THE RACIAL EQUITY PROJECT:

Maternal Mortality in Colorado is Rising and Largely Preventable

March 2024

EARLY **MILESTONES**
COLORADO

Maternal Mortality Review Committee Sheds Light on Death Rates

The latest legislative report from the Colorado Department of Public Health & Environment (CDPHE) on Colorado maternal mortality shows concerning trends. Originating from the work of Colorado's Maternal Mortality Review Committee (MMRC), the report is part of an effort to address high rates of maternal death and to improve maternal health care for all pregnant people. The committee focused special attention on groups with historically high rates of negative outcomes.

KEY FINDINGS: MATERNAL MORTALITY IN COLORADO INCREASED FROM 2016 TO 2020

- 174 pregnancy-associated deaths[1] occurred between 2016 and 2020.
- 80 of those (46%) were pregnancy-related[2] deaths.
- 89% of all maternal deaths were preventable.
- Suicide and Unintentional Overdose were the leading causes of pregnancy-associated death.
- Obstetric complications were the leading cause of pregnancy-related death.

Racial and ethnic disparities in Colorado's maternal mortality rates mirror the United States overall: Black and Indigenous populations have disproportionately high rates of death.

Colorado's maternal death rates mirror national trends. According to the Centers for Disease Control (CDC)[3], the national maternal mortality rate was 23.8 deaths per 100,000 live births. The rate for non-Hispanic Black mothers was 55.3 nationally[ii].

Colorado's overall pregnancy-related mortality rate between 2016 and 2020 was 25.1 deaths per 100,000 live births and the rate for Black people of any ethnicity was double at 52.2.[4]

The Pregnancy Mortality Surveillance System (PMSS) defines a pregnancy-related death as one occurring while pregnant or within one year of the end of the pregnancy from any cause related to or aggravated by pregnancy.

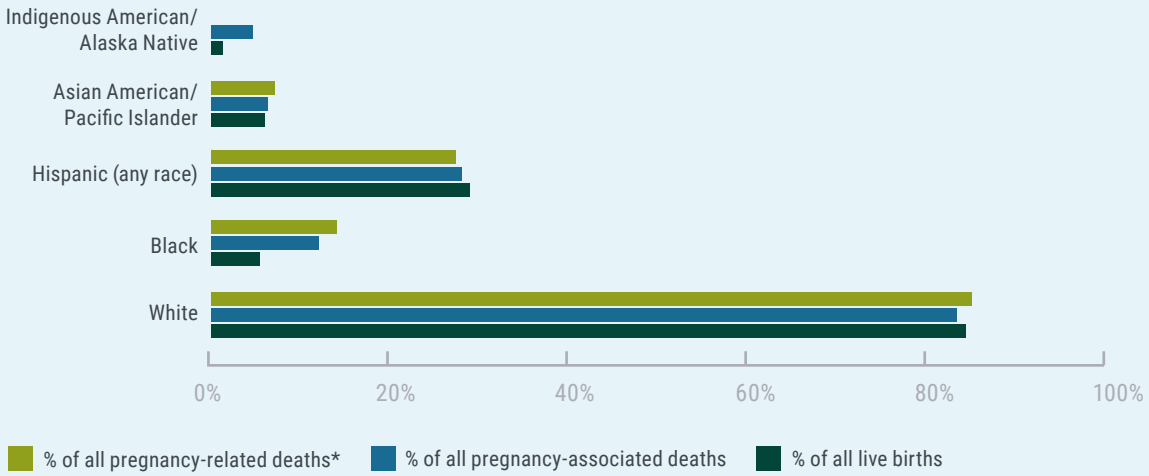
Between 2017 and 2019, the pregnancy-related mortality rate for non-Hispanic Indigenous pregnant people was 32 per 100,000 live births.

DEFINING PREGNANCY-ASSOCIATED DEATH & PREGNANCY-RELATED DEATH

[1]**Pregnancy-associated death:** Any death that occurs within one year of the end of a pregnancy, regardless of the cause of death. This includes pregnancies that end in a live birth, stillbirth, miscarriage, fetal death, or abortion. *Colorado Department of Public Health and Environment (2023). Maternal Mortality in Colorado, 2016-2020.*

[2]**Pregnancy-related death:** Any death occurring within one year of the end of a pregnancy where the death is due to a pregnancy complication, a chain of events initiated by pregnancy, or an unrelated condition that has been aggravated by the physiologic effects of pregnancy. This can include suicide or overdose. *Colorado Department of Public Health and Environment (2023). Maternal Mortality in Colorado, 2016-2020.*

DISPROPORTIONALITY OF PREGNANCY-ASSOCIATED AND PREGNANCY-RELATED DEATHS BY **RACE/ETHNICITY IN COLORADO, 2016-2020**



Data Source: Colorado Department of Public Health and Environment (2023). Maternal Mortality in Colorado, 2016-2020.
*Cases of less than 5 are suppressed.

This was more than double the rate for non-Hispanic white people and close to triple that rate for the population overall. This mirrors disparities seen in Colorado, where Indigenous people of any ethnicity were 2.9 times more likely to die during or within one year of pregnancy than the overall population of birthing people.

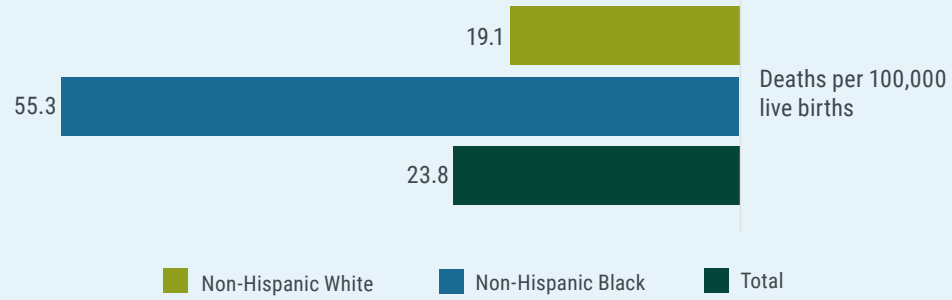
The MMRC also found differences in the leading causes of pregnancy-associated death by race and ethnicity. Between 2014 and 2020, obstetric complications accounted for 24% of deaths for Black, 16.4% for Hispanic of any race, and 15.7% for white populations.

The reasons behind higher rates of obstetric complications for Black pregnant people in Colorado are varied and deserve additional attention. Nationally, Black people are more likely to undergo a cesarean delivery (C-section)[iii] and are more likely to have severe postpartum bleeding resulting in the need for a hysterectomy.[iv] **Racism in healthcare, provider bias, and mistreatment in medical settings contribute to high death rates.**[v]

Pregnant Coloradans covered by Medicaid were three times more likely to die than those with private insurance.

The pregnancy-associated mortality rate for births covered by Medicaid was three times that of births covered by private insurance – 62 per 100,000 live births, compared to 20. Medicaid coverage often correlates with low income and other social factors that contribute to higher rates of maternal deaths. Colorado's Medicaid program, Health First Colorado, covers approximately 40% of all births each year.[vi] Changes to Medicaid such as coverage for doula care, continuous enrollment, and expanded access to prenatal care can help improve outcomes.

MATERNAL MORTALITY IN THE UNITED STATES, **2020**



Data Source: Hoyert, D.L. (2023). Maternal Mortality rates in the United States, 2021. NCHS Health E-States. 2023. DOI: https://dx.doi.org/10.15620/cdc:124678

Those living in frontier counties were 3.6 times more likely to die from pregnancy-related causes than those living in urban counties.

Frontier counties accounted for only 2% of the total number of births yet made up almost 5% of pregnancy-associated and more than 6% of pregnancy-related deaths. Factors like low access to health care, lack of social support, and higher rates of poverty[vii] may contribute to disproportionate rates of maternal death in Colorado's rural and frontier counties. Among frontier counties, more than three-fourths (78.3%) are maternity care deserts and lack a hospital, birth center, or any type of obstetric provider.[viii]

Addressing Maternal Mortality

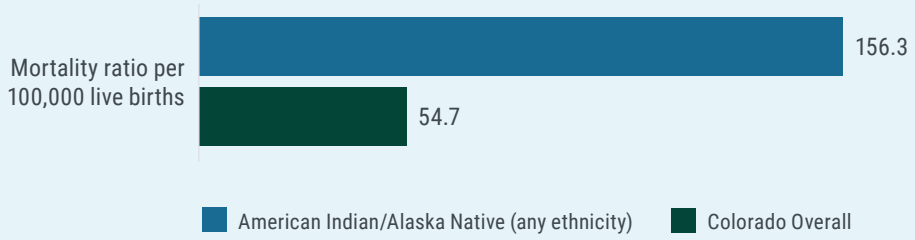
This report provides recommendations for reducing maternal death in Colorado and addressing inequities. Increased screenings, suicide and overdose prevention strategies, and trauma-informed care are all necessary to prevent maternal death. Additionally,

DEFINING MATERNAL MORTALITY

[3] The CDC and the World Health Organization define maternal mortality as the death of a woman that occurs during pregnancy or within 42 days of the termination of a pregnancy, from any cause related to or aggravated by the pregnancy. This does not include accidental or incidental causes. *World Health Organization. International statistical classification of diseases and related health problems, 10th revision (ICD-10). 2008 ed. Geneva, Switzerland. 2009.*

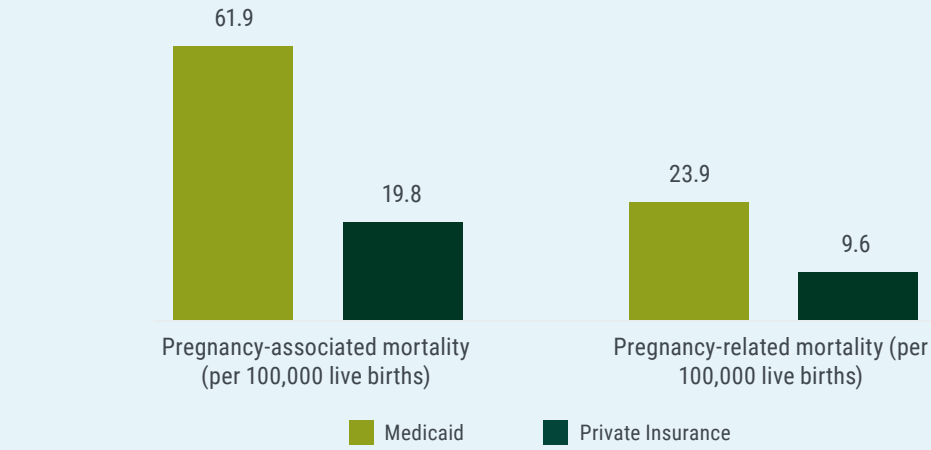
[4] Differences in the way maternal mortality is defined and the way race and ethnicity data are reported make direct comparisons between Colorado and national mortality rates difficult.

PREGNANCY-ASSOCIATED MORTALITY IN COLORADO, **2016-2020**



Data Source: Colorado Department of Public Health and Environment (2023). Maternal Mortality in Colorado, 2016-2020.

MORTALITY RATIOS BY PAYMENT TYPE
IN COLORADO, 2016-2020



Data Source: Colorado Department of Public Health and Environment (2023). Maternal Mortality in Colorado, 2016-2020.

greater attention to social determinants of health disparities, implicit bias, and discrimination in medical settings can reduce inequities for marginalized populations.

In the coming years, Colorado's Maternal Health Task Force will focus on implementing their strategic plan. The plan includes strategies aimed at reducing maternal deaths, increasing access to quality maternal care, and addressing the root causes of racial disparities. Additionally, CDPHE and community-based health partners will work to improve the quality and availability of maternal health data to help inform policy-making.

Research and Data

The work of CDPHE and the MMRC is a promising step in improving the quality of maternal health data in Colorado but there is still much to do:

ACCURACY. Streamline the reporting and categorizing of race and ethnicity data and ensure accurate reporting on birth and death certificates. This will help Colorado determine long-term trends and make national comparisons easier.

CONSISTENCY. Use consistency in calculating and reporting maternal mortality. This is needed both in Colorado and nationally.

CULTURAL RESPONSIVITY. Implement qualitative data collection that is culturally responsive. This will provide needed context to maternal health issues and improve programs and policies.

FOCUS. Increase focus on maternal morbidity to help highlight and address factors that impact outcomes outside of mortality.

[i] Data Source: Colorado Department of Public Health and Environment (2023). Maternal Mortality in Colorado, 2016-2020.

[ii] Hoyert, D.L. (2022). Maternal mortality rates in the United States, 2020. NCHS Health E-Stats. 2022. DOI: https://dx.doi.org/10.15620/cdc:113967.

[iii] Osterman, M.J.K., Hamilton, B.E., Martin, J.A., Driscoll, A.K., & Valenzuela, C.P. (2023, January 1). Births: Final data for 2021. National Vital Statistics Reports; vol 72, no 1. National Center for Health Statistics. https://dx.doi.org/10.15620/cdc:122047.

[iv] Marill, M.c. (2022). Raising the stakes to advance equity in black maternal health. Health Affairs (Millwood, Va.), 41(3), 324-330. https://doi.org/10.1377/hlthaff.2022.00036.

[v] Owens, D.C. & Fett, S.M. (2019). Black maternal and infant health: Historical legacies of slavery. American Journal of Public Health (1971), 109(10), 1342-1345. https://doi.org/10.2105/AJPH.2019.305243.

[vi] Colorado Department of Health Care Policy & Financing. (2023). Maternal Health Equity Report: An Analysis of 2020 Health First Colorado Births.

[vii] Kozhimannil, K.B., Interrante, J.D., Henning-Smith, C., & Admon, L.K. (2019). Rural-urban differences in severe maternal morbidity and mortality in the US, 2007-15. Health Affairs (Project Hope), 38(12), 2077-2085. doi:10.1377/hlthaff.2019.00805.

[viii] March of Dimes. Nowhere to Go: Maternity Care Deserts Across the U.S. 2020. https://www.marchofdimes.org/research/maternity-care-deserts-report.aspx.