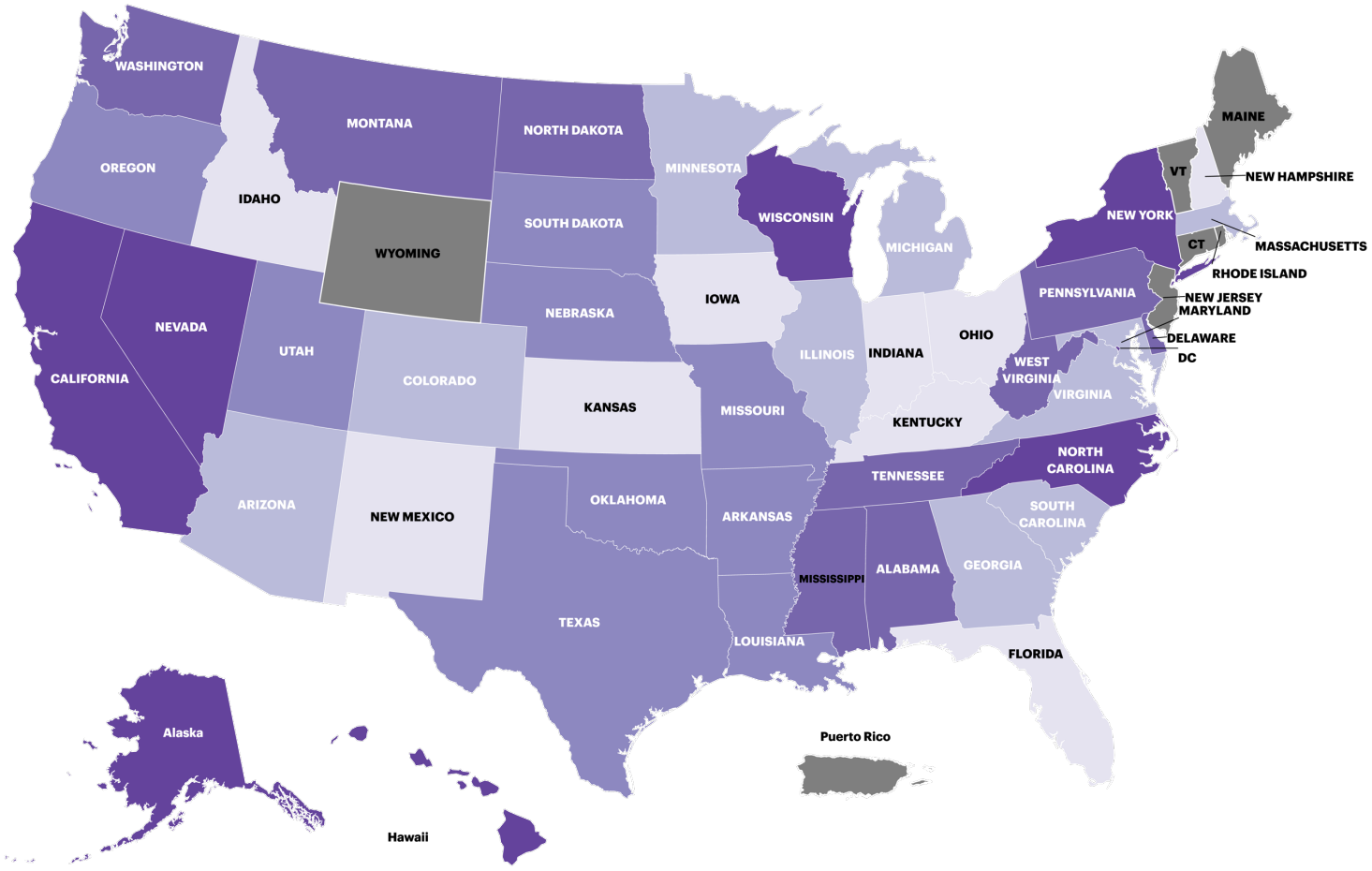
2024 MARCH OF DIMES REPORT CARD
PRETERM BIRTH DISPARITY RATIO

The darker shaded states show where the disparity in preterm birth between race/ethnicity groups is higher

Disparity ratio by state, 2021-2023

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.



LEVEL OF OVERALL DISPARITY

Highest level — **Lowest level** — **Disparity Ratio not available**

US disparity ratio

The US Disparity Ratio has not improved from baseline

Notes:

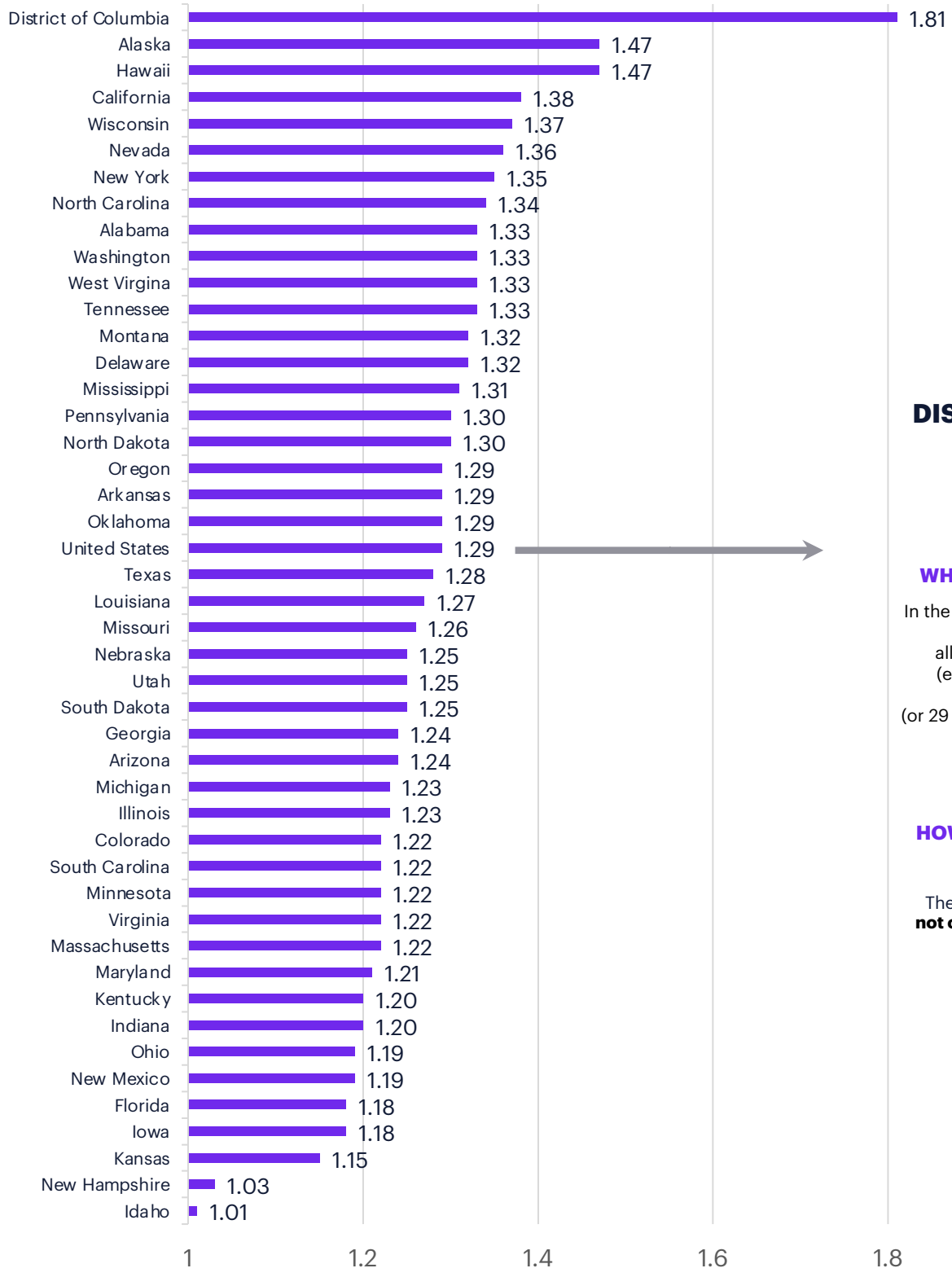
- Preterm birth rate is a birth with less than 37 weeks gestation based on the obstetric estimate of gestational age.
- The disparity ratio is not available for Maine, Puerto Rico, Vermont, Wyoming, Connecticut, Rhode Island, and New Jersey.
- See appendix (pages 3-7 of this document) for more information on data sources and calculations.

Source: National Center for Health Statistics, Natality data, 2014-2023.

For the full report card visit www.marchofdimes.org/reportcard

All US States have a disparity ratio greater than one, the worst disparities in preterm birth occur in DC, Alaska, and Hawaii

Disparity ratio rankings by state, 2021-2023



US DISPARITY RATIO

1.29

WHAT DOES IT MEAN?

In the US, the average preterm birth rate among all racial/ethnic groups (excluding the best) is **1.29 times higher** (or 29 percent higher) than the best group (Asian).

HOW HAS IT CHANGED OVER TIME?

The US disparity ratio has **not changed from baseline** (2014-2017).

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PRETERM BIRTH DISPARITY RATIO

March of Dimes Report Cards are intended to spur action to improve equity and reduce premature birth with the goal of giving every mom and baby a fair chance for a healthy pregnancy and birth. The 2024 report cards show the preterm birth rate by race and ethnic group; however, a disparity ratio helps contextualize the disparity in preterm birth rates by race and ethnicity. The disparity ratio is used to measure and track progress towards the elimination of these disparities over time. This document describes the disparity ratio, how to calculate it and how you can use it in your work.

WHAT IS THE DISPARITY RATIO?

The disparity ratio is one of three ways that Healthy People 2020 recommends measuring gaps between groups (or disparities) in health outcomes like preterm birth.[1] The disparity ratio represents the overall level of disparity in a geographic area, which means that it accounts for gaps between *all racial/ethnic groups*, and all group rates influence the value of the disparity ratio. The disparity ratio is always a number greater than 1 (e.g., 1.29). A lower disparity ratio is better, with a disparity ratio of 1 indicating no disparity. You can see an example disparity ratio on the right.

STATE A DISPARITY RATIO

1.29

CHANGE FROM BASELINE:

No Improvement

To calculate the disparity ratio, we compare the racial/ethnic group with the lowest preterm birth rate to the average of the preterm birth rates for all other groups. This calculation is described more fully on the next page.

In our state example at right, the disparity ratio means: In State A, the average preterm birth rate among all groups (excluding the lowest group) is 1.29 times higher than the rate among the lowest group.

Healthy People 2020 published recommendations for how to best measure disparities in health outcomes.[1] One of the tools is the Healthy People 2020 summary rate ratio, which we're calling the disparity ratio. The disparity ratio can assure we're measuring disparities in the most accurate way so that our data are in line and comparable with data from other leading national organizations.

We'll use the disparity ratio to track progress in eliminating disparities over time within a state. To do this, we used data from 2014-2017 to calculate a baseline disparity ratio. We use this baseline ratio and the current ratio for 2021-2023 to see how much the level of overall disparity in a state has changed. In our state example, the level of overall racial/ethnic disparity in premature birth has made no significant improvement in State A from baseline.

We made analytic choices to help stabilize the racial/ethnic groups that are shown on the report card and used in the disparity ratio calculation. This means that you should not see racial/ethnic groups appearing and disappearing from your report card year to year.

[1] Talih M, Huang DT. Measuring progress toward target attainment and the elimination of health disparities in Healthy People 2020. Healthy People Statistical Notes, no 27. Hyattsville, MD: National Center for Health Statistics. 2016.

HOW IS THE DISPARITY RATIO CALCULATED?

These are the steps we take to prepare each state's race/ethnicity data and calculate the disparity ratio.

1. Select the racial/ethnic groups that will be shown on the report card and included in the disparity ratio

Before we calculate the disparity ratio, let's review how racial/ethnic groups are selected for display on the report card and inclusion in the disparity ratio calculation.

We count the number of preterm births for each racial/ethnic group in a state for each year between 2014 and 2023. If the number of preterm births for a racial/ethnic group is less than 20 in any of those years, we drop the group and do not include it in the disparity ratio calculation. Groups that have 20 or more preterm births in each year are shown on this year's report card.

2. Select the racial/ethnic group with the lowest or best rate

After the racial/ethnic groups are selected, we then identify the group with the lowest preterm birth rate in the state. To do this, we add the data for all years between 2014 and 2019 and calculate a 6-year aggregate preterm birth rate for each racial/ethnic group that was not dropped in the first step. The group with the lowest 2014-2019 preterm birth rate is the group used as the lowest group for the disparity ratio for this year's report card and future report cards until 2024.

Steps 1 and 2 better stabilize the racial/ethnic groups included in each state's report card and disparity ratio year to year. Using the same groups each year to calculate the disparity ratio means we are measuring disparity in the same way each year. This is crucial for making comparisons over time. Please note this year is the first to separate Asian and Pacific Islander as two distinct racial groups.

3. Calculate the disparity ratio

First, we calculate the 2021-2023 preterm birth rate for all racial/ethnic groups that were not dropped in Step 1. Then, we average the 2021-2023 preterm birth rates for all racial/ethnic groups except the group with the lowest rate. We divide this average rate by the 2021-2023 preterm birth rate for the lowest group. The result is a number greater than 1 that we round to two decimals for the report card (e.g., 1.29). This number is the disparity ratio. See page 3 for an example of how we calculated the US disparity ratio.

The disparity ratio methodology is based on recommendations provided in a Healthy People 2020 report published by the National Center for Health Statistics.[1] Three or more racial/ethnic groups are required to calculate the disparity ratio. The disparity ratio is not available for Maine, Vermont, West Virginia, and Puerto Rico because data for these areas do not meet this requirement. As Asian and Pacific Islander racial groups have been separated, Connecticut, New Jersey, and Rhode Island are excluded as state-specific disparity ratios and within the US disparity ratio due to a lack of available disaggregated race/ethnicity data for 2014 and/or 2015. This is because of late adoptions of the 2003 birth certificate and you can expect to see New Jersey represented again in 2025 and Connecticut and Rhode Island in 2026.

4. Determine if there has been a change in the disparity ratio over time

To determine whether the disparity ratio changed over time, we need something to compare it to. We repeat Step 3 using data for 2014-2016 to calculate a baseline disparity ratio. Using statistical tests recommended by Healthy People 2020, we determine whether there was a statistically significant change (worsening or improvement) in the disparity ratio in each state between the baseline (2014-2016) and the current time period (2021-2023). If the disparity ratio significantly improved because the average preterm birth rate for all other groups got better, we display "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 display "Worsened" on the report card. If the disparity ratio did not significantly change, we display "No Improvement" on the report card.

For the 2024 report cards DC significantly worsened from baseline (meaning the disparity ratio increased and the gap between the lowest group and all other groups widened), so they display "Worsened" on their respective report cards. Georgia, Indiana, and Ohio significantly improved from baseline (meaning the disparity ratio decreased and the gap between the lowest group and all other groups narrowed) so they will display "Improved" on their report cards.

The table on **page 7** has information for each state and jurisdiction on the lowest group for each state; the baseline (2014-2016) disparity ratio; the current (2021-2023) disparity ratio; and the change in the disparity ratio from baseline.

US DISPARITY RATIO CALCULATION

1. Select the racial/ethnic groups that will be shown on the report card and included in the disparity ratio

All five racial/ethnic groups had 20 or more preterm births in each year between 2014 and 2023, so no groups were dropped for the US.

2. Select the racial/ethnic group with the lowest or best rate

The racial/ethnic group with the lowest 2014-2019 aggregate preterm birth rate in the US was Asian.

3. Calculate the disparity ratio

Preterm birth rates for 2021-2023 for all racial/ethnic groups are shown in the graph. We averaged the unrounded 2021-2023 preterm birth rates for White, Hispanic, Pacific Islander, American Indian/Alaska Native, and Black groups. For demonstration purposes we are showing rounded rates, though our calculations use exact numbers:
(9.5 + 14.7 + 12.4 + 12.4+ 10.1) / 5 = 11.80

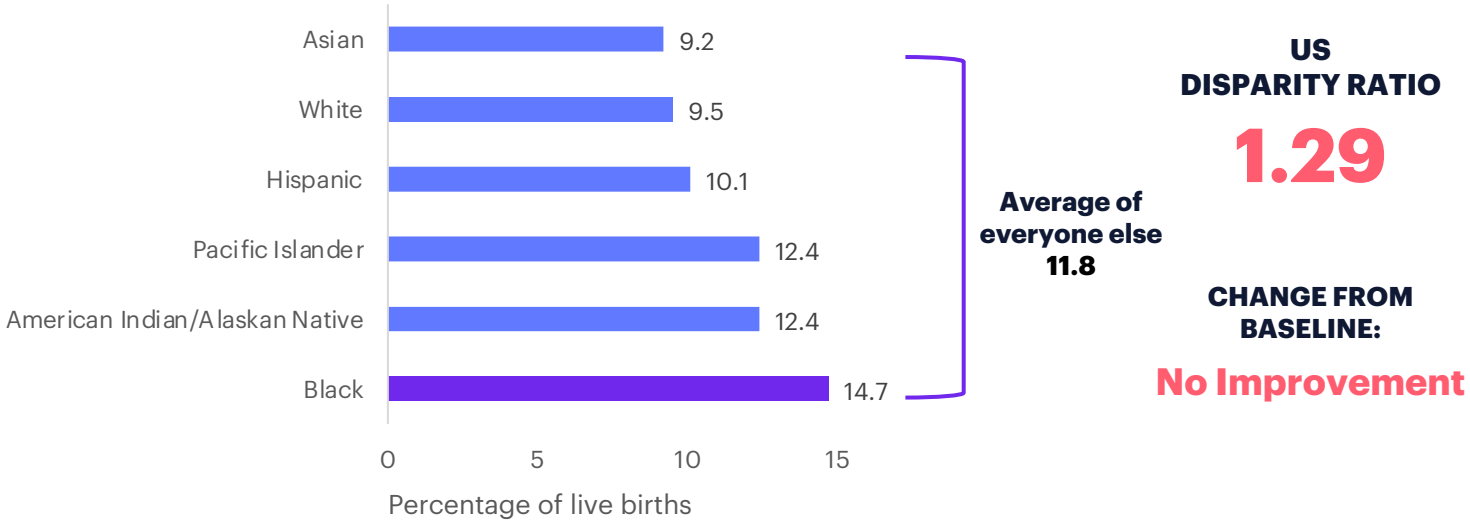
Then, we divided this average rate by the 2021-2023 Asian preterm birth rate to get the unrounded disparity ratio: **11.80/ 9.17 = 1.29**

Finally, we display the rounded disparity ratio on the report card: **1.29**

4. Determine if there has been a change in the disparity ratio over time

We repeated Step 3 using 2014-2016 data to calculate the baseline US disparity ratio of 1.28. We found that the increase in the US disparity ratio from **1.28 to 1.29** was not statistically significant. The US report cards displays the current disparity ratio **(1.29)** and "No Improvement" for change from baseline.

Preterm birth rates by race/ethnicity, US, 2021-2023



HOW CAN I USE THE DISPARITY RATIO?

You can use the disparity ratio to assess and describe how wide the gap is between the lowest racial/ethnic group in your state and everyone else and how the size of that gap is changing over time. The disparity ratio can be used to develop impactful statements that can help start a conversation with your partners and key stakeholders in your state. Here are two ways you can talk about our example US disparity ratio of 1.29.

- Compared with the lowest group in the state, the average preterm birth rate among all other racial and ethnic groups is 1.29 times higher. This gap has not improved over the past seven years.
- Compared with the lowest group in the state, preterm birth rates among all other racial and ethnic groups are at least 29% higher. This gap has not improved over the past seven years.

You can also use the disparity ratio in combination with other race/ethnicity data to describe disparities in your state in more detail. Ideally, you want your state's disparity ratio to be as close to one as possible and to decrease over time, but the drivers of change in the ratio vary from state to state. You should review the preterm birth rates among the individual racial/ethnic groups in your state to help you understand what is driving the size of the gap between the lowest group and everyone else and inform how you might act strategically to reduce your disparity ratio over time by targeting specific groups. For example, there might be one or two specific groups in your state that are experiencing much higher rates of preterm birth than the lowest group in the state, widening the gap and increasing the disparity ratio. Or all racial/ethnic groups in your state might have similar, higher preterm birth rates, resulting in a relatively small gap between groups.

WHERE CAN I FIND THE DISTRIBUTION OF BIRTHS BY RACE/ETHNICITY FOR MY STATE?

The disparity ratio does not adjust (or weight) for the distribution of births by race/ethnicity in a state. Rather, the ratio is based on the premise that all groups deserve equity in their outcomes, regardless of their relative size compared to other groups in a state. Understanding the distribution of births by race/ethnicity and coupling that information with the disparity ratio and the individual group preterm birth rates can help you better plan for programs targeting specific racial/ethnic groups. PeriStats (**marchofdimes.org/peristats**) has information on the distribution of live births for each US state, DC, and the US. Information is available as a 2021-2023 average, which corresponds to the race and ethnicity data presented on the report card.

LIMITATIONS

The March of Dimes implementation of the disparity ratio involves comparing two disparity ratios to each other to determine whether disparity has changed over time. When making these comparisons, it is important to ensure the disparity ratio measures are comparable. To ensure disparity ratios are comparable, we held the lowest comparison group constant over time. A consequence of holding the comparison group constant is that, for any given three-year disparity ratio, the comparison group used may not be the lowest group for that three-year period.

Given the priority made to comparisons over time, it is important to consider other metrics when evaluating disparities in preterm birth rates in a particular area. Healthy People 2020 recommends the use of three indicators, summary rate ratio, rate differences and rate ratios, in addition to the rates in each racial and ethnic group.

2024 MARCH OF DIMES REPORT CARD
PRETERM BIRTH DISPARITY RATIO

DISPARITY RATIO FACTORS BY STATE AND US, 2014-2016 AND 2021-2023

State	Racial/ethnic group with lowest preterm birth rate (2014-2019)	Baseline disparity ratio (2014-2016)	Current disparity ratio (2021-2023)	Change in disparity ratio from baseline*
United States	Asian	1.28	1.29	No Improvement
Alabama	Asian	1.21	1.33	No Improvement
Alaska	White	1.38	1.47	No Improvement
Arizona	White	1.18	1.24	No Improvement
Arkansas	Asian	1.40	1.29	No Improvement
California	White	1.28	1.38	No Improvement
Colorado	White	1.23	1.22	No Improvement
Delaware	Asian	1.19	1.32	No Improvement
District of Columbia	White	1.35	1.81	Worsened
Florida	Asian	1.19	1.18	No Improvement
Georgia	Asian	1.36	1.24	Improved
Hawaii	White	1.67	1.47	No Improvement
Idaho	Asian	1.33	1.01	No Improvement
Illinois	Asian	1.18	1.23	No Improvement
Indiana	Asian	1.38	1.20	Improved
Iowa	Asian	1.09	1.18	No Improvement
Kansas	Hispanic	1.21	1.15	No Improvement
Kentucky	Asian	1.34	1.20	No Improvement
Louisiana	Hispanic	1.33	1.27	No Improvement
Maryland	White	1.17	1.21	No Improvement
Massachusetts	Asian	1.20	1.22	No Improvement
Michigan	Asian	1.24	1.23	No Improvement
Minnesota	Asian	1.19	1.22	No Improvement
Mississippi	Hispanic	1.38	1.31	No Improvement
Missouri	Asian	1.24	1.26	No Improvement
Montana	White	1.32	1.32	No Improvement
Nebraska	White	1.21	1.25	No Improvement
Nevada	White	1.26	1.36	No Improvement
New Hampshire	White	1.05	1.03	No Improvement
New Mexico	White	1.06	1.19	No Improvement
New York	White	1.28	1.35	No Improvement
North Carolina	Asian	1.36	1.34	No Improvement
North Dakota	White	1.14	1.30	No Improvement
Ohio	Asian	1.33	1.19	Improved
Oklahoma	Asian	1.27	1.29	No Improvement
Oregon	White	1.23	1.29	No Improvement
Pennsylvania	Asian	1.33	1.30	No Improvement
South Carolina	Asian	1.19	1.22	No Improvement
South Dakota	White	1.23	1.25	No Improvement
Tennessee	Asian	1.38	1.33	No Improvement
Texas	Asian	1.20	1.28	No Improvement
Utah	White	1.17	1.25	No Improvement
Virginia	White	1.18	1.22	No Improvement
Washington	White	1.33	1.33	No Improvement
West Virginia	Hispanic	1.32	1.33	No Improvement
Wisconsin	Asian	1.35	1.37	No Improvement

Notes: *The "Change in disparity ratio from baseline" column reflects only statistically significant change. The disparity ratio may appear to go up or down from baseline, but if the change is not statistically significant at $p<0.05$, the change is considered "No improvement."

The disparity ratio is unavailable for Maine, Vermont, Connecticut, Wyoming, Puerto Rico, Rhode Island, and New Jersey.

Source: National Center for Health Statistics, Natality data, 2014-2023.

For the full report card visit www.marchofdimes.org/reportcard