

2020
MARCH OF DIMES
REPORT CARD

In the 2020 Report Card, we highlight the latest key indicators to describe and improve maternal and infant health in the United States (U.S.). Preterm birth and its complications are the second largest contributor to infant death in the U.S., and preterm birth rates have been increasing for five years. Prematurity grades are assigned by comparing the 2019 preterm birth grade to March of Dimes' goal of 8.1 percent by 2020.

Rates of maternal death and morbidity continue to be unacceptably high in the U.S. Maternal morbidity, social determinants of health, availability of state level health insurance policy and the availability of surveillance and research data affect the health and survival of both mom and baby. While we currently do not have enough to grade states or report on all maternal health indicators, we have highlighted measures with the best available data.

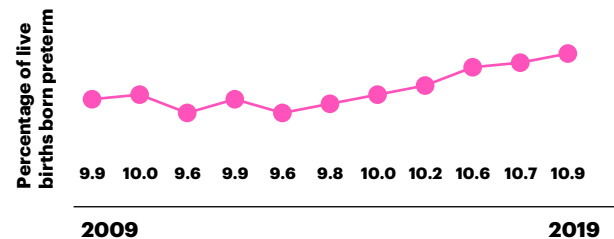
MISSOURI

PRETERM
BIRTH GRADE

D

PRETERM
BIRTH RATE

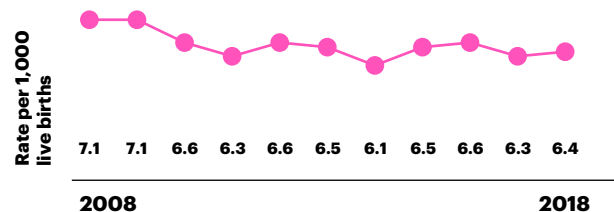
10.9%

INFANT
MORTALITY

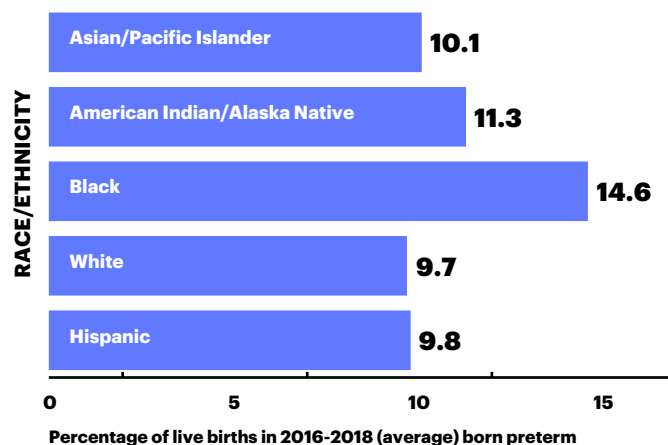
Infant mortality rates are an indication of overall health. Leading causes of infant death include birth defects, prematurity, low birth weight, maternal complications and sudden infant death syndrome.

INFANT
MORTALITY
RATE

6.4

PRETERM BIRTH
RATE BY RACE
AND ETHNICITY

The March of Dimes disparity ratio measures and tracks progress towards the elimination of racial/ethnic disparities in preterm birth. It's based on Healthy People 2020 methodology and compares the group with the lowest preterm birth rate to the average for all other groups. Progress is evaluated by comparing the current disparity ratio to a baseline disparity ratio. A lower disparity ratio is better, with a disparity ratio of 1 indicating no disparity.



In Missouri, the preterm birth rate among Black women is 51% higher than the rate among all other women.

DISPARITY RATIO:

1.13

CHANGE FROM BASELINE:

No Improvement

PRETERM BIRTH RATE BY CITY

CITY	GRADE	PRETERM BIRTH RATE	CHANGE IN RATE FROM LAST YEAR
Kansas City	D+	10.6%	Better

MORE INFORMATION

MARCHOFDIMES.ORG/REPORTCARD

March of Dimes recommends state policy actions that are rooted in addressing disparities in maternal and infant health outcomes. For more detail visit [Policy & Action](#). For details on data sources and calculations, see Technical Notes. To learn how we are working to reduce preterm birth visit www.marchofdimes.org.

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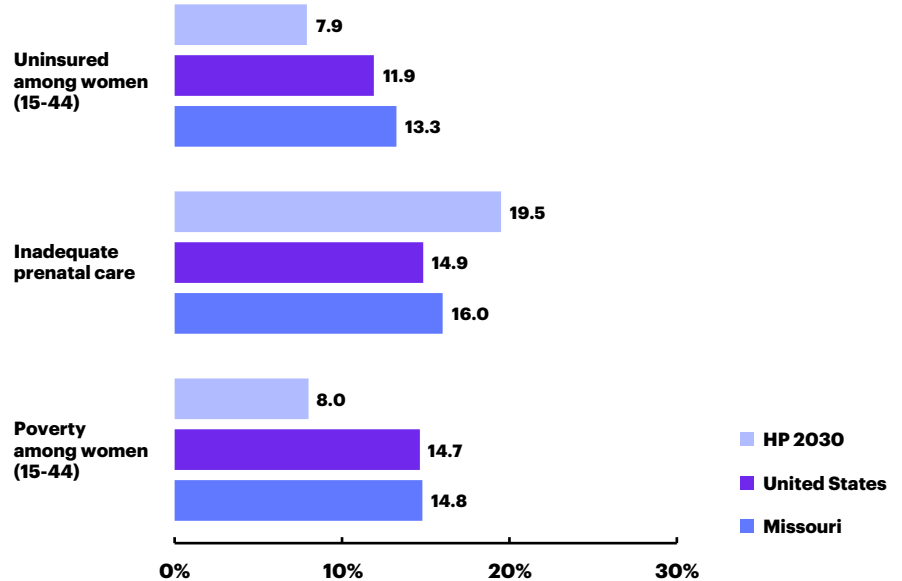


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MISSOURI MATERNAL AND INFANT HEALTH

SELECTED SOCIAL DETERMINANTS OF HEALTH

Many structural, systemic and environmental factors influence the health of moms and babies, especially for Black, American Indian and Alaska Native people. When looking at factors such as access to maternity care, financial stability and health insurance status, these disparities persist. Systemic racism and the wealth gap in the U.S. deepen many health inequities in our society. The onset of COVID-19 has further magnified preexisting health disparities. March of Dimes is collaborating with others to confront these drivers of health outcomes, while identifying solutions to achieve health equity for all.



MEDICAID EXPANSION

States who have adopted this policy allow women greater access to preventative care during pregnancy.



MEDICAID EXTENSION

State has recent action to extend coverage for women beyond 60 days postpartum.



AVERAGE PRETERM BIRTH COST

Estimated societal cost includes care for babies, delivery costs, early intervention services, special education and lost productivity.



MATERNAL MORTALITY REVIEW COMMITTEE

These committees are essential to understanding and addressing the causes of maternal death.



PERINATAL QUALITY COLLABORATIVE

These teams work to identify and improve quality care issues in maternal and infant health care.

Legend

- ✓ State has or is developing the indicated organization/policy
- * State has the indicated organization and is CDC funded
- ✗ State does not have or is not developing the indicated organization/policy
- ↑ State is above estimated U.S. cost
- ↓ State is below estimated U.S. cost

To prevent maternal and infant deaths, we need to better understand the causes of severe maternal morbidity (SMM) and those most impacted by it, including racial and ethnic disparities. This starts by standardizing data collection and reporting for maternal and infant health across the U.S. These data will help us to examine factors contributing to SMM, preventable deaths and poor birth outcomes in order to develop evidence-based solutions. To this end, future Report Cards will assess overall rates and disparities of SMM, low-risk cesarean sections and measures of equity in maternal and infant health.

Additional details on these future measures can be found [here](#).

MORE INFORMATION

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2020 MARCH OF DIMES REPORT CARD

TECHNICAL NOTES

PRETERM BIRTH: DEFINITION AND SOURCE

Preterm birth is a birth with less than 37 weeks gestation based on the obstetric estimate of gestational age. Data used in this report card came from the National Center for Health Statistics (NCHS) natality files, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.¹ This national data source was used so that data are comparable for each state and jurisdiction-specific report card. Data provided on the report card may differ from data obtained directly from state or local health departments and vital statistics agencies due to timing of data submission and handling of missing data. The preterm birth rates shown at the top of report card was calculated from the NCHS 2019 final natality data. Preterm birth rates in the trend graph are from the NCHS 2009-2019 final natality data. County and city preterm birth rates are from the NCHS 2018 final natality data. Preterm birth rates for bridged racial and ethnic categories were calculated from NCHS 2016-2018 final natality data. Preterm birth rates were calculated as the number of premature births divided by the number of live births with known gestational age multiplied by 100.

GRADING METHODOLOGY

Expanded grade ranges were introduced in 2019. Grade ranges remain based on standard deviations of final 2014 state and District of Columbia preterm birth rates away from the March of Dimes goal of 8.1 percent by 2020. Grades were determined using the following scoring formula: (preterm birth rate of each jurisdiction – 8.1 percent) / standard deviation of final 2014 state and District of Columbia preterm birth rates. Each score within a grade was divided into thirds to create +/- intervals. The resulting scores were rounded to one decimal place and assigned a grade. See the table for details.

INFANT MORTALITY RATE

Infant mortality rates were calculated using the NCHS 2018 period linked infant birth and infant death data. Infant mortality rates were calculated as the number of infant deaths divided by the number of live births multiplied by 1,000. Infant mortality rate in the trend graph are from the NCHS 2008-2018 period linked infant birth and infant death files.

PRETERM BIRTH BY RACE/ETHNICITY OF THE MOTHER

Mother's race and Hispanic ethnicity are reported separately on birth certificates. Rates for Hispanic women include all bridged racial categories (white, black, American Indian/Alaska Native and Asian/Pacific Islander). Rates for non-Hispanic women are classified according to race. The Asian/Pacific Islander category includes Native Hawaiian. To provide stable rates, racial and ethnic groups are shown on the report card if the group had 20 or more preterm births in each year from 2016-2018. To calculate preterm birth rates on the report card, three years of data were aggregated (2016-2018). Preterm birth rates for not stated/unknown race are not shown on the report card.

GRADE	PRETERM BIRTH RATE RANGE SCORING CRITERIA
A	Preterm birth rate less than or equal to 7.7%.
A-	Preterm birth rate of 7.8 to 8.1%.
B+	Preterm birth rate of 8.2 to 8.5%.
B	Preterm birth rate of 8.6 to 8.9%.
B-	Preterm birth rate of 9.0 to 9.2%.
C+	Preterm birth rate of 9.3 to 9.6%.
C	Preterm birth rate of 9.7 to 10.0%.
C-	Preterm birth rate of 10.1 to 10.3%.
D+	Preterm birth rate of 10.4 to 10.7%.
D	Preterm birth rate of 10.8 to 11.1%.
D-	Preterm birth rate of 11.2 to 11.4%.
F	Preterm birth rate greater than or equal to 11.5%.

PRETERM BIRTH BY CITY

Report cards for states and jurisdictions, except District of Columbia, display the city with the greatest number of live births. Cities are not displayed for Delaware, Maine, Vermont, West Virginia and Wyoming due to limited availability of data. Grades were assigned based on the grading criteria described above. Change from previous year was calculated by comparing the 2018 city preterm birth rate to the 2017 rate.

PRETERM BIRTH DISPARITY MEASURES

The March of Dimes disparity ratio is based on Healthy People 2020 methodology and provides a measure of the differences, or disparities, in preterm birth rates across racial/ethnic groups within a geographic area.² The disparity ratio compares the racial/ethnic group with the lowest preterm birth rate (comparison group) to the average of the preterm birth rate for all other groups.

To calculate the disparity ratio, the 2016-2018 preterm birth rates for all groups (excluding the comparison group) were averaged and divided by the 2016-2018 comparison group preterm birth rate. The comparison group is the racial/ethnic group with the lowest six-year aggregate preterm birth rate (2010-2015) among groups that had 20 or more preterm births in each year from 2010-2015. A disparity ratio was calculated for U.S. states, the District of Columbia, and the total U.S. A disparity ratio was not calculated for Maine, Vermont, and West Virginia. A lower disparity ratio is better, with a disparity ratio of 1 indicating no disparity.



PRETERM BIRTH DISPARITY MEASURES

Progress toward eliminating racial and ethnic disparities was evaluated by comparing the 2016-2018 disparity ratio to a baseline (2010-2012) disparity ratio. Change between time periods was assessed for statistical significance at the 0.05 level using the approach recommended by Healthy People 2020.² If the disparity ratio significantly improved because the average preterm birth rate for all other groups got better, we displayed "Improved" on the report card. If the disparity ratio significantly worsened because the lowest group got better or the average of all other groups got worse, we displayed "Worsened" on the report card. If the disparity ratio did not significantly change, we displayed "No Improvement" on the report card.

The report card also provides the percent difference between the racial/ethnic group with the 2016-2018 highest preterm birth rate compared to the combined 2016-2018 preterm birth rate among women in all other racial/ethnic groups. This percent difference was calculated using only the racial/ethnic groups displayed on the state or jurisdiction-specific report card. This difference was calculated for each U.S. state with adequate numbers and the District of Columbia.

SELECTED SOCIAL DETERMINANTS OF HEALTH

March of Dimes recognizes the importance of certain risk factors that are associated with preterm birth. Three of these contributing factors are highlighted for each state. We reference target goals for these three measures from Healthy People 2030.³ These risk factors are poverty in women (age 15-44 years), lack of health insurance in women (15-44 years) and inadequacy of prenatal care.

A woman was considered uninsured if she was not covered by any type of health insurance.⁴ The uninsured percent is calculated among women ages 15-44 in 2018. Persons in poverty are defined as those who make less than 100% of the poverty threshold established by the US Census Bureau.⁵ The federal poverty threshold for a family of three was \$20,598 in 2019. Poverty is reported for women 15-44 years in 2017-2019. Adequacy of prenatal care is measured using the Adequacy of Prenatal Care Utilization Index, which classifies prenatal care received into 1 of 4 categories (inadequate, intermediate, adequate and adequate plus) by combining information about the timing of prenatal care, the number of visits and the infant's gestational age.⁶ Inadequate prenatal care is defined as a woman who received less than 50% of her expected visits.

MATERNAL AND CHILD HEALTH INDICATORS

MEDICAID EXPANSION — A growing number of studies indicate that Medicaid expansion has reduced the rate of women of childbearing age who are uninsured, improved health outcomes and helped to reduce disparities, including lower rates of premature birth and low birthweight for Black infants in expansion states.^{7,8}

Medicaid Expansion is provided from the Kaiser Family Foundation as adopted or not adopted. Medicaid expansion has reduced the rates of uninsured. Increased access and utilization of health care are significantly associated with Medicaid expansion.⁹

MEDICAID EXTENSION — Advocacy for Medicaid extension by the Equitable Maternal Health Coalition (EMHC) supports that adoption of the policy allows women to avoid disruption to healthcare during the postpartum period and by maintaining access to healthcare, improves both maternal and child health outcomes.¹⁰ Extending this coverage typically requires both state legislation and an appropriation in addition to a Section 1115 waiver in order to receive federal match.¹⁰ Medicaid extension status is provided by the American College of Obstetricians and Gynecologists (<https://www.acog.org/advocacy/policy-priorities/extend-postpartum-medicare-coverage>) as adopted and/or in development or not adopted and/or not developing. States who have had the following actions- the policy extension introduced, enacted or is currently implemented to some degree, are categorized as having recent action.

PRETERM BIRTH COST — Updated average preterm birth cost (2016) for state and District of Columbia utilized the 2007 Institute of Medicine's (IOM) study.¹¹ Preterm Birth: Causes, Consequences and Prevention served as the foundation for updating costs to 2016 and for providing separate estimates for each state and the District of Columbia.¹² Costs were updated adjusting for price changes over time and for variation in prices of services between states. Changes in the rate of preterm birth, the distribution of preterm birth by gestational age (GA), and the rate of infant mortality by GA at the national and state levels were also incorporated. This cost of preterm birth estimates are the most comprehensive national estimates to date, and provide the first profile of such costs by state for every state and the District of Columbia. Measure is provided as either above or below the calculated U.S. average.

MATERNAL MORTALITY REVIEW COMMITTEE — The committees can be made up of representatives from public health, nursing, maternal-fetal medicine, obstetrics and gynecology, midwifery, patient advocacy groups and community-based organizations.¹³ The majority of pregnancy-related deaths are preventable.¹⁴ States that have an MMRC are better equipped to prevent pregnancy-related deaths by having a better understanding of what is causing them in their state or city. The measure is provided by the CDC ERASE MM Program (<https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/index.html>) and is categorized as having or developing the committee, having the committee with funding from CDC, or not having or developing the committee.

PERINATAL QUALITY COLLABORATIVE — The PQC involves partnerships with families, key state agencies and organizations in order to identify and initiate programs or procedures that increase the quality of care in clinical settings. PQC's work focus on collaborative learning among healthcare providers and the PQC.¹⁵ Data is provided by the CDC at: <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pqc-states.html> and the measure is reported as either having or developing the collaborative, having the collaborative with funding from CDC, or not having or developing the collaborative.

MORE INFORMATION

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CALCULATIONS

All natality calculations were conducted by the March of Dimes Perinatal Data Center. Calculations for the cost of premature birth were conducted by the University of Utah.

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