA) that ensure that health plans offer people timely, high-quality and culturally competent access to care may offer a solution to challenges regarding access to quality care. This act requires that care is timely, high quality and culturally competent and provides access to a diverse array of specialties. These standards ensure that people who purchase an insurance plan that uses a provider network can count on that network to meet their needs.^{16,17}

March of Dimes supports efforts of federal regulators to set comprehensive standards for maternal health care including the need for: quantitative standards such as geographical access, provider-to-enrollee ratios applicable to obstetric and gynecology care and maximum wait times to obtain appointments. Additionally, March of Dimes supports the standards for inclusion and integration of licensed mid-level providers such as midwives and birth support workers including doulas and lactation consultants. Networks should offer after-work hours and telehealth to provide alternative care methods to traditional provider office procedures.¹⁸

HOSPITALS

The unequal distribution of hospitals is essential in the conversation around childbirth and maternity care in the U.S. In 2020, 98.3 percent of all live births occurred in hospitals.¹⁰ In 2019, 42.5 percent of counties (1,337) had at least one hospital that provided obstetric services (Figure 4), over four percent less than at the time of the 2018 report.¹⁹ In 2020, over eight million women of childbearing age lived in counties without an obstetric hospital.¹⁹

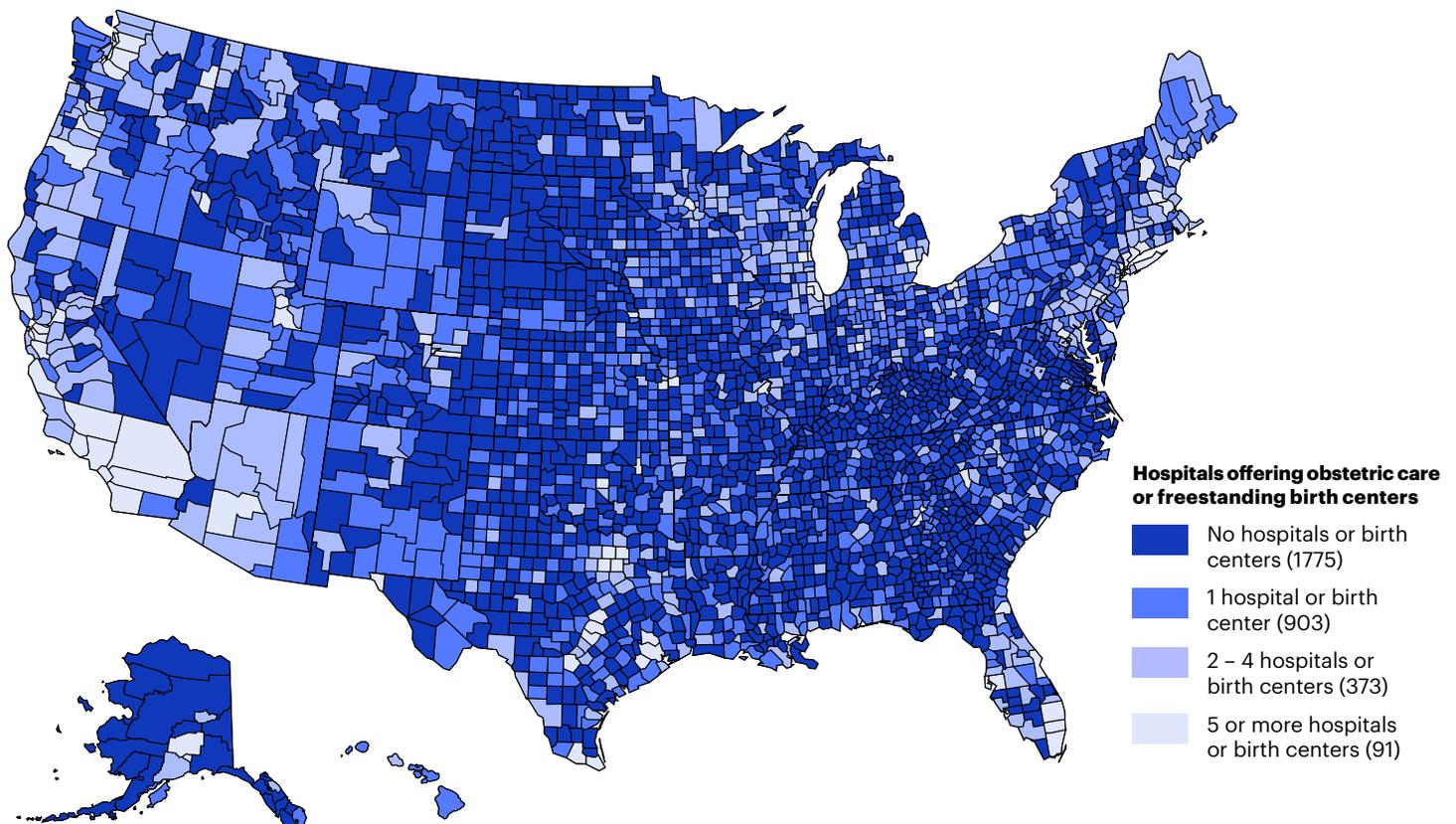
Overall, since 2005, 181 rural hospitals have closed across the country. The majority (138) have closed in the last 12 years and 19 rural hospitals closed in 2020.²⁰ Women who delivered in rural areas where obstetric wards were closed had increased risk of delivering at hospitals with no obstetric care or out of hospital. In 2019, rural counties were less likely to have at least one obstetric hospital when compared to urban counties (25.9% vs. 52.4%, respectively).¹⁹

The closure of maternity wards is concentrated in rural counties with the most frequent loss in the most remote counties.²¹ In a four-year period from 2014-2018, rural counties saw the closure of hospital-based obstetric services in 53 (2.7%) counties in addition to the 1,045 counties

(52.9%) that never had obstetric services.²¹ More recently, March of Dimes found that there were closures across 12 states from 2019 to 2020 in which 21 rural counties lost one or more obstetric hospital units.²² Various explanations are offered for rural obstetric unit closures. These include shortages of obstetricians and family physicians, low volume of births and low-income communities. However, the closures are affecting a higher percentage of non-Hispanic Black women and low-income women.^{23,24} Urban counties have also been impacted by obstetric hospital unit closures, as 200 urban counties lost one or more obstetric units between 2019 and 2020.²²

Women in rural areas are at higher risk for childbirth complications; rural hospitals report higher rates of hemorrhage and blood transfusions as compared to urban hospitals.²⁵ Additionally, 50 percent of women who live in rural communities, as compared to seven percent of women in urban areas, must travel greater than 30 minutes to reach an obstetric hospital.²⁵ This lack of access contributes to women in rural areas having a nine percent increased probability of maternal mortality or morbidity as compared to women in urban areas with greater access.²⁵

Figure 4: Hospitals and/or birth centers offering obstetric care by county, 2019



Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2021; American Association of Birth Centers, 2022.

BIRTH CENTERS

Birth centers have gained increased attention in recent decades²⁶ and are often synonymous with midwifery care. In general, birth centers are defined as health facilities that are independent from hospital systems or physicians and are dedicated to health during the perinatal period.²⁶ Birth centers can be free standing or co-located in a hospital and are a place of birth for women with low-risk pregnancies who wish to focus on natural birth in a home-like environment.^{26,27} Due to the nature of birth centers, they must be located within the vicinity of a hospital in the event that a higher level of care is needed.

Births at birth centers and planned home births are often defined together as community births. When the location of birth is a choice that a person has, data shows that people who choose community birth tend to value more autonomy and reduced use of medical intervention during the birthing process.²⁸ Multiple studies have shown that women who received care in a birth center throughout pregnancy, birth and postpartum were more likely to be satisfied when compared to those who received standard hospital maternity care.²⁶ This satisfaction has been attributed to the positive relationships with providers who deliver personalized and comprehensive care.²⁶

As of December 2021, there were 406 freestanding birth centers in the U.S.²⁹ These birth centers are in 255 counties across the country, as compared to 234 in 2020.³⁰ Twenty states have more than five birth centers and seven states have none.²⁹ The addition of birth centers across the country has had an impact on maternity care access. Since 2020, there has been an increased presence of birth centers in rural counties and counties with limited access to maternity care. Three percent of rural counties now have at least one birth center. The percentage of urban counties with at least one birth center has also increased from 16 percent to 17 percent since 2020.^{19,29}



The COVID-19 pandemic brought changes to the trends in birth center data. Though only 0.6 percent of all births in the U.S. were delivered in birth centers in 2020,¹⁰ this represents a 13.2 percent increase since 2019 or, 21,884 births. When discussing community births, the rates of non-hospital births in 2020 increase further. For decades, home births have made up less than one percent of all live births.³¹ Community birth rates during the pandemic (2020) increased to over one and a half percent (1.5%).¹⁰ This number reaches nearly two percent (1.9%) of all births when other types of non-hospital births are included. Overall, this represents a 19.5 percent increase in community births since 2019.³¹

The majority of women who utilize birth centers in the U.S. are non-Hispanic White (75.8%) and have private insurance (43.5%) (Table 5). Additionally, fewer Medicaid-covered births take place in birth centers (19.4%) as compared to hospital births (42.2%).¹⁰ These data points represent inequity in the demographics of women that are using, or have access to, birth centers. Barriers that may exist for women who are not presently accessing birth centers need to be identified and addressed so that birth centers remain an option for all interested birthing persons.

Table 5: Demographic and payment differences among hospital and birth center births, 2020

Demographic characteristic	Hospital births (n=3,541,612)	Birth center births (n=21,884)
White (%)	51.1	75.8
Rural (%)	5.3	4.3
Median household income*	\$68,272	\$70,002
Poverty (%)	13.7	12.3

Payment method	Hospital births (n=3,541,612)	Birth center births (n=21,884)
Medicaid (%)	42.2	19.4
Private (%)	50.8	43.5
Self-pay (%)	3.0	33.8
Other (%)	4.1	3.3

Notes: Hospital and birth center births were significantly different ($p < 0.001$) across all characteristics.

*Median household income and population in poverty within county of residence.

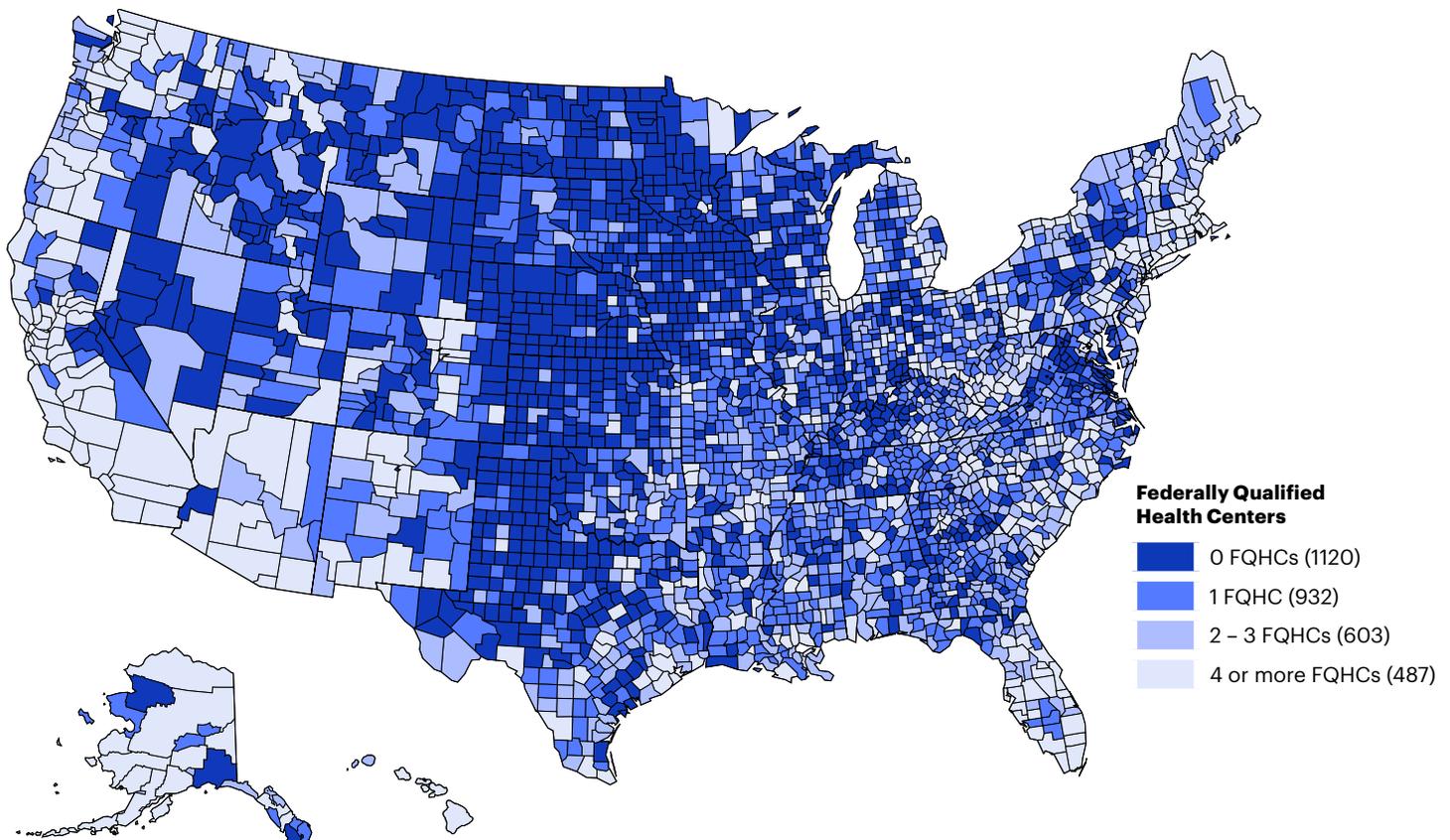
Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2021; National Center for Health Statistics. Final natality data, 2020.

FEDERALLY QUALIFIED HEALTH CENTERS

Federally Qualified Health Centers (FQHC) are located throughout the nation, receive federal grant funds through the Health Resources & Services Administration (HRSA) and provide primary care services in underserved areas or populations.³² FQHCs can take on many forms such as community centers or serve specific groups of people such as women or LGBTQIA+ and increase access to health care by offering services on a sliding-scale.³³ They're located in urban, rural and tribal settings. Prenatal care, gynecology and reproductive health services are examples of services that some FQHCs offer for women's care. Another way that FQHCs fill in maternity care gaps is through qualification for enhanced reimbursement from Medicaid, which helps providers receive reimbursement for services rendered.³⁴ Due to the nature of FQHCs, care can take place in non-traditional settings and at the com-

munity level with underserved populations. FQHCs may provide a unique opportunity to improve maternal care in low-income communities, as in the case of one clinic in Houston, Texas that increased the rate of women who received early prenatal care by 44 percent.³⁵ As of December 2021, 8,104 FQHCs were identified in this report as clinics that provide maternity care in the U.S. (Figure 6). Urban counties had an average of 3.5 FQHCs per county, while rural counties had an average of one. Nearly half (48%) of rural counties don't have an FQHC and at least 2.6 million Medicaid eligible women live in counties without an FQHC.¹⁹ Furthermore, over half (50.7%) of counties with no FQHC are maternity care deserts. FQHCs offering maternity care are an important part of the conversation around the elimination of maternity care deserts.

Figure 6: Federally Qualified Health Centers (FQHC) by county, 2021



Source: U.S. Health Resources and Services Administration (HRSA), Health Center Service Delivery and Look-Alike Sites, 2021.

PROVIDERS

Obstetricians (OBs), certified nurse-midwives (CNMs) and family physicians are all health care providers that can provide quality maternal care. As one factor in the designation of maternity care deserts (analyses excluded family physicians as they are not guaranteed to provide obstetric care), they are not distributed equally across the U.S. with 39.8 percent of counties lacking a single OB or CNM.¹⁹ Additionally, capacity for midwives in rural areas has potentially been underutilized.³⁶ Maternal care workforce shortages are intertwined with maternity ward closures and lead to barriers such as longer distance to travel and longer wait times for care, and are associated with increased out of hospital births and preterm births.³⁷ Efforts to monitor differences in the rural and urban maternal care workforce are important to move towards addressing gaps in care and access.³⁸ In 2019, nearly half of U.S. counties (47.9%) did not have an OB and over half did not have a CNM (55.1%).¹⁹ The percentage of counties in the U.S. that do not have OBs or CNMs has stayed consistent since the 2018 Maternity Care Deserts Report, with a 0.2 percent increase in the

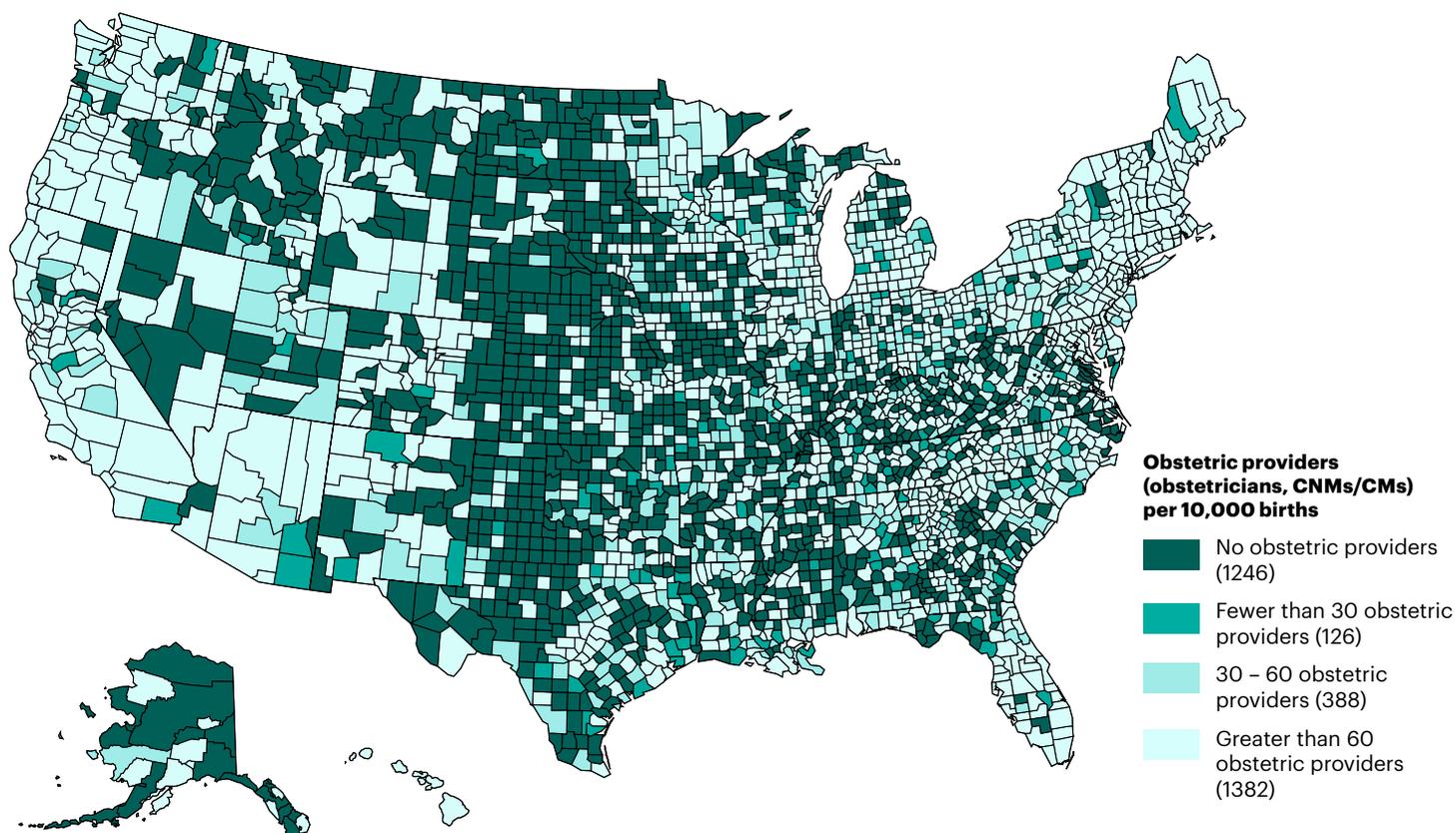
last four years (39.6% vs. 39.8%, respectively) (Figure 7).¹⁹ In 2019, more than 2.5 million women of reproductive age lived in counties without obstetric providers and over 170,000 births occurred in these counties.¹⁹

Obstetricians

Obstetricians are far more likely to work in metropolitan counties, with an estimated fewer than 10 percent of obstetric providers practicing in rural areas.³⁹ In 2019, rural counties also had nearly half as many obstetric providers per 10,000 births as compared to urban counties (26.7 vs. 58.0 per 10,000 births, respectively).¹⁹

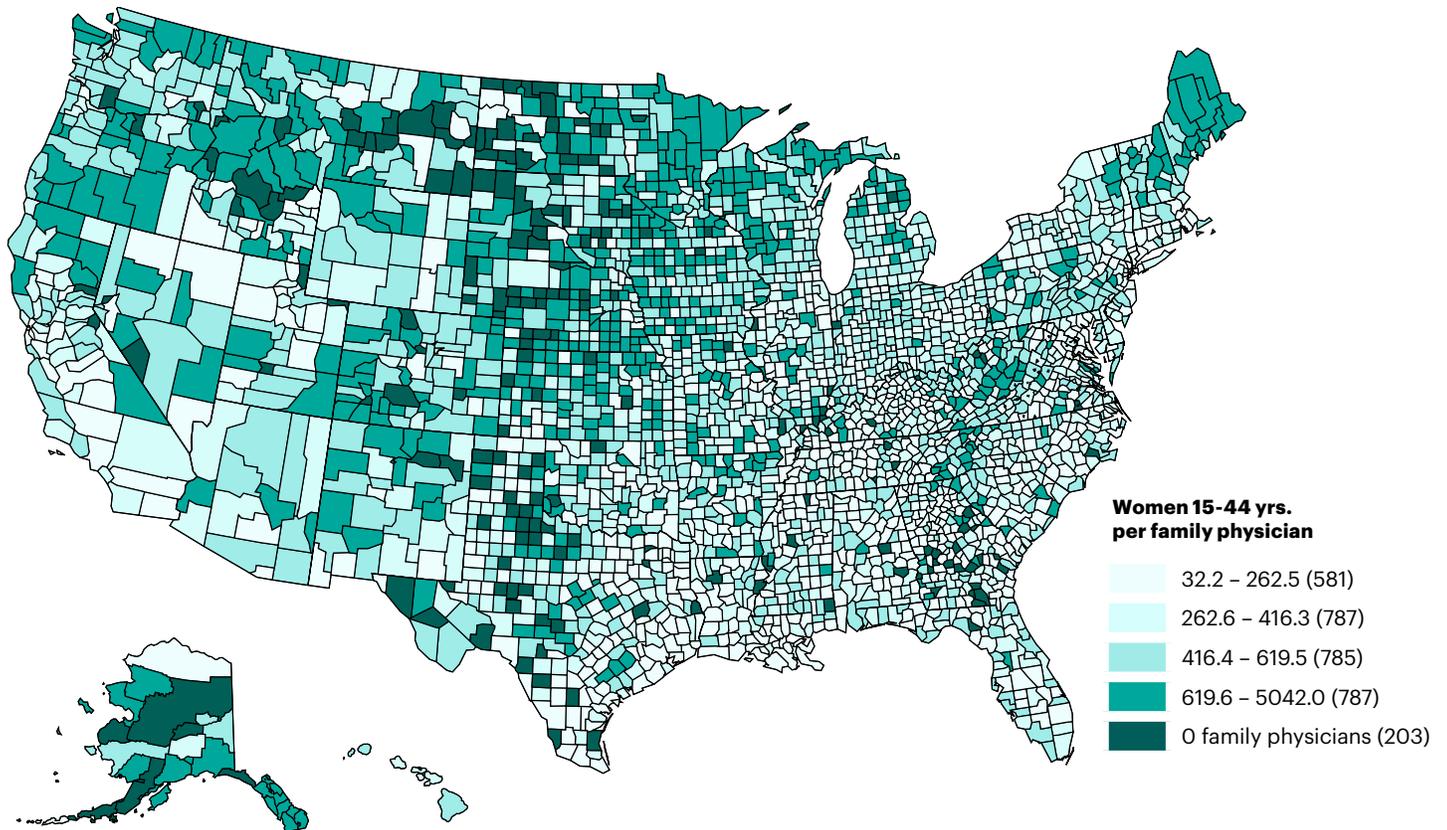
In response to the diminishing access to maternity care in rural areas, the Federal Office of Rural Health Policy created the Rural Maternity and Obstetrics Management Strategies (RMOMS) in 2019.⁴⁰ The aim of the grant funds is to form regional networks of OB providers to fill gaps in care.

Figure 7: Distribution of obstetric providers by county, 2019



Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2021.

Figure 8: Distribution of women of childbearing age per family physician by county, 2021



Source: American Academy of Family Physicians, 2021.

During the past two years, the COVID-19 pandemic has exacerbated staffing shortages, complicated care delivery and decreased certainty about the future of providing obstetric care in rural areas.^{15,41,42} Obstetric providers faced numerous changes to the provision of care, including: personal protective equipment shortages, transition to virtual communication, protocols for COVID-positive moms and delivery room personnel restrictions.¹⁵

Family physicians

Although family physicians who offer delivery services have decreased since 2000,⁴³ these health care providers are considered an integral part of the maternity care workforce. Family physicians help to provide care in maternity care deserts and in rural, small or isolated communities. In rural areas the likelihood of a delivery by a family physician is increased³⁶ and often these may be supported virtually by specialists in urban areas.^{25,44} Although 23 percent of newly graduated family physicians report an interest in providing maternity care, only eight percent are currently providing these services.⁴⁵

Many of these physicians report being unable to find a position that was providing obstetric services. Additionally, malpractice, hospital closures, volume issues and lifestyle concerns were listed as concerns or barriers to family physicians practicing obstetric care.⁴⁶

While nearly 40 percent of counties in the U.S. do not have an obstetrician or CNM,¹⁹ only 6.5 percent of counties (204) do not have a family physician (Figure 8).⁴⁷ Of the counties without a family physician, 93.1 percent were maternity care deserts and four in five (82.4%) were rural.^{19,47} Furthermore, 6.1 percent of counties (193) do not have an obstetrician, CNM, or family physician.⁴⁷ This opens opportunity for family physicians to fill the gap in providing maternity care in maternity care deserts.

Midwives

Certified Nurse Midwives (CNM) and Certified Midwives (CM) provide a full range of primary health services to women throughout the lifespan as well as during their childbearing years.⁴⁸ According to the American Mid-

wifery Certification Board, as of August 2021, there were 13,403 CNMs/ CMs in the U.S.⁴⁹ Twenty-five states have full practice authority for CNMs, while the others impose restrictions including supervision and/or a collaborative agreement with a physician. Certified Professional Midwives (CPMs), who primarily provide care for out of hospital or community births, are legally authorized to practice in 35 states.⁵⁰

Previous research has shown benefits to using a midwife during pregnancy and postpartum periods for women. Midwifery care has been associated with an increased chance of having a low-intervention birth and lower cost of care due to significantly lower odds of medical intervention. Additionally, it has been associated with possible reduction of preterm birth and other adverse birth outcomes, such as decreased all-cause fetal loss (up to four weeks after birth).⁵¹ Higher odds of several positive birth outcomes are associated with midwifery care including vaginal birth after Cesarean (VBAC), vaginal birth and breastfeeding.⁵²

Women living in rural areas deliver babies with a licensed midwife (CNM/CM) 12.5 percent less often than women living in urban areas. Rural Black women experience the largest gap in licensed midwife attendance as they are 58.7 percent less likely to deliver with a licensed midwife than those in urban counties. Native American women, however, deliver babies with a licensed midwife 11.5 percent more often in rural

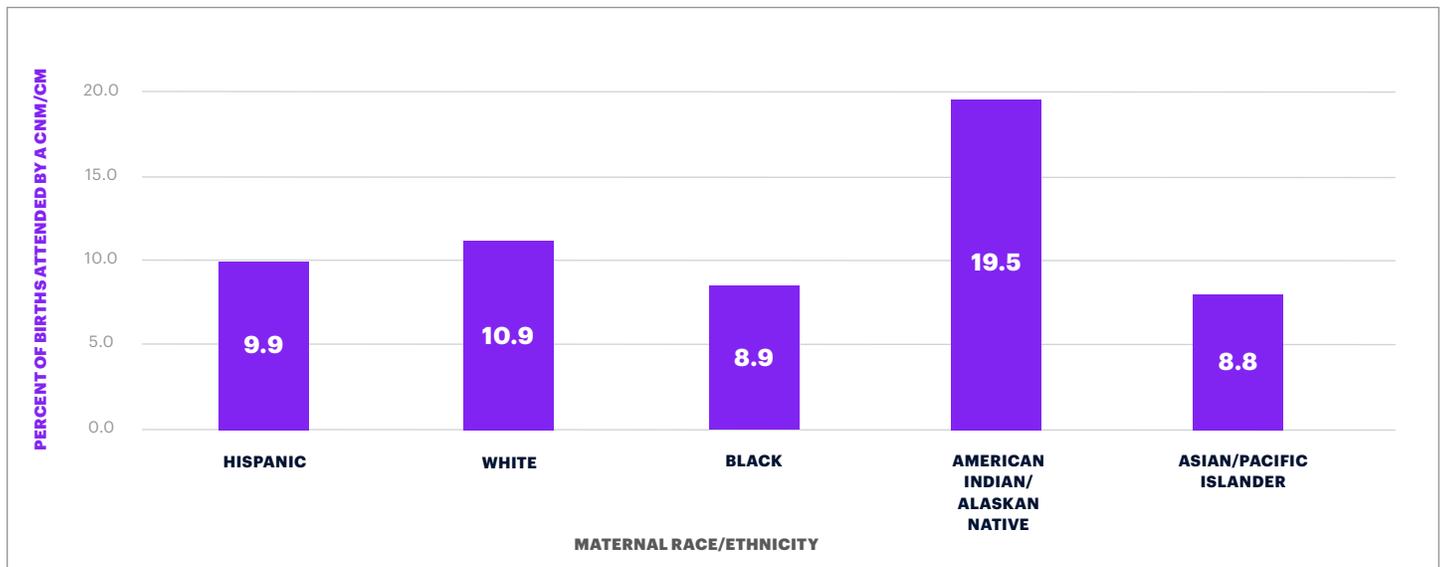
counties as compared to urban areas.^{10,19} Overall, Native American women are more likely than other racial and ethnic groups to birth with a licensed midwife (19.5%) (Figure 9).¹⁰

Access to the use of midwives can be an issue considering that births attended by a licensed midwife have a lower rate of Medicaid utilization (38.5%) when compared to physician attended births (42.4%).¹⁰ In 2020, 87.8 percent of births were attended by a physician and 10.3 percent were attended by licensed midwives. Of the percent attended by midwives, CNMs attended 52.8 percent of birth center births and 30.8 percent of intended home births. Within hospitals, 89.5 percent of births were attended by a physician and 9.9 percent were attended by licensed midwives. In the same year, the proportion of births attended by a CNM or CM was five percent or less in Alabama, Arkansas, Louisiana, Mississippi, Oklahoma and Texas. Alternatively, more than 1 in 5 births were attended by a midwife in Alaska, Maine, New Hampshire, New Mexico, Oregon and Vermont.¹⁰

Maternity care remains a challenge with the ongoing COVID-19 pandemic. During the first year of the pandemic (2020), there was a five percent increase in births attended by midwives from 2019 (9.8%) to 2020 (10.3%).¹⁰ The work of midwives can be considered demanding⁵³ and the environment of a global pandemic certainly added obstacles.



Figure 9: Percentage of births attended by midwives*, by race/ethnicity, United States, 2020



Source: National Center for Health Statistics. Final natality data, 2020.
*Includes CNMs/CMs.

In the U.S., midwives working through the pandemic in the home birth and birth center settings saw a reported increase in requests for transfer to out-of-hospital births.⁵⁴ Among maternal health care providers that rendered services in early 2020 in homes and birth centers, midwives were more likely to report increased work hours and number of deliveries than their hospital-based counterparts.⁵⁴ Adding to these challenges, the midwifery workforce has suffered, both full and part-time midwifery jobs were lost early on.⁵⁵ Sustainability for the profession wavered when midwifery students saw a decrease in training opportunities in the first year of the pandemic.⁵⁵ Ongoing adaptation will be essential to continue providing high-quality care for moms across the nation.

At a time when our country is experiencing a shortage of maternal health providers, expanding access to midwives and midwifery-led care can help fill the void,

while possibly improving certain outcomes for low-risk people. The Accreditation Commission for Midwifery Education (ACME) has seen no growth in the number of accredited midwifery education programs nationally between 2009 and 2018 and overall, the programs are operating below full capacity, with an average of 135 vacancies each year.⁵⁶ In 2018, 72.7 percent of midwifery students in ACME programs were White and only 0.4 percent were Native American.⁵⁶ March of Dimes encourages states to ensure that their laws foster access to midwifery care and also supports efforts to further integrate their model of care, with full autonomy and pay parity, into maternity care in all states.

DOULAS

Doulas are trained professionals who provide non-medical support to pregnant and birthing persons during pregnancy, birth and postpartum.⁵⁷ Doulas provide physical, emotional and informational support and evidence suggests that using a doula is associated with better maternal outcomes for women in labor.^{57,58} Overall, women report greater satisfaction with the birthing experience when accompanied by a doula.⁵⁹ Continuous, one-to-one support during labor, such as that provided by a doula, is supported by the American College of Obstetricians and Gynecologists (ACOG) and is associated with a decrease in use of medical interventions during the birth process.^{58,60}

At the beginning of the ongoing COVID-19 pandemic, many hospitals, and some birth centers—globally and in the U.S.—had severe restrictions on doula support during childbirth.⁶¹ For doulas, the definition of ‘essential worker’ became dependent on rapidly changing hospital protocols and preferences of health providers, while adhering to stay-at-home orders set by local governments.⁶¹ These changes left

doulas out of delivery rooms and pregnant women faced limited support during labor, an aspect that doulas reported being most concerned about at the time.⁶¹ By early 2022, most of these policies have been reversed or expanded to allow a secondary support person for delivery.

March of Dimes continues to support the work of doulas, through advocating for policies that increase capacity for reimbursement of doula care through a full range of insurance programs, including Medicaid and Children’s Health Insurance Program (CHIP). March of Dimes also supports building the doula workforce through increased access and opportunity for professional training and in developing support and capacity for doulas from diverse backgrounds.⁶²

As of August 2022, there were 32 states (including D.C.) that had proposed legislative efforts to provide doula services and/or Medicaid reimbursement. Out of these 32 states, five were actively reimbursing doula services on Medicaid plans and seven were in the process of implementing Medicaid doula benefits.⁶³



POSTPARTUM CARE

The postpartum period is generally defined as care occurring up to 12 weeks after childbirth⁶⁴ and can be a challenging time for some women to receive care. Nearly one-third of women experience changes to or loss of insurance coverage in the postpartum period.⁶⁵ Medicaid-covered pregnant women are most likely to experience loss of coverage due to the 60-day coverage limit.⁶⁶ During the COVID-19 pandemic, access to care was broadened due to large increases in consistent Medicaid coverage and efforts to prevent disenrollment.⁶⁷

Most postpartum appointments are scheduled four to six weeks after birth, and consist of one appointment. In 2019, one in 10 women did not receive a postpartum checkup. Women 30-39 years were the most likely to attend a postpartum checkup (92.9%) and women less than 20 years were the least likely (84.6%). Hispanic women were less likely than White and Black non-Hispanic women to attend a postpartum checkup (86.6% vs. 92.9% vs. 88.3%, respectively) and women with Medicaid were more likely than women without Medicaid to attend their postpartum checkup (92.9% vs. 84.2%, respectively).⁶⁸

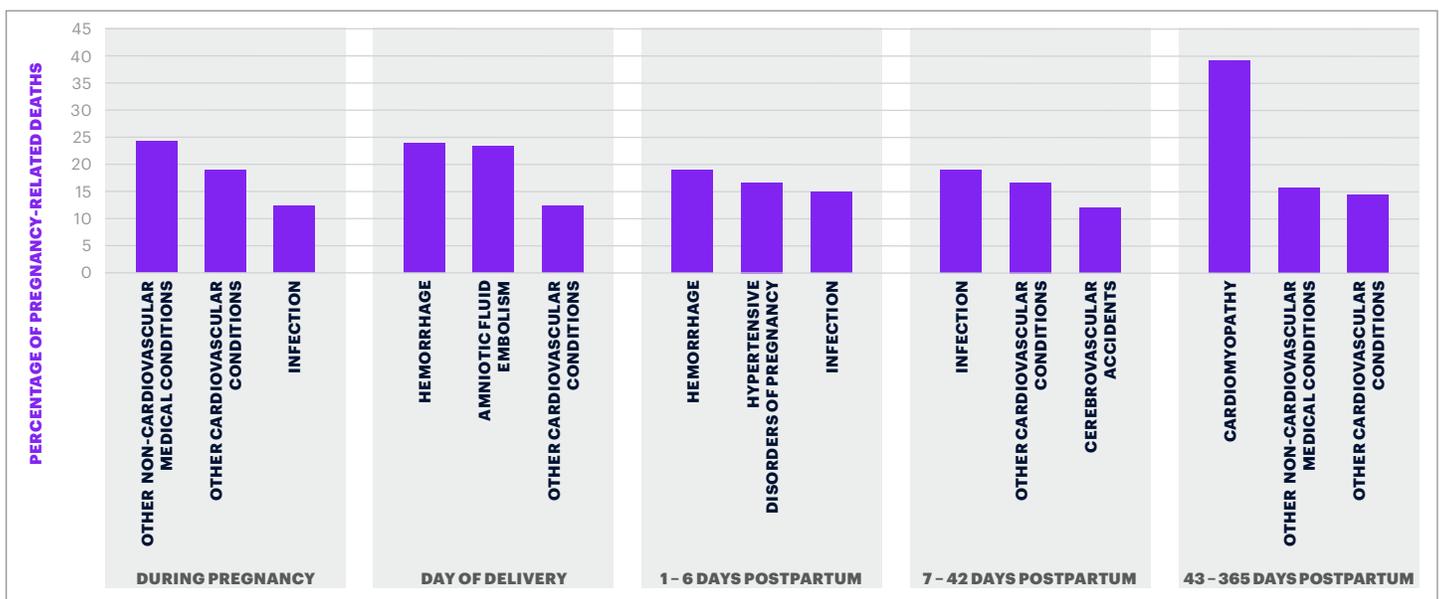
Updated guidelines recommend ongoing care starting no later than three weeks after birth and including a comprehensive visit around 12 weeks postpartum.⁶⁴ The ‘fourth trimester’ is an important time to address conditions that could affect the health of the birthing parent throughout their life. Postpartum support is especially important for parents who experienced complications during pregnancy or birth and/or live with chronic diseases^{69,70} including men-

tal health issues, diabetes and hypertension. Access to care by geography, lack of insurance or ability to attend appointments can lead to gaps in care and missed opportunities to prevent maternal morbidity and mortality. One in three (33%) of pregnancy-related deaths occur in the postpartum period (one week to one year after birth),⁷¹ and approximately 63 percent of all maternal deaths are preventable.⁶ Consistent access to postpartum care could help to prevent maternal mortality and morbidity.⁷²

Many people experience mental health challenges during pregnancy and the postpartum period, such as depression, anxiety or post-traumatic stress disorder. Perinatal depression affects 1 in 8 women⁷³ and evidence has shown that the highest risk of postpartum mental health incidence occurs within the first four months after birth. Women who experience severe maternal morbidity were twice as likely to experience postpartum substance use disorder.⁷⁰ Non-Hispanic Black women report postpartum depression at a higher rate than non-Hispanic White and Hispanic women (19.1% vs. 11.9%, respectively).⁶⁸ Anxiety occurs in approximately 10 percent of women during the postnatal period.⁷⁴ Approximately six percent of women report both postnatal anxiety and depression.⁷⁵

March of Dimes strongly supports efforts to improve screening, diagnosis and treatment for people with maternal mental health disorders. Five key elements that are critical to improving maternal mental health include: access to care, universal screening, referral and treatment, education and surveillance of maternal mental health disorders.⁷⁶

Figure 10. Three most frequent causes of pregnancy-related deaths, by time relative to the end of pregnancy — Pregnancy Mortality Surveillance System, United States, 2011–2015



Source: Petersen EE, Davis NL, Goodman D, et al. Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. *MMWR Morb Mortal Wkly Rep* 2019;68:423–429.

HEALTH INSURANCE BEFORE, DURING AND AFTER PREGNANCY AMONG BIRTHING PERSONS

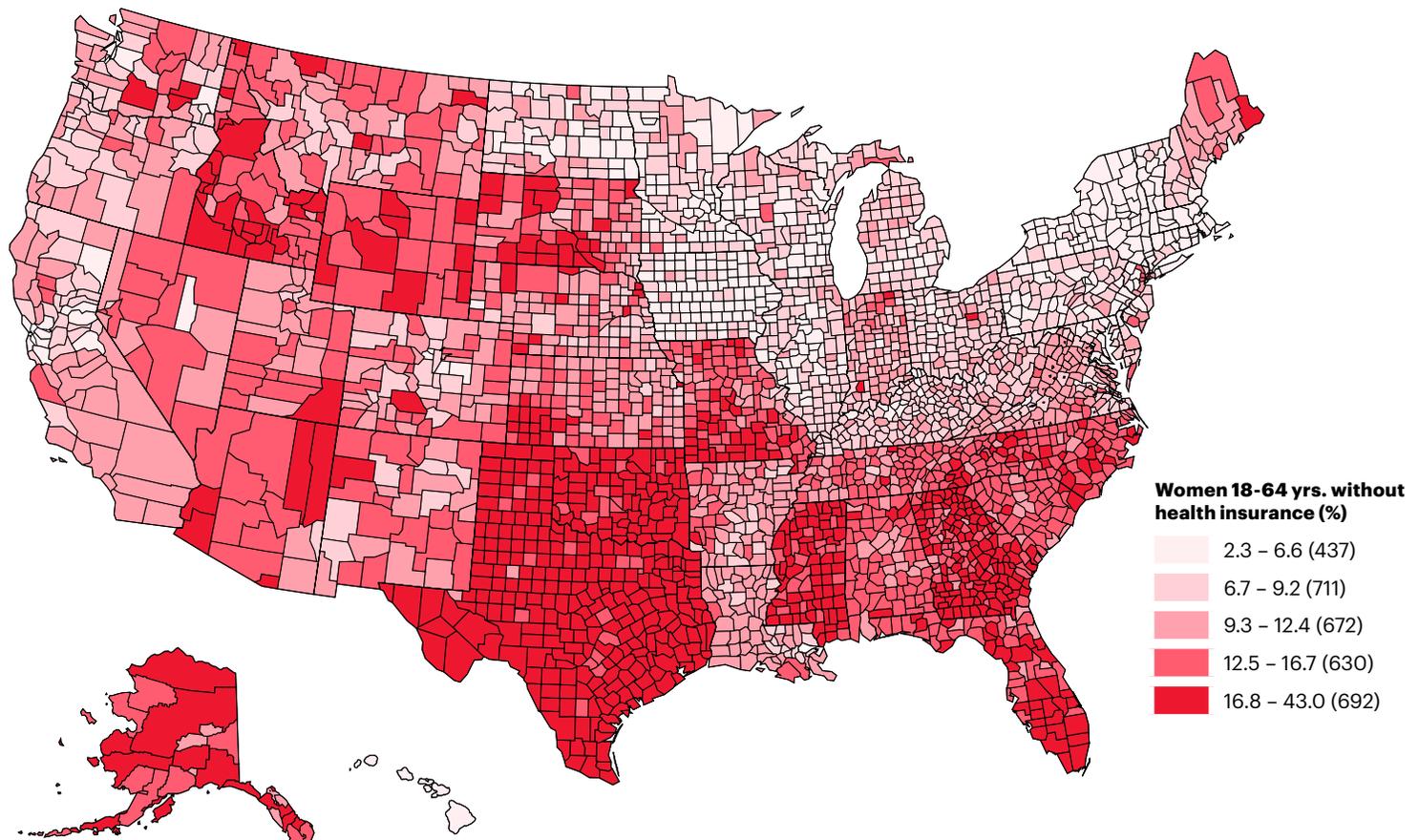
Access to health insurance during the childbearing years is especially important when considering the health implications of receiving good preconception, prenatal and postpartum care. Continuous high quality health care in all three time periods can lead to better health outcomes for both mom and baby. Before pregnancy, the goal is to help people modify behaviors and other risk factors that contribute to adverse health outcomes, as well as to educate them on healthy pregnancy.⁷⁷ During pregnancy, access to health care can help prevent complications that come from unmanaged chronic disease, obesity or sexually transmitted diseases.⁷⁸ After pregnancy, health insurance facilitates accessibility for at least one touchpoint with a health care provider during the fourth trimester — a critical time of transition for both moms and babies.

For decades, there has been a push to improve preconception health for women of childbearing age.⁷⁸ Stalled prog-

ress to improve pregnancy outcomes has, in part, pointed towards inconsistent health interventions before pregnancy.⁷⁸ In 2019, over 55 percent (1,802) of all U.S. counties had a greater than 10 percent proportion of women without health insurance.¹⁹ This remained true in 2020, with 11 percent of women aged 19-64 uninsured in the U.S.⁷⁹ Uninsured women often do not have adequate access, receive a lower quality of care and use fewer preventative services.⁷⁹ March of Dimes advocates for all women to be as healthy as possible before conception.

Across counties with full access to maternity care, the variation in health insurance rates is evident. Nearly half (48%) of the counties with full access to maternity care have a high proportion of women without health insurance (10% or more). Two-thirds (67%) of maternity care deserts have a high proportion of uninsured women (Table 3).¹⁹ Since the first March of Dimes Ma-

Figure 11: Percentage of women without health insurance by county, 2019



Source: U.S. Health Resources and Services Administration (HRSA), Area Health Resources Files, 2019.

ternity Care Deserts Report in 2018, there's been a four percent reduction in uninsured women in full access counties (Table 1).¹⁹ The proportion of uninsured women ranges from 2.3 percent (Norfolk, Massachusetts) to 43 percent (Hidalgo, Texas). Massachusetts has the lowest proportion of uninsured women with a state average of 3.5 percent, while Texas has the highest proportion with an average of 23.3 percent uninsured women.¹⁹

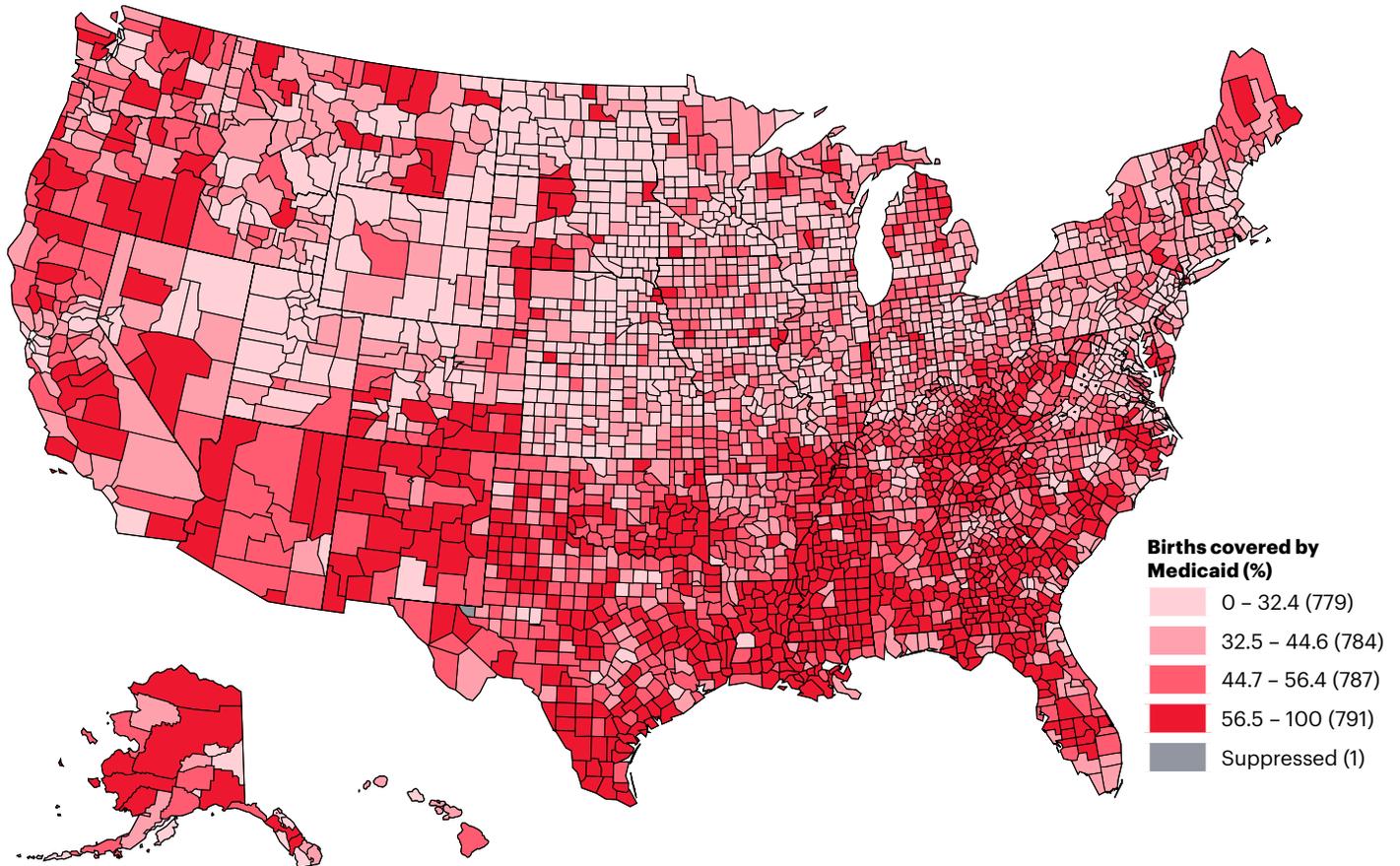
Federal law continues to mandate that all states must provide Medicaid coverage to pregnant women with incomes up to 133 percent of the federal poverty level (FPL) through 60 days postpartum. In 2020, Medicaid covered the delivery care costs of more than 1.5 million pregnant women or 42 percent of births in the U.S. (Figure 12), nearly half of which are Black, Hispanic or Native American women.⁸⁰ A unique issue for Medicaid-funded births is that health care providers are reimbursed less than private insurance for equal prenatal and delivery services, an issue especially pertinent in rural locations with higher Med-

icaid utilization.⁸¹ A consequence of this may be the worsening of access to maternity care for those insured by Medicaid.

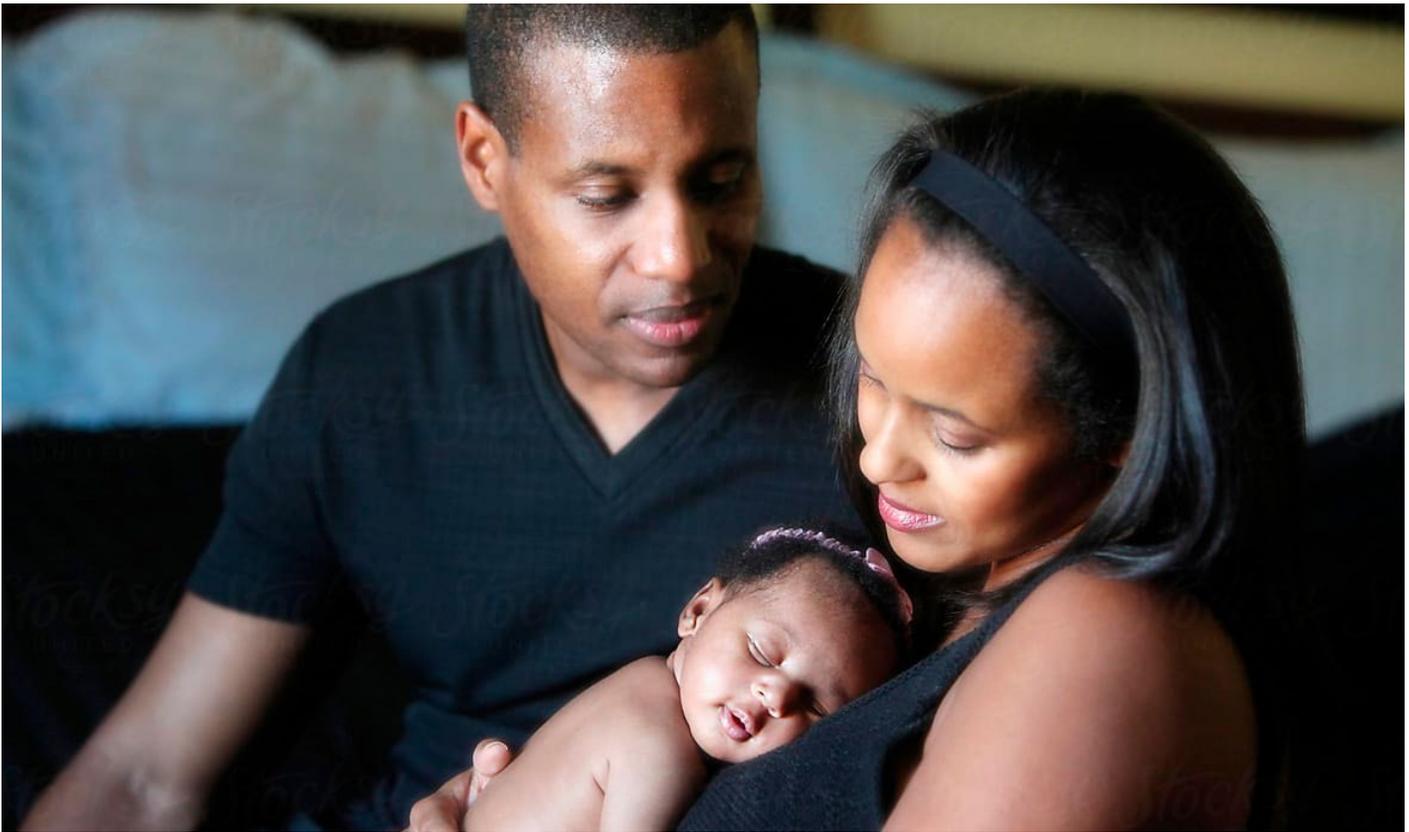
In states that have adopted Medicaid expansion, many women are able to remain on Medicaid after giving birth because of the higher eligibility threshold for parents. However, in the 12 states that have not adopted Medicaid expansion, many women lose Medicaid coverage 60 days after the birth of their child.⁸² Out of the states without expansion, several have recently proposed legislative action towards expanding Medicaid. Kansas, Mississippi and North Carolina have each attempted to make progress towards Medicaid expansion but lacked bipartisan support.⁸² There is another option to reduce postpartum coverage loss by raising income eligibility thresholds for parents. This could extend Medicaid eligibility to more low-income families and partially close the coverage gap for non-expansion states.⁸³

March of Dimes has long advocated in support of efforts to extend postpartum Medicaid coverage beyond

Figure 12: Percentage of births covered by Medicaid, by county, 2020



Source: National Center for Health Statistics. Final natality data, 2020.



60 days to a full year. Beginning April 2022, to help improve coverage stability, a provision of the American Rescue Plan Act of 2021 gives states a new option to extend Medicaid postpartum coverage to 12 months and is available for five years.⁸⁴ As of August 18, 2022, 24 states and D.C. have Center for Medicare and Medicaid Services (CMS) approval to extend postpartum Medicaid coverage to 12 months, these states include; California, Connecticut, Oregon, Washington, New Mexico, Massachusetts, Minnesota, Michigan, Illinois, Louisiana, Ohio, Kansas, Kentucky, Tennessee, Florida, North Carolina, South Carolina, Virginia, Maryland, Pennsylvania, New Jersey and Maine, West Virginia and Washington D.C.⁸⁴ As many as 37 states have enacted or have pending legislation to seek federal approval through a State Plan Amendment (SPA) or 1115 Waiver.⁸⁴ If all states adopt this option, as many as, 720,000 people across the U.S. annually could be guaranteed Medicaid and Children's Health Insurance Program (CHIP) coverage for 12 months after pregnancy. March of Dimes urges Congress to now take the next step to make 12 months of postpartum coverage mandatory and permanent under all state Medicaid and CHIP programs.

During the Public Health Emergency (PHE) for the COVID-19 pandemic, Medicaid programs have seen

growth in enrollment. State Medicaid and CHIP have added nearly 10 million enrollees since the beginning of the pandemic.⁸⁵ It's critical that women maintain access to coverage and are not subject to disruption to access due to varying policies in the unwinding of the PHE.

As the COVID-19 PHE comes to an end, states will have to navigate the end of Medicaid and ACA marketplace flexibilities. Most of the new Medicaid enrollment seen during the pandemic was from continuous coverage requirement mandated by the Families First Coronavirus Response Act of 2021 which prohibited state Medicaid agencies from dis-enrolling beneficiaries during the PHE. Legislators also expanded and enhanced ACA marketplace subsidies. While these subsidies are not tied to the PHE, they are set to expire at the end of 2022. While many people would be eligible for insurance coverage through CHIP, or the Marketplace, not everyone would enroll since these plans may be more costly than Medicaid. March of Dimes recommends policies and guidelines that encourage communication between Marketplaces and Medicaid agencies as essential to reducing preventable losses of health coverage.

CHRONIC DISEASE AND PREGNANCY

An increasing number of pregnant people in the U.S. have chronic health conditions that may put them at higher risk of complications both during pregnancy and postpartum.⁸⁶ Conditions such as chronic hypertension, substance use disorder and chronic heart and kidney disease have all seen steady increases in rates for pregnant women.⁸⁷ Increasing disparities in these chronic conditions are seen among pregnant women as there's an increased likelihood of them being from low-income and rural communities.⁸⁷ Pre-pregnancy obesity, mental illness and substance use are also conditions that have been associated with poor maternal health outcomes and may be influenced by social determinants of health such as lack of access to healthy foods, suboptimal employment and wages and other chronic stressors. Having a pre-existing chronic disease is associated with higher risk of adverse birth outcomes including preterm delivery, Cesarean birth and severe maternal morbidity and mortality.⁸⁸ The risk of poor outcomes increases with the number of co-existing conditions.⁸⁸ For decades, maternal mortality and morbidity have been rising in the U.S.^{89,90} Rising rates of complications from chronic diseases are a leading cause of the increase in morbidity and mortality in pregnant women.⁸⁸

During pregnancy, management of chronic conditions is imperative to reduce adverse maternal and neonatal outcomes. Recommendations to improve maternal health outcomes and prevent maternal death include incorporating comprehensive care for women with high-risk comorbidities before, during and after pregnancy as well as providing education on warning signs of complications during pregnancy.⁸⁹ Both recommendations require continuous access to health care which may be difficult for people residing in maternity care deserts.

In collaboration with March of Dimes, Deloitte's Health Equity Institute (DHEI) and HealthPrism™ created a [tool](#) to examine the connection between areas with high concentrations of selected chronic diseases and areas with little to no maternity care. The analysis includes likelihood of the following conditions: asthma, pre-existing diabetes mellitus, hypertension and substance use disorder. The likelihood of tobacco use was also analyzed. In maternity care deserts 21 percent of women are likely tobacco users (smokers). This statistic equates to roughly 47 percent more smokers in the observed population living in maternity care deserts counties compared to full access counties. The second most prevalent condition for women living in maternity care deserts was women with likelihood of chronic hypertension (about 17%) which amounted to roughly 39 percent higher prevalence of likelihood of hypertension in maternity care deserts counties compared to full access to care



counties. Additionally, women in maternity care deserts are more likely to have been diagnosed with a substance use disorder as compared to full access counties (18% and 14%, respectively).

Examining data by maternity care access level, women in maternity care deserts are more likely to have hypertension, substance use disorder and use tobacco (smokers) as compared to those living in full access counties.⁹¹

2.3% OF PREGNANT WOMEN ARE AFFECTED BY CHRONIC HYPERTENSION ⁹²

ACCESS THE MATERNITY CARE DESERTS AND HEALTH EQUITY INTERACTIVE TOOL:

<https://bit.ly/3NzDPga> 

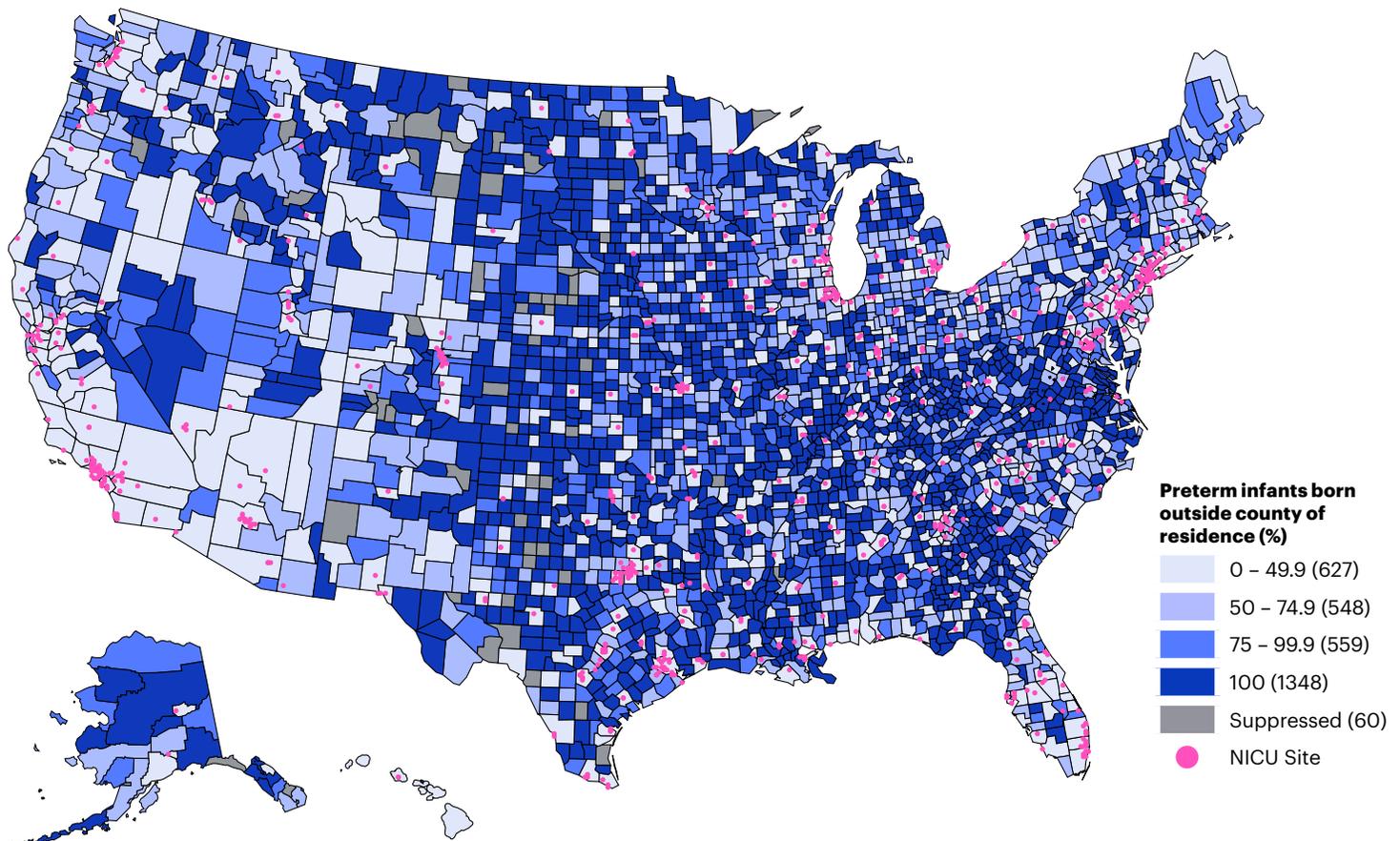
PERINATAL REGIONALIZATION AND RISK-APPROPRIATE LEVELS OF CARE

Perinatal regionalization and risk-appropriate levels of maternal care are centered around the concept of establishing delivery of care systems at state or regional levels that enable women and babies to receive care in a place equipped to appropriately attend to the level of care needed, before, during and after childbirth.^{93,94} Jointly developed by ACOG, the Society of Maternal-Fetal Medicine (SMFM) and subject-matter experts, established levels of care that range from accredited birth centers, level I (basic care), level II (specialty care), level III (subspecialty care) and level IV (regional perinatal health care centers).⁹⁵ Although closely related, separate systems for maternal and neonatal care are needed to ensure safety for both moms and babies. ACOG maintains that recommendations for how to structure risk-appropriate maternal care systems should remain as recommendations and take into account that individual differences in geography and local environment will affect implementation.⁹³

Regionalized care networks are important factors in improving maternal and neonatal health outcomes. Women with high-risk pregnancies that deliver in high-level hospitals have decreased risk of severe maternal morbidity than women with high-risk pregnancies who deliver in low-level hospitals.⁹⁶ This suggests that improvements in regionalization may affect maternal outcomes on a larger level. For infants, there are decades of evidence showing lower neonatal death rates for high-risk infants who are delivered in an appropriate level of care facility.⁹⁷ Additionally, infant morbidity decreases when the baby is transferred to appropriate care in utero, instead of after birth.⁹⁷

Despite decades of regionalization efforts, there's a large degree of variation in implementation and successes across the U.S. The most recent study on policies for neonatal and maternal transport showed that the majority of states had state level policies; 68 per-

Figure 14: Percentage of preterm infants born outside county of residence and NICU sites, 2020



Source: American Hospital Association, 2020; National Center for Health Statistics. Final natality data, 2020.



cent for neonatal transport and 60 percent for maternal transport.⁹⁸ Reimbursement for transport at the state level has higher uptake among neonatal transport as compared to maternal care (62% vs. 20%, respectively).⁹⁸ Even with defined levels of care, lack of oversight of regionalized systems and differences in state policies affect consistency in implementation.⁹⁹

Although the aim of perinatal regionalization is to set up a care referral system in advance of emergencies when higher level of care is needed, people who deliver preterm may need to travel outside their county of res-

idence to receive risk-appropriate care during delivery. In 2020, there were 1,347 counties (42.9%) where every preterm infant was born outside their county of residence, indicating a need for families to travel to receive risk-appropriate care (Figure 14). Nearly 300,000 women with high-risk pregnancies lived in counties without high-level obstetric beds in 2020.^{10,100} Additionally, nearly 80,000 infants admitted to neonatal intensive care units (NICUs) were born to families that lived in counties without NICU beds. At a state level, Wyoming has zero NICU beds.

ACCESS TO TELEHEALTH DURING PREGNANCY

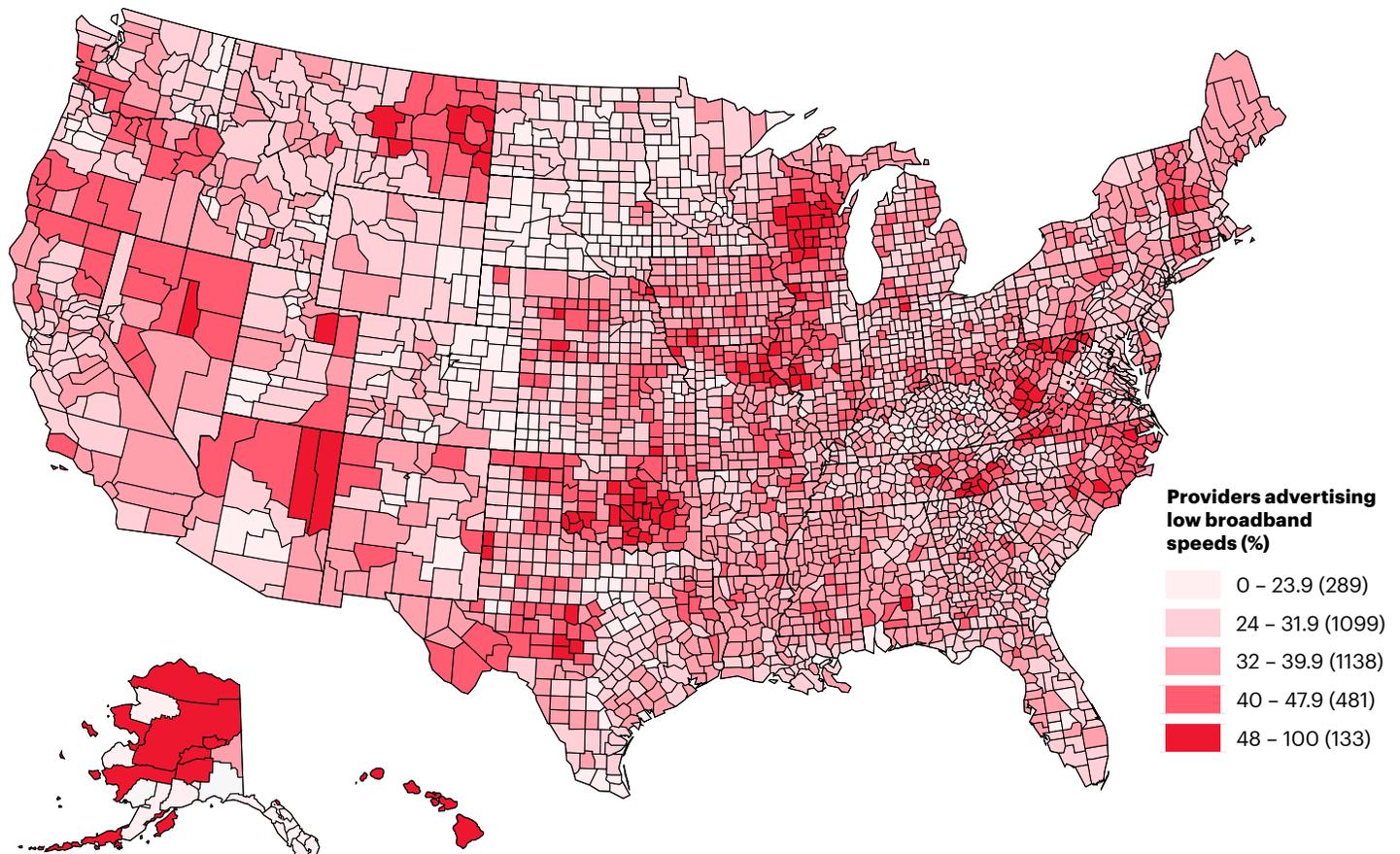
Telehealth is health care that is delivered and received through the use of technology to replace or enhance in-person care. In obstetrics, telehealth exists in nearly every aspect of care from remote observation of ultrasound recordings to postpartum blood pressure tracking, however, development of evidence-based practices may lag with technology uptake.¹⁰¹ A review of literature encompassing a wide-range of maternal health services found that telehealth has worked well in areas reinforcing health behaviors such as smoking cessation during pregnancy and breastfeeding. Additionally, remote monitoring and virtual visits can help where there are barriers to attending in-person care, including care for high-risk pregnancies.⁹⁹

Understanding geographic access to technology as a barrier to telehealth is essential in providing equitable access across the U.S. Rural communities are known to have reduced access to broadband when compared to urban communities and when assessed, the greatest

reported challenge for attending telemedicine visits in rural areas was connectivity issues.¹⁰² Despite many advances in internet access over the years, the availability of broadband is not universal and disparities in the technology needed to access telehealth are seen in rural communities and by household income.¹⁰³

In 2020, over 600 U.S. counties (19.5%) had low telehealth access.¹⁰⁴ This was defined as at least 40 percent of consumer broadband providers within a county advertising low speed, less than 25 download/3 upload Mbps (Figure 15), which is the Federal Communications Commission (FCC) established minimum speed needed for acceptable broadband access.¹⁰⁵ This suggests that there are geographic regions of the U.S. that may have limited access to acceptable broadband, reducing the reach of telehealth for those who may benefit from its use the most. Areas with the least acceptable broadband access were more likely to have limited access to maternity care.^{19,104}

Figure 15: Percentage of fixed consumer broadband providers advertising low broadband speeds, by county, 2020



Source: Federal Communications Commission, Fixed Broadband Deployment Data: December 2020, 2021.

Nearly 70 percent of the 76 counties identified with the highest proportion of low-speed providers (50% or more) did not have full access to maternity care, as compared to 54 percent of higher access counties.^{19,104} Improvements to broadband infrastructure may provide opportunities for telehealth to serve as a method of care delivery for those who otherwise have barriers to receiving care. Incorporating telehealth into existing obstetric care models, such as the addition of virtual prenatal care visits when appropriate, has the potential to better serve those who live in maternity care deserts or areas with limited access.¹⁰⁶

The global COVID-19 pandemic has created a greater reliance on telehealth practices. A nationwide need to narrow the digital divide, or the gap between availability of internet access for low and high-income households, became imminent as many tasks of daily life became virtual.¹⁰³ Virtual care quickly entered as an essential component that needed quick adjustments to continue to provide quality maternity care. Early evidence suggests that using virtual care may be a positive long-term option to replace some traditional in-person appointments, as in the case of home visiting programs.¹⁰⁷ State and federal governments have made several changes to facilitate access to telehealth, such as granting waivers to insurers and regulators for telemedicine regulations and mandating that private insurance plans cover telemedicine if they cover the same services when those services are provided in person. This policy change has rapidly expanded the

prevalence of state-level telemedicine parity laws that apply to private health insurance plans. Provider payment parity mandates reassure providers that they'll be reimbursed for telemedicine. This reassurance likely encourages providers to increase telemedicine visits as well as to invest in needed infrastructure such as technology, staff, different clinical scheduling and assistance for patients in obtaining and using telemedicine technology.¹⁰⁸

March of Dimes has long supported increasing access to telehealth services across a range of health care specialties. March of Dimes suggests several policies and guidance that focus specifically on telehealth in maternity care. Utilizing access to telehealth services is proposed as one of the ways to eliminate barriers and reduce disparities in access to early prenatal care. Additional ways include standardizing state Medicaid programs to include obstetric and pregnancy-related care in telehealth reimbursement laws and ensuring all payers provide coverage for evidence-based telehealth services for pregnant and postpartum persons. In regards to payment strategies, March of Dimes suggests alignment of telehealth reimbursement approaches across payers, as well as support for continued research and evaluation of telehealth programs for pregnant and postpartum women. Finally, there's a need to increase equitable and affordable patient and provider telehealth technology, training and support, including access to high-speed broadband internet services in rural and urban areas.¹⁰⁹



CONCLUSIONS

In this latest report on the status of maternity care in the U.S., March of Dimes identifies a slight increase in counties designated as maternity care deserts. With 6.9 million women living in areas of low or no access to maternity care, it is imperative that we address opportunities to increase maternity care in these areas. Additionally, counties designated as maternity care deserts are socially and economically disadvantaged. This compounded lack of access increases the risk of poor maternal and neonatal outcomes.

Even in light of the lack of change in the access to care for women, we highlight opportunities to make significant differences in the lives of birthing people. We continue to advocate for policies that help lessen the burden felt by birthing people and their families. Systems of appropriate care by risk level is one of these examples. Opportunities exist to improve access through expanding Medicaid and extending Medicaid postpartum coverage to 12 months. Expanding access to midwifery care and doulas and providing greater access to telehealth through improved infrastructure are other ways to improve maternal health in the U.S.

The COVID-19 pandemic certainly affected maternity care over the past two years. The challenges faced by the health care community have created additional gaps and challenged maternal care providers to find creative ways to continue to provide quality care. Although some temporary gains in access to health care were seen through the Public Health Emergency executive orders, we hope lessons are learned for long-term solutions. We must continue to work to amend the obvious disparities in care experienced throughout the U.S.

Looking forward, March of Dimes will continue to support policies at the state and federal levels that will increase access to make this nation a better place to experience pregnancy and give birth. This report can serve as a catalyst to spur the partnerships that are needed to unite and bring about change for all women and families regardless of race, culture or background. March of Dimes is committed to sustaining and supporting this nationwide conversation to improve maternity care quality and access.



TECHNICAL NOTES

In 2022, March of Dimes re-examined our 2020 Report *Nowhere to Go: Maternity Care Deserts Across the U.S.* The current descriptive analysis utilized county-level data from the Area Health Resource File 2020-21 (AHRF) which includes data from the 2019 American Hospital Association (AHA) Annual Survey, 2019 Small Area Health Insurance Estimates (SAHIE), and 2020 National Center for Health Statistics (NCHS) natality data. All variables were from 2019-2020 except where noted. Key variables from the AHRF include hospitals (short-term general hospitals with obstetric care), providers (certified nurse midwives, 2013, obstetrician, general, providing patient care), social determinants of health (urban rural continuum, 2013, median household income, proportion of the population in poverty) and health insurance (Medicaid eligible women, 2012, females 18-64 without health insurance). Urban was defined as a county within a metropolitan area (1, 2 or 3 on the urban rural continuum). Rural was defined as a county with an urban population of 2,500 to 19,999, 20,000 or more, not adjacent to a metro area, or completely rural ('four' on the urban rural continuum).¹¹⁰ Data on population of women ages 15-44 years was obtained directly from 2020 U.S. Census data. This report analyzes 3,142 counties, although two counties (Loving, Texas and Kalawao, Hawaii) had no births in 2020 and are excluded from analyses regarding births.

A county was classified as a maternity care deserts if there were no hospitals providing obstetric care, no birth centers, no obstetricians and no certified nurse midwives. Counties were further classified as having low access to maternity care services if there was one or no hospital offering obstetric service and fewer than 60 obstetric providers per 10,000 births, and the proportion of women without health insurance was 10 percent or greater. Counties were classified as having moderate access to maternity care services if there was one or no hospital offering obstetric service and fewer than 60 obstetric providers per 10,000 births, and the proportion of women without health insurance was less than 10 percent. Counties with full access had either two or more hospitals offering obstetric services or more than 60 obstetric providers per 10,000 births. Although level of health insurance was not part of the definition for access, a separate analysis was conducted to examine the variation in this important factor among those counties with full access. Access to health insurance for women is based on population level proportions among women aged 18-64 years and is a separate estimate from women who have insurance during and after birth through Medicaid.

Other data utilized for this report included data from the Pregnancy Risk Assessment Monitoring System (PRAMS)

2019 Questionnaire (health insurance before pregnancy, postpartum checkup, postpartum depression), NCHS, 2020 final natality file (payment method at time of birth, type of provider attending births, birth by county of occurrence, birth by county of residence, maternal race/ ethnicity). The proportion of women without insurance by county from SAHIE was obtained through the AHRF for use in the limited access to maternity care indicator. The 2020 AHA Annual Survey provided data on obstetric unit levels of care and neonatal intensive and intermediate care beds.

Multiple new analyses were introduced in the current report. Statistically significant differences (Table 5) were analyzed between hospital and birth center births. Chi-square tests were used to compare individual level characteristics (White race, rural residence and payment method at time of birth). Two sample t-tests were used to compare aggregated county level characteristics (median household income and population in poverty).

Federally Qualified Health Center (FQHC) data was obtained from Health Resources and Services Administration (HRSA) through the Health Center Service Delivery and Look-Alike Sites file (<https://bit.ly/3SDCtog>). FQHC locations were excluded from analysis if designated as temporary, mobile, administrative, based out of a school, specifically served children or homeless individuals, or had an indication of specialized practice outside of maternity care. Sites that offered specialty care alongside maternity care were exempt from exclusion.

The percentage of preterm infants born outside their county of residence was calculated using the count of preterm infants with a difference between counties of birth and counties of residence, divided by the total number of preterm infants within the county. Preterm birth counts were obtained from the National Center for Health Statistics natality data. Neonatal intensive care unit (NICU) site geo-coordinates provided by the AHA were used to plot NICU site locations.

Fixed Broadband Deployment Data provided by the Federal Communications Commission (FCC) was used to calculate the percentage of fixed consumer broadband providers advertising low broadband speeds. Consumer-specific broadband providers were included in the analyses. The FCC established benchmark of 25 download/3 upload Mbps was used as the threshold for low broadband speeds. Providers with advertised maximum speeds that fell below this benchmark were flagged as low speed. The percentage of low speed providers was calculated at the county level to assess capacity for telehealth. Counties with more than 40 percent low-speed broadband providers were considered low telehealth access.

Differences in methodology from the 2018 report include the inclusion of birth centers. In the 2018 report, the proportion of women without health insurance was split into two categories greater than 10 percent and less than or equal to 10 percent. To remain consistent with the definition used in the 2018 and 2020 reports, the proportion of women without health insurance was recategorized to greater than or equal to 10 percent or less than 10 percent. In the 2020 and 2022 reports, urban and rural designations were matched to metro and non-metro designation used in the urban-rural continuum.

Limitations: The AHRF was a primary data source for this report. Estimates in the AHRF come from a variety of other data sources and are all reported by county. Suppression criteria, other analytic decisions and data source limitations were not known for every data source represented in the AHRF and may skew estimates when data are aggregated across counties. This report did not use any geospatial analysis, so actual distance to a hospital providing obstetric services was not considered. Utilizing the county as the level of analysis provides access to data that was not available in smaller geographic areas, but it did not capture access to services in adjacent counties. The use of obstetric care hospitals and birth centers did not account for the provision of prenatal care in other clinical care settings (i.e., federally qualified health care centers, hospital satellite clinics). It's also known that family physicians, especially those in rural areas where specialized obstetricians may be less accessible, may provide obstetric services within their practice. The services provided by these physicians were not captured within the maternity care classification. The three main components of the main indicator (hospitals, providers and insurance) do not account for the quality of the health care received, nor the appropriateness of the level of care a woman might receive given particular health conditions.

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