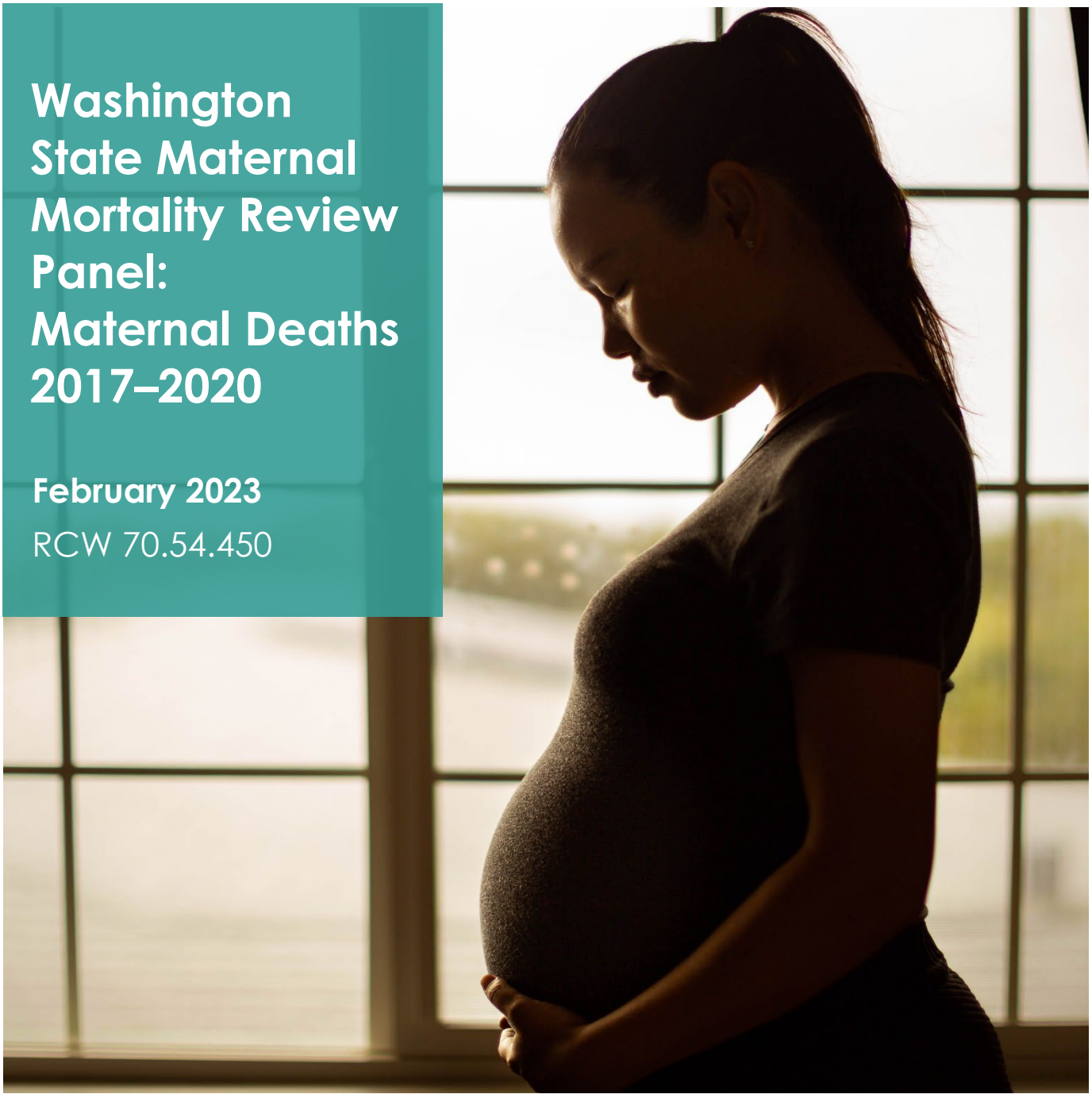
Report to the Legislature

Washington State Maternal Mortality Review Panel: Maternal Deaths 2017–2020

February 2023

RCW 70.54.450



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Washington State Department of HEALTH

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Acknowledgments

We acknowledge the individuals who died during or after pregnancy, the loved ones they left behind, and the people who cared for them. We acknowledge, too, that maternal mortality and morbidity do not impact all communities equally. The work represented in this report is done to prevent deaths, reduce disparities in health outcomes, and improve the lives of all pregnant people, children, and families throughout Washington. The maternal mortality review would not be possible without the Maternal Mortality Review Panel members, who volunteer their time and expertise to improve perinatal health care in Washington state.

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Executive Summary

The Washington State Legislature established the Maternal Mortality Review Panel (MMRP, the Panel) within the Department of Health (DOH) in 2016. The Panel reviews anonymized maternal deaths and makes recommendations based on pregnancy-related preventable deaths to prevent similar losses in the future. RCW 70.54.450 requires the Panel to submit a report with data and recommendations to the Legislature every three years.

This report contains policy and funding recommendations from review of the 2017–2020 maternal deaths and findings based on cumulative data from 2014–2020 deaths.

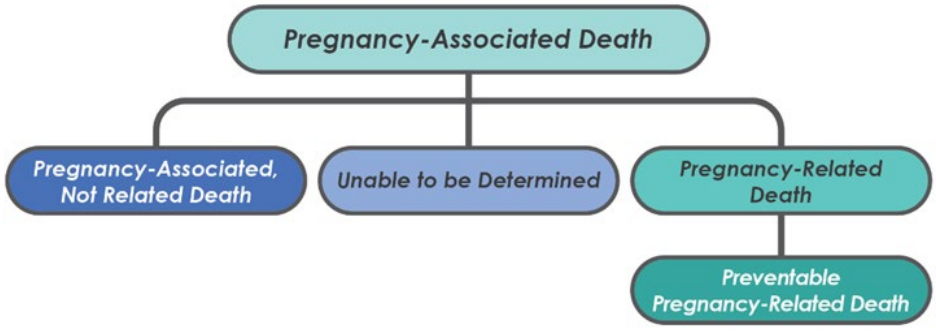
Key findings include:

Maternal mortality rates in Washington have historically been lower than national rates.[1] However, critical disparities persist by race and ethnicity. In Washington, the Panel found **80 percent of *pregnancy-related* deaths were *preventable*.**

Washington's *overall* maternal mortality rate decreased slightly in 2017 and increased from 2018–2019. Unlike in much of the United States, [2] the maternal mortality rate in Washington decreased in 2020. However, this decrease is expected to be temporary, as preliminary 2021 data suggest a rate more consistent with 2018–2019 trends. Deaths from 2021 will be reviewed by the Panel in 2023 and will be included in the subsequent report expected in 2025.

The Panel identified **224 *pregnancy-associated* deaths** from 2014–2020. These are defined as deaths from any cause during pregnancy or within one year of the end of pregnancy. They include deaths related to (or exacerbated by) pregnancy, those not related to (or exacerbated by) pregnancy, and those that cannot be determined if they are related to pregnancy. Of these 224 deaths, the Panel identified **97 *pregnancy-related* deaths,** defined as deaths in this timeframe due to a pregnancy complication, a chain of events initiated by pregnancy, or aggravation of unrelated condition(s) by the physiological effects of pregnancy.

Figure 1a: Key Definitions – Maternal Mortality Review Panel



Substance use was associated with 20 percent of pregnancy-associated deaths. **Unintentional overdose** was the cause of death in 10 percent of pregnancy-associated deaths and seven percent of pregnancy-related deaths.

There were **15.9 *pregnancy-related* deaths per 100,000 live births** from 2014–2020 in Washington, lower than the U.S. rate of 18.6 pregnancy-related deaths per 100,000 live births in this timeframe.[3] Most ***pregnancy-related*** deaths **occurred after the end of pregnancy**, with 31 percent occurring 2–42 days after pregnancy and 31 percent occurring 43 days to one year after pregnancy. Six-weeks, or 42 days postpartum, is an important marker in that it is when many people transition their postpartum care from perinatal providers back to their primary or family physician. The six-week postpartum exam is an important appointment for assessing a person's health. Care after 42 days tends to transition to focus on infant health and exclude attention to maternal health. The World Health Organization also uses the 42-days postpartum timeframe in their definition of maternal death.

Leading underlying causes of *pregnancy-related* deaths were **behavioral health conditions** (32 percent), predominantly by **suicide** and **overdose**. Other common causes included **hemorrhage** (12 percent) and **infection** (9 percent).

The Panel found **80 percent of *pregnancy-related* deaths were *preventable***, meaning there was at least some chance of the death being averted if a factor that contributed to the death had been different**.** The Panel identified **contributing factors** that, if altered, might have prevented those pregnancy-related deaths.

Contributing factors

The panel reviews the myriad of points of contact that pregnant and postpartum individuals have with the health, social service, law enforcement, and criminal justice sectors to identify instances of harm and determine what could be done to promote health and wellness during pregnancy, delivery, and postpartum. Recommendations range from addressing discrete interventions within a sector to identifying complex systemic solutions to reduce harm.

High-quality care is patient-centered; trauma-informed; removed of bias, racism, and judgment; and offered in an accessible and culturally appropriate context. The Panel identified gaps in **clinical skills** and **quality** of care that contributed to the high percentage of preventable maternal deaths, including gaps in recognizing and responding to obstetric emergencies.

Other contributing factors included lack of **screening** or appropriate **follow-up for** risk factors such as behavioral health conditions, violence, and lack of social support; lack of **care coordination** or **continuity of care**; lack of **access** to health care and behavioral health treatment; and issues of **bias and discrimination** affecting referrals and use of clinical standard procedures. There is a need for expanded **training** across the continuum of perinatal providers and services

on the unique risks (e.g., increased risk of violence, behavioral health exacerbation) and opportunities patients may experience during pregnancy and postpartum.

Contributing factors were exacerbated by social and structural determinants of health such as **housing instability** and **systemic racism**. The Panel used this information to make recommendations to prevent maternal deaths. These are organized under six overarching **priority recommendations**:

Priority Recommendations

UNDO RACISM & BIAS

1. Address racism, discrimination, bias, and stigma in perinatal care.

ADDRESS MENTAL HEALTH & SUBSTANCE USE DISORDER

2. Increase access to mental health and substance use disorder prevention, screening, and treatment for pregnant and parenting people.

ENHANCE HEALTH CARE QUALITY AND ACCESS

3. Expand equitable and high-quality health care by improving care integration, expanding telehealth services, and increasing reimbursement.

STRENGTHEN CLINICAL CARE

4. Strengthen the quality and availability of perinatal clinical and emergency care that is comprehensive, coordinated, culturally appropriate, and adequately staffed.

MEET BASIC HUMAN NEEDS

5. Meet basic needs of pregnant and parenting people by prioritizing access to housing, nutrition, income, transportation, child care, care navigation, and culturally relevant support services.

ADDRESS & PREVENT VIOLENCE

6. Prevent violence in the perinatal period through survivor-centered and culturally appropriate coordinated services.

Recommendations included in this report address a broad spectrum of needs and opportunities. Our findings point to two key areas of focus: improving behavioral health care during the perinatal period and ensuring that all our recommendations specifically benefit Black, Indigenous, and People of Color (BIPOC) communities. Focusing efforts on these two areas will significantly improve perinatal care in Washington state and reduce maternal mortality.

Background

What is the purpose of this report?

The Maternal Mortality Review Panel (MMRP, the Panel) of Washington state reviews deaths that took place during or within one year after the end of a pregnancy. The goal of their review is to prevent maternal mortality, morbidity, and inequities that impact perinatal health in Washington by understanding pregnancy-related mortality in the state, sharing findings and recommendations with the Washington State Legislature, and supporting implementation of the recommendations. This document fulfills the requirements of RCW 70.54.450 for the MMRP and the Washington State Department of Health (DOH) to submit a report of maternal mortality data and recommendations to the Legislature every three years.

Findings in this report are based on cumulative data from maternal deaths that occurred during the period 2014–2020. Policy and funding recommendations included in this report are based on data for the period 2017–2020. Recommendations from 2014–2016 maternal deaths were included in the 2019 legislative report. The MMRP hopes these data and recommendations can help guide policymakers and other key partners in our shared work to end maternal mortality. Although the Legislature is the primary audience for this report, secondary audiences include all other agencies, institutions, and individuals working to address maternal and perinatal morbidity and mortality including medical, birth, and support birth providers; advocates for health equity and perinatal health; health systems; state agencies; local health departments; and the public—communities, families, and individuals.

This report plays an important role in honoring the individuals and communities impacted by maternal death. Maternal mortality touches the lives of Washingtonians statewide, impacting some communities disproportionately. Our shared work to end preventable pregnancy-related deaths can also improve health throughout the life course, reducing inequities, improving health care quality, and transforming systems that impact health and well-being across generations for all Washingtonians.

This report builds on statewide successes and national best practices in addressing maternal mortality and morbidity and contains recommendations that are in line with the White House Blueprint for Addressing the Maternal Health Crisis. These successes reflect efforts at all levels across the state—from government, agencies, communities, and more. The State of Washington has increased access to high-quality health care and support through efforts such as expanding Medicaid coverage to 12 months after pregnancy starting in 2022; increasing efforts to provide doula access for people covered by Medicaid through policy and community-led solutions; and expanding plans of safe care and treating the birth parent and infant together in substance-using

families. Washington is a national leader in protecting reproductive health care access, including abortion and contraceptive care access.

Washington has built a stronger statewide focus on health equity and invested in community-rooted efforts to strengthen birth equity. The state has made progress on addressing the role of substance use disorder in maternal mortality by developing a Perinatal Substance Use Disorder Learning Collaborative and by supporting birthing hospitals in identifying and treating substance use disorders and perinatal mood and anxiety disorders, through the Washington State Alliance for Innovation on Maternal Health (AIM). A strong workforce including perinatal support providers such as community health workers and doulas has improved birth experiences.

What definitions does Washington use in the maternal mortality review?

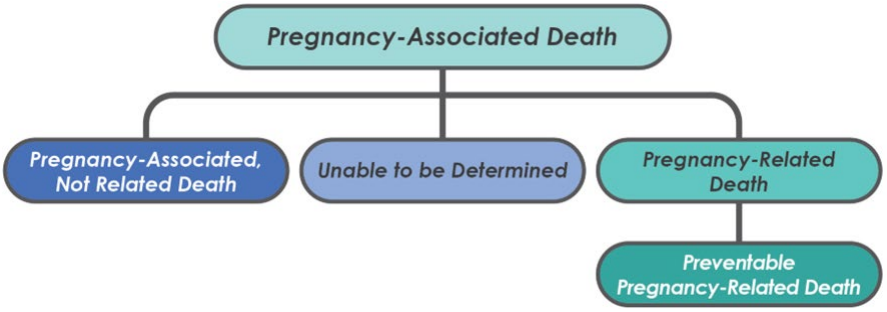
Washington uses the Centers for Disease Control and Prevention (CDC) definitions as described in Review to Action.[4]

A ***pregnancy-associated death*** is the death of a person while pregnant or within one year postpartum, regardless of the cause of death or outcome of the pregnancy. **This term encompasses deaths that are pregnancy-related, deaths that are pregnancy-associated but not related, and deaths that cannot be determined if they are related to pregnancy.** All other deaths in this report fall under this umbrella of pregnancy-associated deaths, and we use the term synonymously with "maternal death" or "perinatal death." (See Figure 1b).

A **pregnancy-related death** is the death of a person during or within one year of pregnancy, from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiological effects of pregnancy. **Included within this**, a **preventable pregnancy-related death** is a pregnancy-related death for which the Panel determines there was at least some chance of the death being averted by one or more reasonable changes to patient, family, provider, facility, system, or community factors.

A **pregnancy-associated, but not related death** is the death of a person during or within one year of pregnancy, from a cause that is not related to pregnancy or exacerbated by pregnancy.

Figure 1b: Key Definitions - Maternal Mortality Review Panel



As part of the review process, the MMRP categorizes each pregnancy-associated death into one of the following sub-categories (see Figure 1b):

- Pregnancy-associated but not related death
- Unable to determine pregnancy relatedness of the death
- Pregnancy-related death
    - Pregnancy-related death that was *not* preventable
    - Pregnancy-related death that *was* preventable

The Panel determines which pregnancy-related deaths were preventable, using the definition outlined in RCW 70.54.450 (Appendix 6). Recommendations in this report are based on ***pregnancy-related, preventable*** deaths.

Gender-inclusive language

To be more inclusive, accurate, thorough, and equity-focused, we use gender-neutral terms such as "pregnant people" or "birthing people" in this report wherever possible, rather than terms such as "women" or "mothers." Some of our terminology is still gendered, such as "maternal," which is in the Panel's name, the RCW, and the larger field of this work. We include both "maternal" and "perinatal" throughout the report. "Perinatal" refers to the period around pregnancy, birth, and postpartum (or after pregnancy) and is most accurate not only for reasons of gender identity inclusion, but also because it includes situations in which a pregnancy doesn't end in a birth and the pregnant person does not identify as a parent.

What does maternal mortality look like in the United States?

The United States has one of the highest rates of maternal mortality of wealthy countries,[5] due to the complex environment of social, system, and health care access barriers.[6] In addition to maternal deaths, at least 60,000 more people each year in the United States experience severe complications related to pregnancy and childbirth.[7] [8] In the United States, Black, Indigenous, and People of Color (BIPOC) disproportionately carry the burden of maternal mortality.

The CDC's Pregnancy Mortality Surveillance System (PMSS), which looks at maternal deaths through one year after the end of pregnancy, reports that maternal mortality rates have generally been on the rise since the 1980s, with recent years having some of the highest rates recorded in the United States in the decades since then.[9] In 2020, there were 861 maternal deaths in the nation (through 42 days after the end of pregnancy), compared with 754 in 2019 and 658 in 2018.[10] From 2018–2020, maternal mortality rates were approximately 2.5 to 3 times higher for non-Hispanic Black people than non-Hispanic white people or Hispanic people of any race. Individuals who were 40 or more years old at the time of pregnancy had maternal mortality rates that were 4 to 5 times higher than those aged 25–39 years old.[11]

Research suggests the national maternal mortality increase in 2020 may have been attributable to the COVID-19 pandemic—due to factors such as the direct impacts of the disease, COVID-19's exacerbation of existing health conditions, or disruptions in access to care.[12] A U.S. Government Accountability Office (GAO) report determined that COVID-19 contributed to a quarter of maternal deaths in 2020 and 2021, with Black communities experiencing a disproportionately higher burden of maternal deaths.[13]

Our work is part of a growing network of maternal mortality review panels and committees in U.S. states. The CDC's Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) program identifies maternal deaths that maternal mortality review panels and committees found were preventable. Their survey of 36 states found 1,018 pregnancy-related deaths from 2017–2019. Over 80 percent of these pregnancy-related deaths were preventable.[14]

Maternal mortality is an equity issue

Health equity in the context of maternal mortality means that no one person (or group of people) bears greater risk of death because of their social position or other socially determined circumstances. Achieving health equity is the core pursuit of Washington's maternal mortality review process. Racism, discrimination, stigma, and other social determinants of health contribute to the disproportionate maternal mortality rates noted above, as well as pregnancy complications and barriers to accessing high-quality reproductive and perinatal health care.[15] [16] Black, American Indian, Alaska Native, Native Hawaiian, Pacific Islander, and rural communities face especially disproportionate risks, due to these systemic inequities.[17]

Discrimination impacting maternal mortality and morbidity is intersectional—meaning different types of discrimination overlap with and exacerbate each other, further elevating health and safety risks. Some people may experience multiple forms of discrimination, putting them at greater risk. Discrimination or implicit bias based on race, ethnicity, gender, religion, sexual orientation,[18] gender identity,[19] disability, body size, immigration status, socioeconomic class, education level, age, or other factors can impact the quality of care, increase toxic stress, and decrease the likelihood of patients seeking care. People with disabilities face bias, structural barriers, and other challenges that impact perinatal and reproductive care and may increase maternal mortality risk.[20]

Communities most burdened by perinatal health inequities have the expertise, cultural knowledge, and lived experience to lead solutions to reduce maternal mortality. Black, Indigenous, and people of color must be centered as leaders for the successful implementation of many of the recommendations in this report. This approach is in line with Executive Order 22-04, which established the Washington State Pro-Equity Anti-Racism Plan and Playbook.

In 2020, the department started collecting data on whether discrimination contributed to a person's death. The Panel uses the CDC's definition[21] of discrimination, which is treating someone less or more favorably based on the group, class, or category they belong to resulting from biases, prejudices, and stereotyping. The Panel considers the impact discrimination had on the chain of events leading up to a person's death. Starting in 2020, the Panel now also considers whether interpersonal racism or structural racism contributed to a person's death.

What is Washington state doing to prevent maternal deaths?

In 2016, the Washington State Legislature passed Engrossed Second Substitute Senate Bill 6534 to establish an official Maternal Mortality Review Panel.[22] In 2019, the law was amended to permanently establish the Panel and the maternal mortality review process. The law (RCW 70.54.450) directs the Panel to:

- Review maternal deaths in the state and determine if deaths are related to pregnancy;
- Identify factors contributing to those deaths;
- Make recommendations for system changes to improve perinatal health care services;
- Submit a report of findings to the health care committees of the House of Representatives and Senate every three years.

The 2019 amendment to the law made changes, including:

- Requiring the Panel to include tribal health representatives.
- Expanding representation to include a wider variety of care providers and individuals or organizations that represent populations most affected by maternal mortality and lack of access to maternal care.
- Requiring hospitals and birthing centers to make good-faith efforts to report deaths that occur during pregnancy or within 42 days of pregnancy to the local coroner or medical examiner, who will then conduct a death investigation with autopsy strongly advised.

The law gives the Department the authority to obtain pertinent vital records, medical records, and autopsy reports related to maternal deaths. The law also provides protections for those records and for the panel members who participate in the review. This authority and protection allow the Department and the Panel to determine which deaths are preventable and identify the issues that lead to preventable deaths. For deaths involving tribal members, the Department follows processes established in the Centennial Accord and in alliance with tribal data sovereignty.

Since the establishment of the law in 2016, Washington has released two reports on maternal mortality and several of the recommendations from those reports have been implemented**.** These successes have included increasing access to doula care, ensuring Medicaid coverage from pregnancy to one year postpartum (a recommendation of the panel), establishing community-

led initiatives like the Birth Equity Project, and developing perinatal substance use quality improvement efforts. Data presented in this report do not yet reflect the impact of these efforts.

Who is on the Washington State Maternal Mortality Review Panel?

The Panel is made up of approximately 70 health and service professionals (listed in *Acknowledgments*). The Panel includes clinicians, nurses, doulas, midwives, tribal health experts, equity and social justice experts, patient advocates, pathologists, and others with relevant professional and lived experience. Panel members are appointed by the Secretary of Health and voluntarily serve on the Panel for one or more three-year terms. Panel members adhere to strict confidentiality rules and have no access to any identifiable information. To review each death, they receive de-identified summaries, de-identified data, and aggregated data. They use this information to make key decisions to meet the goals and objectives of the review.

How does the Panel conduct a maternal mortality review?

The Department and Panel conduct maternal mortality reviews through a multi-level process grounded in a review framework originally developed by the *Building U.S. Capacity to Review and Prevent Maternal Deaths* initiative[23] and updated over time. The process includes four stages—or levels—of review.

Figure 2: Multi-level Review Process, Washington State

During Level 1, the Department's Center for Health Statistics first identifies deaths of Washington residents who were pregnant at the time of death or within a year of death.

In **Level 2**, Department staff identify which deaths may have been pregnancy-related, gather information that includes but is not limited to medical and death records, social services involvement, case management, law enforcement investigation, maternity support services, etc. and produce an anonymized summary of key information for the Panel to review.

Level 3 is the Panel's review. The Panel, with great care and respect for the lives lost, reviews each anonymized death to determine whether it was pregnancy-related. If it was not pregnancy-related, the review stops there, although the death is still included in all data. If it was pregnancy-related, the Panel determines whether there was a chance the death could have been prevented—from a clinical, systemic racism, or social determinants of health perspective. If the

death might have been preventable, the Panel identifies factors that may have contributed to the death and makes recommendations to prevent such deaths in the future.

Level 4 is an analysis of the Panel's findings to identify trends and priority recommendations for this report. Every three years, the Department completes quantitative and qualitative analysis of the review findings and recommendations. Quantitative analysis includes cumulative data from past reports and recent years. Qualitative analysis focuses only on the recommendations from the reviews since the last report. The Panel and Department distill the recommendations to a set of priorities they select based on criteria such as being systems-level, feasible, timely, equity-focused, supported by evidence or best practice, and aligned with our partners' goals. DOH submits a report informed by maternal mortality data and the work of the Panel to the legislature every three years. For more details on this process, including the forms used in the review process, see Appendix 1.

Why does this report include homicide and out-of-state deaths when they weren't included in the previous report?

The CDC guides which deaths are included in Washington's maternal mortality review. Previously, out-of-state deaths of Washington residents were excluded from review, and all homicide deaths were considered pregnancy-associated but not -related, and were not considered for level 3 review. As CDC guidance changed, the Panel expanded its reviews to include **out-of-state deaths** of Washington residents, and now considers **deaths due to intimate partner homicide** as possibly pregnancy-related.

Out-of-state Deaths

CDC guidance recommends maternal mortality review panels and committees across states review out-of-state deaths of state residents to ensure we capture all deaths of state residents during pregnancy and within a year of pregnancy.

Homicide

Homicide is a leading cause of death during pregnancy and through 42 days postpartum in the United States. A study using 2018–2019 data found a U.S. rate of more than twice as many deaths in this period from homicide than from hemorrhage or hypertensive disorders, and that pregnancy was associated with an elevated risk of dying by homicide.[24] [25] Pregnancy-associated deaths due to violence disproportionately impact Black women and birthing parents.[26] Including violent deaths in maternal mortality reviews expands the Panel's equity focus and reflects the intersectional nature of factors contributing to maternal mortality.

Previously, all homicide deaths were categorized as pregnancy-associated, but not related, during the level 2 process. Now, these deaths from intimate partner violence are considered for

a full review by the Panel in the same manner as other deaths, and if deemed pregnancy-related, they are fully abstracted and sent to level 3 (see Appendix 1 for more details).

There were three homicides by law enforcement, which have not yet been reviewed by the Panel. DOH staff and a subset of the Panel are continuing to meet with national partners to explore emerging practices in law enforcement–related maternal deaths.

In coming years, the Panel intends to review any additional homicide deaths that may be pregnancy-related to develop recommendations for state systems and other entities from any preventable pregnancy-related deaths.

Data from all pregnancy-related intimate partner homicide and out-of-state deaths from 2014–2020 are included in this report.

Findings

A note about interpreting small numbers:

The Department of Health calculated maternal mortality rates for all maternal deaths and pregnancy-related deaths. The maternal mortality rate is the number of deaths per 100,000 live births during a specified time period and within a specific geography. It is used to describe maternal deaths in aggregate as well as for specific subgroups, and to compare the experience of maternal mortality across states and the nation. Results presented in this report are purely descriptive in nature. Information on maternal characteristics presented in the report was obtained from birth certificates when possible. In cases where information is not available from the birth certificate, available information from the medical record or death certificate was used.

Data are meant to illustrate characteristics of the cohort of all pregnancy-associated deaths for 2014–2020. The relatively small number of deaths means that the findings presented in this report offer a snapshot of this seven-year period. As more data are collected over the next five to ten years, there will be clarity on whether these findings and trends persist over time.

Trends of Maternal Mortality in Washington

Historical maternal mortality data collected between 2000 and 2020 show maternal mortality rates in Washington state are generally decreasing over time (Figure 3). Due to the small number of annual maternal deaths, pooled data for a three-year rolling average is presented. Rates are presented in six groups:

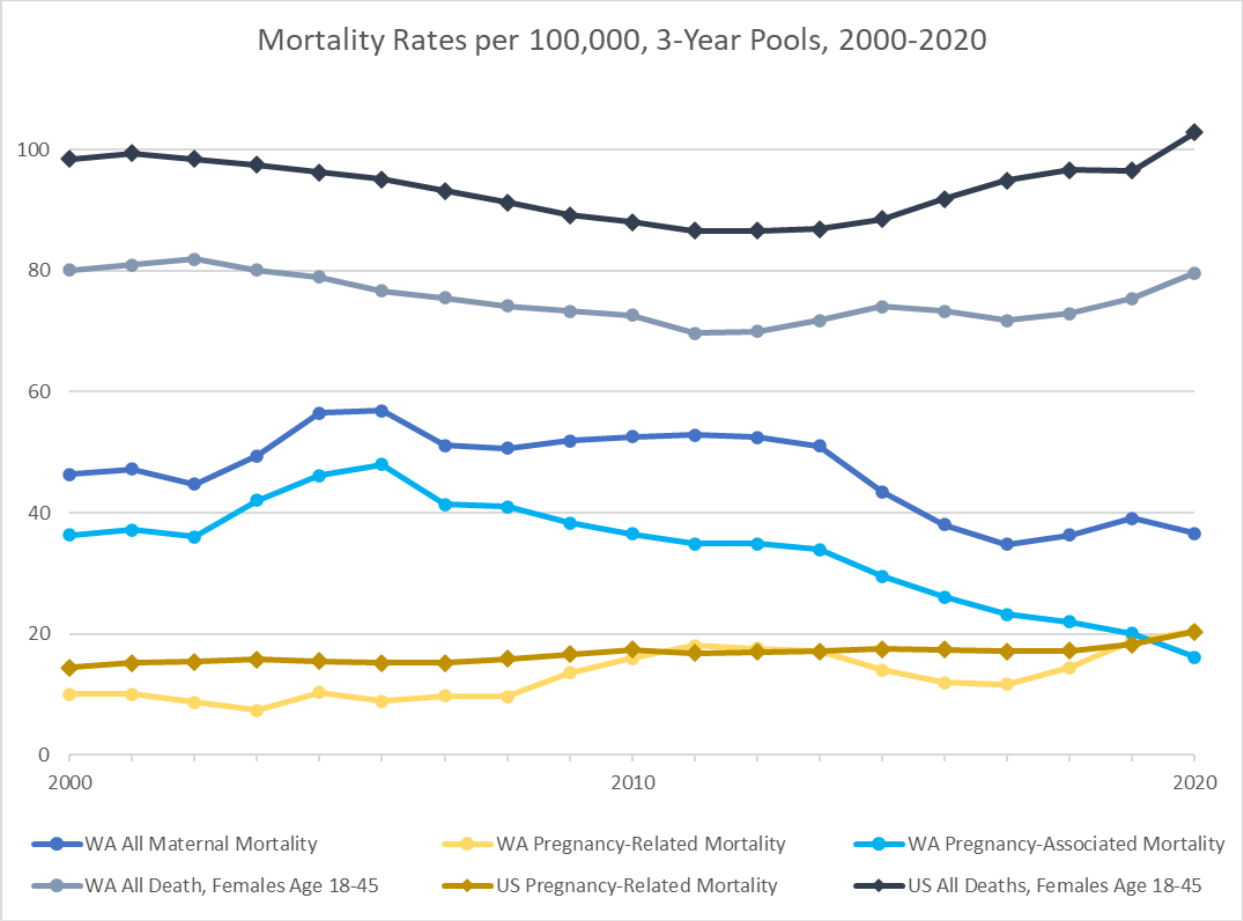
- All Washington *maternal* deaths
- Washington *pregnancy-associated but not related* deaths
- Washington *pregnancy-related* deaths
- All Washington deaths of *females* ages 18–45
- U.S. *pregnancy-related* deaths
- U.S. deaths of *females* ages 18–45

The total pregnancy-associated maternal mortality rate in Washington was highest in 2005–2007, at 56.9 deaths per 100,000 live births, and lowest in 2015–2017 at 34.8 deaths per 100,000 live births. The rate from the most recent review period (2018–2020) was 36.6 deaths per 100,000 live births.

Similarly, the period from 2005–2007 had the highest mortality rate in Washington for pregnancy-associated, but not related deaths at 48.0 deaths per 100,000 live births. The rate for these deaths during 2018–2020 was the lowest recorded, at 16.1 deaths per 100,000 live births. Also in 2018–2020, the rate of pregnancy-associated but not related deaths dropped below the rate of pregnancy-related deaths for the first time, as seen in Figure 3.

The pregnancy-related maternal mortality rate in Washington was highest in 2018–2020, with 20.5 deaths per 100,000 live births. This is the highest rate of pregnancy-related deaths recorded in Washington. However, this trend likely reflects both an expanded definition of pregnancy-related maternal mortality to include deaths due to suicide, overdose, and intimate partner homicide, which were previously considered out of scope, or only considered to be pregnancy-associated, and not related to pregnancy. Additionally, the Panel's evolving understanding of what is considered a pregnancy-related death has led to more deaths classified as pregnancy-related and does not necessarily indicate a true increase in pregnancy-related deaths.

Figure 3: Mortality Rate (deaths per 100,000), Washington State and United States, 2000–2020



Please note: *Data collected and analyzed at the Department of Health to understand trends of maternal mortality in Washington have become more robust over time. The review of maternal deaths before 2008 was restricted to birth, death, and hospitalization records; the review of deaths between 2009 and 2012 was limited to birth and death records. Maternal deaths in 2013 were not reviewed due to resource constraints. An estimate for 2013 was used in Figure 3. The most comprehensive review to date was conducted for deaths that occurred in 2014 through 2020. The review was based on birth, hospitalization, medical, and behavioral health records, autopsies, and other available records. The use of different data sources limits the comparability of data. While the Department has studied maternal mortality since the 1990s, the Panel started reviewing deaths in its current process in 2016.*

Maternal Mortality 2014–2020

There were 609,624 live births in Washington during 2014–2020. The Department identified 224 maternal deaths, resulting in a total pregnancy-associated maternal mortality rate of 36.7 deaths per 100,000 live births for 2014–2020 (see Tables 1 and 2).

Table 1: Number of Maternal Deaths, Washington State, 2014–2020

	2014	2015	2016	2017	2018	2019	2020	**Total**
Total Pregnancy-Associated Deaths	**38**	**32**	**32**	**29**	**35**	**37**	**21**	**224**
Pregnancy-Related Deaths	14	8	10	13	15	21	16	**97**
Pregnancy-Associated, Not Related	24	23	18	12	15	12	2	**106**
Pregnancy-Associated, Unable to Determine if Related	0	1	2	3	5	4	3	**18**

Table 2: Maternal Mortality Rates (deaths per 100,000 live births) and 95% Confidence Intervals, Washington State, 2014–2020

	Rate (deaths per 100,000 live births)	95% Confidence Intervals*
Total Pregnancy-Associated Deaths	**36.7**	**(32.1, 41.9)**
Pregnancy-Related Deaths	15.9	(12.9, 19.4)
Pregnancy-Associated, Not Related	17.4	(14.2, 21.0)
Pregnancy-Associated, Unable to Determine if Related	3.0	(1.7, 4.7)

*95% CI calculated using Gamma method

The Panel determined 97 of the 224 deaths were pregnancy-related, resulting in a pregnancy-related maternal mortality rate of 15.9 deaths per 100,000 live births for 2014–2020. This rate reflects the expanded maternal mortality definition that included deaths due to suicide, substance use (including unintentional overdose), and intimate partner homicide. The rate of pregnancy-related deaths caused by suicide, substance use, and intimate partner homicide is 6.1 deaths per 100,000

live births. The rate of pregnancy-related deaths due to all other causes is 9.8 deaths per 100,000 live births (see Tables 3 and 4).

Table 3: Subgroups of Pregnancy-Related Deaths, Number of Maternal Deaths, Washington State, 2014–2020

	2014	2015	2016	2017	2018	2019	2020	**Total**
Total Pregnancy-Related Deaths	**14**	**8**	**10**	**13**	**15**	**21**	**16**	**97**
Pregnancy-Related Deaths from Suicide, Substance Use, and Homicide	5	2	7	7	6	7	3	**37**
Pregnancy-Related Deaths from All Other Causes	9	6	3	6	9	14	13	**60**

Table 4: Subgroups of Pregnancy-Related Deaths, Maternal Mortality Rates and 95% Confidence Intervals, Washington State, 2014–2020

	Rate (deaths per 100,000 live births)	95% Confidence Intervals*
Total Pregnancy-Related Deaths	**15.9**	**(12.9, 19.4)**
Pregnancy-Related Deaths from Suicide, Substance Use, and Homicide	6.1	(4.3, 8.4)
Pregnancy-Related Deaths from Other Causes	9.8	(7.5, 12.7)

*95% CI calculated using Gamma method

Pregnancy-Associated Deaths, 2014–2020

Demographics: Pregnancy-Associated Deaths

(the death of a person while pregnant or within one year of a pregnancy regardless of the cause of death or outcome of the pregnancy)

Figures 4a and 4b show demographic characteristics of maternal deaths at time of death using the count (total number of deaths for each subgroup) and the maternal mortality rate (number of deaths per 100,000 live births). Demographics include age at time of death, race and ethnicity groups, insurance coverage type, and residence type. Additional data on demographics that includes 95 percent confidence intervals are included in Appendix 2, Table 1A. This information is helpful when interpreting data based on only a few deaths over several years in which mortality rates varied and should be considered when drawing conclusions and interpreting the information presented in this report.

The race/ethnic groups included Hispanic (of any race), Non-Hispanic Black, Non-Hispanic white, Non-Hispanic American Indian or Alaska Native, Non-Hispanic Asian American, Non-Hispanic Native Hawaiian, Non-Hispanic Pacific Islander, and Non-Hispanic multi-racial. Due to small counts, Native Hawaiian and Pacific Islander people were combined into one group for all the analyses presented in this report. Health insurance was assessed using information available from birth certificates and medical records. The *Other Insurance* group contains other types of governmental insurance programs such as Tricare. The *None/Unknown Insurance* group includes those individuals for whom no insurance information was available (n=8) or for whom it was documented there was no insurance (n=1). Residence was classified as rural or urban using the residential ZIP code designation from the Rural-Urban Commuting Area (RUCA) system developed by the Federal Office of Rural Health and Policy.

Maternal mortality rates for *pregnancy-associated* deaths varied across subgroups of birthing people. The highest rates were observed in individuals 35 years or older. American Indian and Alaska Native people had higher maternal mortality rates than any other race/ethnic group.

People with private health insurance during pregnancy, at delivery, or up to a year postpartum had the lowest maternal mortality rates. The highest maternal mortality rate was observed for individuals for whom no health insurance records could be located. Most of these people died from motor vehicle crashes. Among this same group, many lived in urban areas, but overall rates were highest for people living in rural areas.

Figure 4a: Demographics, Counts for Pregnancy-Associated Deaths (N=224), Washington State, 2014–2020

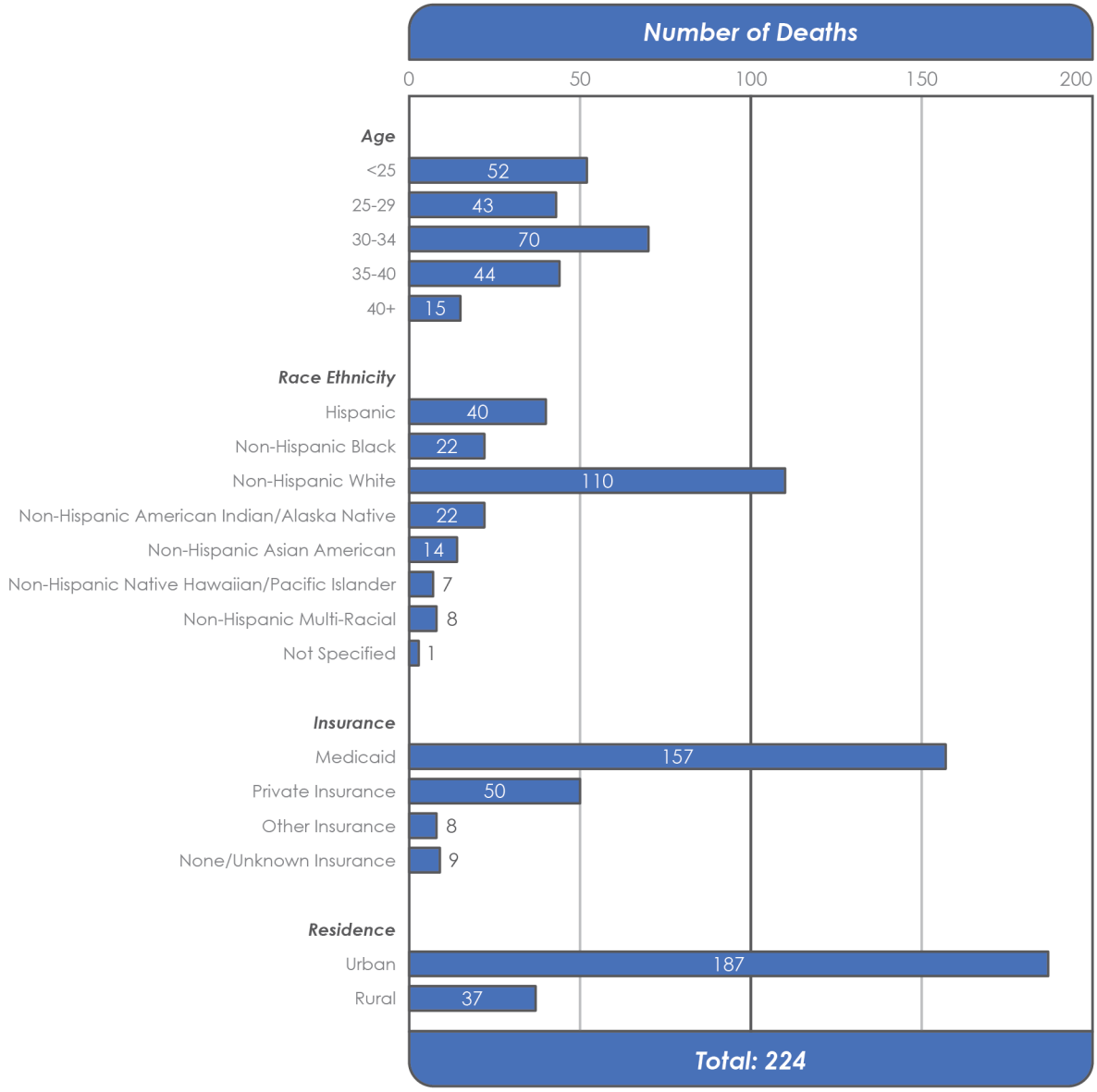
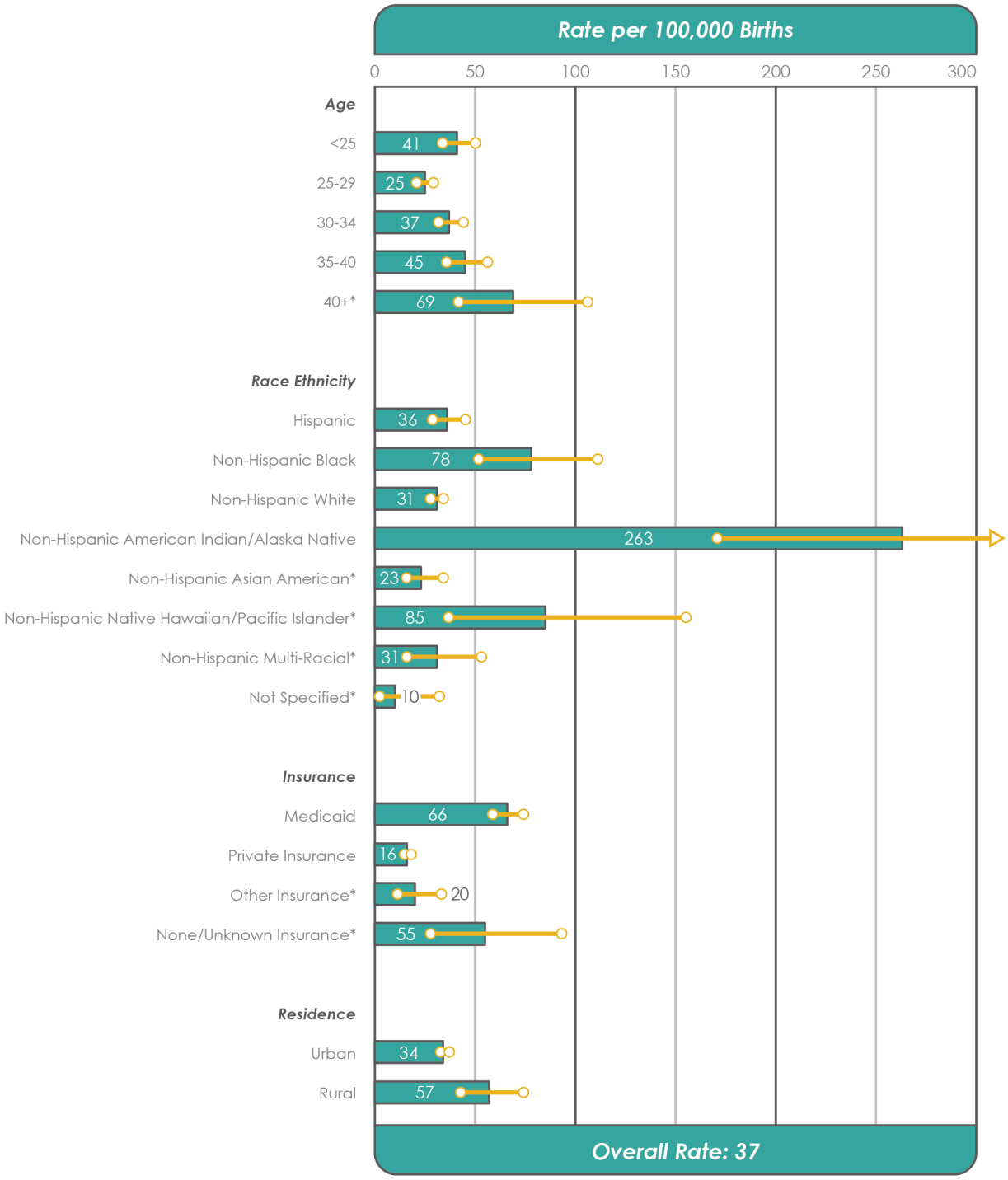


Figure 4b: Demographics, Rates per 100,000 Live Births for Pregnancy-Associated Death, Washington State, 2014–2020



*Relative standard error is 25% or greater; this rate is unstable, interpret with caution.

Cause and Manner of Death: Pregnancy-Associated Deaths

Findings of maternal mortality reviews include terminology used in death investigations, including the underlying cause of death and manner of death. This information is used in data analyses and to understand the circumstances surrounding deaths.

Underlying Cause of Death: The World Health Organization defines the underlying cause of death as the "disease or injury which initiated the chain of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury."[27] The underlying cause of death reflects the medical opinion of the coroner, medical examiner, or physician certifying the death.[28]

Manner of Death: The manner of death indicates how a death occurred and is either natural, in which death is caused by disease only, or unnatural, in which injury of any type caused or contributed to death. Any death which may be unnatural in manner is to be reported to the applicable medicolegal system, either the coroner or medical examiner. Only the coroner or medical examiner can certify a death as unnatural in manner.[29]

There are five main classifications of manner of death:

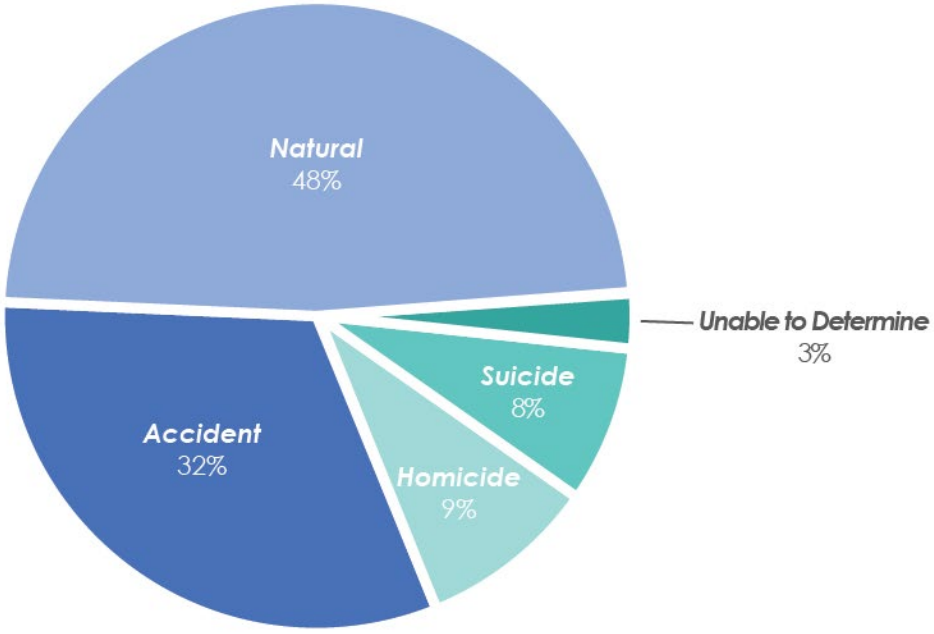
- **Natural**: Death caused entirely by natural disease process(es). If injury of any type caused or contributed to death, the death is considered unnatural.
- There are four categories of unnatural death.
    - **Accident**: The injury that caused or contributed to death was unintentional (or inadvertent).
    - **Suicide**: The injury that caused or contributed to death was intentionally self-inflected.
    - **Homicide**: The injury that caused or contributed to death resulted from another person's actions.
    - **Undetermined** or **unable to determine**: It is not possible to determine how the death occurred, based on all available information. This classification may also be used in circumstances where the condition of the body or other findings prevent determination of a likely cause of death.

Figure 5 shows the manners of death in this maternal death cohort, as determined by the coroner or medical examiner.

In 2014–2020, nearly half (48 percent) of maternal deaths were classified as natural—caused by natural disease processes rather than injury. These included deaths from hemorrhage, hypertensive disorders, infection, pulmonary conditions, embolism, cardiovascular conditions, cardiomyopathy, gastrointestinal disorders, autoimmune disorders, metabolic disorders, neurological conditions, stroke, and cancer.

Accidental deaths made up almost a third of deaths (32 percent). Deaths from injuries such as motor vehicle crashes, falls, and drownings accounted for 21 percent of total maternal deaths, followed by unintentional substance overdose (prescription and illicit drugs, and alcohol) (10 percent). Deaths by suicide represented 8 percent, and deaths by homicide represented 9 percent of the total deaths. (Figure 5).

Figure 5: Manner of Death for Pregnancy-Associated Deaths (N=224), Washington State, 2014–2020



Pregnancy-Related Deaths, 2014–2020

As part of the review process, the Panel determines which pregnancy-associated deaths are **pregnancy-related deaths**. These are deaths that occur during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by a pregnancy, or the aggravation of an unrelated condition by the physiological effects of pregnancy. This subgroup includes pregnancy-related deaths from behavioral health conditions, such as mental health conditions and substance use disorder.

Demographics: Pregnancy-Related Deaths

Similarly to the data presented in the pregnancy-associated deaths section of the report, the demographics include age at time of death, race/ethnic groups, insurance coverage type, and residence. The subgroups for each characteristic were defined in the same manner as before.

The pregnancy-related mortality rate was greater for individuals aged 30–35 years or older than for those who were under 25 years of age, or those who were 25–30. The rate increased for each age group 35–40 and 40 and older. American Indian and Alaska Native people experienced higher maternal mortality rates than any other race/ethnic group. Although people with no insurance or unknown insurance status had the lowest rate of death, this rate was based on such a small number of individuals that the rate is not reliable. The category of privately insured people had the lowest reliable rate of death (see Figures 6 and 6b).

Figure 6a: Demographics, Counts for Pregnancy-Related Deaths (N=97), Washington State, 2014–2020

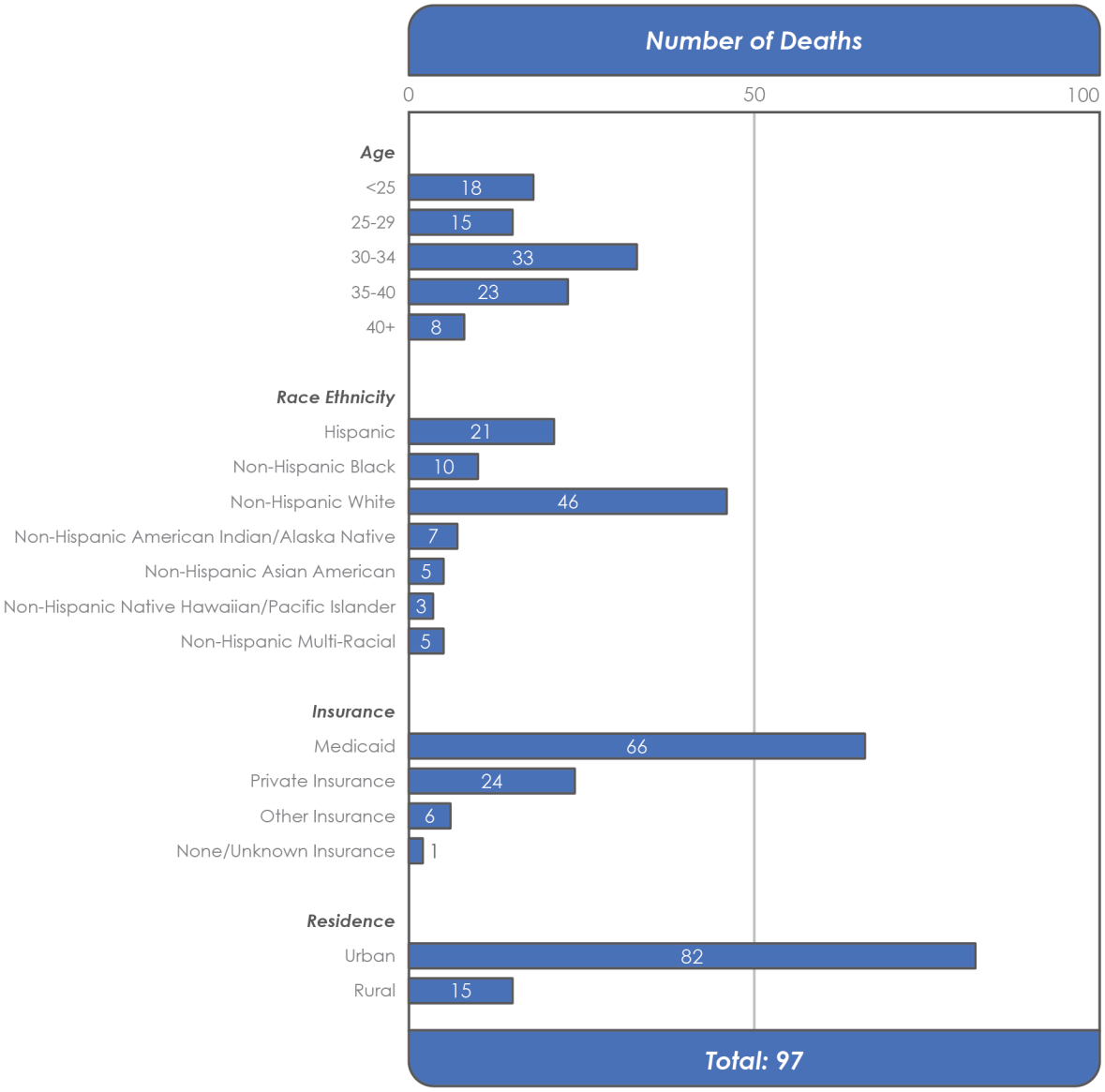
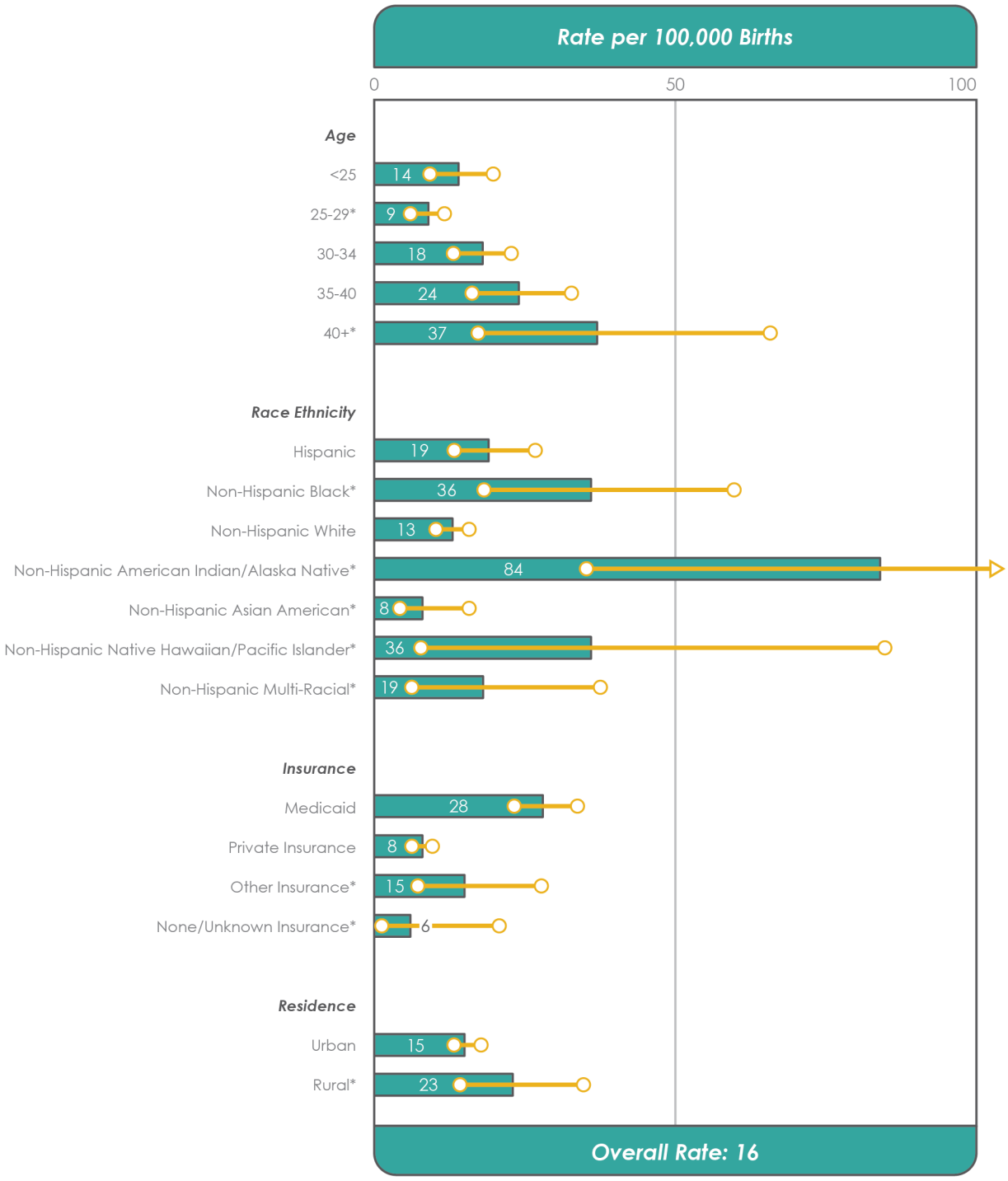


Figure 6b: Demographics, Rates per 100,000 Live Births for Pregnancy-Related Deaths, Washington State, 2014–2020



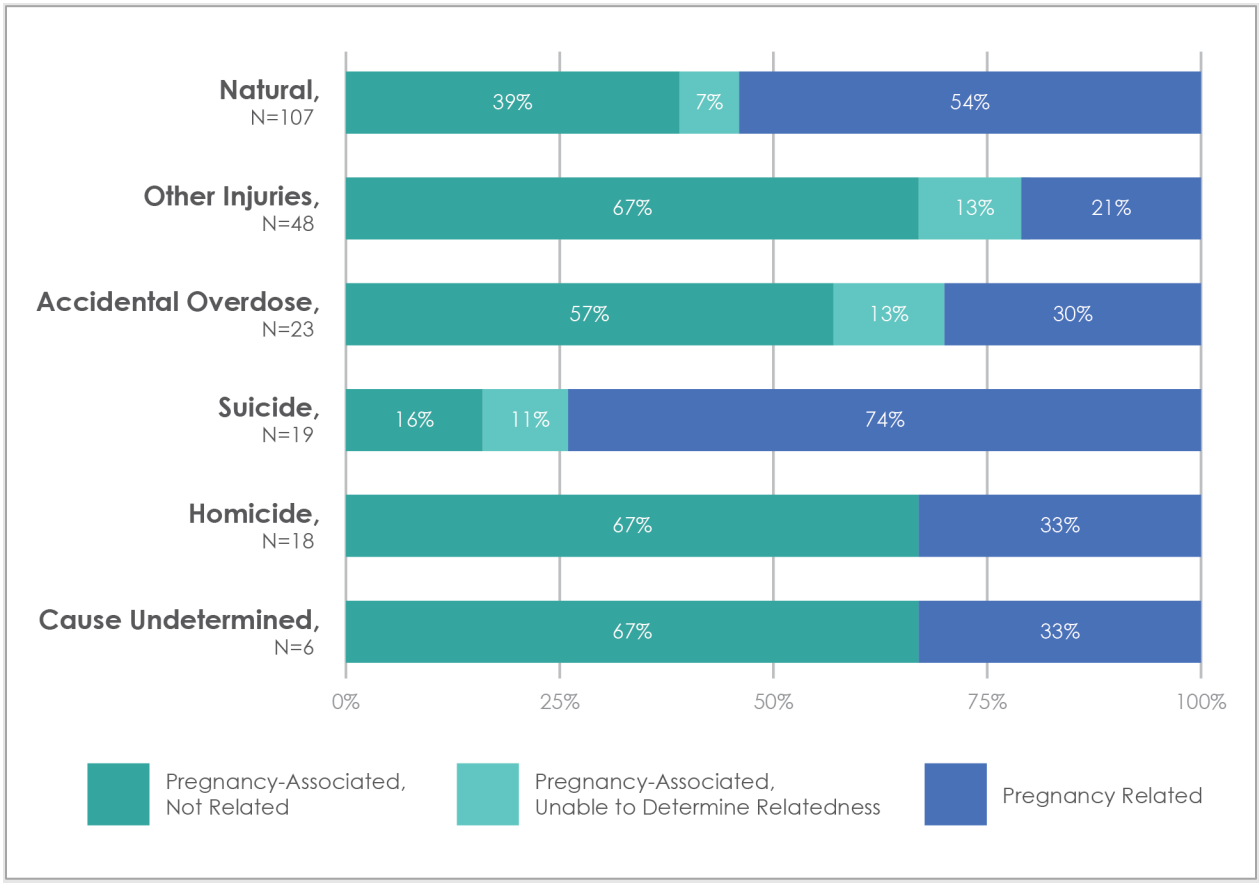
*Relative standard error is 25% or greater; this rate is unstable, interpret with caution.

Pregnancy-relatedness and Manner of Death

Within each manner of death, Figure 7 shows the proportion of deaths the panel determined to be pregnancy-related. The percentage of pregnancy-related deaths varied by manner of death.

- The highest percentage of pregnancy-related deaths was among deaths due to suicide. The Panel found 74 percent of deaths from suicide to be pregnancy-related.
- More than half (54 percent) of the natural deaths were pregnancy-related.
- Thirty percent of deaths due to unintentional substance overdose were pregnancy-related.
- Twenty-one percent of the deaths due to other injuries were pregnancy-related.

Figure 7: Pregnancy-Associated Deaths by Manner of Death (N=221), Washington State, 2014–2020 *



*Three deaths due to homicide are not included in the figure as they were not reviewed by the Panel.

Underlying Cause of Death: Pregnancy-Related Deaths

For all pregnancy-related deaths, the Panel determined the sequence of events that led to each death and have revised the underlying cause of death from what the medical examiner or coroner identified. This portion of the findings presents the underlying cause of death as determined by the Panel during the maternal mortality review using causes of death available on the Committee Decisions Form (see Appendix 1a). Figure 8 illustrates the underlying causes of death and the proportion by manner of death for all pregnancy-related deaths, as determined by the Panel (N=97).

Behavioral health conditions, which include mental health conditions and substance use, comprised the leading cause of pregnancy-related deaths (32 percent, n=31). These deaths included suicides, unintentional substance overdose, and other deaths related to substance use that were not substance overdose (e.g., drowning while under the influence of substances).

The causes of the 31 pregnancy-related deaths from behavioral health conditions varied by manner of death:

- The causes of death for deaths by suicide (n=14) and unintentional overdose (n=7) included:
    - Substance use disorder
    - Depression
    - Other mental health conditions.

- The manner of death for cases related to substance use that were *not* deaths by suicide or unintentional overdose (n=10) included natural, accidental, and unable to determine. The causes of death for substance use-related deaths included:
    - Infection
    - Injury (caused by motor vehicle crashes and drowning)
    - Cardiovascular conditions
    - Mental health conditions, including depression and substance use disorder

The second and third highest causes of death were hemorrhage (or bleeding too much) (12 percent, n=12), and infection (9 percent, n=9). Deaths due to hemorrhage and infection included natural and accidental deaths.

The causes of hemorrhage deaths included:

- Cervical laceration
- Ectopic pregnancy
- Uterine rupture
- Falling
- Other hemorrhage (not otherwise specified)

Among the deaths due to infection, the Panel identified causes including:

- COVID-19
- Sepsis due to infections of the amniotic sac and membranes
- Sepsis due to an infection of unknown cause

Figure 8: Manner of Death and Underlying Causes of Death for Pregnancy-Related Deaths (N=95)*, Washington State, 2014–2020

*There were two deaths for which the manner of death was undetermined and are not included in the figure.

Time of Death Related to Pregnancy: Pregnancy-Related Deaths

Deaths described in this report occurred during pregnancy or up to a year after the end of pregnancy. The circumstances surrounding these deaths varied depending, in part, on whether an individual was pregnant, had just delivered, or was in the period of time after pregnancy at time of death—including the length of time since the end of pregnancy or delivery. Understanding this variation helps us identify opportunities to reduce the risk for such deaths in the future.

Figure 9 illustrates the timing of pregnancy-related deaths relative to the pregnancy. This includes people who were pregnant at time of death (no birth or fetal death), and people who were no longer pregnant when they died. Those who were no longer pregnant include individuals who delivered and died within 24 hours of delivery, individuals who died within 42 days of the end of pregnancy, and individuals who died 43 days to one year after the end of pregnancy.

More than one quarter of the pregnancy-related deaths occurred during pregnancy (27 percent). An additional 11 percent occurred within 24 hours of a delivery. Nearly one third of the pregnancy-related deaths (31 percent) occurred within 42 days after the end of pregnancy, and 31 percent occurred beyond 43 days after the end of pregnancy (Figure 9.)

Figure 9: Timing from End of Pregnancy to Death, Pregnancy-Related Deaths (N=97), Washington State, 2014–2020

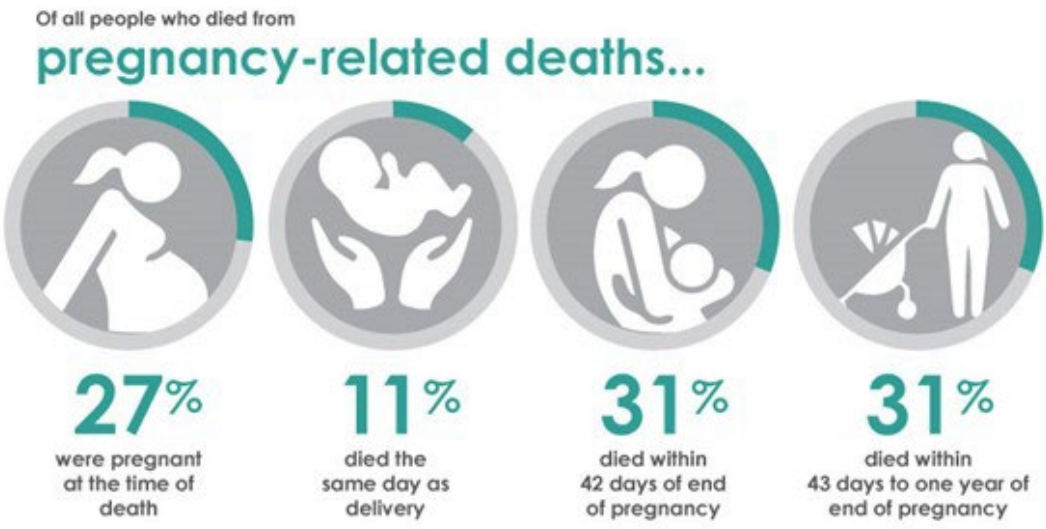
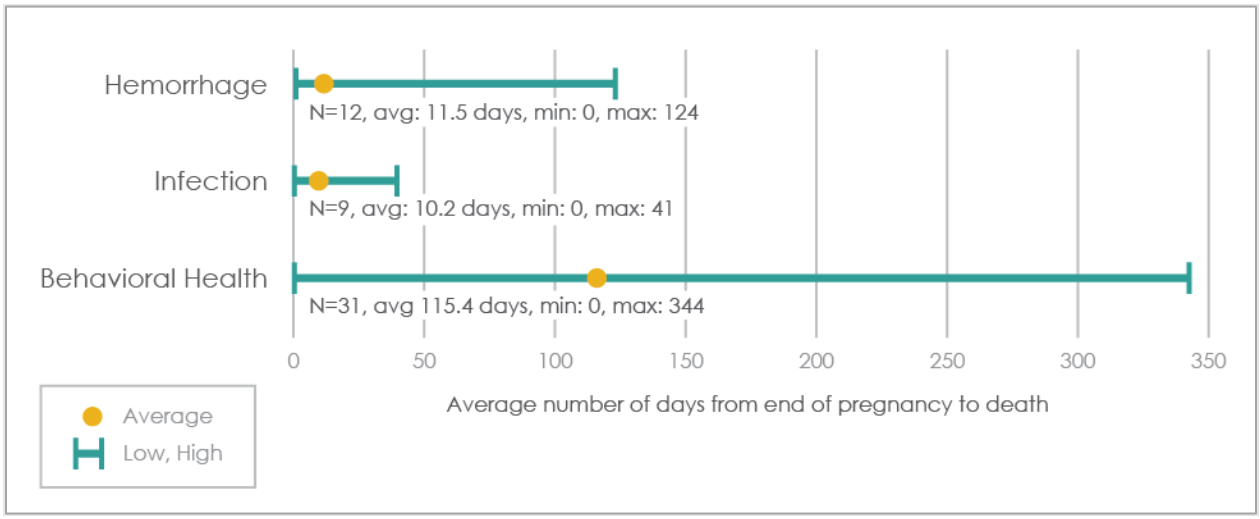


Figure 10 shows how the number of days from the end of pregnancy to death varies by the Panel-determined cause of death for the top three leading causes of death. The graph presents for each group the number of deaths, the range of days (low and high), and the average number of days from the end of pregnancy to death.

Deaths related to behavioral health conditions occurred on average 115 days after the end of pregnancy, with a range from zero to 344 days. Deaths due to infection and hemorrhage occurred on average within 10 and 12 days from the end of pregnancy, respectively.

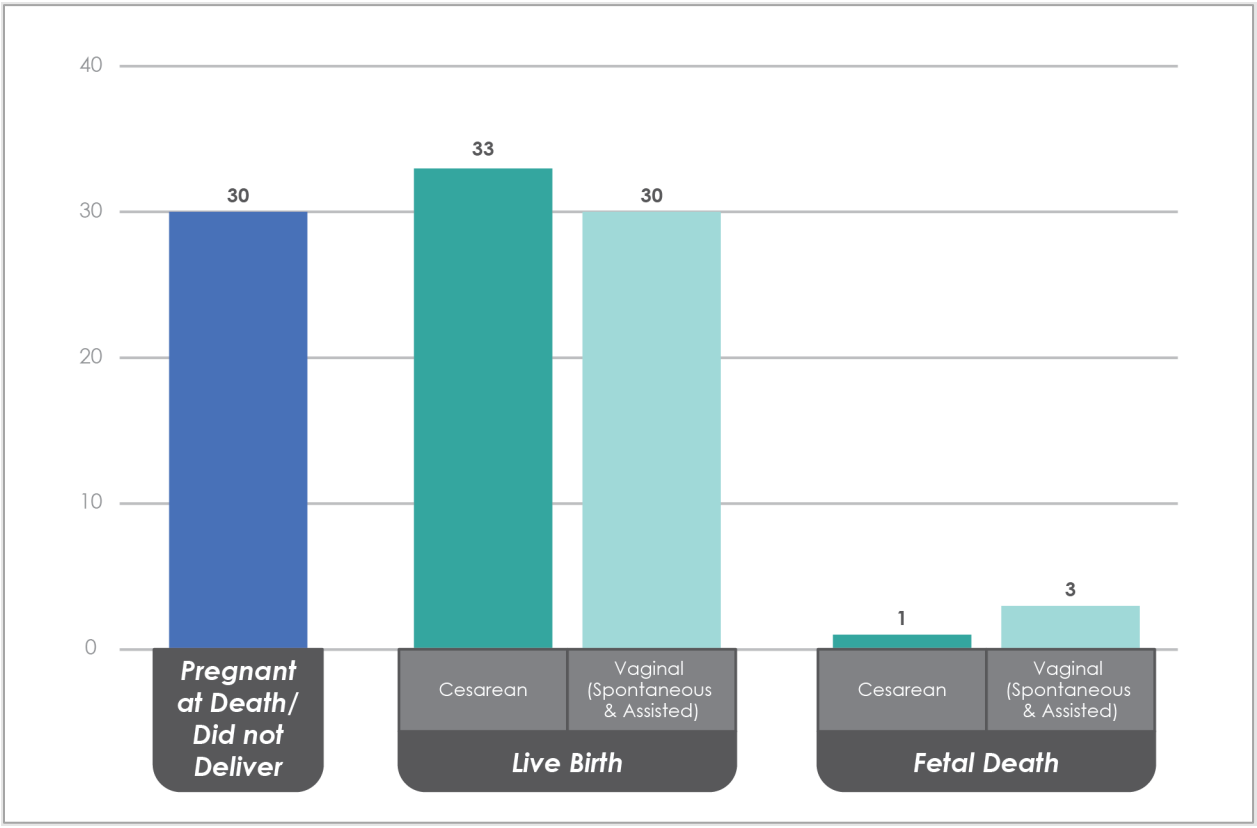
Figure 10: Average Time from Pregnancy to Death for Top Three Leading Causes of Death, Pregnancy-Related Deaths (N=18), Washington State, 2014–2020



Pregnancy Outcome: Pregnancy-Related Deaths

Figure 11 describes the pregnancy outcome and method of delivery for pregnancy-related deaths. Sixty-seven of the 97 people (69 percent) whose deaths were pregnancy-related experienced a delivery. Thirty individuals died while they were pregnant or after a pregnancy that did not end with delivery (e.g., ectopic pregnancy, miscarriage, induced termination).

Figure 11: Method of Delivery and Outcome of Pregnancy for Pregnancy-Related Deaths (N=97), Washington State, 2014–2020



Among pregnancy-related deaths with live birth deliveries (n=63), 52 percent were delivered by cesarean section and 48 percent were vaginal deliveries. The majority of pregnancies resulted in live births (65 percent); and four pregnancies resulted in fetal deaths (4 percent).

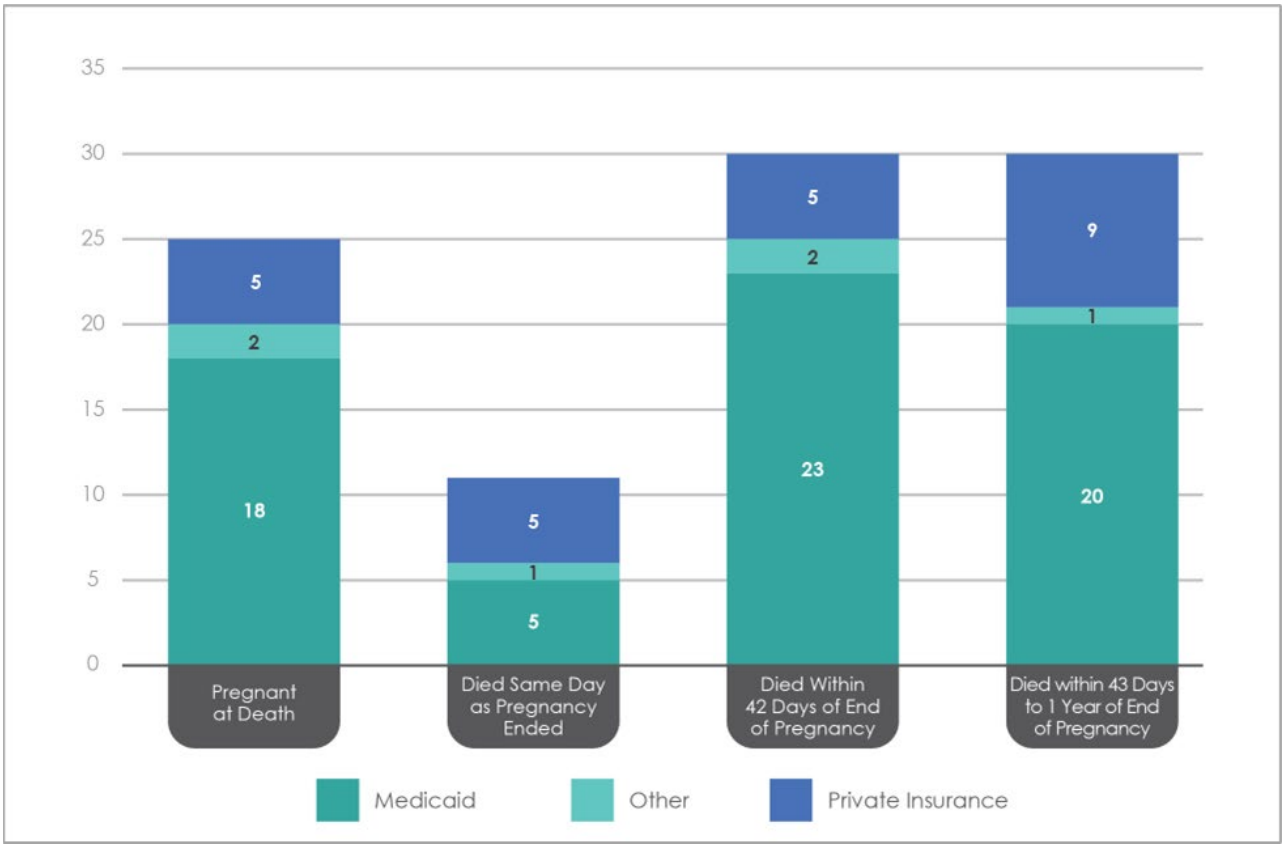
Health Insurance Coverage: Pregnancy-Related Deaths

Nearly all people who died from pregnancy-related causes had health insurance coverage during pregnancy and up until the time of their death. The majority (68 percent) of those individuals had health insurance coverage through Medicaid. Among those who had Medicaid, most were non-Hispanic white (42 percent) or Hispanic (26 percent). Non-Hispanic Black or African American and non-Hispanic American Indian and Alaska Native people made up 11 percent and 9 percent, respectively. The majority of people insured by Medicaid who died from pregnancy-related causes lived in an urban area (80 percent) and were 30–40 years old (53 percent).

Among people who had a delivery (n=67), 69 percent had insurance through Medicaid, 25 percent had private insurance, and 6 percent were insured through other programs such as

Tricare. Figure 12 illustrates types of health insurance coverage at the time of death after the end of pregnancy.

Figure 12: Health Insurance Coverage at Time of Death by Time since Delivery, Pregnancy-Related Deaths (N=96)* Washington State, 2014–2020



*Insurance information was not available for one individual and is not included in the figure.

Preventability of Pregnancy-Related Deaths

To determine whether a death was preventable, the Panel followed the definition outlined by the CDC Foundation's *Building U.S. Capacity to Review and Prevent Maternal Deaths* initiative, which states "a death is considered preventable if the [Panel] determines that there was at least some chance of the death being averted by one or more reasonable changes to patient, family, provider, facility, system and/or community factors." (See Appendix 1a)

In recent years, the Panel has specifically discussed whether a death was preventable from a clinical, social determinant of health, and/or systemic racism perspective. This helps the Panel ensure they consider all potential factors in preventability, including social and systemic factors.

Table 5 shows the Panel determined 80 percent of pregnancy-related deaths were preventable. Recommendations based on preventable events and contributing factors are presented later in this report.

Table 5: Preventability of Pregnancy-Related Deaths (N=97) as Determined by the Maternal Mortality Review Panel, Washington State, 2014–2020

Preventability of Pregnancy Related Deaths	Count	Percent (%)
Yes - Preventable	78	80.4
No - Not Preventable	16	16.5
Unable to determine preventability	3	3.1

Figure 13 illustrates the timing of preventable pregnancy-related deaths relative to pregnancy. Among the preventable deaths, 20 people died while still pregnant, representing 26 percent of preventable deaths. Seven individuals delivered and died within 24 hours after delivery (9 percent). Twenty-three people died between two and 42 days of the end of pregnancy (29 percent); and 28 people died 43 days to one year from the end of pregnancy (36 percent). Thirty-nine percent of deaths over 43 days since delivery (n=11) occurred 200 days or more after the end of pregnancy (Figure 13).

Figure 13: Timing of Death for Preventable Pregnancy-related Deaths (N=78), Washington State, 2014–2020

Pregnancy-Associated Deaths Due to Behavioral Health Conditions

This subgroup includes all ***pregnancy-associated deaths from behavioral health conditions*** (e.g., including deaths that are pregnancy-related, deaths that are pregnancy-associated but not related, and deaths that cannot be determined if they are related to pregnancy).

There were 61 pregnancy-associated deaths from substance overdose (n=23), suicide (n=19), and substance use contributing factors (but not overdose) (n=19). They were reviewed through the same standard process that historically was only applied to pregnancy-associated deaths from other medical causes. Due to the unique clustering of deaths in these groups and the small number of records, the data presented for this subgroup includes all pregnancy-associated deaths (pregnancy-related, pregnancy-associated, but not related, and unable to determine relatedness).

Figure 14: Pregnancy-Associated Deaths Due to Suicide (N=19), Substance Use Overdose (N=23), and Substance Use Contributing (N=19), Washington State, 2014–2020

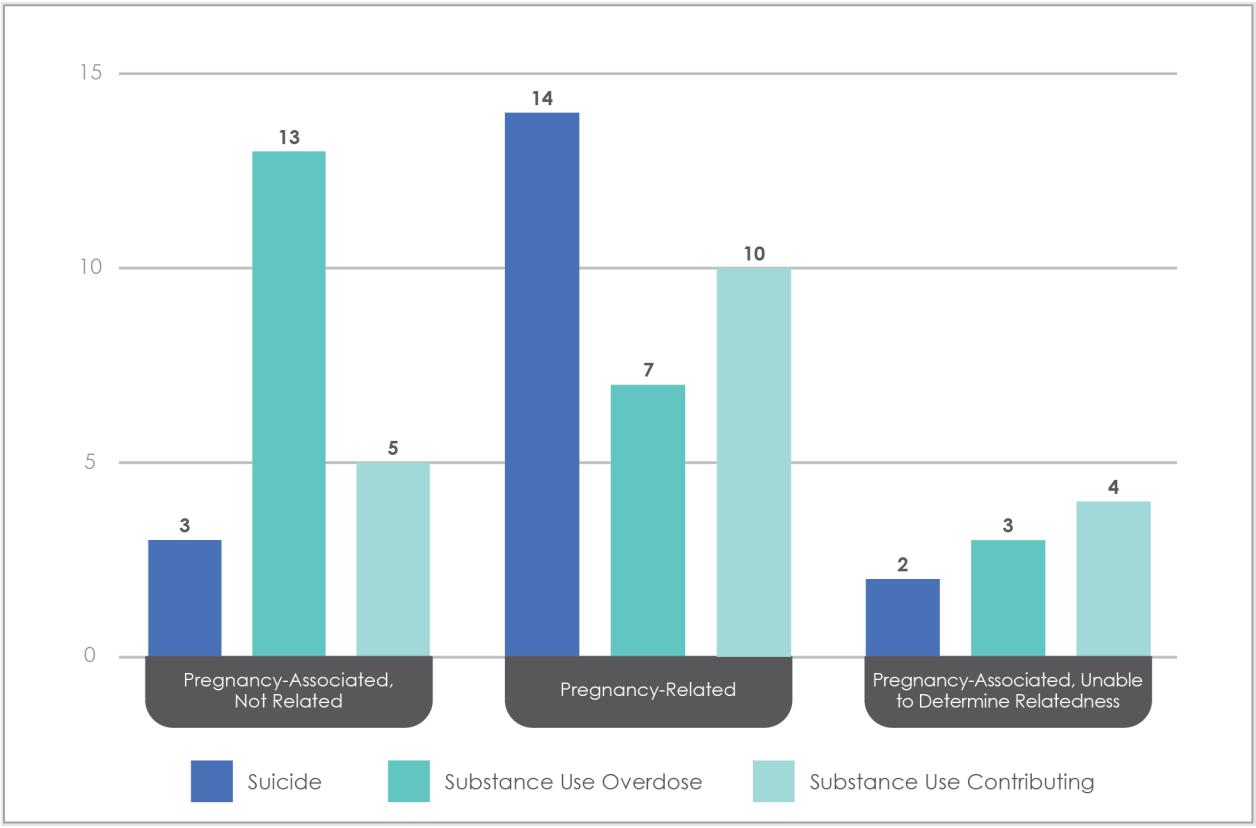


Figure 14 shows the percentage of pregnancy-associated deaths from suicide, deaths from unintentional substance overdose, and deaths for which substance use contributed to the death. The Panel determined that 74 percent of deaths by suicide were pregnancy-related. In contrast, the Panel concluded that 30 percent of substance use overdose deaths were pregnancy-related.

More than half (53 percent) of deaths for which substance use contributed to the death were determined by the Panel to be pregnancy-related.

Pregnancy-Associated Deaths from Unintentional Substance Overdose

This subgroup contains all ***pregnancy-associated deaths from unintentional substance overdose*** and includes deaths that are pregnancy-related, deaths that are pregnancy-associated but not related, and deaths that cannot be determined if they are related to pregnancy.

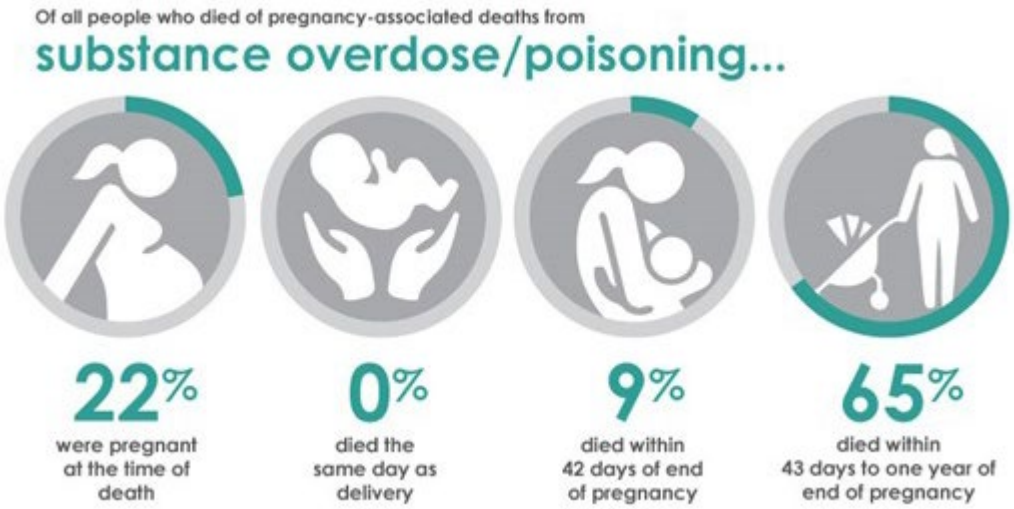
Demographics: Pregnancy-Associated Deaths from Unintentional Substance Overdose

There were 23 pregnancy-associated deaths from unintentional substance overdose in 2014–2020. The people who experienced these types of death were primarily age 30 or younger (n=15) and non-Hispanic white (n=15). American Indian and Alaska Native people made up a disproportionate number of these deaths. The majority of the people who died by unintentional substance overdose were insured through Medicaid and lived in urban areas.

Timing of Deaths: Pregnancy-Associated Deaths from Unintentional Substance Overdose

Figure 15 illustrates the timing of pregnancy-associated deaths from unintentional substance overdose relative to the pregnancy. Twenty-two percent of the pregnancy-associated deaths from unintentional overdose occurred during pregnancy; 9 percent occurred within 42 days after the end of pregnancy; and 65 percent occurred between 43 days and one year after the end of pregnancy. No deaths from overdose occurred on the same day as delivery. The average time between pregnancy and death for people who died by substance overdose was 129 days.

Figure 15: Timing from Pregnancy to Death - Pregnancy-Associated Deaths from Unintentional Substance Overdose (N=22)* Washington State, 2014–2020



* There was one death for which timing of death was unknown. It is not presented in the figure.

Substances Involved in Unintentional Overdose

Substances involved in unintentional overdose deaths included illicit and prescription drugs as well as alcohol. Opioids were the most frequent group of substances involved in overdose deaths, indicated in 83 percent of deaths. Other substances involved in deaths included methamphetamine, cocaine, alcohol, and combinations of two or more substances.

Pregnancy-Associated Deaths from Suicide

This subgroup includes all ***pregnancy-associated deaths from suicide*** and includes deaths that are pregnancy-related, deaths that are pregnancy-associated but not related, and deaths that cannot be determined if they are related to pregnancy.

Demographics: Pregnancy-Associated Death from Suicide

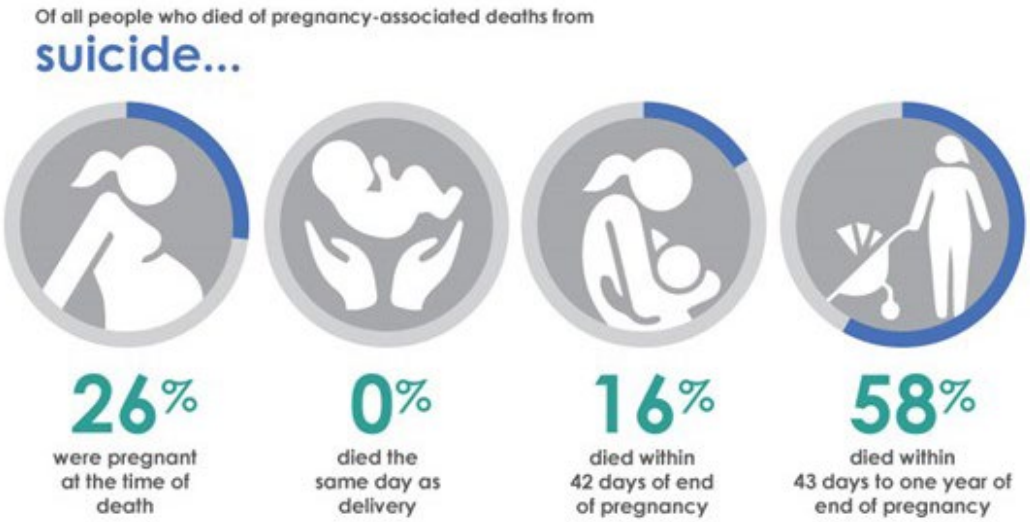
There was a total of 19 pregnancy-associated deaths from suicide in 2014–2020. People who experienced pregnancy-associated deaths due to suicide were primarily individuals aged 30 and older (n=13), people who resided mainly in urban areas (n=17), and people who had health insurance through Medicaid (n=12). Most suicide deaths were by intentional substance overdose, hanging, or firearm discharge.

Timing of Death: Pregnancy-Associated Death from Suicide

Figure 16 illustrates the timing of pregnancy-associated deaths from suicide relative to the pregnancy. Most pregnancy-associated deaths from suicide occurred 43 or more days after the end of pregnancy. Twenty-six percent of pregnancy-associated deaths from suicide occurred

during pregnancy; there were no deaths within 24 hours of delivery; 16 percent occurred within 42 days of the end of pregnancy; and 58 percent occurred 43 days or more after the end of pregnancy. Thirty-seven percent of deaths by suicide occurred between six and twelve months after the end of pregnancy. The average time to death was 126 days.

Figure 16: Time from Pregnancy to Death - Pregnancy-Associated Deaths due to Suicide (N=19), Washington State, 2014–2020



Summary of Findings

Pregnancy-associated deaths

- In 2014–2020, 224 pregnancy-associated deaths were identified.
- Despite yearly increases in 2018 and 2019, overall pregnancy-associated mortality in Washington state has remained stable in recent years and did not increase in the period 2014–2020.
- Maternal mortality rates were highest for people 35 years or older.
- American Indian/Alaska Native individuals had statistically higher maternal mortality rates than any other racial/ethnic group.
- Individuals with private health insurance during pregnancy or up to one year after had statistically lower maternal mortality rates than individuals covered through Medicaid.

Pregnancy-related deaths

- In 2014–2020, the Panel identified 97 pregnancy-related deaths and determined that 80 percent were preventable.
- People 30 years or older had the highest pregnancy-related maternal mortality rate.

- The leading causes of pregnancy-related deaths were behavioral health conditions (32 percent, n=31), hemorrhage (12 percent, n=12), and infection (9 percent, n=9).
    - Pregnancy-related deaths due to behavioral health conditions included 19 suicide deaths, 23 overdose deaths, and 19 additional deaths for which substance use contributed to the death.
- The timing of deaths varied widely, ranging from during pregnancy to one year postpartum among leading causes of death.
    - Deaths from behavioral health conditions occurred, on average, 115 days after pregnancy.
    - Deaths due to infection and hemorrhage occurred within ten to twelve days, respectively, from the end of pregnancy.

All pregnancy-associated deaths from unintentional substance overdose

- In 2014–2020, there were 23 pregnancy-associated deaths from overdose.
- The Panel determined that seven of the pregnancy-associated deaths from substance overdose were pregnancy-related.
- Sixty-five percent of the pregnancy-associated deaths from unintentional overdose occurred 43 days or more after the end of pregnancy.
- Among deaths by unintentional substance overdose, people with private insurance had significantly lower maternal mortality rates than those whose care was covered by Medicaid.
- Opioids were involved in 83 percent of these deaths.

All pregnancy-associated deaths from suicide

- In 2014–2020, there were 19 pregnancy-associated deaths from suicide.
- The Panel determined 14 of the pregnancy-associated deaths from suicide were pregnancy-related.
- Fifty-eight percent of pregnancy-associated deaths from suicide occurred 43 days or more after pregnancy; including 38 percent that occurred between six and 12 months after the end of pregnancy.
- The majority of the individuals who died by suicide received insurance coverage from Medicaid.

Contributing Factors

What factors contributed to *preventable* pregnancy-related deaths?

The Panel identified *contributing factors* that led to each preventable pregnancy-related death. These factors are the **events or circumstances that, if altered, the Panel believes might have prevented the pregnancy-related death**. Based on those contributing factors, the Panel identifies opportunities for intervention, makes recommendations for prevention, and—every three years—prioritizes recommendations from among these for this report.

Identifying contributing factors is a critical part of the maternal mortality review process. It can potentially prevent maternal deaths, reduce severe maternal morbidity, and improve maternal and perinatal health care. The same contributing factors that impact preventable pregnancy-related deaths also likely play a role in other maternal deaths, as well as in situations in which a person survived but faces short-term or long-term health consequences.

The Panel and DOH Perinatal Unit staff sort each contributing factor into a category (e.g., clinical care, environmental, or structural racism) from the Contributing Factor Descriptions list on the Maternal Mortality Review Committee Decisions Form. [30] (Appendix 1a)

They also identify a societal level[31] at which each contributing factor occurred: patient/family, provider, facility, systems of care, or community level.

Figure 17: Societal levels of contributing factors

See Appendix 1 for more details on the Panel's process.

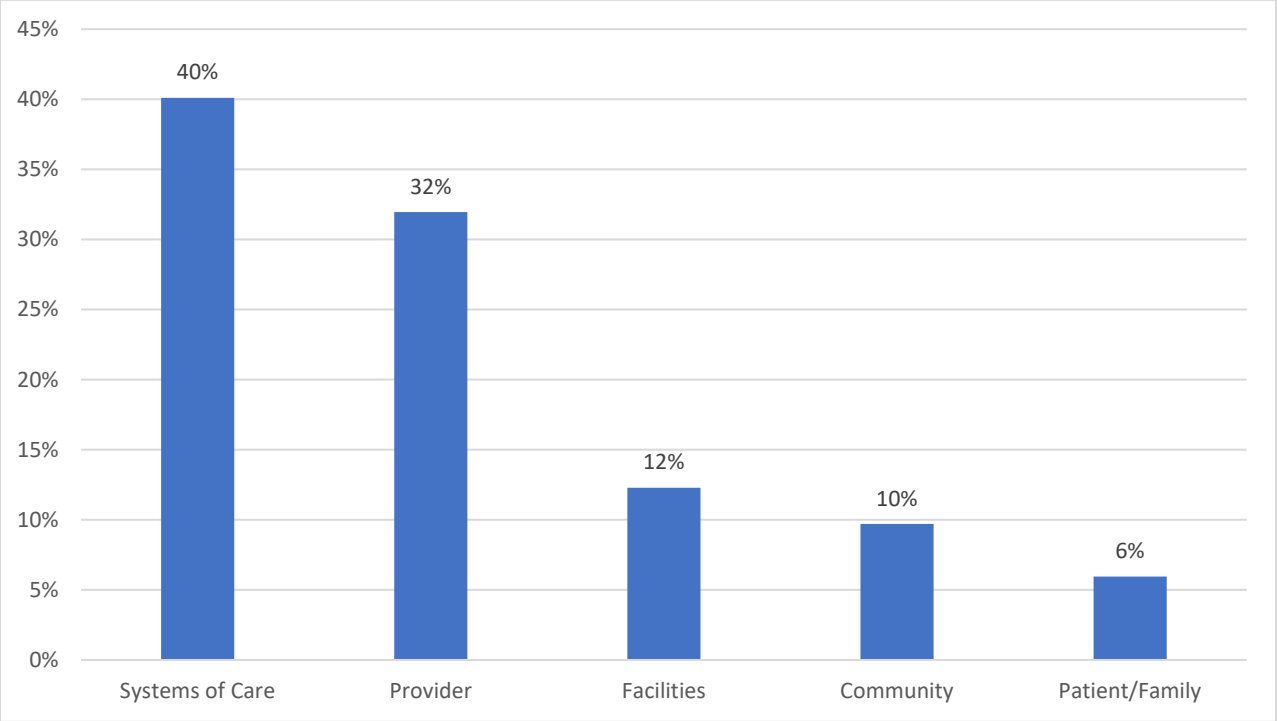
Since the last report, the Panel reviewed all maternal deaths from 2017–2020. The Panel also retrospectively reviewed out-of-state deaths of Washington residents, and homicide deaths due to intimate partner violence from 2014–2020. Of 135 cases reviewed since the last report, the Panel found 67 to be pregnancy-related. Of those, the Panel found 59 deaths were preventable.

Below is a summary of contributing factors for these 59 deaths, organized by level, along with examples of some specific contributing factors in each category. To maintain confidentiality, factors associated with specific causes of death are not listed, due to the potential for identification when there are small numbers. Specific contributing factors for preventable pregnancy-related deaths from suicide and substance overdose are grouped separately to illustrate the specific issues contributing to those deaths and increase understanding of the role of behavioral health conditions in maternal mortality.

Contributing Factors to Preventable Pregnancy-Related Deaths

The Panel identified 773 contributing factors for the 59 preventable pregnancy-related deaths reviewed since the last report. Once a contributing factor is identified, a level is assigned which describes the context in which the contributing factor arose. The levels available to choose from come from the Committee Decisions Form (Appendix 1a) and are: community, system, facility, provider, and patient and family. A description of each in Figure 18 shows the distribution of contributing factors by level. Most contributing factors occurred at the systems level, followed by provider- and facility-level issues. Looking at the distribution of contributing factors across the 59 preventable pregnancy-related deaths, systems- and provider-level factors each contributed to 81 percent of the preventable deaths; facility-level factors impacted 58 percent; and community- and patient-level factors impacted 39 percent of pregnancy-related deaths.

Figure 18: Distribution of Contributing Factors (N=773) by Systems Level for Preventable Pregnancy-Related Deaths, Washington State, 2014–2020



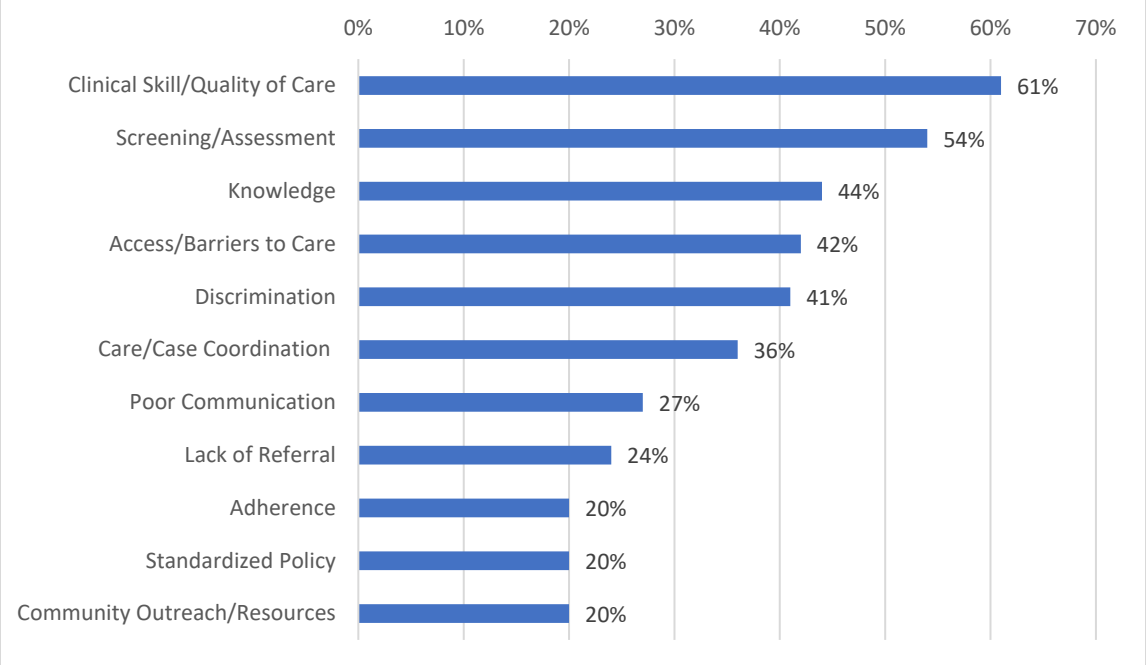
The most common issues impacting pregnancy-related deaths from 2014–2020 are presented in Figure 19. They include:

- Lack of **clinical skill and quality of care**, especially delays in diagnoses, treatment, referral, and transfer
- Inadequate **screening or assessment** of risk

- Provider or patient did not receive adequate education or lacked **knowledge** about the importance of an event or follow-up
- Lack of **access and barriers** to health care services
- Issues of **discrimination**, interpersonal **racism**, and structural racism
- Lack of **case** and **care coordination**, especially postpartum care at the provider, facility, and systems levels
- **Poor communication** between health care facilities or units resulting in fragmented care
- **Lack of referrals** to or consultations with specialists
- The provider or patient did not **adhere** to medical recommendations or standard procedures
- Lack of **standardized policies and procedures** in response to an individual's needs
- Inadequate coordination between the health care system and other agencies and **community resources**

For categories of contributing factors the Panel uses in its discussion process, please see Appendix 4.

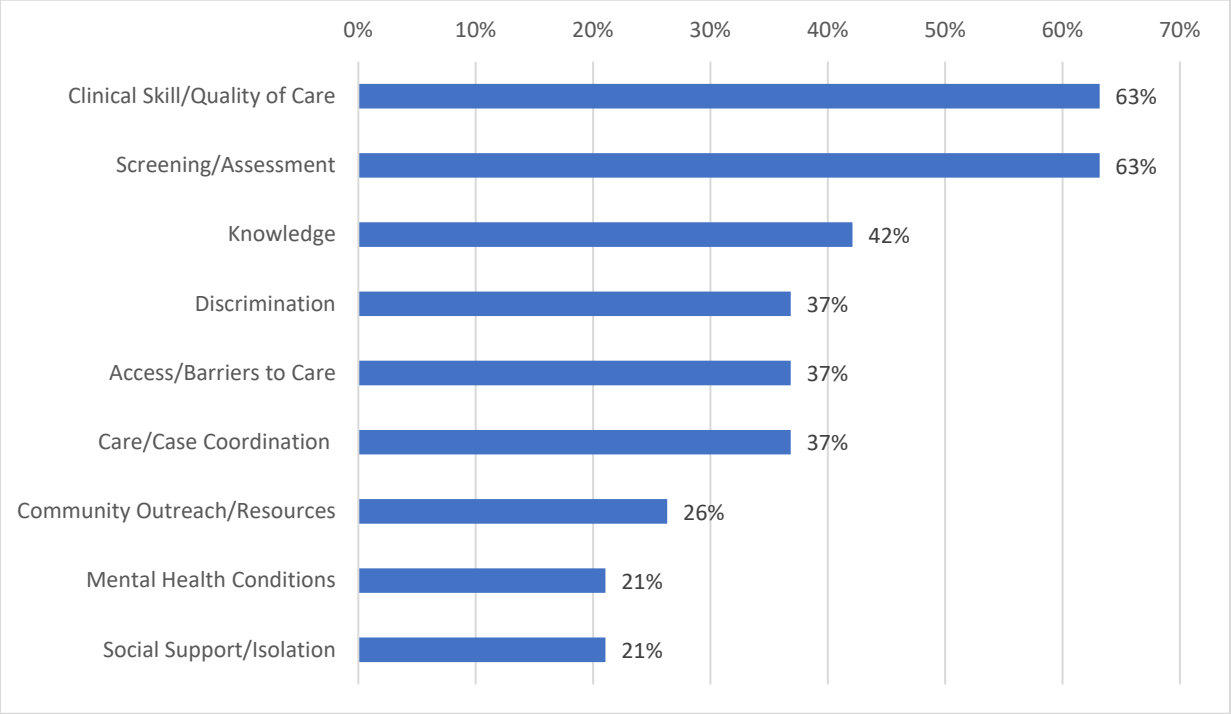
Figure 19: Percent of Preventable Pregnancy-Related Deaths Impacted by Category of Contributing Factor (Top Eleven), Washington State, 2014–2020



Contributing Factors to Preventable Pregnancy-Related Deaths from Behavioral Health Conditions

Among the 135 cases reviewed since the last report, the Panel found 32 deaths were due to behavioral health conditions. Of those, the Panel determined that 19 deaths were pregnancy-related and preventable. Figure 20 illustrates the proportion of deaths impacted by specific types of contributing factors. The Panel found preventable pregnancy-related deaths from behavioral health conditions were impacted by gaps in knowledge, screening, and clinical skill related to behavioral health conditions in pregnancy or postpartum. Additionally, lack of access to both acute and ongoing mental health services and substance use treatment, lack of case management, and lack of continuity of care affected more than a third of deaths in this group.

Figure 20: Percent of Preventable Pregnancy-Related Deaths from Behavioral Health Conditions Impacted by Type of Contributing Factor (Top Nine), Washington State, 2014–2020



The Panel used the contributing factors to make recommendations to prevent similar deaths in the future, as well as to reduce severe maternal morbidities and improve perinatal care throughout Washington state.

Recommendations: Overview and Process

Table 6: Percentage of 2017–2020* Preventable Pregnancy-Related Deaths Impacted by Each Type of Recommendation Made by the Maternal Mortality Review Panel of Washington State

Of the preventable pregnancy-related deaths the MMRP reviewed, what percentage might have been prevented by each type of recommendation?	
Type of Recommendation	**Percent potentially impacted**
Increase clinical skill and quality of care	**80%**
Increase knowledge of patients, families, providers, and communities	**78%**
Improve screening for mental and behavioral health, social determinants of health, intimate partner violence, firearm access, pregnancy, and pregnancy risk	**49%**
Reduce bias and stigma in the health care system	**46%**
Increase support structures to improve access for pregnant people and families to perinatal support providers, care coordination, and perinatal resources.	**41%**
Increase knowledge, available care, and treatment options for mental and behavioral health issues	**39%**
Meet people's basic needs for food, housing, transportation, and income	**32%**
Increase access to care: care in rural places, care for behavioral health, and co-located care	**31%**
Increase reimbursement rates for patients with complex circumstances, for mental and behavioral health care, and for longer patient visits	**27%**
Increase availability of home visiting and telehealth	**19%**
Improve care, referrals, and social supports for victims of intimate partner violence	**17%**
Reduce access to firearms through evidence-based public health interventions including safe storage, licensing requirements, and community awareness	**10%**

**This also includes some cases from 2014–2016 that had not previously been fully reviewed by the Panel, e.g., homicide deaths due to intimate partner violence and out-of-state deaths of Washington residents. All references to the Panel's 2017–2020 recommendations include these added cases.*

Table 6 shows the percentage of preventable pregnancy-related deaths that could have been changed or prevented by each type of recommendation. Of all recommendation types, the Panel most frequently made recommendations focused on increasing clinical skills and improving quality of care. Implementing this category of recommendation could have impacted 80 percent of the preventable pregnancy-related deaths, through actions such as more postpartum visits, practicing obstetric drills in the emergency department, and coordinating care across providers. Additionally, improving knowledge for patients, providers, and the community would have impacted 78 percent of deaths. Increasing screening and reducing stigma and bias would have impacted nearly half of the preventable pregnancy-related deaths.

The Panel and DOH staff developed the final set of recommendations through collaborative review, following the process outlined below. The Department and the Panel identified research and evidence-based practices to address the issues identified.

1. After coding and analyzing recommendations, DOH identified themes, sorted recommendations by those themes, drafted overarching recommendations, and condensed recommendations.
2. The Panel met to discuss their past recommendations by expertise area and prioritize and refine the highest-priority recommendations into specific activities and action steps for this report.
3. From these recommendations, DOH staff worked with Panel leads and other partners to finalize recommendations for the report.
4. Internal and external experts, including members of the Panel and other state agency leads, were consulted by DOH staff to share any feedback and suggestions.
5. The Panel, DOH, and partners identified activities to implement the overarching recommendations.

The final set of recommendations from this process is presented below.

Recommendations

Based on the contributing factors above, the Panel makes the following recommendations to the legislature. Detailed explanations and recommended actions for each are included in this section.

6 **RECOMMENDATIONS** TO **REDUCE** MATERNAL MORTALITY

UNDO RACISM & BIAS

1. Address racism, discrimination, bias, and stigma in perinatal care.

ADDRESS MENTAL HEALTH & SUBSTANCE USE DISORDER

2. Increase access to mental health and substance use disorder prevention, screening, and treatment for pregnant and parenting people.

ENHANCE HEALTH CARE QUALITY AND ACCESS

3. Expand equitable and high-quality health care by improving care integration, expanding telehealth services, and increasing reimbursement.

STRENGTHEN CLINICAL CARE

4. Strengthen the quality and availability of perinatal clinical and emergency care that is comprehensive, coordinated, culturally appropriate, and adequately staffed.

MEET BASIC HUMAN NEEDS

5. Meet basic needs of pregnant and parenting people by prioritizing access to housing, nutrition, income, transportation, child care, care navigation, and culturally relevant support services.

ADDRESS & PREVENT VIOLENCE

6. Prevent violence in the perinatal period through survivor-centered and culturally appropriate coordinated services.

What's new in this report's recommendations?

This report's recommendations cover deaths from 2017–2020, along with out-of-state deaths and homicide deaths due to intimate partner violence going back to 2014. This timeframe includes the first year of the COVID-19 pandemic.

Due to an extremely small number of 2020 Washington maternal deaths associated with COVID-19, we cannot yet make conclusions about the impact of the pandemic on maternal mortality in Washington state. DOH Behavioral Health Situation Reports show increases in emergency department visits for behavioral health conditions and homelessness, alcohol use, drug overdoses, suicidal ideation, and psychological distress early in the COVID-19 pandemic, but those trends were short-lived and returned to baseline levels by the end of 2020. Nationally, the pandemic's impacts on pregnancy, perinatal care, and childbirth included fewer perinatal visits,[32] challenges accessing care—particularly for Black and American Indian / Alaska Native people,[33] limited birthing support in hospitals, loss of work and financial stability, mental health stressors, and losing child care and in-person schooling.[34] The pandemic has also highlighted priorities such as a need for coordinated care, addressing disparities, and increasing supports for people experiencing substance use disorder.

The American Indian Health Commission authored a new report with tribal and urban Indian leadership recommendations for key priorities to address maternal wellness and mortality in American Indian and Alaska Native communities. That report, *American Indian Health Commission Addendum to the Washington State Department of Health's Maternal Mortality Review Panel Report to the Legislature,* is an addendum to this report and highlighted throughout this section. (See Appendix 7 at the end of this report.) The addendum report's "number one priority is to reduce Native Maternal Mortality until the disparity is eliminated." Other priorities include access to culturally relevant services, resources, and principles; addressing historical inequities and trust; tribal-led data sovereignty and use to address root causes; tribal-led workforce planning and development; and tribal-led nutrition work that includes food sovereignty and first foods (breastfeeding).

The Panel's goals and recommendations align strongly with the new White House Blueprint for Addressing the Maternal Health Crisis. The five goals of the White House Blueprint include increasing access and coverage of high-quality maternal health and behavioral health care; ensuring people giving birth are decisionmakers in care systems; improving data collection, quality, and use; expanding and diversifying the perinatal workforce; and strengthening economic and social supports.

Several strategies from Washington's *Blueprint for a Just & Equitable Future: The 10-Year Plan to Dismantle Poverty in Washington* are also strongly aligned with the recommendations in this report, particularly undoing structural racism, balancing power and resources, ensuring foundational well-being, prioritizing urgent needs, and building a holistic continuum of care.[35]

Six Priority Recommendations

1. Address racism, discrimination, bias, and stigma in perinatal care.

The risk of perinatal death is greater is greater for some populations in Washington. The rate of all pregnancy-associated deaths for non-Hispanic Black people and non-Hispanic Native Hawaiian and Pacific Islander people was more than 2.5 times the rate of death among non-Hispanic white people. The rate of pregnancy-associated death among non-Hispanic American Indian and Alaska Native people was 8.5 times greater than the rate of death among non-Hispanic white people. When determining contributing factors in these deaths, the Panel identified discrimination, bias, interpersonal racism, or structural racism in 49 percent of preventable pregnancy-related deaths from 2017–2020.

Structural racism can impact health care quality and increase risk factors for pregnancy-related medical complications, mental health conditions, trauma, chronic stress, and chronic disease.[36] [37] [38] [39] Nationally, a Black Mamas Matter Alliance (BMMA) study found that patients experience discrimination, racism, bias, and stigma based on race, class, age, and public insurance status.[40] Inequities can impact patient safety, birth outcomes, mortality risk, experience of birth and perinatal care, trust in health care systems, and toxic stress.[41] High socioeconomic class and advanced education do not mitigate many of these disparities.[42]

In 2018, the American College of Obstetrics and Gynecology expressed support for addressing racial and income disparities in maternal mortality and increasing equity of maternal care, beginning with priority populations, in a *Committee Opinion on Racial and Ethnic Disparities in Obstetrics and Gynecology*.[43] The 2022 White House Blueprint for Addressing the Maternal Health Crisis prioritizes efforts that overlap with the Panel's recommendations below, such as ending systemic discrimination in health care; bolstering voices of communities of color; removing structural barriers; embedding equity into care guidelines; training providers on implicit bias and culturally and linguistically appropriate care; empowering individuals and communities with their own data; diversifying and expanding the perinatal workforce, and training providers to address bias and screen for social determinants of health. Three goals of the White House Blueprint for Addressing the Maternal Health Crisis also overlap strongly with the Panel's recommendations on equity and bias:

- *Ensure Those Giving Birth are Heard and are Decisionmakers in Accountable Systems of Care*
- *Expand and Diversify the Perinatal Workforce*
- *Strengthen Economic and Social Supports for People Before, During, and After Pregnancy*

The voices of communities and individuals most impacted by racism, discrimination, bias, and stigma should be involved in developing and implementing the recommended actions below. Government agencies and facilities should work with community advisors and people with lived

experience to ensure that these strategies are implemented in a culturally appropriate, respectful, trauma-informed, supportive, and non-judgmental way. Facilities should prioritize patient-centered care to respect autonomy and build trust. Patient-centered care could include listening to patients, including patients in decisions regarding their care, enabling patients to monitor their own care when possible, debriefing birth events, and providing care that addresses social determinants of health.

The Addendum of Tribal and Urban Indian Leadership Recommendations from the American Indian Health Commission (AIHC) at the end of this document highlights solutions from American Indian and Alaska Native communities in Washington for ending health inequities. All seven of the AIHC addendum's goals address issues of equity and bias, including:

- *Address historical inequities and create trust in health transformation system change through policy, inclusion, and allocation of funds to create and assure culturally relevant services.*
- *Improve and expand access for culturally relevant services and resources, utilizing the Seven Generations Principles, throughout the continuum of pregnancy, birth and postpartum for both parents.*

Along with diversifying the workforce, the Panel recommended a range of actions to address disparities and equity, including deeper investments in training and data surveillance/analysis.

Recommended Actions to address racism, discrimination, bias, and stigma in perinatal care

Policy and Budget Actions: (Legislature)

1.1 **Expand and diversify the perinatal workforce** of physicians, obstetricians, midwives, nurses, doulas, Community Health Aide Program (CHAP) practitioners, community health representatives, community health workers (CHWs), and other providers to reflect the cultures and languages of the community they serve.
- **Fund** training, education pathways, scholarships, grants, low-interest education loans, and reimbursement to train new perinatal care providers and patient advocates to expand and diversify the perinatal workforce.

1.2 **Prioritize access to perinatal care** in communities experiencing inequities, disparities, bias, or discrimination as apparent in maternal mortality data. Fund:
- Culturally competent care, including community health workforce and value-based payment models that focus more on outcomes than on number of services delivered.
- Increased access to out-of-hospital birthing care such as midwifery and doula services (e.g., funding for free-standing birth centers, rate increases for midwives, etc.).
- Interpreter services, including services in a wider variety of languages.

1.3 **Fund community-driven initiatives** such as the Birth Equity Project and Health Equity Zones that address structural racism, social drivers of health, and promising solutions to reduce inequities.

Perinatal Systems of Care: (Providers and Facilities)

1.4 Facilities should implement perinatal **quality improvement initiatives with a focus on health equity and culturally competent care**.
- Models including the Alliance for Innovation on Maternal Health patient safety bundles and the Washington State Hospital Association Safe Deliveries Road Map successfully incorporate equity and cultural competence into quality improvement.

1.5 Facilities should **track data on racial disparities** in all maternal outcomes as part of quality improvement initiatives.

1.6 **Facilities should offer evidence-based training** to perinatal and obstetric care providers and staff, as recommended by the American College of Obstetricians and Gynecologists (ACOG) (2018). Training should be combined with actions such as changes to policy, practices, and hiring. Training topics should include:
- Conscious and unconscious bias in care (e.g., around race, disability, body size, gender identity, and sexual orientation).
- Stigma (e.g., around substance use disorder, obesity).
- Institutionalized/structural racism.
- Social determinants of health.
- Trauma-informed care.
- Needs, cultural norms, and preferences of communities served.

1.7 Facilities should ensure access to **certified medical interpreters** proficient in medical technology, per the Title VI of the Civil Rights Act of 1964 and the Americans with Disabilities Act (ADA).

1.8 Facilities should implement policies and procedures for responding appropriately if employees, patients, or clients witness or experience racism, in alignment with statutory obligations of the Affordable Care Act, section 1557.

1.9 Providers should prioritize **Continuing Education Units / Continuing Medical Education** that focus on addressing bias and discrimination.

Governmental, Academic, Community and Professional Agencies and Organizations

1.10 **The Department and Health Care Authority should enhance quality improvement efforts** to reduce patient experiences of racism and discrimination. Efforts might include addressing standards of care, policies, trainings, measurement tools, inclusive language, and data use to eliminate disparities.

1.11 Governmental, academic, and professional agencies and organizations should support and fund initiatives that lead to **diversification of the perinatal provider workforce** to be representative of the demographics of the state. This could include mentorship programs, student loan repayments and stipends, incentives to midwifery students, coverage of licensing exam fees, etc.

1.12 Agencies, professional associations, and academic institutions should **provide education and resources about undoing racism, discrimination, and bias** in perinatal care. Also provide:

- Funds for facilities to continue training providers on these topics.
- Supplementary actions to apply, measure, and evaluate lessons derived from trainings.

The Department of Health

1.13 **The agency should collaborate with communities**, community organizations, and patients to identify ways to improve equity in perinatal care and increase awareness of inequities in perinatal care.

- Support community-driven initiatives such as the Birth Equity Project that address structural racism, social drivers of health, and promising solutions to reduce inequities.
- Fund quality improvement efforts to end patient experience of racism and discrimination.
- Fund efforts to improve data to identify disparities related to racism.

1.14 The agency should collaborate with partners to better understand gaps or access issues to certified medical interpreter services.

1.15 The agency should collaborate with HCA to assess regional gaps in perinatal care or areas with limited perinatal providers, so that HCA can support increased access to care.

2. Increase access to mental health and substance use disorder prevention, screening, and treatment for pregnant and parenting people.

The leading causes of pregnancy-related deaths were behavioral health conditions. Thirty-eight percent of preventable pregnancy-related deaths in 2014–2020 were due to behavioral health issues, predominantly by suicide or unintentional substance overdose. Nearly two-thirds of deaths due to unintentional substance overdose happened later in postpartum, suggesting that work to address mental health and substance use disorder (SUD) should not overlook the period from six weeks to one year postpartum. The Maternal Vulnerability Index, an index measure of 43 indicators of maternal health, ranks mental health and substance use as the highest area of vulnerability for maternal mortality in Washington state.[44]

Disparities persist in behavioral health prevalence, screening, and treatment. An Association of American Medical Colleges (AAMC) national survey found disparities in screening, with respondents who were Latino, unemployed, or lower income least likely to be offered screening.[45] A Black Mamas Matter Alliance (BMMA) report found that due to the stressors and multiplicative impacts of systemic racism and other inequities, Black people who are pregnant and postpartum are more likely to experience perinatal mood disorders, but less likely to receive care and treatment for them, compared to other patients.[46] The COVID-19 pandemic has heightened mental health conditions in pregnancy and postpartum nationwide.[47]

Access to mental health and treatment services remains challenging and was even more so at the height of the pandemic.[48] [49] Washington state has a shortage of affordable mental health care providers. Pregnant or postpartum patients with SUD may experience bias, shame, and stigma from providers—or fear of such bias—impacting their willingness to seek care and the quality of that care. Raising provider awareness of this challenge can help reduce stigma.[50]

The Panel recommended increasing resources for pregnant and postpartum people who have SUD, training providers on caring for patients with SUD, and integrating perinatal care and treatment for SUD and mental health into the same places where perinatal care is offered, where possible. The Panel also prioritized focusing on SUD as a health issue and redirecting systems away from stigmatizing or punishing people for having SUD. High-quality screening for SUD should foster trust, be culturally relevant, and be comprehensive, including a history of mood disorders. Family members and partners should be included as appropriate, and screening should include education for patients as well as their families on signs and symptoms of behavioral health conditions.

These goals align with research and with other local and national efforts. Supportive services integrated with OB/GYN care may help people experiencing mental health conditions and substance use disorder.[51] Resources such as home visiting[52] and peer recovery services[53] can

help, along with earlier intervention, trauma-informed care, harm reduction services, and—when there is suicide risk—reducing access to firearms to increase safety.[54]

The *Washington State Opioid and Overdose Response Plan* includes priorities that are aligned with this report's recommendations, including strategies for provider education, verbal screening, expanding access to treatment, and improved integration between inpatient, outpatient, and community services. It also recommends quality improvement strategies to improve the provision of substance use care at birth.

The AIHC Addendum to this report prioritizes "Tribal-led data needs assessments, planning, administration, and analysis, including Tribal PRAMS, to address root causes of AI/AN maternal morbidity and mortality, substance misuse, and harm reduction strategies." The White House *Blueprint for Addressing the Maternal Health Crisis* recommends increasing access to and coverage of maternal behavioral health services and support, screening and treatment, and referrals for mental health and behavioral health conditions. It also recommends strengthening care coordination, integrating behavioral health supports in community settings with navigators and community health workers, and reducing the stigma of perinatal depression and behavioral health conditions.[55]

The White House's report *Substance Use Disorder in Pregnancy: Improving Outcomes for Families* also focuses on providing care, support, and treatment for pregnant people with substance use disorders, rather than criminalizing or stigmatizing them, and recommends improving access to treatment, keeping families together, increasing perinatal collaboratives and other partnerships addressing substance use disorder, and improving data to address substance use disorder.[56]

Recommended Actions to increase access to mental health and substance use disorder prevention, screening, and treatment for pregnant and parenting people

Policy and Budget Actions: (Legislature)

2.1 **Policymakers should enhance reimbursement** for mental health and substance use disorder screening, including:
- Additional depression screenings throughout the first year postpartum.
- Routine screening for alcohol and other drugs in pregnancy and postpartum.
- Parent/caregiver depression screening during well child visits.

2.2 **Increase the number of residential treatment facilities that allow parents and children to enter treatment together.**
- Increase funding for higher reimbursement rates for facilities that allow parents to bring their children so that there are more beds available and there is at least one such facility per county.

- Provide capital funding for building costs.
- Expand definitions for who qualifies for the program (e.g., including fathers, partners, families, more than one child).
- Increase access to legal aid supports (Medical Legal Partnership Model), such as the FIRST Clinic.

2.3 The legislature should direct the Office of the Insurance Commissioner (OIC) to ensure that all health plans provide coverage for **additional postpartum hospital days** for people who need medication for opioid use disorder (MOUD), stabilization, and support.

2.4 **Fund HCA and DCYF to further expand access to culturally appropriate, community-centered treatment programs, including tribally led programs.**

2.5 **Expand access to home visiting programs** for all birthing people experiencing behavioral health issues. Examples include Parent-Child Assistance Program (PCAP), Nurse Family Partnership (NFP), Parents as Teachers, Family Spirit, doula programs, or other perinatal services.

2.6 Integrate state peer recovery services into on-site perinatal substance use services, and support expansion of this statewide program into additional counties.

Perinatal Systems of Care: (Providers and Facilities)

2.7 Expand access to **addiction specialist consultation** for providers.
- Emergency departments and other providers should use psychiatric consultation resources such as the University of Washington's UW Perinatal Psychiatry Consultation Line (formerly PALs for Moms).
- Facilities should increase access to and awareness of educational resources about caring for perinatal patients with mental health conditions and substance use, such as MAP Echo, a University of Washington CME-accredited program for providers caring for perinatal patients with substance use disorder and mental health conditions.

2.8 Providers should receive training about safety of medications for opioid use disorder (MOUD) during pregnancy and treatment after delivery. After delivery, providers, including emergency departments if relevant, should manage withdrawal symptoms and initiate **medication for opioid use disorder** for perinatal patients.

2.9 Facilities should give birth parents who use or have used opioids or other prescribed substances take-home doses of **naloxone**—not just a prescription—before they discharge from the hospital. Patients and families should be trained on its use. Ensure that Medicaid and private plans fully reimburse facilities for the purchase of naloxone.

2.10 **Discharge plans** should be provided for all patients who use substances. Discharge plans should include scheduling follow-up appointments and access to transportation.

2.11 **Facilities should screen all patients at admission** for substance use, mental health, and suicide risk. Screenings should include referral to services, treatment plans, telehealth services, or specialty consultation.

2.12 **Providers across the perinatal service continuum,** including pediatric and family practice providers offering well-child visits, should routinely screen all patients for behavioral health issues, including alcohol, nicotine, and other substance use and suicide risk.

2.13 **Providers should screen all patients for firearms** in the household. When appropriate, such as for patients at risk of suicide, providers should find resources to help store firearms in a safe location outside the home, such as resources from the Harborview Injury Prevention & Research Center.

2.14 Facilities should implement best practices in supporting the parent–infant dyad after delivery. This includes implementing practices like the Eat-Sleep-Console model and the Compassionate Care Model, which allow for the dyad to remain together throughout the hospital stay while plans for treatment and recovery are initiated.

2.15 Facilities should provide **training for providers** on substance use and mental health during pregnancy and postpartum. Trainings should include information about:

- Access to firearms in the presence of postpartum depression.
- Common co-occurrences in pregnancy, such as physical symptoms and mental health disorders.
- Safety of medications for opioid use disorder (MOUD) in pregnancy; treatment after delivery.
- Administration of naloxone.
- How to combat stigma through compassionate, trauma-informed care for treatment and recovery

2.16 **Facilities should co-locate services** for prenatal, primary, obstetric, substance use, behavioral health, and well-child care. This may include integrating obstetric and behavioral health providers by offering prenatal care at substance use treatment clinics. Ensure care navigation and coordination is available for co-located services. If co-location is not possible, integrate services using telehealth.

Governmental, Academic, Community, and Professional Agencies and Organizations

2.17 The Department and Health Care Authority should work together across systems to develop strategies for providers, insurers, and agencies to increase access to **integrated medical and behavioral health** or offer 24/7 telehealth access.

- Facilitate care coordination between perinatal care and behavioral health providers such as opioid treatment programs, residential treatment clinics, and other care providers to communicate patient history.
- Expand pilot projects of behavioral health integration into primary care and family practice.

2.18 **Increase community awareness** of available behavioral health resources and practices. For example:

- Raise awareness of available home visiting programs as a social support for pregnant and birthing people experiencing behavioral health issues.
- Raise awareness of the availability of naloxone, along with other resources for harm reduction, risk awareness, treatment options, and overdose prevention.
- Increase access for pregnant and postpartum people with behavioral health issues to doulas, community health workers, patient navigators, or other support providers.
- Ensure designated crisis response teams have access to perinatal mood disorder training.
- Work with communities to make access to these resources as easy as possible.
- Raise awareness about reducing risk from firearm access during postpartum depression (e.g., suicide prevention training that includes information on postpartum mental health and techniques to communicate with patients about firearm safety and risks).

2.19 Academic institutions should **educate students** about preventing stigma, bias, and provider discomfort around mental illness, substance use disorder, and treatment.

2.20 **Educate peer birth workers** such as doulas and home visitors about behavioral health issues and pregnancy.

2.21 Ensure perinatal care and emergency providers have access to quality improvement resources specific to perinatal mental health and substance use disorder (e.g., toolkits, best practice quality improvement bundles, inpatient and outpatient care models, suicide prevention resources, etc.).

- Models facilities can use for quality improvement include the Alliance for Innovation on Maternal Health patient safety bundles, the Washington State Hospital Association Safe Deliveries Road Map, and the Substance Abuse and Mental Health Services Administration Clinical Guidelines.

2.22 **Expand child welfare prevention supports** that focus on stabilization and wraparound services for pregnant people and early parents struggling with substance use disorder to help ensure that individuals seek needed care without fear of punitive consequences.

The Department of Health

2.23 DOH and partners should continue to collaborate to raise public awareness about behavioral health issues in pregnancy and postpartum and guide the public about where to find treatment resources.

2.24 DOH should further investigate the link between suicide and access to care and the experience of the individual in the clinical environment. Consider opportunities to partner with the Washington State Violent Death Reporting System and the opioid quality improvement bundle.

2.25 DOH should work with partners to better understand the barriers for screening and access to behavioral health services. Include review of residential treatment and intensive outpatient treatment facilities, and where gaps in care and highest needs are.

3. Enhance health care quality and access.

The Panel found that 51 percent of deaths reviewed since the last report involved a lack of access to health care, including a lack of financial resources or a delay in receiving care. Access was an issue in both rural and urban areas, affecting 43 percent and 52 percent of cases, respectively. Increased reimbursement rates for patients with complex circumstances or treatments also might have affected over a quarter of preventable maternal deaths. Increased availability of home visiting and telehealth might have affected nearly one fifth of these deaths.

ACOG reports that having telehealth options adequately covered by insurance has enhanced patient care and improved patient engagement and satisfaction.[57] Other reports show telehealth increases perinatal care access[58] and has improved contraceptive care access during the pandemic era.[59] The Kaiser Family Foundation explains that telehealth enables earlier postpartum visits, but that telehealth systems require investments in technology and broadband coverage.[60]

There is an opportunity to restructure and modernize the perinatal health care delivery and reimbursement system by increasing access to home visiting, doulas, and licensed midwives to reduce maternal mortality rates and improve the safety and patient experience at every stage of perinatal care. Research indicates that home visiting, doula, and patient navigator programs can improve postpartum outcomes, increase health equity, reduce the impacts of disparities, and increase patient awareness of warning signs of maternal complications.[61] [62] [63] Changing payment

and delivery systems, including replacing fee-for-service models with ones that enable high-quality evidence-based care, can help improve perinatal health outcomes.[64] Forming regional networks can improve perinatal care in rural areas.[65]

The Panel's recommendations also align with the *White House Blueprint for Addressing the Maternal Health Crisis* goal to "increase access to and coverage of comprehensive high-quality maternal health services, including behavioral health services." The Blueprint also emphasizes the importance of expanding access to and coverage of doulas, licensed midwives, and freestanding birth centers.

Recommended Actions to enhance health care quality and access

Policy and Budget Actions: (Legislature)

3.1 **Expand home visiting services** for pregnant and postpartum families across Washington state.

- Fund at least one visit from a licensed provider to assess all birth parents and newborns for safety, medical, psychosocial, and economic needs within 2–3 days after discharge or end of pregnancy.
- Fund culturally relevant programs that offer home visiting starting in pregnancy or early postpartum by nurses, doulas, or trained lay providers (e.g., Family Spirit, Nurse Family Partnership, Maternity Support Services).
- Fund long-term home visiting and case management for people with complex needs or others that would benefit.
- Support the expansion of Maternity Support Services and Infant Case Management.
- Explore options to expand Medicaid reimbursement for home visiting services.

3.2 Support legislation to increase access to **doulas and midwives** through one year postpartum across the state, prioritizing areas with limited access to these providers.

- Support legislation and provide funding to establish a reimbursement rate for doulas, to be implemented by the Health Care Authority (HCA), once prior work to establish a credential for doulas is complete.

3.3 Increase funding for **out-of-hospital birthing care**, such as midwifery. Fund start-up costs for birthing centers in rural areas or areas that serve populations with disproportionate perinatal outcomes.

3.4 Fund **telehealth infrastructure**, including cell phone, Wi-Fi, and broadband access in rural areas.

3.5 Provide funding to help smaller perinatal care facilities and practices share records with other health care systems through electronic health records (EHRs) systems (e.g., EPIC).

3.6 Ensure providers are aware that commercial health plans cover telehealth services in parity with in-person services.

3.7 Adequately fund existing **rural hospitals and tribal clinics** to provide obstetric care through funding and cover the cost of obstetrical training**.**
- Fund providers such as midwives, doulas, and freestanding birth centers to support these facilities in providing culturally competent and high-quality care.

Perinatal Systems of Care: (Providers and Facilities)

3.8 Ensure that **doulas** are available to all birthing people who would like doula services.
- Doula services should be offered by culturally appropriate providers, from the same community as the birthing person.
- Doula services should be available during the entire perinatal period: prenatally, during birth, and for one year postpartum.
- Doula care should be integrated into prenatal, delivery, and postpartum care.

3.9 Facilities should offer **telehealth, extended hours, or walk-in appointments** to reduce barriers to care.

3.10 Facilities should ensure patients are aware of the full spectrum of benefits under Medicaid, including transportation and care coordination.

Governmental, Academic, Community and Professional Agencies and Organizations

3.11 Enhance reimbursement for **screening for social determinants of health** and for complex health care needs and ensure that people have appropriate referrals to services and supports.

3.12 The Health Care Authority (HCA) and other agencies, including DOH, should increase awareness about **Medicaid eligibility, terms, types of health services available, and provider options** during pregnancy and postpartum.

3.13 DOH and HCA should investigate the connection between late or no prenatal care and maternal mortality.

3.14 The Health Care Authority (HCA) should explore **care coordination** options for people who are enrolled in fee-for-service Medicaid (not enrolled in a managed care plan).

3.15 HCA should investigate gaps in awareness of Medicaid eligibility and benefits and work to address those gaps.

3.16 Applicable agencies should explore designating **pregnancy to be considered a qualifying life event** for individual health plan enrollment. This would allow pregnant people to obtain prenatal care immediately.

3.17 DOH, under the guidance of tribal nations and partners, should explore the care pathways for American Indian/Alaska Native communities and how barriers and access to care impact maternal mortality and morbidity.

4. Strengthen the quality and availability of perinatal clinical and emergency care that is comprehensive, coordinated, culturally appropriate, and adequately staffed.

Improving clinical skill and care quality might have prevented four-fifths of preventable pregnancy-related deaths the Panel reviewed—more than any other type of recommendation. Implementing the recommendations to increase knowledge of providers, patients, families, and communities has the potential to impact nearly as many deaths. The Panel found that gaps in clinical skill and quality of care, such as treatment delays, were a major contributing factor to deaths, along with gaps in screening, knowledge or information provided to patients, provider communication, policies and procedures, and the coordination and continuity of care. Providers missed some opportunities to make referrals or consult with experts. But other factors that impacted care quality happened at the systems level, including inequities, racism, and bias.

Perinatal quality improvement initiatives and resources have strengthened perinatal clinical care and reduced mortality risk. Alliance for Innovation on Maternal Health (AIM), a perinatal quality improvement initiative to reduce maternal mortality and improve perinatal health and safety, and the Washington State Perinatal Collaborative (WSPC) are examples. Standards of care and "bundles" of assessment tools, checklists, and training resources on clinical topics such as obstetric hemorrhage[66] have contributed to improvements in perinatal care quality, outcomes, and patient experiences.

There are opportunities to reduce maternal mortality by implementing quality improvements in a variety of perinatal and other health care settings. Many quality improvement projects are underway but require additional investments. Increased use of telehealth has been an effective way to provide perinatal clinical and mental health care.[67] Funding can support coordinating care

and building connections across provider types. Increasing perinatal vaccination for COVID-19 and other infectious diseases can protect the pregnant person and fetus.[68]

There is a need to recruit and train new providers—particularly culturally congruent midwives, nurses, and physicians—while addressing shortages of training programs, residency sites, and scholarship funding. Ongoing training, including preparing emergency providers on obstetric emergencies, can improve the outcomes of such emergencies.[69] Preparedness and response systems for obstetric emergencies can help providers respond promptly and effectively to save lives.[70]

The Panel's clinical care recommendations are in alignment with the *White House Blueprint for Addressing the Maternal Health Crisis.* The *Blueprint* prioritizes strengthening obstetric care in rural areas, expanding contraceptive care access, and improving care coordination. The *Blueprint's* goals include:

- *Expand and diversify the perinatal workforce.*
- *Ensure those giving birth are heard and are decisionmakers in accountable systems of care.*

The Panel recommends increasing and diversifying the perinatal workforce and ensuring quality care.

Recommended Actions to strengthen the quality and availability of perinatal clinical and emergency care

Policy and Budget Actions: (Legislature and Congress)

4.1 Support legislation that creates **perinatal quality improvement** incentive programs, such as the Medicaid Quality Incentive program, for outpatient perinatal services, specifically.

4.2 Support funding for state agencies and providers to implement perinatal quality improvement initiatives, including activities, programs, and organizations like the Alliance for Innovation in Maternal Health (AIM) Safety Bundles, the Washington State Hospital Association Perinatal Substance Use Learning Collaborative, the Obstetrical Care Outcome Assessment Program (OB COAP), and the Washington State Perinatal Collaborative.

4.3 Expand funding for **comprehensive sexual and reproductive** health care services.
- Funding should include support for child care, transportation, housing, and other supports to ensure services are accessible.

4.4 Support state awareness of congressional efforts to prioritize prevention and treatment of respiratory infections in the perinatal period, such as COVID-19 and influenza, including prioritizing the most vulnerable populations or funding research for perinatal vaccination.

4.5 **Increase and diversify the perinatal health workforce** to address staffing shortages, meet increased demands on the health care system, and improve care quality. Prioritize diversity of physicians, obstetricians, midwives, nurses, doulas, community health workers.

Perinatal Systems of Care: (Providers and Facilities)

4.6 **Provide training and drills for providers**, including emergency physicians, on coordinating with obstetricians to respond to obstetric emergencies.
- Obstetricians, midwives, and primary care providers should seek consultations with other specialties for patients with complex health histories.

4.7 Facilities should provide rapid, seamless transfers to ensure **timely diagnostics and critical care** (e.g., within a facility between provider types, or—when needed and possible—between a facility and higher level of care center).

4.8 Facilities should explore interoperability with other facilities' **electronic health records (EHR)** systems, especially between large and small facilities.

4.9 Facilities should invest in high-quality and easy-to-use **electronic health records (EHR) systems**, and train staff on how to use these systems.
- Facilities should ensure that EHRs include built-in screenings for behavioral health, social determinants of health, and intimate partner violence.

4.10 Providers and facilities should **strengthen coordination of care by creating multidisciplinary care teams** including an OBGYN, midwives, primary care providers, behavioral health providers, specialists, pediatricians, community health workers, social workers, and others integrated in one location where possible.

4.11 Facilities should ensure patients understand the importance of taking medications as prescribed and follow-up steps in their care upon discharge. Patient navigators and social workers should be available for warm referrals and coordination of care when needed.

4.12 Primary and perinatal care providers should offer patients **comprehensive options for reproductive and contraceptive care at relevant visits** (e.g., pregnancy testing, wellness visits outside of pregnancy).

- This includes patient-centered education, same-day access to contraception of choice, information about high-risk conditions in pregnancy, and referrals for options patients choose, including abortion.

4.13 **Providers should ensure pregnant patients of all body sizes and weights get appropriate and respectful care**, including access to adequate equipment as needed. This may include anesthesia consultations before 28–32 weeks gestation, if needed.

4.14 Obstetricians, midwives, and primary care providers should **consult with perinatal clinical specialists for patients with complex health histories**, needs, or circumstances including high-risk medical conditions in pregnancy. Providers should develop individualized plans for predelivery and worst-case scenarios for high-risk patients.

4.15 To support quality investigation and **autopsy** of maternal deaths, pathologists, coroners, and medical examiners should continue to review, follow, and revisit as needed the Department of Health's *Guidelines for Performance of an Autopsy in the Setting of a Potential Maternal Death in the State of Washington*.

4.16 Facilities and providers, including obstetric and emergency care providers, should ensure patients are receiving individualized, **ongoing postpartum care for 12 months after the end of pregnancy**.

- Follow postpartum care guidelines such as those provided by ACOG in their Optimizing Postpartum Care guidelines.
- Providers should follow up with obstetric patients during the first three weeks postpartum or after the end of pregnancy and then either continue to provide care for them through the 12 months after the end of pregnancy or—if more appropriate—help find and connect them with another provider.
- Facilities should review and improve policies and procedures for transferring or sharing care between prenatal and postpartum providers (e.g., build relationships and connect with the next provider, help the patient schedule appointments, address transportation or cost barriers, and send pertinent records to the other provider before the patient's appointment).

Governmental, Academic, Community and Professional Agencies and Organizations

4.17 **Ensure EMS statewide has the training** and information needed to support pregnant and postpartum people in emergencies.

- This includes continuing education and training opportunities, certification, standardization of protocols, and information about how to identify and respond to pregnancy emergencies, such as preeclampsia symptoms.

4.18 **Emergency preparedness**: State agencies preparing for emergencies should prioritize and plan for the increased health needs and risks of pregnant people, such as implementation of the Emergency Support Function #8 – Public Health and Medical Services Annex protocol.

4.19 Raise public awareness on how pregnancy can impact disease courses, using social media and emerging technologies to reach people who may be considering pregnancy.

4.20 Promote resources and training on best practices for emergency care in the perinatal period. Topics should include:
- Hemorrhage, hypertension, Amniotic Fluid Embolism (AFE), sepsis, cardiopulmonary resuscitation (CPR) in pregnancy, physical trauma, and effects of pregnancy on other conditions (e.g., asthma, lupus, epilepsy, mental health).

The Department of Health

4.21 DOH should continue to collaborate with key partners (local public health, researchers, health care providers, other state agencies, tribal health leaders, urban Indian health leaders, coalitions, and communities most impacted by perinatal health disparities, birth experts, and others) to reduce maternal mortality and morbidity through perinatal quality improvement efforts. These might include perinatal regional collaboratives and technical assistance in the AIM safety bundles.

4.22 DOH, working with the Washington State Perinatal Collaborative, should create and maintain perinatal resource directory, with information about perinatal providers and resources. DOH should publicize this directory with providers, facilities, and communities.

4.23 DOH should work with pathology members of the Panel and other relevant partners to regularly review and update guidelines for autopsy performance in maternal deaths.
- Ensure that current guidelines are available and easily accessible.
- Communicate updates or other relevant information about maternal death investigative requirements to forensic pathologists and death investigation professionals (e.g., coroners and medical examiners).

5. Meet the basic needs of pregnant and parenting people by prioritizing access to housing, nutrition, income, transportation, child care, care navigation, and culturally relevant support services.

The Panel found that meeting urgent basic human needs and increasing perinatal support services such as home visiting might have helped avert preventable pregnancy-related deaths. Based on the Panel's recommendations, improving an array of perinatal support systems including housing, peer support, and paid leave might have made a difference in over 40 percent of preventable pregnancy-related deaths. Nearly a third were affected by a lack of services for housing, food, income, and transportation.

Protective efforts can help mitigate the negative impact of unmet basic needs and can improve health across the lifespan, including maternal health outcomes. These include efforts to meet social needs, increase economic stability and mobility, improve health care, nurture strong communities, address racism and other structural issues, provide housing and food access, improve community conditions, and provide support.[71] Helping people access safe, supportive, and affordable housing can improve health and reduce mortality risk.[72]

Another critical step is to more deeply integrate an understanding of and support for social determinants of health into health care.[73] This may include providing funding and training for health professionals to screen for and help address social determinants of health, particularly by coordinating with—or integrating into practices—social support providers such as social workers, community health workers, or doulas. Screening for food insecurity in perinatal care can help improve health and connect people to resources they need. Integrating social work and other social services into health care can improve screening for social determinants of health, navigating systems, and referral to resources.

Recommendations that follow align with the *Blueprint for a Just & Equitable Future: The 10-Year Plan to Dismantle Poverty in Washington,* which emphasizes the importance of prioritizing urgent needs, building a holistic continuum of care, and decriminalizing poverty. It also connects homelessness and housing stability to issues such as mental health conditions, substance use disorder, or violence—issues also addressed in this report.[74]

The *10-Year Plan* also includes a recommendation to "develop and pilot a portable benefits model and a guaranteed basic income program," an approach researchers link to improved health outcomes.[75] In 2022, the Department of Social and Health Services delivered the *Washington State Basic Income Feasibility Study* report to the Legislature (ESSB 5092 Sec. 205(11)). It included a recommendation to target a guaranteed basic income pilot program to people who are experiencing economic hardship or major life transitions and conditions that can be associated with economic instability, including pregnancy.[76]

The White House Blueprint for Addressing the Maternal Health Crisis, under the goal of "strengthen(ing) economic and social supports for people before, during, and after pregnancy," emphasizes expanding access to doulas; streamlining access to support services such as housing, child care, financial assistance, and food access; addressing social determinants of health; and screening for housing insecurity and food insecurity.

The AIHC Addendum of Tribal and Urban Indian Leadership Recommendations at the end of this document identifies two goals consistent with this set of recommendations:

- *Improved and expanded access for culturally relevant services and resources, utilizing Seven Generations Principles, throughout the continuum of pregnancy, birth and postpartum for both parents.*
- *Support and fund Tribal-led nutrition planning and project development initiatives, such as Food Sovereignty and First Foods (breastfeeding) work.*

Support from doulas, social workers, community health workers, patient navigators, lactation consultants, and other perinatal support providers helps protect against detrimental social determinants of health. With doula support, people are less likely to experience birth complications or a cesarean delivery, and more likely to feel positive about their birth experience and receive patient-centered care in which they feel providers listen to them and they have bodily autonomy. Culturally congruent doula support can help protect patients from racial disparities due to systemic and individual racism.[77] [78] [79] [80]

Recommended Actions to meet the basic needs of pregnant and parenting people

Policy and Budget Actions: (Legislature)

5.1 Increase access to safe, affordable, stable **housing** for pregnant people, parents, and children.
- Expand supportive housing programs with links to health care services.

5.2 Increase funding for **education, employment, child care, transportation**, and other services people need throughout life where they live, work, grow, learn, and play.

5.3 **Streamline processes so that pregnant and parenting people can easily access social programs** that support health care, housing, transportation, child care, nutrition, employment, and education by funding programs like Care Connect or Help Me Grow Washington that support care navigators.

5.4 Pilot a **guaranteed basic income program** for the perinatal period.

Perinatal Systems of Care: (Providers and Facilities)

5.5 **Integrate perinatal support providers, such as doulas, community health workers, patient navigators, social workers, and peer birth workers** into perinatal care practices.

5.6 Fund services to provide patients **child care during appointments and transportation to appointments**.

5.7 Facilities, including hospitals and their emergency departments, should **increase availability of care coordination** to screen patients for social determinants of health and connect them with appropriate social services, such as transportation, housing, child care, etc.

5.8 Hospitals, including emergency departments, should **increase availability of social workers and nurses** to support patients, provide referrals, and connect patients with support to address the social determinants of health.

5.9 Facilities should offer housing to parents or caregivers when infants need to be hospitalized beyond the discharge date of the parent. Facilities should ensure caregivers are connected to programs like Ronald McDonald Charities, Hope Lodge, or Joe's House for discounted medical lodging or vouchers.

Governmental, Academic, Community and Professional Agencies and Organizations

5.10 **Expand child welfare prevention supports** that focus on stabilization and wraparound services for pregnant people and early parents to help ensure that individuals seek needed care without fear of punitive consequences.

5.11 **Strengthen care coordination systems** that connect pregnant and postpartum patients to appropriate, culturally relevant social supports, navigators, and other service options.

- Health care systems and payors should identify strategies to connect patients with doulas, navigators, community health workers, home visitors and patient advocates—especially patients from communities disproportionately facing health inequities and discrimination that may benefit from anti-racist, culturally relevant support.
- Health systems should enable providers to more frequently screen patients for social supports and gaps in support (e.g., during virtual visits, at initial prenatal appointments, and throughout pregnancy), particularly when there are high needs or inadequate prenatal care.
- Increase availability and funding for patient navigators who can help patients find and access referrals and resources.

- Agencies should explore strategies to connect partners, spouses, and co-parents of birthing people to supportive resources, (e.g., peer group opportunities, parenting education).

5.12 **Raise awareness of statewide resource directories** such as Washington 211, Help Me Grow Washington, Pregnant & Parenting Recovery Services, Care Connect, Perinatal Support of WA, Parent Trust, and other resources.

5.13 **Promote access** for pregnant and postpartum people to publicly available resources including safe and affordable housing, nutritious and accessible food, transportation, and economic opportunity. Within established permanent and temporary housing programs, ensure the needs of pregnant and postpartum individuals are prioritized.

5.14 DOH should work with the Washington State Employment Security Department and academic partners to investigate access to paid family medical leave and any disparities in its usage.

6. Prevent violence in the perinatal period through survivor-centered and culturally appropriate coordinated services.

From 2014–2020, there were 21 cases of pregnancy-associated death by homicide, and eight pregnancy-associated deaths by suicide involving a firearm, making up 13 percent of all pregnancy-associated deaths. The Panel found that 15 percent of all preventable pregnancy-related deaths involved physical or emotional abuse.

Domestic violence (DV), intimate partner violence (IPV), and other forms of gender-based violence (GBV) can impact health outcomes in pregnancy and postpartum. According to ACOG, violence is associated with increased rates of adverse perinatal outcomes ranging from infection to pelvic fracture to preterm delivery.[81] The period around pregnancy and postpartum is associated with an increased risk of intimate-partner violence, although the extent is difficult to measure since violence is not always disclosed or screened for and screening may focus only on physical violence and not psychological or emotional violence.[82]

The Panel found that improving care, referrals, and social supports for people experiencing intimate partner violence might have impacted 17 percent of preventable pregnancy-related deaths. Reducing firearm availability might have affected ten percent of these deaths. And improving screening for risk factors that include violence and firearm access might have affected nearly half of such deaths.

These forms of violence are magnified and interconnected to disparities and systemic inequities related to racism and socioeconomic status. Racism increases the risk of experiencing intimate

partner violence for Black individuals.[83] The United States and Canada have also experienced an alarming rise in missing and murdered Indigenous people, particularly women and girls.[84]

The *White House Blueprint for Addressing the Maternal Health Crisis* identifies the impacts of domestic violence, intimate partner violence, sexual assault, and other forms of gender-based violence safety and health in pregnancy and postpartum: *"Research has also shown the negative—and sometimes fatal—repercussions of domestic violence, sexual assault, and other forms of gender-based violence on women's health, including during pregnancy and the postpartum period where women are often uniquely vulnerable to intimate partner violence."* It highlights maternal health outcomes from traumas including *"crime and violence, including sexual assault, domestic violence and other forms of gender-based violence."* [85]

Survivors of violence have a decreased likelihood of seeking health care.[86] Survivors may also face increased risks in pregnancy and postpartum that can impact health outcomes, including increased risk for perinatal depression and anxiety or avoiding gynecological care. Providing trauma-informed care to meet the needs of survivors can help improve their experience and outcomes of pregnancy and birth.[87]

Rates of intimate partner violence appear to have increased nationally and globally at the height of the COVID-19 pandemic, amplified by factors such as isolation at home and reduced social supports.[88] [89] [90] IPV can also increase the likelihood of unwanted pregnancy, as victims may have limited autonomy over contraceptive use.[91] Legal changes that result in reduced access to reproductive health care, including abortion, are associated with increased maternal mortality.[92]

The presence of firearms exacerbates risk for homicide from intimate partner violence many times over. According to the King County Regional Domestic Violence Firearms Enforcement Unit, perpetrators of homicide in domestic violence situations have a higher likelihood of using a firearm than of all other weapons combined—and over half of these perpetrators, according to a 2013–2014 study, were prohibited from using a firearm.[93]

Research and other efforts align with the Panel's recommendations. ACOG recommends screening for intimate partner violence at least once per trimester of pregnancy[94] and providing periodic evaluation and counseling about firearms. ACOG also encourages federal and state agencies to fund anti-violence initiatives, research, and education to address the connection between intimate partner violence, firearms, and perinatal health and safety. ACOG additionally supports regulating firearm access for people with a history of intimate partner violence, stalking, or being subject to a protective order.[95] Safe storage is also a recommended approach to decreasing likelihood of homicide in situations of intimate partner violence.[96]

The White House Blueprint for Addressing the Maternal Health Crisis emphasizes screening and referral for abuse and maltreatment, and training providers on intimate partner violence in pregnancy and postpartum. Coalitions can also address disparities exacerbated by violence, as

seen with a collaboration between tribal leaders, urban Indian organizations and leaders, and legislators in Washington state to address the problem of missing and murdered Indigenous people, including women and girls.[97]

A public health approach to ending intimate partner violence and other forms of gender-based violence includes upstream prevention throughout the lifespan. A report from the CDC highlights how early protective efforts can prevent intimate partner violence later in life. These efforts include teaching relationship skills and social-emotional skills early; disrupting developmental pathways through early childhood home visiting and enrichment; creating protective school and workplace environments; providing therapy for justice-involved youth; improving neighborhood physical and social environments; strengthening economic supports; and paid family leave. The document also recommends intervening in IPV during pregnancy and postpartum with home visiting, counseling, and other support.[98]

Recommended Actions to prevent violence in the perinatal period through survivor centered and culturally appropriate coordinated services

Policy and Budget Actions: (Legislature)

6.1 To help prevent reproductive coercion, the legislature should continue to protect access to the full range of reproductive health services, codified into Washington law under RCW 9.02.100.

6.2 The legislature should fund and support policy for public health approaches to upstream violence prevention at the population level (e.g., housing and income stability, early learning, relational health training, parent support, school-based health centers, etc.).

6.3 **Increase funding for resources to support survivors of intimate partner violence** (IPV). This includes:

- Fund organizations that provide survivor-centered and trauma-informed programs and advocacy services that support survivors and prevent intimate partner violence, including deaths due to violence.

6.4 **Fund safe housing for pregnant and postpartum people**, including shelter and housing specifically for people experiencing intimate partner violence. Ensure housing comes with wraparound services to help with finances, immigration, advocacy, legal services, substance use, child care, and other needs.

- Fund Department of Commerce to expand low-income housing and fund "housing first" programs focused on survivors of IPV.

6.5 **Fund free legal services for families.**

- Fund pilot efforts like those in SB 5693 that fund the Administrative Office of the Court's "self-help center pilot programs" that support unrepresented litigants in civil cases.
- Provide free legal representation and advocacy for survivors, to improve their chances of being granted a protection order when needed. Fund organizations like the Northwest Justice Project in providing legal assistance to families.

6.6 The Legislature should expand policy and provide funding to **advance firearm safety**. Enable more counties to enforce and implement policy (Chapter 7.94 RCW; RCW 9.41.800) about surrendering firearms when there is a history of domestic violence, felony conviction, or an Extreme Risk Protection Order (ERPO).

Perinatal Systems of Care: (Providers and Facilities)

6.7 Facilities and systems should ensure **universal screening for interpersonal violence** and personal safety including firearm safety, using best practices in screening. This includes using culturally appropriate tools and ensuring safety and privacy while screening. Facilities should ensure providers receive appropriate training on these best practices for in-person and virtual settings.

- See Futures Without Violence guidelines emphasizing confidentiality, universal education, empowerment, and support (CUES).
- Providers should include screening for reproductive coercion when discussing contraceptive options with patients.

6.8 Providers and facilities should make available to patients and family members community **resources for support**, regardless of whether the patient screens positive for violence. Safe gun storage information should also be made available.

6.9 **Providers should safely document intimate partner violence** in a way that can't be accessed through patient portals (e.g., using caution in pediatric records that another parent may have access to).

6.10 **Providers and facilities should offer training about intimate partner violence** that includes information about the connections between pregnancy and violence.

Governmental, Academic, Community and Professional Agencies and Organizations

6.11 **Increase public education on prevention and awareness of IPV,** including resources to support survivors, reduce harm, and address upstream prevention of violence.

6.12 **Courts and legal systems should strengthen practices to ensure safety.**
- Ensure rules about parenting plans in these cases follow best practices for survivor-centered supports, including clear guidelines, mandated supervision, and neutral drop-off locations to reduce contact between survivors and abusers.

6.13 Educational institutions at all levels should work to **prevent and address violence**.
- Schools should identify roles they can play in upstream violence prevention throughout life, including social-emotional learning, consent education, and protective interventions, as found in the CDC's resource Preventing Intimate Partner Violence Across the Lifespan.

6.14 **Increase housing access and shelter capacity for survivors**, ensuring housing comes with wraparound services to help with finances, or other resources that people may need during and after pregnancy.

6.15 Provide access to trauma-informed, coordinated **wraparound/case management services** for survivors.

6.16 Ensure social and government service providers, members of the judicial system, health care providers, and law enforcement are **trained on the increased risk of IPV** during the perinatal and postpartum period.

6.17 Health systems should train internal staff on violence prevention and referring clients to resources.
- Trainings should be done in coordination with community organizations and subject matter experts on violence prevention.

6.18 Agencies should work with American Indian / Alaska Native (AI/AN) communities, tribal health leaders, and urban Indian health leaders to address community violence within tribal communities and against tribal communities.

The Department of Health

6.19 **Raise awareness about violence prevention**, healthy relationships, and firearm violence. This includes education on firearm safety and responsibility in the context of domestic violence and intimate partner violence (e.g., protection orders). The department should develop and disseminate best practices for addressing violence prevention during perinatal care.

6.20 **Support training and provide funding to community-based organizations** working on supporting survivors and preventing violence, including intimate partner violence.

6.21 Explore options for **mandatory training for DOH licensed providers** on intimate partner violence screening, referrals to community resources, and the links between pregnancy and violence.

Conclusion

Next Steps: What Are the Department of Health and Partners Doing to Implement Recommendations?

The 2023 MMRP Legislative Report outlines strategies and recommendations we can begin implementing to ensure that Washington is a safe, dignified, and equitable place to give birth. Whether you work in state or local government, an educational or health care institution, a non-profit or community coalition, or a philanthropic entity, we all have a role to play to improve perinatal health outcomes.

The recommendations included in this report address a broad spectrum of needs and opportunities for our partners to improve perinatal care in Washington. Our findings point to two key areas of focus: improving behavioral health care during the perinatal period, and ensuring that all our recommendations specifically benefit Black, Indigenous, and People of Color (BIPOC) communities. Focusing efforts on these two areas will significantly improve perinatal care in Washington state and reduce maternal mortality.

The Department of Health (DOH) submitted this report to the Washington State Legislature in February 2023 in accordance with the Maternal Mortality Review Law (RCW 70.54.450). Following submission to the Legislature, DOH will post the report on the Maternal Mortality Review Panel webpage and disseminate it broadly to professionals, professional organizations, and community-based organizations involved in the care of pregnant and postpartum people, such as the Washington State Perinatal Collaborative (WSPC); Washington State Hospital Association (WSHA); March of Dimes (MOD); American College of Obstetrics and Gynecology (ACOG); Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN); Department of Social and Health Services (DSHS); Health Care Authority (HCA, the state's Medicaid agency); Washington State Obstetrical Association (WSOA); Washington Academy of Family Physicians (WAFP); Midwives Association of Washington (MAWS); Washington Chapter of the American College of Nurse-Midwives; Foundation for Healthcare Quality; health plan representatives; and local health jurisdictions.

After the report is published, DOH will offer learning opportunities that are open to the public, at which we will discuss report findings, recommendations, and future implementation activities. ***We encourage any individual or organization to share with us how you have applied the Panel's recommendations, plan to apply them, or are considering applying them.*** If you have questions or comments or would like DOH to present the report with your team or organization, contact us at maternalmortalityreview@doh.wa.gov.

To stay informed about the state's maternal mortality prevention efforts and learn how you can support the strategies and recommendations, visit Maternal Mortality Review Panel | Washington State Department of Health.

Appendix 1: Maternal Mortality Review Process

The maternal mortality review is conducted through a multi-level process that begins with identification of maternal deaths in the state within a given period and ends with the development and prioritization of recommendations for legislators and other key players to take actions that may prevent and reduce maternal mortality and morbidity, based on what the Panel learns from the cases it reviews. Although all maternal deaths are reviewed at some stage of the process, the Department prioritizes the Panel's review to cover all *potentially* pregnancy-related deaths to determine underlying cause of death, preventability of pregnancy-related deaths, contributing factors to preventable deaths, and recommendations to prevent such deaths in the future.

Level 1 Review: Identification of Pregnancy-Associated Deaths

Potential deaths for review include all people who were pregnant within a year of death and were Washington state residents at the time of death. The Department identifies maternal deaths that occurred within 365 days of delivery or end of pregnancy, through multiple methods. The Center for Health Statistics (CHS) of the Department links death certificates that identify the deceased as female to birth/fetal death certificates using probabilistic matching of a combination of identifiers, including Social Security number, infant name, date of birth, and parents' names. A probabilistic match allows the linkage of death certificates to birth/fetal death certificates when slight variations in records exist. Additional deaths are identified from death certificates using either the underlying cause of death (ICD-10 codes range O00–O99) for maternal mortality or information from the pregnancy checkbox. Officials who certify a death use the pregnancy checkbox on death certificates to indicate if the decedent died while pregnant or within one year of a pregnancy, or if their pregnancy status was unknown.

Washington State Center for Vital Health Statistics does not collect death records of fetal deaths that occur within the first 20 weeks of gestation (RCW 70.58.150). In addition, the Department does not identify maternal deaths through linkage to abortion records within the year prior to death because abortion records do not have any identifiable information. A maternal death associated with a fetal death before 20 weeks (miscarriage) or an abortion would only be identified if a death certificate mentioned a previous abortion as a contributing cause of death or the pregnancy check box indicated pregnancy in the year prior to death and the medical record noted a miscarriage or abortion.

Level 2: Categorization and Abstraction of Pregnancy-Associated Deaths

In Level 2, Department staff identify which deaths may have been pregnancy-related, gather information such as medical and death records, and produce a deidentified summary of key information related to that person's life and death for the Panel to review.

The Department and a sub-group of panel members evaluate the cause of each maternal death and categorize the death either as potentially pregnancy-related or as pregnancy-associated but not pregnancy-related.

For all potentially pregnancy-related deaths, the Department abstracts information from available records including and not limited to birth and death and fetal death certificates; medical records for prenatal care visits and other office visits, hospitalizations and emergency room visits; behavioral health, social service, and law enforcement records; and autopsy or coroner reports. Abstracted information is entered into CDC's Maternal Mortality Review Information Application (MMRIA) database. To facilitate this process, a perinatal nurse abstractor at the Department reviews and abstracts information from all available records and other information and prepares a case narrative for each of the potentially pregnancy-related deaths. The case narratives are prepared for the Panel to use in the review process (Level 3).

To ensure confidentiality, and in accordance with the law (RCW 70.54.450), the Department removes all identifying information from the case narratives prior to the Panel's review that have the potential to identify a death.

Level 3: Panel Review of Deaths for Pregnancy-Relatedness, Preventability, and Recommendations

Of the full Panel, sub-groups of approximately 20–35 members participate in each review of maternal deaths. At each meeting, the Panel seeks to include a broad array of expertise from its membership with a diversity in clinical, cultural, professional, and geographic experience. At least 40 percent of participants attending a review meeting have non-clinical expertise to ensure the Panel focuses on social determinants of health and support needs as well as clinical issues. At each meeting, the Panel strives to include maternal-fetal medicine specialists, tribal health representatives, family practice providers, obstetrician/gynecologists, licensed midwives, certified nurse midwives, nurses, social workers, experts in health equity and social determinants of health, perinatal psychiatrists, forensic pathologists, violence prevention experts, representatives from state and local health agencies, community and professional organization representatives, and individuals representing communities experiencing disproportionate maternal mortality and morbidity due to systemic bias.

For each *potentially* pregnancy-related death, panel members work to answer key questions as outlined on the CDC's Maternal Mortality Review Committee Decisions Form, presented below (Appendix 1a), which guides the panel through the review process.

1. First, Panel members determine whether the death was pregnancy-related. This is defined as a death during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiological effects of pregnancy.

2. If the death was pregnancy-related, then the Panel determines the underlying cause(s) of death and decides whether they agree with the cause of death listed on the death certificate. As described on the Committee Decisions Form, "underlying cause" refers to the disease or injury that initiated the chain of events leading to death or the circumstances of the accident or violence which produced the fatal injury.

3. Next, for all deaths the Panel classifies as pregnancy-related, members determine the degree to which each death was preventable. The Department and the Panel use the *Building US Capacity to Review and Prevent Maternal Deaths* definition of preventability, which states that a maternal death is considered preventable if there was at least some chance of a death being averted by one or more reasonable changes at the patient, family, community, provider, facility, and/or system levels. To ensure they consider a breadth of factors, the Panel discusses whether the death was preventable from a clinical perspective and whether it was preventable from the perspective of health equity and social determinants of health (e.g., social and structural factors that shape our lives, experiences, and environments).

4. If the Panel finds a death was preventable, the members identify factors that may have contributed to the death and provide recommendations to avert future such deaths. Factors contributing to deaths are identified at the patient/family, community, provider, facility, and systems levels as outlined on the CDC form and the Maternal Mortality Review Information Application (MMRIA) data system into which states' maternal mortality data is entered.

Level 4 Review: Systems-Level Recommendations Development and Discussion

Level 4 is an analysis of the Panel's findings to identify trends and priority recommendations for this report. The Department aggregated the panel's findings and decisions on each preventable pregnancy-related 2017–2020 death and conducted qualitative analyses of all identified contributing factors and recommendations to prevent future deaths. The Panel made many more recommendations in the past three years than in the years prior, due in part to the number of cases reviewed and the added depth of discussion around equity and social determinants of health. This necessitated a more complex process to distill recommendations down to the recommended actions in this report.

First, contributing factors and associated recommendations were categorized at the patient/family, provider, facility, systems, or community level. Next, each contributing factor and recommendation was coded using a coding guide developed through inductive coding, in which similar recommendations are grouped together until a common code is identified. Codes were then summarized into themes of contributing factors and recommendations. Department staff grouped, organized, and condensed recommendations. They then worked with lead Panel members and other subject matter experts to clarify and prioritize the recommendation themes

in accordance with the findings of the review and in consideration of other maternal and infant birth outcome information, including maternal morbidity and infant outcomes.

The recommendations were presented back to the Panel at the Level 4 review meeting for discussion. During this meeting, Panel members broke into topic-specific groups to prioritize recommendations, provide feedback and clarifications, and assist with refining language. The Panel also had the opportunity to rate and comment on each recommendation being considered, via an online survey process.

The Department then worked with internal and external experts and partners, including lead Panel members, to distill the recommendations to a set of priorities based on criteria such as being systems-level, feasible, timely, equity-focused, supported by evidence or best practice, and aligned with partner goals. Department leadership members reviewed the recommendations and provided feedback and alignment with policy initiatives. The Panel voted to confirm the final recommendations. Those recommendations are presented in this report for consideration by the legislature, providers and facilities, state agencies, and other audiences who use this report.

Appendix 1a: Maternal Mortality Review Panel Committee Decisions Form

The Maternal Mortality Review Committee Decisions Form is also available online.

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v21 1

REVIEW DATE
Month/Day/Year

RECORD ID #

COMMITTEE DETERMINATION OF CAUSE(S) OF DEATH

IF PREGNANCY-RELATED, COMMITTEE DETERMINATION OF UNDERLYING* CAUSE OF DEATH
Refer to page 3 for PMSS-MM cause of death list.

TYPE	OPTIONAL: CAUSE (DESCRIPTIVE)
UNDERLYING*	
CONTRIBUTING	
IMMEDIATE	
OTHER SIGNIFICANT	

PREGNANCY-RELATEDNESS: SELECT ONE

- PREGNANCY-RELATED
  A death during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy
- PREGNANCY-ASSOCIATED, BUT NOT-RELATED
  A death during pregnancy or within one year of the end of pregnancy from a cause that is not related to pregnancy
- PREGNANCY-ASSOCIATED BUT UNABLE TO DETERMINE PREGNANCY-RELATEDNESS

ESTIMATE THE DEGREE OF RELEVANT INFORMATION (RECORDS) AVAILABLE FOR THIS CASE:

- COMPLETE
  All records necessary for adequate review of the case were available
- SOMEWHAT COMPLETE
  Major gaps (i.e, information that would have been crucial to the review of the case)
- MOSTLY COMPLETE
  Minor gaps (i.e, information that would have been beneficial but was not essential to the review of the case)
- NOT COMPLETE
  Minimal records available for review (i.e, death certificate and no additional records)
- N/A

DOES THE COMMITTEE AGREE WITH THE UNDERLYING* CAUSE OF DEATH LISTED ON DEATH CERTIFICATE? ☐ YES ☐ NO

COMMITTEE DETERMINATIONS ON CIRCUMSTANCES SURROUNDING DEATH

DID OBESITY CONTRIBUTE TO THE DEATH? ☐ YES ☐ PROBABLY ☐ NO ☐ UNKNOWN

DID DISCRIMINATION** CONTRIBUTE TO THE DEATH? ☐ YES ☐ PROBABLY ☐ NO ☐ UNKNOWN

DID MENTAL HEALTH CONDITIONS *OTHER THAN SUBSTANCE USE DISORDER* CONTRIBUTE TO THE DEATH? ☐ YES ☐ PROBABLY ☐ NO ☐ UNKNOWN

DID SUBSTANCE USE DISORDER CONTRIBUTE TO THE DEATH? ☐ YES ☐ PROBABLY ☐ NO ☐ UNKNOWN

MANNER OF DEATH

WAS THIS DEATH A SUICIDE? ☐ YES ☐ PROBABLY ☐ NO ☐ UNKNOWN

WAS THIS DEATH A HOMICIDE? ☐ YES ☐ PROBABLY ☐ NO ☐ UNKNOWN

IF ACCIDENTAL DEATH, HOMICIDE, OR SUICIDE, LIST THE MEANS OF FATAL INJURY
- ☐ FIREARM
- ☐ SHARP INSTRUMENT
- ☐ BLUNT INSTRUMENT
- ☐ POISONING/ OVERDOSE
- ☐ HANGING/ STRANGULATION/ SUFFOCATION
- ☐ FALL
- ☐ PUNCHING/ KICKING/BEATING
- ☐ EXPLOSIVE
- ☐ DROWNING
- ☐ FIRE OR BURNS
- ☐ MOTOR VEHICLE
- ☐ INTENTIONAL NEGLECT
- ☐ OTHER, SPECIFY:
- ☐ UNKNOWN
- ☐ NOT APPLICABLE

IF HOMICIDE, WHAT WAS THE RELATIONSHIP OF THE PERPETRATOR TO THE DECEDENT?
- ☐ NO RELATIONSHIP
- ☐ PARTNER
- ☐ EX-PARTNER
- ☐ OTHER RELATIVE
- ☐ ACQUAINTANCE
- ☐ OTHER, SPECIFY:
- ☐ UNKNOWN
- ☐ NOT APPLICABLE

*Underlying cause refers to the disease or injury that initiated the chain of events leading to death or the circumstances of the accident or violence which produced the fatal injury.
**Encompasses Discrimination, Interpersonal Racism, and Structural Racism as described on page 4.

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v21 2

COMMITTEE DETERMINATION OF PREVENTABILITY

A death is considered preventable if the committee determines that there was at least some chance of the death being averted by one or more reasonable changes to patient, family, provider, facility, system and/or community factors.

WAS THIS DEATH PREVENTABLE?	☐ YES	☐ NO
CHANCE TO ALTER OUTCOME	☐ GOOD CHANCE ☐ NO CHANCE	☐ SOME CHANCE ☐ UNABLE TO DETERMINE

CONTRIBUTING FACTORS AND RECOMMENDATIONS FOR ACTION (Entries may continue to grid on page 5)

CONTRIBUTING FACTORS WORKSHEET

What were the factors that contributed to this death?
Multiple contributing factors may be present at each level.

RECOMMENDATIONS OF THE COMMITTEE

If there was at least some chance that the death could have been averted, what were the specific and feasible actions that, if implemented or altered, might have changed the course of events?

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)

CONTRIBUTING FACTOR KEY (DESCRIPTIONS ON PAGE 4)

- Access/financial
- Adherence
- Assessment
- Chronic disease
- Clinical skill/ quality of care
- Communication
- Continuity of care/ care coordination
- Cultural/religious
- Delay
- Discrimination
- Environmental
- Equipment/ technology
- Interpersonal racism
- Knowledge
- Law Enforcement
- Legal
- Mental health conditions
- Outreach
- Policies/procedures
- Referral
- Social support/ isolation
- Structural racism
- Substance use disorder - alcohol, illicit/prescription drugs
- Tobacco use
- Trauma
- Unstable housing
- Violence
- Other

DEFINITION OF LEVELS

- **PATIENT/FAMILY:** An individual before, during or after a pregnancy, and their family, internal or external to the household, with influence on the individual
- **PROVIDER:** An individual with training and expertise who provides care, treatment, and/or advice
- **FACILITY:** A physical location where direct care is provided - ranges from small clinics and urgent care centers to hospitals with trauma centers
- **SYSTEM:** Interacting entities that support services before, during, or after a pregnancy - ranges from healthcare systems and payors to public services and programs
- **COMMUNITY:** A grouping based on a shared sense of place or identity - ranges from physical neighborhoods to a community based on common interests and shared circumstances

PREVENTION TYPE

- **PRIMARY:** Prevents the contributing factor before it ever occurs
- **SECONDARY:** Reduces the impact of the contributing factor once it has occurred (i.e, treatment)
- **TERTIARY:** Reduces the impact or progression of what has become an ongoing contributing factor (i.e, management of complications)

EXPECTED IMPACT

- **SMALL:** Education/counseling (community- and/or provider-based health promotion and education activities)
- **MEDIUM:** Clinical intervention and coordination of care across continuum of well-woman visits (protocols, prescriptions)
- **LARGE:** Long-lasting protective intervention (improve readiness, recognition and response to obstetric emergencies/LARC)
- **EXTRA LARGE:** Change in context (promote environments that support healthy living/ensure available and accessible services)
- **GIANT**: Address social determinants of health (poverty, inequality, etc.)

IF PREGNANCY-RELATED, COMMITTEE DETERMINATION OF UNDERLYING CAUSE OF DEATH* PMSS-MM

* PREGNANCY-RELATED DEATH: DEATH DURING PREGNANCY OR WITHIN ONE YEAR OF THE END OF PREGNANCY FROM A PREGNANCY COMPLICATION, A CHAIN OF EVENTS INITIATED BY PREGNANCY, OR THE AGGRAVATION OF AN UNRELATED CONDITION BY THE PHYSIOLOGIC EFFECTS OF PREGNANCY.

Hemorrhage (Excludes Aneurysms or CVA)
10.1 - Hemorrhage – Uterine Rupture
10.2 - Placental Abruption
10.3 - Placenta Previa
10.4 - Ruptured Ectopic Pregnancy
10.5 - Hemorrhage – Uterine Atony/Postpartum Hemorrhage
10.6 - Placenta Accreta/Increta/Percreta
10.7 - Hemorrhage due to Retained Placenta
10.10 - Hemorrhage – Laceration/Intra-Abdominal Bleeding
10.9 - Other Hemorrhage/NOS

Infection
20.1 - Postpartum Genital Tract (e.g., of the Uterus/Pelvis/Perineum/Necrotizing Fasciitis)
20.2 - Sepsis/Septic Shock
20.4 - Chorioamnionitis/Antepartum Infection
20.6 - Urinary Tract Infection
20.7 - Influenza
20.8 - COVID-19
20.10 - Pneumonia
20.11 - Other Non-Pelvic Infection (e.g., TB, Meningitis, HIV)
20.9 - Other Infection/NOS

Embolism - Thrombotic (Non-Cerebral)
30.1 - Embolism – Thrombotic (Non-Cerebral)
30.9 - Other Embolism (Excludes Amniotic Fluid Embolism)/NOS

Amniotic Fluid Embolism
31.1 - Embolism - Amniotic Fluid

Hypertensive Disorders of Pregnancy
40.1 - Preeclampsia
50.1 - Eclampsia
60.1 - Chronic Hypertension with Superimposed Preeclampsia

Anesthesia Complications
70.1 - Anesthesia Complications

Cardiomyopathy
80.1 - Postpartum/Peripartum Cardiomyopathy
80.2 - Hypertrophic Cardiomyopathy
80.9 - Other Cardiomyopathy/NOS

Hematologic
82.1 - Sickle Cell Anemia
82.9 - Other Hematologic Conditions including Thrombophilias/TTP/HUS/NOS

Collagen Vascular/Autoimmune Diseases
83.1 - Systemic Lupus Erythematosus (SLE)
83.9 - Other Collagen Vascular Diseases/NOS

Conditions Unique to Pregnancy
85.1 - Conditions Unique to Pregnancy (e.g, Gestational Diabetes, Hyperemesis, Liver Disease of Pregnancy)

Injury
88.1 - Intentional (Homicide)
88.2 - Unintentional
88.9 - Unknown Intent/NOS

Cancer
89.1 - Gestational Trophoblastic Disease (GTD)
89.3 - Malignant Melanoma
89.9 - Other Malignancy/NOS

Cardiovascular Conditions
90.1 - Coronary Artery Disease/Myocardial Infarction (MI)/Atherosclerotic Cardiovascular Disease
90.2 - Pulmonary Hypertension
90.3 - Valvular Heart Disease Congenital and Acquired
90.4 - Vascular Aneurysm/Dissection (Non-Cerebral)
90.5 - Hypertensive Cardiovascular Disease
90.6 - Marfan Syndrome
90.7 - Conduction Defects/Arrhythmias
90.8 - Vascular Malformations Outside Head and Coronary Arteries
90.9 - Other Cardiovascular Disease, including CHF, Cardiomegaly, Cardiac Hypertrophy, Cardiac Fibrosis, Non-Acute Myocarditis/NOS

Pulmonary Conditions (Excludes ARDS-Adult Respiratory Distress Syndrome)
91.1 - Chronic Lung Disease
91.2 - Cystic Fibrosis
91.3 - Asthma
91.9 - Other Pulmonary Disease/NOS

Neurologic/Neurovascular Conditions (Excluding CVA)
92.1 - Epilepsy/Seizure Disorder
92.9 - Other Neurologic Disease/NOS

Renal Disease
93.1 - Chronic Renal Failure/End-Stage Renal Disease (ESRD)
93.9 - Other Renal Disease/NOS

Cerebrovascular Accident not Secondary to Hypertensive Disorders of Pregnancy
95.1 - Cerebrovascular Accident (Hemorrhage/Thrombosis/Aneurysm/Malformation) not Secondary to Hypertensive Disorders of Pregnancy

Metabolic/Endocrine
96.2 - Diabetes Mellitus
96.9 - Other Metabolic/Endocrine Disorder/NOS

Gastrointestinal Disorders
97.1 - Crohn's Disease/Ulcerative Colitis
97.2 - Liver Disease/Failure/Transplant
97.9 - Other Gastrointestinal Disease/NOS

Mental Health Conditions
100.1 - Depressive Disorder
100.2 - Anxiety Disorder (including Post-Traumatic Stress Disorder)
100.3 - Bipolar Disorder
100.4 - Psychotic Disorder
100.5 - Substance Use Disorder
100.9 - Other Psychiatric Condition/NOS

Unknown COD
999.1 - Unknown COD

CONTRIBUTING FACTOR DESCRIPTIONS

LACK OF **ACCESS/FINANCIAL** RESOURCES
Systemic barriers, e.g, lack or loss of healthcare insurance or other financial duress, as opposed to noncompliance, impacted their ability to care for themself (e.g, did not seek services because unable to miss work or afford postpartum visits after insurance expired). Other barriers to accessing care: insurance non-eligibility, provider shortage in their geographical area, and lack of public transportation.

ADHERENCE TO MEDICAL RECOMMENDATIONS
The provider or patient did not follow protocol or failed to comply with standard procedures (i.e, non adherence to prescribed medications).

FAILURE TO SCREEN/INADEQUATE **ASSESSMENT** OF RISK
Factors placing the individual at risk for a poor clinical outcome recognized, and they were not transferred/transported to a provider able to give a higher level of care.

CHRONIC DISEASE
Occurrence of one or more significant pre-existing medical conditions (e.g, obesity, cardiovascular disease, or diabetes).

CLINICAL SKILL/QUALITY OF CARE (PROVIDER OR FACILITY PERSPECTIVE)
Personnel were not appropriately skilled for the situation or did not exercise clinical judgment consistent with standards of care (e.g, error in the preparation or administration of medication or unavailability of translation services).

POOR **COMMUNICATION**/LACK OF CASE COORDINATION OR MANAGEMENT/ LACK OF CONTINUITY OF CARE (SYSTEM PERSPECTIVE)
Care was fragmented (i.e, uncoordinated or not comprehensive) among or between healthcare facilities or units, (e.g, records not available between inpatient and outpatient or among units within the hospital, such as Emergency Department and Labor and Delivery).

LACK OF **CONTINUITY OF CARE** (PROVIDER OR FACILITY PERSPECTIVE)
Care providers did not have access to individual's complete records or did not communicate their status sufficiently. Lack of continuity can be between prenatal, labor and delivery, and postpartum providers.

CULTURAL/RELIGIOUS, OR LANGUAGE FACTORS The provider or patient demonstrated that any of these factors was either a barrier to care due to lack of understanding or led to refusal of therapy due to beliefs (or belief systems).

DELAY
The provider or patient was delayed in referring or accessing care, treatment, or follow-up care/action.

DISCRIMINATION
Treating someone less or more favorably based on the group, class or category they belong to resulting from biases, prejudices, and stereotyping. It can manifest as differences in care, clinical communication and shared decision-making. (Smedley et al, 2003 and Dr. Rachel Hardeman).

ENVIRONMENTAL FACTORS
Factors related to weather or social environment.

INADEQUATE OR UNAVAILABLE **EQUIPMENT/TECHNOLOGY**
Equipment was missing, unavailable, or not functional, (e.g, absence of blood tubing connector).

INTERPERSONAL RACISM
Discriminatory interactions between individuals based on differential assumptions about the abilities, motives, and intentions of others and resulting in differential actions toward others based on their race. It can be conscious as well as unconscious, and it includes acts of commission and acts of omission. It manifests as lack of respect, suspicion, devaluation, scapegoating, and dehumanization. (Jones, CP, 2000 and Dr. Cornelia Graves).

KNOWLEDGE - LACK OF KNOWLEDGE REGARDING IMPORTANCE OF EVENT OR OF TREATMENT OR FOLLOW-UP
The provider or patient did not receive adequate education or lacked knowledge or understanding regarding the significance of a health event (e.g, shortness of breath as a trigger to seek immediate care) or lacked understanding about the need for treatment/follow-up after evaluation for a health event (e.g, needed to keep appointment for psychiatric referral after an ED visit for exacerbation of depression).

INADEQUATE **LAW ENFORCEMENT** RESPONSE
Law enforcement response was not in a timely manner or was not appropriate or thorough in scope.

LEGAL
Legal considerations that impacted outcome.

MENTAL HEALTH CONDITIONS
The patient had a documented diagnosis of a psychiatric disorder. This includes postpartum depression. If a formal diagnosis is not available, refer to your review committee subject matter experts (e.g, psychiatrist, psychologist, licensed counselor) to determine whether the criteria for a diagnosis of substance use disorder or another mental health condition are met based on the available information.

INADEQUATE COMMUNITY **OUTREACH**/RESOURCES
Lack of coordination between healthcare system and other outside agencies/organizations in the geographic/cultural area that work with maternal health issues.

LACK OF STANDARDIZED **POLICIES/PROCEDURES**
The facility lacked basic policies or infrastructure germane to the individual's needs (e.g, response to high blood pressure, or a lack of or outdated policy or protocol).

LACK OF **REFERRAL** OR CONSULTATION
Specialists were not consulted or did not provide care; referrals to specialists were not made.

SOCIAL SUPPORT/ISOLATION - LACK OF FAMILY/ FRIEND OR SUPPORT SYSTEM
Social support from family, partner, or friends was lacking, inadequate, and/or dysfunctional.

STRUCTURAL RACISM
The systems of power based on historical injustices and contemporary social factors that systematically disadvantage people of color and advantage white people through inequities in housing, education, employment, earnings, benefits, credit, media, health care, criminal justice, etc. (Adapted from Bailey ZD. Lancet. 2017 and Dr. Carla Ortique).

SUBSTANCE USE DISORDER – ALCOHOL, ILLICIT/ PRESCRIPTION DRUGS
Substance use disorder is characterized by recurrent use of alcohol and/or drugs causing clinically and functionally significant impairment, such as health problems or disability. The committee may determine that substance use disorder contributed to the death when the disorder directly compromised their health status (e.g, acute methamphetamine intoxication exacerbated pregnancy- induced hypertension, or they were more vulnerable to infections or medical conditions).

TOBACCO USE
The patient's use of tobacco directly compromised the patient's health status (e.g, long-term smoking led to underlying chronic lung disease).

TRAUMA
The individual experienced trauma: i.e,, loss of child (death or loss of custody), rape, molestation, or one or more of the following: sexual exploitation during childhood plus persuasion, inducement, or coercion of a child to engage in sexually explicit conduct; or other physical or emotional abuse other than that related to sexual abuse during childhood.

UNSTABLE HOUSING
Individual lived "on the street," in a homeless shelter, or in transitional or temporary circumstances with family or friends.

VIOLENCE AND INTIMATE PARTNER VIOLENCE (IPV)
Physical or emotional abuse perpetrated by current or former intimate partner, family member, friend, acquaintance, or stranger.

OTHER
Contributing factor not otherwise mentioned. Please provide description.

Appendix 2: Additional data and findings

This legislative report focuses largely on deaths determined by the Panel to be pregnancy-related and on pregnancy-associated deaths due to behavioral health conditions. However, because we recognize value in additional analyses related to other subgroups of deaths, we have included information here on several subgroups of pregnancy-associated deaths. This appendix includes information about the education level of all individuals included in the pregnancy-related group, as well as statistics for pregnancy-related deaths due to other causes, specifically pregnancy-related deaths not due to suicide, homicide, or substance use. Table A1 provides a comprehensive description of counts and rates (with 95 percent confidence intervals) for all deaths by both relatedness and various demographic characteristics.

Data Analysis

The Department calculated maternal mortality rates for all maternal deaths and pregnancy-related deaths. The maternal mortality rate is the number of deaths per 100,000 live births during a specified time period and within a specific geography. It is used to describe maternal deaths in aggregate as well as for specific subgroups, and to compare the experience of maternal mortality across states and the nation.

Results presented in this report are purely descriptive in nature. Information on maternal characteristics presented in the report was obtained from birth certificates when possible. In cases where information is not available from the birth certificate, available information from the medical record or death certificate was used.

Figure A1 describes the findings by level of review for maternal deaths 2014–2020. There were 609,624 live births in Washington during 2014–2020. The Department identified 300 maternal or pregnancy-associated deaths within this time period. Seventy-six of these deaths did not meet eligibility criteria and were excluded, resulting in 224 maternal deaths and a pregnancy-associated maternal mortality rate of 36.7 deaths per 100,000 live births (Figure A1).

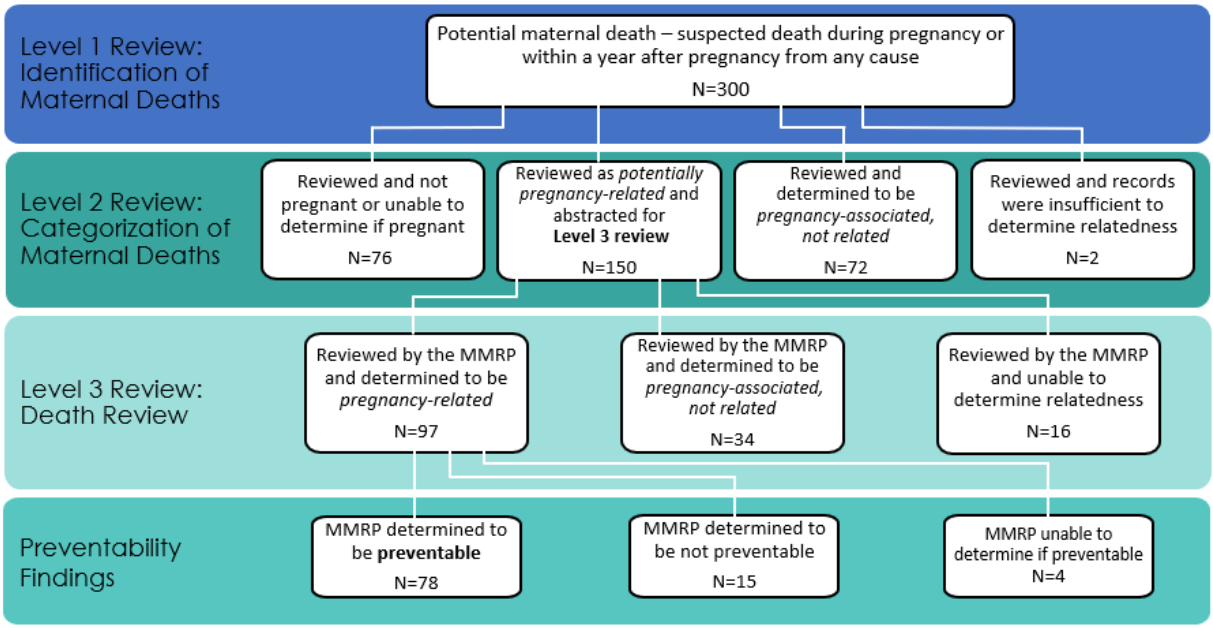
Table A1: Counts, Maternal Mortality Rate (deaths per 100,000 live births) and 95% Confidence Limits for Rate for Pregnancy-Associated Deaths and Select Subgroups, Washington State, 2014-2020

		Pregnancy-Associated Deaths			All Pregnancy-Related Deaths			Pregnancy-Associated Deaths Due to Suicide			Pregnancy-Associated Deaths Due to Accidental Substance Overdose			Total Live Births
		Count	Rate*	95% CI+	Count	Rate*	95% CI+	Count	Rate*	95% CI+	Count	Rate*	95% CI+	
All People		224	37	32, 42	97	16	13, 19	19	3	2, 5	23	4	2, 5	609,624
Maternal Age	<25	52	41	31, 53	18	14	8, 21	4	3	1, 7	7	6	2, 10	127,259
	25-29	43	25	18, 32	15	9	5, 13	2	1	0, 3	4	2	1, 5	175,002
	30-34	70	37	29, 47	33	18	12, 24	7	4	1,7	10	5	3, 9	187,793
	35-40	44	45	33, 59	23	24	15, 34	4	4	1, 9	2	2	0, 6	97,795
	40+	15	69	39, 109	8	37	16, 67	2	9	1, 26	0	0	0	21,622
Race/Ethnicity	Hispanic	40	36	26, 48	21	19	12, 28	1	1	0, 3	2	2	0, 5	112,034
	Black	22	78	49, 114	10	36	17, 61	2	7	1, 20	2	7	1, 20	28,057
	White	110	31	25, 37	46	13	9, 17	11	3	2, 5	15	4	2, 7	356,028
	American Indian/ Alaska Native	22	263	165, 384	7	84	34, 156	0	0	0	4	48	13, 105	8,353
	Asian American	14	23	13, 37	5	8	3, 17	3	5	1, 12	0	0	0	60,669
	Native Hawaiian/ Pacific Islander	7	85	34, 158	4	48	13, 106	0	0	0	0	0	0	8,261
	Multiple race	8	31	13, 56	4	16	4, 34	2	8	1, 22	0	0	0	25,734
	Not Specified	1	10	0, 35	0	0	0	0	0	0	0	0	0	10,487
Insurance	Medicaid	157	66	56, 77	66	28	22, 35	12	5	3, 8	17	7	4, 11	236,921
	Private Insurance	50	16	12, 20	24	8	5, 11	7	2	1, 4	4	1	0, 3	316,349
	Other	8	20	9, 36	6	15	6, 29	0	0	0	0	0	0	39,865
	Unknown/None	9	55	25, 96	1	6	0, 22	0	0	0	2	12	1, 34	16,488
Residence	Urban	187	34	30, 40	82	15	15	17	3	2, 5	20	4	2, 5	543,000
	Rural	37	57	40, 77	15	23	23	2	3	0, 9	3	5	1, 11	64,833

*Rate is per 100,000 live births

+95% CI calculated using Gamma method

Figure A1: Maternal Mortality Review Findings by Level of Review, Washington State, 2014–2020



At the Level 2 reviews, all pregnancy-associated deaths were screened by subgroups of Panel members, who determined that 150 deaths were *potentially* pregnancy-related and required a full review by the Panel. Seventy-two deaths were determined by the Panel subgroups to be pregnancy-associated, but not related, and two deaths had insufficient information to determine the relatedness of the pregnancy to the death.

During the Level 3 reviews, 97 deaths were determined by the Panel to be pregnancy-related and 106 deaths were determined to be pregnancy-associated but not related. This determination resulted in a maternal mortality rate of 15.9 pregnancy-related deaths per 100,000 live births, and a rate of 17.4 pregnancy-associated deaths per 100,000 live births. There were 16 pregnancy-associated deaths for which the Panel could not establish whether there was a relationship to the pregnancy, and three cases that were not yet reviewed by the full panel at the time of this report (see Table 1, page 22). Seventy-eight of the 97 pregnancy-related deaths were determined by the Panel to be preventable (see Table 5, page 39).

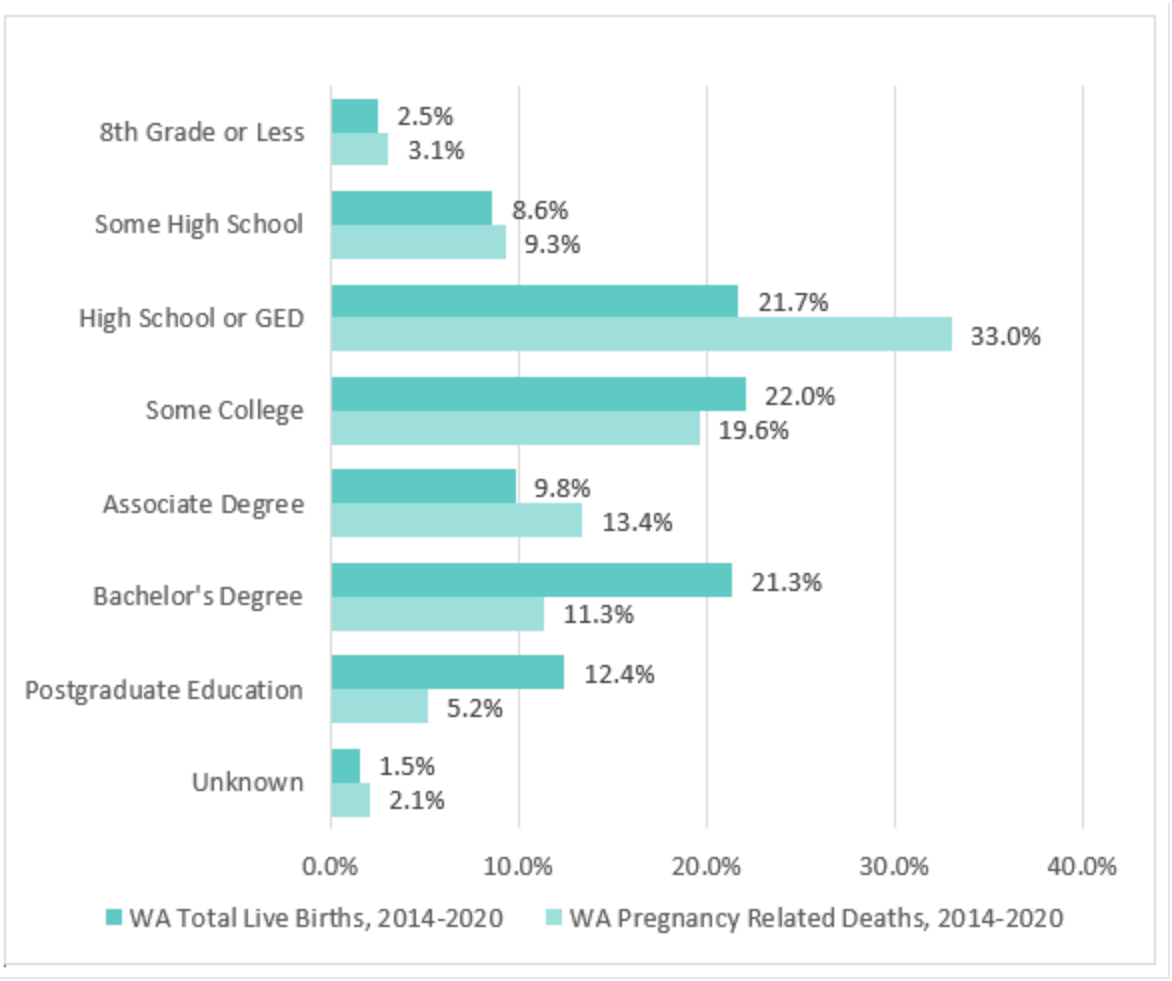
Pregnancy-related Deaths, Additional Data (N=97)

Education level at time of death

Maternal deaths included people of all educational levels. Figure A2 illustrates the level of educational attainment among people who died from pregnancy-related causes and compares that to the educational attainment of all Washington residents who gave birth during the same time period. Generally, individuals with a bachelor's degree or higher are less likely to die in the

perinatal period. However, there are many factors that are associated with educational attainment that may also be associated with the risk of dying in the perinatal period, which may affect this trend.

Figure A2: Education Attainment Level at Time of Death for Pregnancy-Related Deaths (N=97), Compared to Education Levels Reported on Birth Certificates, Washington State Births, 2014–2020



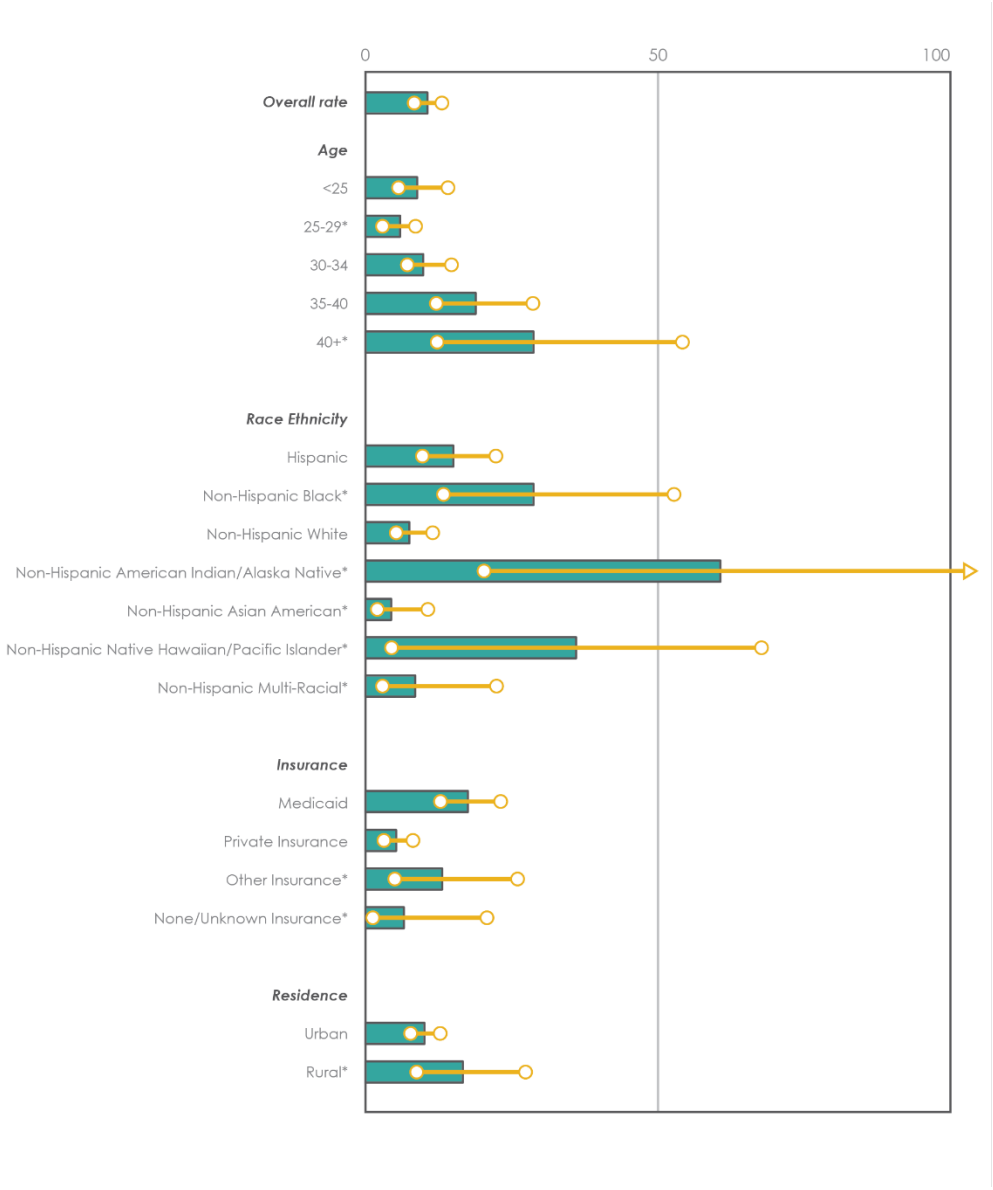
Pregnancy-related Deaths Due to Other Causes (n=60)

The subgroup of deaths called "pregnancy-related deaths from other causes" does not include deaths related to suicide, substance use, or homicide. They have been separated out to easily understand and compare pregnancy-related deaths that are not presented earlier in the report.

Demographics: Pregnancy-related Deaths Due to Other Causes

Maternal mortality rates were highest for individuals over 35 years old. People with private health insurance coverage had the lowest mortality rate. American Indian and Alaska Native people had the highest rates, followed by Black people, and Native Hawaiian and Pacific Islander people. See Figure A3.

Figure A3: Demographics - Maternal Mortality Rates for Pregnancy-Related Deaths due to Other Causes, Washington State 2014–2020

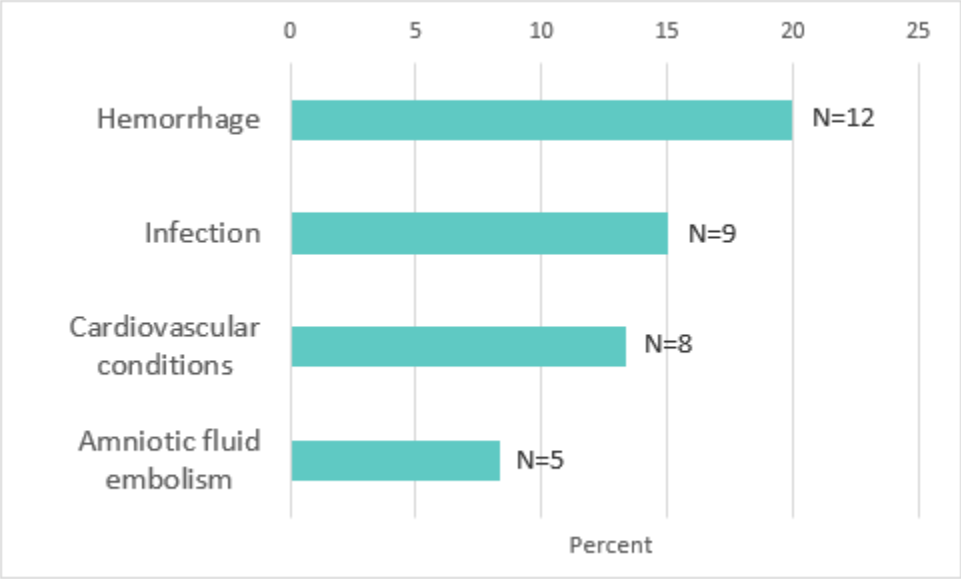


*Relative standard error is 25% or greater; this rate is unstable, interpret with caution.

Underlying Cause of Death: Pregnancy-related Deaths Due to Other Causes

In this sub-group of pregnancy-related deaths, the Panel-determined leading causes of death were hemorrhage (20 percent), infection (15 percent), cardiovascular conditions (13 percent), and amniotic fluid embolism (8 percent). The other causes of death had 4 or fewer deaths and were not included in Figure A4.

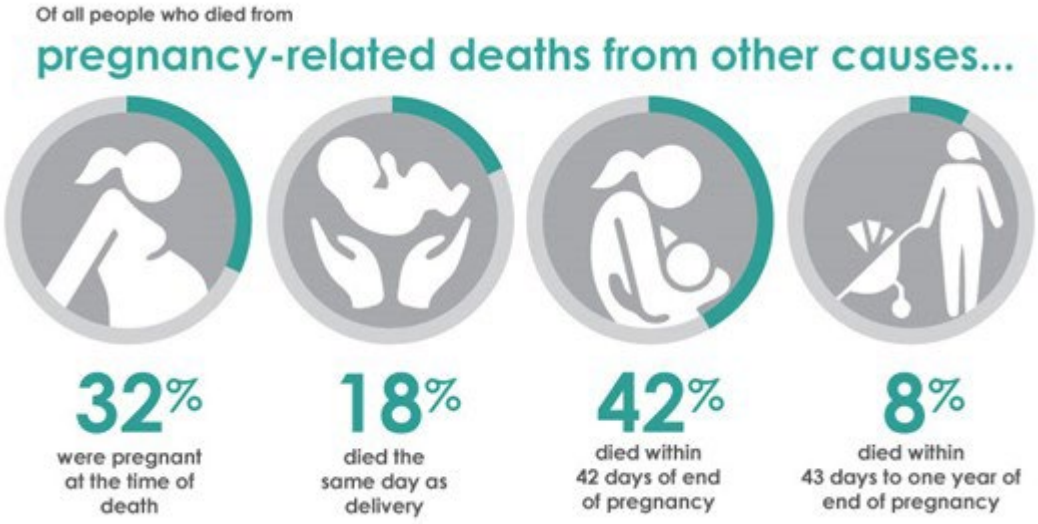
Figure A4: MMRP-Determined Underlying Causes of Death, Pregnancy-Related Deaths from Other Medical Causes (N=60), Washington State, 2014–2020



Timing of Death: Pregnancy-related Deaths Due to Other Causes

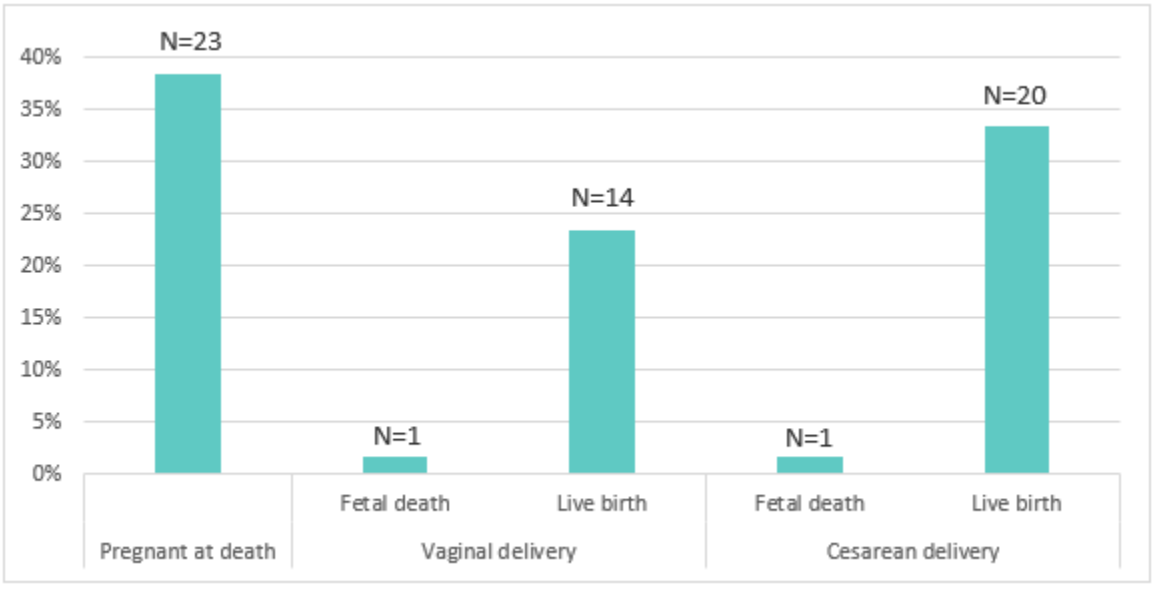
The largest share (42 percent) of the pregnancy-related deaths from other causes occurred 2–42 days after delivery. Thirty-two percent of these deaths occurred while the individual was still pregnant, and 18 percent of deaths occurred on the day of delivery. Eight percent of these deaths occurred beyond 43 days after the end of pregnancy (Figure A5).

Figure A5: Timing from End of Pregnancy to Death, Pregnancy-Related Deaths from Other Causes (N=19) 1, Washington State, 2014–2020



The majority of pregnancies in the category of pregnancy-related deaths from other causes resulted in live births (n=34, 56 percent). There were two fetal deaths (4 percent), and 23 people died while pregnant or after the end of a pregnancy that did not result in a delivery (38 percent). Twenty-three percent of the live births were delivered vaginally (n=14) and one third were cesarean births (n=20, 33 percent). (See Figure A6.)

Figure A6: Method of Delivery and Outcome of Pregnancy for Pregnancy-Related Deaths from Other Causes, Washington State, 2014–2020



Health Insurance Coverage: Pregnancy-related Deaths Due to Other Causes

The health insurance coverage for individuals who died from pregnancy-related other causes was similar to the coverage found for all perinatal deaths. The types of coverage included Medicaid (n=40, 67 percent), private insurance (n=14, 23 percent) and other programs such as Tricare (n=5, 8 percent). One person did not have any record of having health insurance.

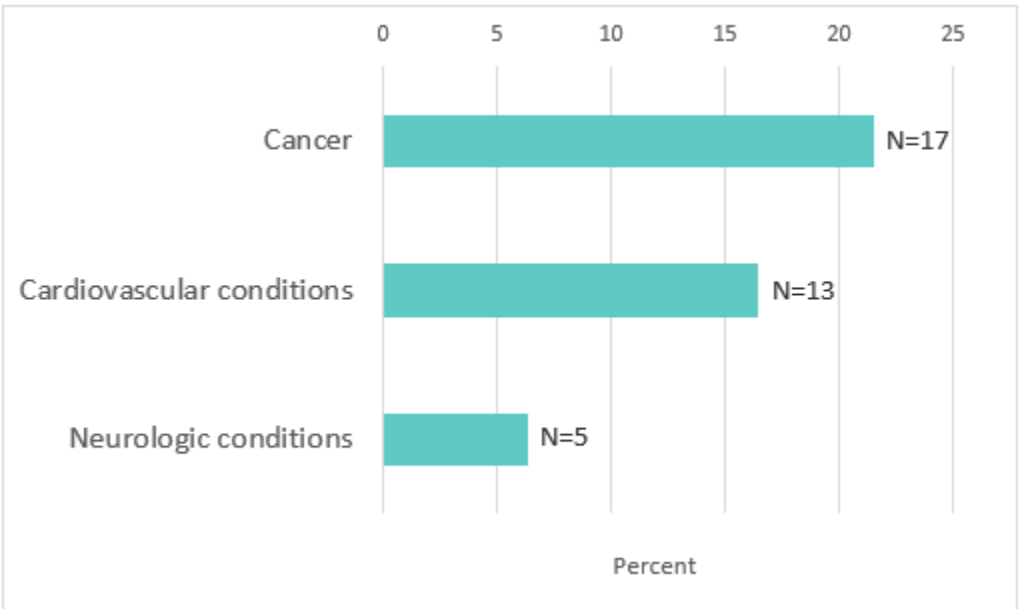
Preventability: Pregnancy-related Deaths Due to Other Causes

The Panel determined that 70 percent (n=42) of the pregnancy-related deaths from other causes were preventable. There were two deaths for which preventability could not be determined. The majority (n=19) of preventable deaths occurred 2–42 days after pregnancy.

Pregnancy-associated, not related deaths from other medical causes

There were 43 pregnancy-associated deaths from medical causes that were not related to pregnancy, and seven pregnancy-associated deaths from other medical causes for which the Panel could not determine pregnancy-relatedness. These deaths did not include deaths from suicide, substance use, or homicide. The leading causes of death, based on death certificates, were cancer, followed by cardiovascular and neurological conditions (Figure A7). The other causes of death had four or fewer deaths and were not included in Figure A7.

Figure A7: Pregnancy-associated not related deaths due to other causes: Leading causes of death, Washington State, 2014–2020



Pregnancy-associated deaths due to other injuries

There were 30 pregnancy-associated deaths due to injuries that did not include suicide, substance use, or homicide. The majority of pregnancy-associated deaths due to other injuries (29 out of 30) were by motor vehicle crashes. While the number of deaths was small, the maternal mortality rate for pregnancy-associated deaths due to injury was significantly higher for American Indian or Alaska Native people compared to people of other race/ethnic groups.

Appendix 3: Updates from the 2019 MMRP Report: Improvement Initiatives Based on Panel Recommendations

Background

This appendix highlights several systems-level initiatives that the Washington State Department of Health (the Department) and our partners developed and implemented since the last Washington State Maternal Mortality Review Panel: Maternal Deaths 2014–2016 Legislative Report was released, in October 2019. The improvement initiatives below were directly influenced and supported by the findings and recommendations in the 2019 report.

The Washington State Legislature, Governor Jay Inslee, the Department of Health, and our partners, including other state agencies and the Washington State Hospital Association, have taken the lead on implementing many recommendations from the 2019 report.

We also recognize and honor the work other agencies, community organizations, local health departments, perinatal care providers and support providers, hospitals and medical facilities, associations, academic institutions, communities, and individuals have done to apply the findings and recommendations from the 2019 recommendations to their efforts to reduce maternal mortality and morbidity in Washington state. We encourage you to share how you have applied the findings and recommendations from the 2019 MMRP report or this 2023 report. To do so, please contact the Department of Health at maternalmortalityreview@doh.wa.gov.

Since the 2019 report, significant political, social, and economic events, including a pandemic, have impacted what recommendations the Panel has made to improve perinatal health outcomes. Those events have also impacted implementation of the 2019 report's recommendations in unforeseen ways but did not halt their progress.

While all recommendations seek to reduce maternal morbidity and mortality, there are key differences between this report and the report published in 2019. Notably, this report includes discussion and recommendations about the impacts of community violence and intimate partner violence on perinatal health. There are recommendations about communicable disease and the importance of preparing our perinatal systems in ways providers, health systems, and advocates have learned since the start of the pandemic. This report also includes recommendations regarding telehealth, improved electronic health records, and responding to provider shortages—components of health care which have become more prominent since COVID-19. Yet, many recommendations in this report align with and build on topics raised in the 2019 report, such as a focus on increasing equity and addressing racism and bias.

We have seen progress and momentum on a variety of prior report recommendations. Many initiatives since 2019 have focused on improving access and standards of care for mental and behavioral health during the perinatal period, including perinatal mood and anxiety disorders, and improved care for the substance-exposed dyad. Birth equity remains a top health-improvement priority, and the Department of Health will continue to pursue, fund, and support programs that end racial disparities in perinatal care.

Below are examples of improvement initiatives based on the 2019 report recommendations.

Autopsy Guidelines

In the inaugural MMRP report (2017), the Panel made a recommendation to require reporting and autopsy of maternal deaths to ensure there is enough information to understand the factors surrounding the death and where improvements can be made. Following the release of this report, members of the Panel, members of the Washington State Perinatal Collaborative, and other partners developed recommended changes for the maternal mortality law as well as *Guidelines for Performance of an Autopsy in the Setting of a Potential Maternal Death in the State of Washington*.

Using the recommendations made by the group, the Department proposed changes to the law in 2018; these changes were passed by the legislature and signed by the Governor in 2019. The revised law (RCW 70.54.450) went into effect in July 2019.

The Department currently monitors maternal mortality data to ensure hospitals and birthing centers are meeting the requirements of the law. Additionally, the Department sends out annual reminders.

After Pregnancy Coverage (APC)

On April 16, 2021, Gov. Jay Inslee signed Senate Bill 5068, which extended Washington's Medicaid program, known as Apple Health, to one year after pregnancy. This extension went into effect in June 2022. Previously, Medicaid recipients lost coverage after 60 days postpartum.

In 2020, 46% of people giving birth in Washington had Medicaid coverage.[99] As a result of this extension, up to an additional 12,000 people annually will now have access to Apple Health or the Children's Health Insurance Program (CHIP) for a full year after pregnancy.[100] Coverage is available to women and birthing individuals, regardless of immigration status, and covers trans, non-binary, and gender non-conforming people. The 12-month benefit extension is available after pregnancies that result in birth, and also in the case of a miscarriage or abortion.

To learn more, visit HCA's webpage - Medicaid Coverage After Pregnancy.

Birth Doula Certification and Medicaid Reimbursement

On March 30, 2022, Gov. Jay Inslee signed House Bill 1881, which created a certification for birth doulas. Starting October 1, 2023, a birth doula may voluntarily apply for certification from the Department of Health.

By becoming state-certified, birth doulas will be eligible for Medicaid reimbursement—broadening their capacity to serve communities who are overrepresented in the Medicaid population and may not otherwise have the means to pay for the support of a birth doula.

Birth Equity Project

The Birth Equity Project supports rural hospitals and tribal clinics to enhance prenatal resources and linkages through group parenting classes, prenatal yoga, and doula trainings with an emphasis on expanding access in rural and tribal communities. In urban areas, partner organizations launched new parenting support classes and expanded culturally competent doula and lactation education services, particularly reaching pregnant people and families from American Indian/Alaska Native communities, African American/Black communities, Pacific Islander communities.

Center of Excellence for Perinatal Substance Use

In October 2021, the Department of Health, Health Care Authority, and Washington State Hospital Association launched a new certification program called the Center of Excellence for Perinatal Substance Use.

This certificate recognizes hospitals for their important role in supporting people with a substance use disorder who give birth, and acknowledges the significant progress of birthing hospitals who follow best practices in perinatal care.

To learn more, visit Center of Excellence for Perinatal Substance Use.

Extended, Inpatient Stay for Birth Parent with Substance Use Disorder

Starting October 1, 2022, Apple Health reimburses hospitals by paying an administrative day rate for birthing parents to stay in the hospital beyond the time they would normally be discharged. Allowing the birth parent to stay with their infant while the infant is being monitored for neonatal abstinence or neonatal opioid withdrawal symptoms is a best practice that has been shown to improve infant outcomes.

The administrative day rate covers room and board for birthing parents who remain in "inpatient" status. This allows for the birth parent to stay at the hospital with their baby and continue to receive their medications, including those used to support their recovery for up to five days after delivery. This model is known as the Eat, Sleep and Console model of care and has been shown to reduce the need for medications and shorten hospital stays for newborns exposed to substance in utero.

To learn more, visit the Inpatient Hospital Services Billing Guide.

Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) Grant

In 2019, the Department was awarded a five-year grant from the CDC through the Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) program. This funding supports the Department in improving the identification of pregnancy-related deaths, providing comprehensive review of these deaths, developing prevention opportunities, and recommending ways to prevent such deaths in the future.

To learn more about the initiatives of this grant, read the Department of Health's ERASE MM Strategic Plan 2021–2024.

Guidelines for Improving Care for the Maternal Patient with Obesity

In November 2021, the Department released three guidelines related to pregnancy and obesity:

1. Safer Care of Obese Pregnant Patients - These guidelines are intended to prompt providers to address and screen for potential complications and assist facilities in optimizing safety and care for all modes of delivery, to support and provide high-quality care for patients of any size.
2. Maternal Obesity Anesthesia Checklist - This document provides anesthesiologists a checklist for epidurals for patients of any size.
3. Obesity & Pregnancy - Patient-centered guidance and resources that were developed to support pregnant people with obesity.

Home Visiting Expansion

On June 8, 2022, the Home Visiting Advisory Committee made recommendations to the Washington State Legislature and the Department of Children, Youth, and Families. These recommendations contain strategies for supporting home visiting providers and further strengthen and expand home visiting services for all families.

Lactation Guidance – Perinatal Substance Use

In early 2023, the Department of Health will release guidelines related to lactation, breastfeeding/chestfeeding, and postpartum substance use. These guidelines are evidence-based and focus on harm reduction, shared decision making, and patient education. Active dissemination and training are planned for priority health care provider groups.

Maternal Care Model

Description adapted from HCA

Washington's Health Care Authority (HCA) is designing a maternal care model to incentivize high-quality, high-value care that improves perinatal health outcomes and addresses racial and ethnic disparities.

This model will support Washington's health care transformation efforts to achieve the quadruple aim of enhancing patient experience, improving population health, reducing costs, and improving the work life of health care providers, including clinicians and staff.

Currently, the Maternal Care Model is schedule to be implemented in 2024.

To learn more, visit Maternal care model | Washington State Health Care Authority.

Opioid Communications Campaign

To respond to the overdose crisis, the Department of Health partnered with a communications firm to create harm reduction videos and messaging for people who use substances while pregnant. The campaign ran from July 1, 2022, through October 9, 2022, and reached millions of English and Spanish speaking viewers. The videos in the campaign had over 5.5 million views, and the campaign had over 31.4 million impressions.

Perinatal Psychiatry Consultation Line becomes a Permanent Program

On April 26, 2021, Gov. Jay Inslee signed House Bill 1325, which converted the pilot programs for the Partnership Access Line for Moms and Mental Health Referral Service for Children and Teens into permanent programs. It also expanded Medicaid benefits to enhance the number of mental health assessment visits for infants from birth to six months and modified criteria for mental health assessment and diagnosis for children aged birth through five.

UW Perinatal Psychiatry Consultation Line (formerly Partnership Access Line for Moms, PAL for Moms) is a free telephone consultation service for health care providers caring for patients with

mental health conditions who are pregnant, postpartum, or planning pregnancy. Any health care provider in Washington state can receive consultation, recommendations, and referrals to community resources from a UW psychiatrist with expertise in perinatal mental health.

To learn more, visit Perinatal Psychiatry Consult Line for WA Providers.

Prenatal Substance Use Disorder (SUD) Pilot

The Prenatal SUD Pilot is an upstream referral pathway that connects substance-using pregnant people to voluntary prevention supports. When a pregnant person who is using substances is referred to the DCYF hotline, the agency connects that person to a community service navigator offering voluntary supports like substance use treatment, home visiting programs, legal advocacy, and other wraparound services. DCYF launched this pilot in 2020 with the goal of reducing the rate of child placements that families experience after birth. Currently, DCYF is partnering with five community-based organizations in eight participating counties, one of which includes a specialized pathway offering culturally responsive services to Native American clients.

Plan of Safe Care (POSC) Direct Referral Pathway

Description adapted from Help Me Grow

Plan of Safe Care (POSC) is a new community-based referral pathway that connects infants exposed prenatally to substances and their caregivers to Help Me Grow Washington services. The program was officially launched on December 1, 2021, so that more families can get connected to vital resources in their communities.

If an infant is born exposed to specific substances and there are no safety concerns determined by the provider, they will be referred to Help Me Grow Washington for voluntary wraparound services and support. Services that families can get connected to include developmental screenings, food resources, free or low-cost health insurance, or pregnancy, parenting, breastfeeding, and immunization resources. Follow-ups with families will also occur to address any additional needs and ensure access to resources was successful.

To learn more, visit Plan of Safe Care | Washington State Department of Children, Youth, and Families.

Pregnant and Parenting Recovery Services Resource Finder

In July 2022, the Department of Health, in partnership with Washington 211, launched the Pregnant and Parenting Recovery Services webpage.

This tool supports people searching for community-based resources related to pregnancy and parenting.

Perinatal Support Washington Warm Line Receives Fiscal Support

Governor Jay Inslee's 2022 supplemental budget includes $500,000 per year for the next three years to support the Perinatal Support Washington Warm Line. This funding will expand Warm Line peer support, resources, and referrals.

The Warm Line offers free telephone support for all parents and their family members. The line is staffed by parents who have experienced a perinatal mood and/or anxiety disorder and have recovered fully or licensed therapists with specialized training in perinatal mental health.

To reach the Warm Line, call or text 1-888-404-7763. To learn more, visit Perinatal Support Washington.

Safe Deliveries Roadmap - Quality Improvement Initiatives for Birthing Hospitals

Description adapted from WSHA

Through the Safe Deliveries Roadmap (SDR) program, the Washington State Hospital Association strives to reduce preventable harm through promotion of evidence-based best practices.

WSHA engaged in state-wide work on the Alliance for Innovation on Maternal Health (AIM) program through August 2023, in collaboration with DOH. SDR engages with birthing hospitals across the state improving maternity services in multiple ways, including monthly educational webinars and peer-coaching calls, in-person conferences and learning sessions, site visits and data collection, gap analysis, and data report distribution.

Since 2019, SDR has implemented three AIM initiatives: Obstetric Hemorrhage, Obstetric Care for Women with Opioid Use Disorder, and, most recently, the Care for Pregnant and Postpartum People with Substance Use Disorder. To learn more, visit the Perinatal Substance Use Disorder Learning Collaborative.

Washington Maternal Mental Health Access (WA MaMHA)

The MaMHA project launched in 2021, as a collaboration between the Department of Health and the Department of Psychiatry and Behavioral Sciences, University of Washington (UW). This initiative trains and supports primary care clinics to decrease perinatal suicide risk and unintentional opioid overdose through a learning collaborative and monthly provider webinars.

Appendix 4: Contributing Factor Categories

Below is a summary of the categories of factors and examples that contributed to preventable pregnancy-related deaths from 2014–2020.

Patient and Family Level

- **Knowledge:** Patient didn't receive adequate education or lacked knowledge or understanding regarding the significance of a health event.
- **Violence and Intimate Partner Violence**: Physical or emotional abuse perpetrated by current or former intimate partner, family member, friend, acquaintance, or stranger.
- **Access to health care:** Ability to schedule and make it to appointments and **adhere** to medical advice.
- **Cultural/religious factors:** Cultural and or religious reasons that guide decisions about medical treatment which can affect health outcomes.
- **Chronic disease and comorbidities:** Mental and behavioral health issues, other chronic health conditions (e.g., diabetes, cardiovascular disease).

Provider and Facility Levels

- **Access to health care:** Inadequate time available for patient appointments to address health concerns.
- **Clinical skill/quality of care:** Delays, gaps, or failures in maternal care, including diagnoses, treatment, **adherence to policies**, and medication management. Facility and provider capacity to deliver appropriate maternal care to meet specific patient needs and attend to obstetric emergencies.
- **Knowledge:** Provider didn't provide patient with adequate education or lacked knowledge or understanding regarding the significance of a health event themselves.
- **Continuity of Care:** Gaps in postpartum follow-up care and support, especially during the first one to two weeks after pregnancy, and the nine to 12 months after pregnancy.
- **Cultural/religious factors:** Failed to provide culturally relevant care, such as offering an interpreter or understanding and respecting cultural context, which can affect health outcomes.
- **Referral or consultation:** Failure or delays in referrals and transfers to higher levels of care and/or specialists.
- **Failure to screen:** Inadequate assessment of pregnancy, risk for pregnancy complications, preexisting conditions, behavioral health conditions, intimate partner violence, access to firearms, and patient's social determinants of health.
- **Standardized policies and procedures:** Lack of standard policies and procedures for maternal care and obstetric emergencies, and for individuals with mental and behavioral health issues, and people with high body mass indices.

- **Care coordination/case management:** Lack of care coordination or case management, especially for people at high medical or socioeconomic risk.
- **Stigma and bias:** Stigma and bias among health care providers that resulted in variability in the quality of care and treatment patients received.
- **Chronic disease and comorbidities:** Failure to adequately address chronic conditions in the patient.

Systems of Care Levels

- **Knowledge:** Inadequate education available to providers, patients, and families regarding the treatment of substance use, actions to take in case of an unintentional overdose, or issues of domestic violence and firearms.
- **Cultural/religious factors:** Lack of culturally competent health care, providers, navigators, interpreters, and other services.
- **Access to health care:** Inadequate access to health care due to lack of insurance, lack of appropriate care and available services near to where the patient lives, and barriers to care such as financial considerations, child care, and transportation.
- **Social support and isolation:** Lack of system supports for isolated individuals without support from friends and family.
- **Basic needs:** Lack of access to safe housing, healthy food, transportation, and stable income.
- **Clinical skill/quality of care:** Delays**,** gaps, or failures in maternal care, including offering quality care with effective interventions and treatments.
- **Care coordination/case management:** Lack of care coordination or case management, especially for people at high risk medically or socioeconomically.
- **Continuity of care:** Lack of information sharing between hospitals/facilities and providers about patient care and available maternal resources.
- **Stigma and bias:** Stigma and bias in health care systems that resulted in variability in the quality of care and treatment patients received.
- **Structural racism:** Systems of power systematically disadvantage people of color and advantage white people through inequities in housing, education, employment, and other areas, leading to differences and disparities in health outcomes.
- **Community resources and outreach:** Lack of universal postpartum support structures, such as nurse home visiting services.
- **Standardized policies and procedures:** Lack of standardized policies across multiple systems to respond to obstetric emergencies and address issues of domestic violence.
- **Referral or consultation:** Failure or delays in referrals and transfers to higher levels of care, specialists, and other system supports available.
- **Violence:** A lack of interventions for individuals experiencing domestic violence; access to firearms in the home.
- **Legal:** Inadequate response to and assessment of domestic violence when considering issues of firearm ownership, protective orders, and court-ordered parenting plans.

- **Law Enforcement:** Law enforcement response was not in a timely manner or was not appropriate in scope.
- **Trauma, adverse childhood experiences, and trust:** Lack of appropriate response to compounding stress over the life course, which results in poor health outcomes, chronic disease, and lack of trust in the health care system.

Categories of contributing factors, with examples, for deaths from behavioral health conditions

Below is a summary of contributing factors specific to preventable pregnancy-related deaths from behavioral health conditions. Because numbers are small, these include factors for preventable suicides, unintentional substance overdoses, and other deaths in which substance use played a significant role.

Patient/Family Level

- **Knowledge:** Gaps in knowledge among patients and families about warning signs for suicide and substance use disorder, suicide safety planning, and the dangers of firearm access. Lack of patient knowledge regarding medication risks (e.g., interactions between certain medications and pre-existing conditions or the dangers of taking medication without a prescription). Lack of family and friend knowledge regarding the use of naloxone (Narcan) in case of overdose.
- **Access to health care:** Patient ability to receive behavioral health care and to access effective family planning.
- **Mental health conditions:** Preexisting behavioral health conditions exacerbated by pregnancy.
- **Violence:** Exposure to domestic violence before, during, and after pregnancy.
- **Chronic Conditions:** Added stress of managing a chronic condition while pregnant.

Provider and Facility Levels

- **Knowledge:** Gaps in knowledge among providers on the care and treatment of behavioral health conditions in pregnancy, and gaps in knowledge among providers about behavioral health resources available in Washington.
- **Clinical skill/quality of care:** Gaps in clinical skill related to medical management for mental health conditions during pregnancy and postpartum, treatment for substance use disorders during and after pregnancy, and suicide safety planning.
- **Referral/consultation:** Need for obstetrics providers to refer patients to appropriate behavioral health services/providers.
- **Failure to screen/inadequate assessment of risk:** Lack of screening for substance use and mood or anxiety disorders, especially at antepartum and postpartum visits.
- **Community resources/outreach:** Gaps in behavioral health support services, especially during the first one to two weeks after the end of pregnancy, and the last nine to 12 months after the end of pregnancy.

- **Standardized policies and procedures:** Gaps in the suicide safety net, including a lack of policies or procedures for all types of perinatal medical, nursing, and support providers to assess and manage suicide risk, conduct suicide safety planning, and engage families and partners in suicide safety planning.
- **Care coordination/case management:** Lack of case and care coordination, and continuity of care for behavioral health conditions.
- **Stigma and biases:** Differential treatment of people with behavioral health disorders as they attempt to access equitable health care, or people who avoid care based on fears related to stigma or negative past experiences with care delivery.

Systems of Care Level

- **Delay:** Delays in care, or no care initiated, after behavioral health concerns were identified across multiple providers and/or agencies.
- **Basic needs:** Lack of access to safe housing, healthy food, transportation, and stable income.
- **Stigma and biases:** Biases and stigma that result in systemic prejudice and discrimination related to behavioral health conditions resulted in variability in the quality of care and treatment received by patients.
- **Social support and isolation:** Lack of system supports to serve individuals struggling with behavioral health issues without support from friends and family.
- **Care coordination:** Lack of universal care coordination and continuity of care, especially for people who were medically and/or socioeconomically high risk.
- **Clinical skill/quality of care:** Failures in appropriate care, including offering quality behavioral health care with appropriate interventions and treatments.
- **Lack of access/barriers to care:** Lack of access to behavioral health services and support, including inpatient and outpatient treatment and residential treatment centers, especially those that allow birth parents to stay with their babies and children, lack of providers who are comfortable with prescribing and monitoring medication-assisted treatment for opiate use disorder in pregnancy.
- **Trauma/ACES/trust:** Lack of appropriate response to compounding stress over the life course which results in poor health outcomes, chronic disease, and lack of trust in the health care system.
- **Community resources and outreach:** Lack of universal postpartum support structures, including mental health services, support regarding CPS involvement, little or no connection between health care system and other agencies and organizations.
- **Failure to screen:** Inadequate assessment of behavioral health conditions, intimate partner violence, access to firearms, and patient's social determinants of health across multiple providers and agencies.
- **Structural racism:** Systems of power systematically disadvantage people of color and advantage white people through inequities in housing, education, and employment, which lead to differences in health outcomes.

Appendix 5: 2014–2020 Maternal Deaths Fact Sheet

Washington State Department of Health

Washington State Maternal Mortality Review Panel

The Washington State Legislature established a Maternal Mortality Review Panel within the Department of Health in 2016. The Panel reviews maternal deaths in the state and produces findings and recommendations to prevent future maternal deaths.

Goals of the review include determining whether a death was related to pregnancy, whether it was preventable, the factors that contributed to the death, and opportunities for interventions.

By analyzing maternal deaths, the health system can be more effective at addressing the factors causing these deaths.

The MMRP is made up of approximately 70 perinatal and women's health and service professionals from diverse backgrounds who live and work throughout the state. Panel members are appointed by the Secretary of Health and serve on the panel for one or more three-year terms. Panel members must adhere to strict confidentiality rules and have no access to any identifiable information. Panel members are not paid for their participation.

February 2023

224

Pregnancy-associated deaths

Death of a person during pregnancy or within a year of pregnancy, from any cause.

97

Pregnancy-related deaths

Death of a person during pregnancy or within a year of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.

80%

Pregnancy-related deaths were preventable

Summary of findings from the review of 2014-2020 maternal deaths

Rates of maternal mortality in Washington are stable. Historical data collected on maternal deaths that occurred between 2000 and 2020 show maternal mortality rates in Washington varied over time, but are relatively stable and are not increasing like they are nationally.

In 2014-2020, there were:

224 pregnancy-associated deaths, which are deaths that occurred during pregnancy or within the first year after pregnancy from any cause.

This includes deaths from all types of causes, including obstetric complications, motor vehicle accidents, cancer, and homicide.

97 pregnancy-related deaths, which are deaths that the state's maternal mortality review panel decided were directly caused by or linked to complications from pregnancy, a chain of events started by pregnancy, or an unrelated condition that was made worse by pregnancy.

The leading underlying causes of pregnancy-related deaths were mental and behavioral health conditions

The leading underlying causes of the 97 pregnancy-related deaths were behavioral health conditions (32 percent), predominantly by suicide and overdose. Other common causes included hemorrhage (12 percent) and infection (9 percent).

For persons with disabilities, this document is available in other formats. Please call 800-525-0127 (TTY 711) or email civil.rights@doh.wa.gov

69 percent of pregnancy-related deaths occurred during pregnancy or within the first six weeks after pregnancy.

The leading factors that contributed to preventable deaths included care quality, access to health care and support services, appropriate screening and follow-up, and discrimination.

The Maternal Mortality Review Panel identified factors that contributed to pregnancy-related deaths, including:

- Gaps in clinical skills and quality of care
- Bias and discrimination
- Lack of screening, appropriate follow-up for risk factors, care coordination or continuity of care, or access to health care and behavioral health treatment.

Factors were exacerbated by social and structural determinants of health such as housing instability and systemic racism.

Find out more about maternal deaths in Washington State and what is being done to improve perinatal health care and support. Go to doh.wa.gov/maternalmortality.

Maternal Mortality Review Coordinator
Prevention and Community Health
Washington State Department of Health
maternalmortalityreview@doh.wa.gov

Appendix 6: RCW 70.54.450

Note: The RCW currently uses only gendered terms such as "woman" or "women."

Maternal mortality review panel—Duties—Confidentiality, testimonial privilege, and liability—Identification of maternal deaths—Reports—Data-sharing agreements.

(1) For the purposes of this section, "maternal mortality" or "maternal death" means a death of a woman while pregnant or within one year of the end of a pregnancy, from any cause.

(2) A maternal mortality review panel is established to conduct comprehensive, multidisciplinary reviews of maternal deaths in Washington to identify factors associated with the deaths and make recommendations for system changes to improve health care services for women in this state. The members of the panel must be appointed by the secretary of the department of health, must include at least one tribal representative, must serve without compensation, and may include at the discretion of the department:

(a) Women's medical, nursing, and service providers;

(b) Perinatal medical, nursing, and service providers;

(c) Obstetric medical, nursing, and service providers;

(d) Newborn or pediatric medical, nursing, and service providers;

(e) Birthing hospital or licensed birth center representative;

(f) Coroners, medical examiners, or pathologists;

(g) Behavioral health and service providers;

(h) State agency representatives;

(i) Individuals or organizations that represent the populations most affected by pregnancy-related deaths or pregnancy-associated deaths and lack of access to maternal health care services;

(j) A representative from the department of health who works in the field of maternal and child health; and

(k) A department of health epidemiologist with experience analyzing perinatal data.

(3) The maternal mortality review panel must conduct comprehensive, multidisciplinary reviews of maternal mortality in Washington. The panel may not call witnesses or take testimony from any individual involved in the investigation of a maternal death or enforce any public health standard or criminal law or otherwise participate in any legal proceeding relating to a maternal death.

(4)(a) Information, documents, proceedings, records, and opinions created, collected, or maintained by the maternity mortality review panel or the department of health in support of the

maternal mortality review panel are confidential and are not subject to public inspection or copying under chapter **42.56** RCW and are not subject to discovery or introduction into evidence in any civil or criminal action.

(b) Any person who was in attendance at a meeting of the maternal mortality review panel or who participated in the creation, collection, or maintenance of the panel's information, documents, proceedings, records, or opinions may not be permitted or required to testify in any civil or criminal action as to the content of such proceedings, or the panel's information, documents, records, or opinions. This subsection does not prevent a member of the panel from testifying in a civil or criminal action concerning facts which form the basis for the panel's proceedings of which the panel member had personal knowledge acquired independently of the panel or which is public information.

(c) Any person who, in substantial good faith, participates as a member of the maternal mortality review panel or provides information to further the purposes of the maternal mortality review panel may not be subject to an action for civil damages or other relief as a result of the activity or its consequences.

(d) All meetings, proceedings, and deliberations of the maternal mortality review panel may, at the discretion of the maternal mortality review panel, be confidential and may be conducted in executive session.

(e) The maternal mortality review panel and the department of health may retain identifiable information regarding facilities where maternal deaths occur, or facilities from which a patient whose record is or will be examined by the maternal mortality review panel was transferred, and geographic information on each case for the purposes of determining trends, performing analysis over time, and for quality improvement efforts. All individually identifiable information must be removed before any case review by the panel.

(5) The department of health shall review department available data to identify maternal deaths. To aid in determining whether a maternal death was related to or aggravated by the pregnancy, whether it was preventable, and to coordinate quality improvement efforts, the department of health has the authority to:

(a) Request and receive data for specific maternal deaths including, but not limited to, all medical records, autopsy reports, medical examiner reports, coroner reports, and social service records; and

(b) Request and receive data as described in (a) of this subsection from health care providers, health care facilities, clinics, laboratories, medical examiners, coroners, professions and facilities licensed by the department of health, local health jurisdictions, the health care authority and its licensees and providers, the department of social and health services and its licensees and providers, and the department of children, youth, and families and its licensees and providers.

(6) Upon request by the department of health, health care providers, health care facilities, clinics, laboratories, medical examiners, coroners, professions and facilities licensed by the department of health, local health jurisdictions, the health care authority and its licensees and providers, the department of social and health services and its licensees and providers, and the department of children, youth, and families and its licensees and providers must provide all medical records, autopsy reports, medical examiner reports, coroner reports, social services records, information and records related to sexually transmitted diseases, and other data requested for specific maternal deaths as provided for in subsection (5) of this section to the department.

(7) By October 1, 2019, and every three years thereafter, the maternal mortality review panel must submit a report to the secretary of the department of health and the health care committees of the senate and house of representatives. The report must protect the confidentiality of all decedents and other participants involved in any incident. The report must be distributed to relevant stakeholder groups for performance improvement. Interim results may be shared with the Washington state hospital association coordinated quality improvement program. The report must include the following:

(a) A description of the maternal deaths reviewed by the panel, including statistics and causes of maternal deaths presented in the aggregate, but the report must not disclose any identifying information of patients, decedents, providers, and organizations involved; and

(b) Evidence-based system changes and possible legislation to improve maternal outcomes and reduce preventable maternal deaths in Washington.

(8) Upon the approval of the department of health and with a signed written data-sharing agreement, the department of health may release either data or findings with indirect identifiers, or both, to the centers for disease control and prevention, regional maternal mortality review efforts, local health jurisdictions of Washington state, or tribes at the discretion of the department.

(a) A written data-sharing agreement under this section must, at a minimum:

(i) Include a description of the proposed purpose of the request, the scientific justification for the proposal, the type of data needed, and the purpose for which the data will be used;

(ii) Include the methods to be used to protect the confidentiality and security of the data;

(iii) Prohibit redisclosure of any identifiers without express written permission from the department of health;

(iv) Prohibit the recipient of the data from attempting to determine the identity of persons or parties whose information is included in the data set or use the data in any manner that identifies individuals or their family members, or health care providers and facilities;

(v) State that ownership of data provided under this section remains with the department of health, and is not transferred to those authorized to receive and use the data under the agreement; and

(vi) Require the recipient of the data to include appropriate citations when the data is used in research reports or publications of research findings.

(b) The department of health may deny a request to share either data or findings, or both, that does not meet the requirements.

(c) For the purposes of this subsection:

(i) "Direct identifier" means a single data element that identifies an individual person.

(ii) "Indirect identifier" means a single data element that on its own might not identify an individual person, but when combined with other indirect identifiers is likely to identify an individual person.

(9) For the purposes of the maternal mortality review, hospitals and licensed birth centers must make a reasonable and good faith effort to report all deaths that occur during pregnancy or within forty-two days of the end of pregnancy to the local coroner or medical examiner:

(a) These deaths must be reported within thirty-six hours after death.

(b) Local coroners or medical examiners to whom the death was reported must conduct a death investigation, with autopsy strongly recommended.

(c) Autopsies must follow the guidelines for performance of an autopsy published by the department of health.

(d) Reimbursement of these autopsies must be at one hundred percent to the counties for autopsy services.

[**2019 c 317 § 1**; **2016 c 238 § 1**.]

Appendix 7: Addendum Report from the American Indian Health Commission

Please see the addendum at the end of this document, after the endnotes. This addendum was prepared by our partners at the American Indian Health Commission.

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AMERICAN INDIAN HEALTH COMMISSION ADDENDUM TO THE WASHINGTON STATE DEPARTMENT OF HEALTH'S MATERNAL MORTALITY REVIEW PANEL REPORT TO THE LEGISLATURE

Tribal and Urban Indian Leadership Recommendations September 2022

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Stephen Kutz, Chairman of the American Indian Health Commission's letter to Dr. Umair Shah, Secretary of the Department of Health, Washington State

Dr. Umair Shah

Secretary of Health

Washington State

Re: AIHC Addendum to Washington State Department of Health Maternal Mortality Review Panel Report to the Legislature

Dear Dr. Shah:

The health of our pregnant, birthing, and postpartum people is critically important to the American Indian and Alaska Native (AI/AN) citizens, communities, Tribal and Urban Indian Health Organization (UIHO) leaders, and American Indian Health Commission (AIHC) delegates in Washington State.

The Washington State Department of Health (DOH) reports such as the Maternal Mortality Review Panel's Report to the Legislature 2014-2016, the Infant Mortality Reduction Report and the 2020 Perinatal Indicators Report all reveal alarming disparities in the health and birth outcomes of AI/AN pregnant, birthing, and postpartum people, and infants in our state.

The American Indian Health Commission Executive Committee and delegates are very appreciative of the response to our request for further action and information when presented with the results of the Maternal Mortality Review Panel Report to the Legislature in 2019. The special 1-year funding allowed us to begin the conversations with communities and leadership about concerns regarding the dramatic disparities in the morbidity and mortality of AI/AN pregnant, birthing and postpartum people.

The sacred role of bringing new life to the Tribe has long been acknowledged and supported traditionally by AI/AN communities. The intense trauma, genocide, and ongoing racism and discrimination in the last 500+ years has had profound impacts on the healthy ways and traditional practices of AI/AN people which are manifested as the chronic disease disparities experienced today, including maternal morbidity and mortality. These disparities are of great and ongoing concern to the AIHC and prioritized formally in the 2010 publication of the MIH Strategic Plan.

It is essential to AI/AN healing to rely on Tribal developed and implemented solutions. What the Tribes and UIHO's need is partnership with the state in funding and collaboration. It has been 500+ years of trauma and discrimination; it will take some time to heal. What we have learned in the 10 Conversations with Native Pregnant, Birthing, and Postpartum People Community and Leadership sessions is reflected in the Tribal and Urban Indian Leadership Recommendations listed in the AIHC Addendum to Washington State Department of Health Maternal Mortality Review Panel Report to the Legislature.

We appreciate the opportunity to share these recommendations and express the need for funding to implement these ideas and solutions. If you have any questions, please contact Vicki Lowe at vicki.lowe.aihc@outlook.com or 360-460-3580.

Respectfully,

Stephen Kutz, BSN, MPH

Chair, American Indian Health Commission

CC: Tribal Chairs

September 2022
Report and Recommendations from Listening Sessions Held with American Indian and Alaska Native Leaders and Community Members

Table of Contents

American Indian Health Commission for Washington State

The American Indian Health Commission works on behalf of the 29 Federally Recognized Tribes and two Urban Indian Health Organizations, and one American Indian Community Center in Washington State. It is a Tribal consortium formed in 1994 by leaders from the Washington State Tribes and Urban Indian Health Organizations (UIHOs). The Commission's Mission Is to improve the health of American Indians and Alaska Native people through Tribal-State collaboration on health policies and programs that will eliminate disparities.

Webpage: https://aihc-wa.com/
Facebook: https://www.facebook.com/pullingtogetherforwellness/

Acknowledgements

The American Indian Health Commission acknowledges the Tribal and American Indian and Alaska Native community members, American Indian Health Commission Delegates, Tribal Leaders, staff from Tribes, Urban Indian health programs, and Tribal organizations for sharing so generously about their experiences, wisdom, and love for working to improve the health and experience of Pregnant, Birthing and Postpartum People and improve the health status of American Indians and Alaska Natives in Washington for our current and future generations.

AIHC would like to thank the state agency staff from the Department of Health for their dedication to public service, improving the health of the population of the state, and response to the AIHC's request to provide a strategy to identify issues related to Native maternal mortality and morbidity to inform recommendations for inclusion in the 2023 Maternal Mortality Review Panel Report to the Legislature.

Prepared by:

Cindy Gamble, MPH; JanMarie Ward, MPA; and Ashley Olmstead

Report and Recommendations from Listening Sessions Held with American Indian and Alaska Native Leaders and Community Members

Executive Summary

Recently, there has been increased concern about maternal mortality and high levels of disparities among American Indian/Alaska Native and Black populations in Washington State and nationally. Due to these significant disparities among AI/AN people, AIHC has been engaged with the work at the state and federal levels and monitoring the issue closely. AIHC has been working for 14+ years to decrease maternal and infant health disparities with a vision of eliminating inequities. In 2010, the AIHC published the "Healthy Communities: A Maternal and Infant Health Strategic Plan." This plan serves as a foundational document for the public health work of the Commission. A report on the status of maternal mortality for American Indian/Alaska Native people raised high concern by the Tribal and urban Indian Health Leaders in the state. In response, Washington State Department of Health, provided $30,000 to AIHC to support a special project to convene one maternal mortality listening session with American Indian and Alaska Native people. AIHC consultants convened five Tribal and AI/AN community conversations to hear concerns about the health of Native pregnant, birthing, and postpartum people and provide learnings to Tribal and Urban Indian Health leaders for their review and recommendations. Five sessions were convened to inform and get input from Tribal and Urban Indian Health Leaders to inform recommendations. Based upon those convenings, AIHC consultants have developed the final recommendations for AIHC leadership approval and have submitted the approved Report and Recommendations to the Washington State Department of Health. Approved recommendations consist of two categories:

- Seven Recommendations to Department of Health and to the Legislature
- Four Recommendations and Support for AIHC Priority List

Background

On November 19, 2019, when the Washington State Department of Health (DOH) released the Maternal Mortality Review Panel Report, it revealed that ... "American Indian/Alaska Native women had higher maternal mortality ratios than any other race/ethnic group." The report also stated another remarkable statistic: that the Maternal Mortality Review Panel (MMRP) had determined that 60% of the pregnancy-related deaths were preventable.

Following the release of the report, the Maternal Mortality Review Panel manager and staff presented the report to the delegates and other Tribal and Urban Indian Health leaders at the annual American Indian Health Commission (AIHC) Delegate meeting in December 2019.

AIHC Chair Steve Kutz reflected the concern and interest of the delegates by asking that the MMRP staff engage with AIHC staff and consultants to discuss an appropriate activity and/or strategy to address the alarming maternal mortality disparity of AI/AN people in Washington State. The DOH responded with a one-year project, Sept. 2021 - Sept. 2022, "To hold one or more listening session(s) focused on maternal mortality with the American Indian/Alaska Native community and Tribal health partners."

Maternal mortality has been identified as a special concern due to persistent disparities for AI/AN people in Washington State and nationally. The MIH challenges include persistent, dramatic disparities, known in our communities, and documented in State of Washington reports, including:

- American Indian/Alaska Native people have the highest ratio of maternal mortality than any other racial/ethnic group in Washington State
- Babies who are Non-Hispanic (NH) American Indian/Alaska Native are twice as likely to die before their first birthday as NH White and NH Asian babies
- NH American Indian/Alaska Natives have the highest post-neonatal infant mortality IM rate (4.1 per 1,000), nearly three times the rate for NH Whites
- The 2020 Perinatal Indicators Report states: "Many Indicators showed stark racial and ethnic disparities, especially among Native American……women and children."

(It is important to interject here and note that the 2014-2020 report reveals no significant improvement in AI/AN maternal mortality disparities since 2014-2016. This is a grave situation.)

(Infant Mortality Reduction Report (wa.gov) , Washington State Maternal Mortality Review Panel: Maternal Deaths 2014-2016 and 2014-2020, 2020 Perinatal Indicators Report for Washington State). See charts that follow:

Image 1. (Figure 7) Demographics, Maternal Mortality Ratios (deaths per 100,000 live births) and Counts for **Pregnancy-Related** Deaths (N=30), Washington State 2014–2016. Washington State Department of Health

Figure 7: Demographics, Maternal Mortality Ratios (deaths per 100,000 live births) and Counts for Pregnancy-Related Deaths (N=30), Washington State, 2014-2016

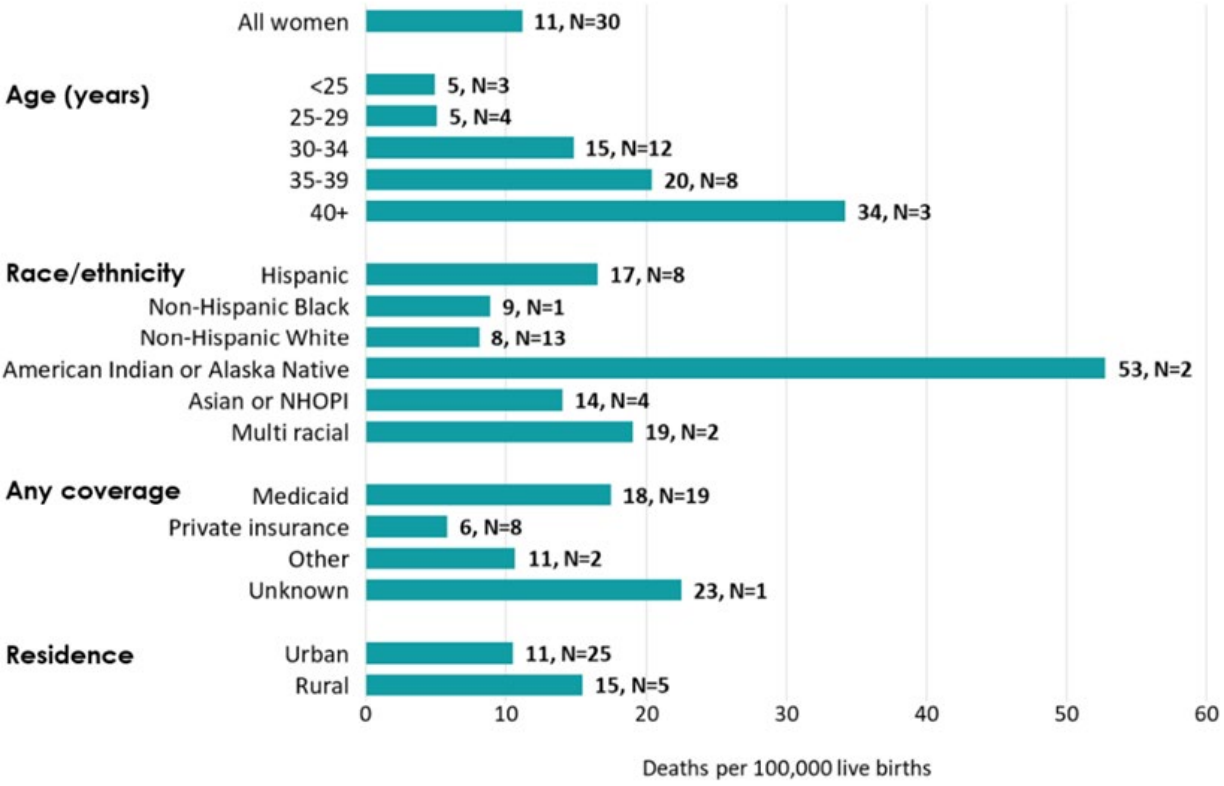
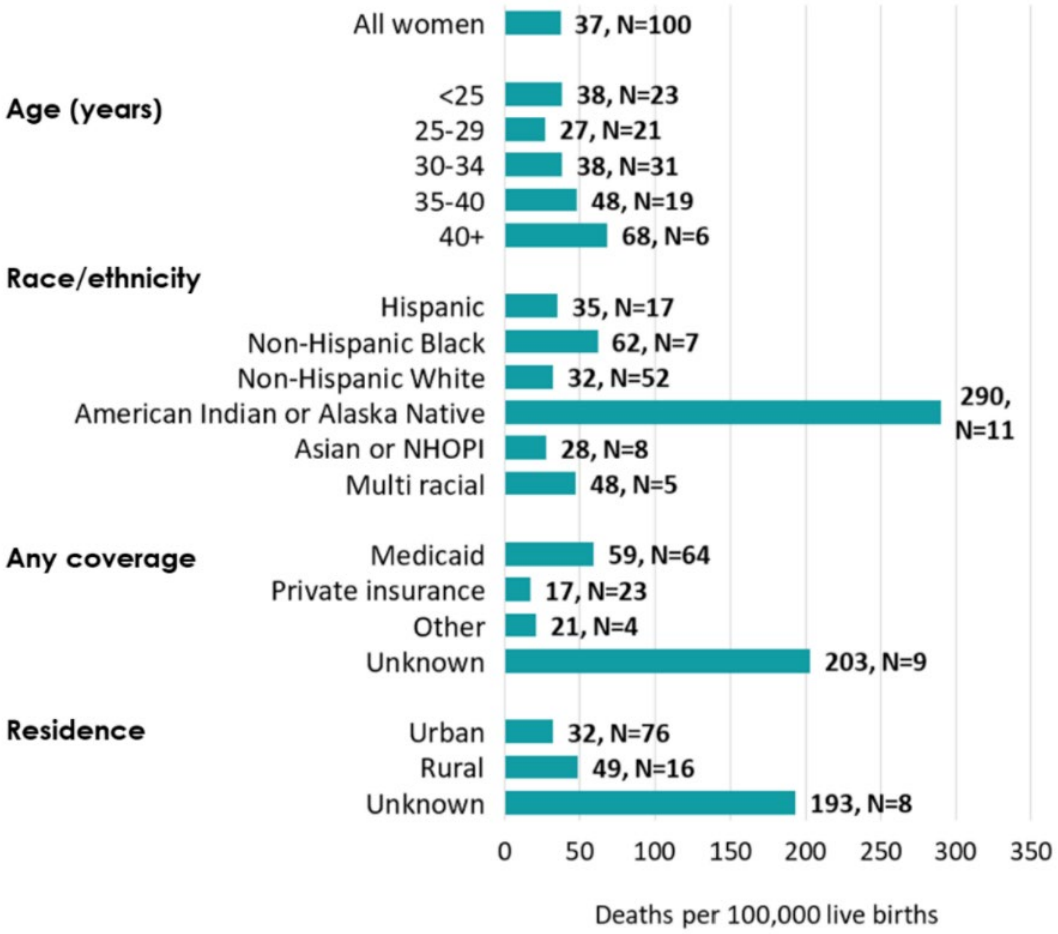


Image 2. (Figure 4) Demographics, Maternal Mortality Ratios (deaths per 100,000 live births) and Counts for **Pregnancy-Associated** Deaths (N-30), Washington State 2014–2016. Washington State Department of Health

Figure 4: Demographics, Maternal Mortality Ratios (deaths per 100,000 live births) and Counts for Pregnancy-Associated Deaths (N=100), Washington State, 2014-2016



Maternal Mortality Listening Session-Special Funded Project

The Department of Health provided $30,000 to fund a special project with a one-year contract to: “hold one or more listening session(s) focused on maternal mortality with the American Indian/Alaska Native community and Tribal health partners.” In 2022, the American Indian Health Commission (AIHC) convened a series of listening sessions to address American Indian/Alaska Native (AI/AN) maternal mortality disparities in the State of Washington.

Purpose

1) To hold gatherings in Tribal and Urban Indian Communities to hear concerns about the health of Native pregnant, birthing, and postpartum people in a safe, non-judgmental, and confidential space, where the words, concerns, fears and hopes of participants are heard and honored.
2) To update Tribal and Urban Indian Health leaders on the issues of Native maternal mortality and morbidity including concerns from their communities to inform their recommendations for the 2023 Maternal Mortality Review Panel Report to the Legislature.
3) To reduce maternal mortality disparities in American Indian and Alaska Native (AI/AN) people in Washington State until they are eliminated.

COVID-19 Impact on Project

The COVID-19 Pandemic impacted this project in several ways. First, the project was approved and offered 2 years after the request by Tribal, Urban Indian and AIHC leaders. During that time the Tribal and state priority efforts to manage the impacts of a global pandemic was essential. Second, our initial plans for the listening sessions were based on local or regional in-person listening sessions due to the sensitive nature of the topic. However, after extending our timeline several times, in the hopes that in-person sessions might be possible, we had to concede. We had to accept that our maternal mortality listening sessions had to be virtual.

Project Strategy

Once the decision was made to hold virtual listening sessions, we revisited our initial plans to ensure our success in inviting and engaging participants. It was important to use a “Seven Generations Principles” approach as we planned our engagement strategy. This meant that we would not only consider how the historical experiences of our ancestors and elders define current Native health status, but also how the decisions made today, how action–or lack of action– will impact the generations following us.

We knew the right approach was to invite the community to engage with us in “Conversations about the Health of Native Pregnant, Birthing and Postpartum People” and address maternal mortality in a broader context of issues and needs and what might contribute to issues of mortality and morbidity. To invite them, we promoted the sessions through AIHC, Tribal and Urban Indian Community channels which included AIHC delegates, Tribal and Urban Indian

Health Organization leaders and the AIHC MIH Work Group. To participate one had to be an American Indian/Alaska Native or a member of an AI/AN family and a resident of Washington State.

Community and Leadership Conversations

Our plan was to hold several Community Conversation sessions which would inform the Leadership sessions and possibly be reflected in their recommendations. Although the project required holding one listening session, our goal was to hold three Community Conversation sessions, and two leadership sessions. To encourage participation, we scheduled the sessions over a variety of days and times. We developed a list of questions to prompt the conversations, and an agenda to ensure all participants were informed about the goals and background of the listening session project. We emphasized the importance of their participation, and how they were giving voice to many in their communities who for understandable reasons may not feel comfortable or trusting to participate in the Community Conversations.

We signed into our first Community Conversation About the Health of Native Pregnant, Birthing and Postpartum People with some trepidation. Although we did have pre-registered participants, would they show up? If they showed up, would they participate? Or would this be the shortest Zoom meeting ever?

It turns out that our first session had the largest number of participants. Our agenda and questions worked wonderfully; people participated fully, and we had rich and important responses to the questions. The session did not end early. Participants were engaged and stayed on for the full session. Participants could choose to introduce themselves in the chat, but it was not a requirement. Since we wanted to respect their privacy and it was not a requirement of our project, we do not have an exact number of participants.

We held the next two scheduled Community Conversations sessions, and the participation was so wonderful, the conversations so rich, wise, heartfelt, and appreciated, we decided we could schedule two more sessions and still meet our timeline. In total, we held five Community Conversations About the Health of Native Pregnant, Birthing and Postpartum People. We had participants from across the state. They ranged in age from teenager to elder, different genders were represented as were the roles of mother, father, grandparent, aunt/uncle, community leaders, and concerned community members. We thanked all the participants who were so generous with their time, their wisdom, and their advocacy for the health of pregnant, birthing and postpartum people in their families, communities and Tribes.

"Leaders, Tribal leaders, families all need to provide support for expecting moms. Support means more than sending someone off to treatment. It means providing a safe place for the most vulnerable–our unborn"

Community Conversation Participant

Once the Community Conversation sessions were complete, we prepared for the Leadership sessions. This included sending out invitations through the regular AIHC, Tribal and UIHO channels, but also personal invitations. All the Community Conversation responses had to be data entered, analyzed, and categorized to be shared concisely with the AIHC, Tribal, Urban Indian and other community leaders. A succinct agenda designed to give the project overview and goals, share the Community Conversation responses, and elicit recommendations had to be prepared and consistently delivered. Finally, the day of the first of our two scheduled Leadership Recommendation sessions arrived. As with the Community Conversation sessions, the first Leadership Recommendation session exceeded our expectations, and encouraged us to schedule more sessions. In total, we held five Leadership Recommendation sessions. Although our initial plan was for three community and two leadership sessions, in perfect synchronicity, we ended up scheduling five community and five leadership sessions for a total of 10.

Community Conversations Results

We will not be sharing the Community Conversation participants' specific responses and concerns in this document; their understanding was that these would be shared with Tribal, UIHO and AIHC leaders. However, we will share some observations and themes.

One persistent theme is that the Community Conversation participants were grateful for the opportunity to discuss these issues. One dad shared with us that his spouse encouraged him to participate as … "I think you will like it." There is a high level of concern about the experiences of Native pregnant, birthing, and postpartum people in their communities. There is also clear understanding how their experiences of negative prenatal, birthing, and postpartum care result in AI/AN maternal morbidity and mortality disparities.

Four strong themes emerged regarding needs and issues around: pregnancy and birth experiences, pregnancy, birth and postpartum needs across the continuum, new parent needs and prevention of the systemic issues that contribute to maternal morbidity and mortality.

The need for equitable access for appropriate and culturally relevant resources and care throughout the pregnancy, birthing and postpartum continuum was seen as a critical need. Exposure to stigma, discrimination and racism was a major concern, with an intimate understanding of how these exposures impact physical, mental, and emotional health. Also, there was a feeling that most non-Native people do not fully understand the constant array of macroaggressions and microaggressions that Native people encounter on a regular basis. As one participant stated:

> ***"Many young women don't have to advocate to not get murdered."***

Tribes are insular communities, and the Community Conversation participants are experts in their communities, whether urban or rural. As experts, they know what the challenges and needs are, and they have very informed ideas regarding solutions that will work. A value that many Tribal communities share is "to hold each other up." These values came through loud and clear in support of the pregnant, birthing, and postpartum person and their family. One participant shared their belief that:

> ***"Help is not taking the baby from the parents. What we need is laundry cleaned, dishes washed, and some good heartwarming food."***

Participants emphasized the importance of both community and leadership:

> ***"True support from Tribal leadership is important for the sustaining of a healthy Native community."***

Leadership Considerations

Tribal and UIHO leaders are citizens of their Tribe and community, and experts in the history, battles, needs, challenges, strengths, resources, and wisdom in their communities. Most of them have been immersed in the work of representation, advocacy, and self-determination for their Tribe/community for a very long time. They are familiar and knowledgeable about the issues and concerns of their community. When we shared the results of the Community Conversations, some of the concerns may have been familiar, and ideas from other communities may have been thought provoking.

"The number one priority is to reduce Native Maternal Mortality until the disparity is eliminated."
"Priority 1–Access to health care through the continuum of pregnancy and postpartum for both mom and dad."

There are two top priority recommendations from the Leadership Recommendation sessions. As obvious as it may seem, measurement and initiatives have not necessarily been focused on elimination of disparities. They have only been defined and funded for incremental change at best. It is important to take note of this shift in the language used by leaders to a strategy to "eliminate" that demonstrates the importance of addressing root causes and understanding that to address root causes, we have not yet reached far enough upstream in our systems change and transformation efforts. Nevertheless, it is important to acknowledge this shift as the top priority of the AI/AN Tribal and UIHO leaders.

To say that "The number one priority is to reduce Native Maternal Mortality until the disparity is eliminated", is a strong statement and differs from mainstream goals such as Healthy People 2030 (HP2030), which acknowledges maternal deaths are "getting worse". This statement does not give a target number like the HP2030 target of 15.7 per 100,000; our focus is on the elimination of the disparity.

"This is why we do what we do, one child, one family, makes it all worth our time" Cheryl Sanders "Takwiltsa", Lummi Nation

One of the fundamental issues that must be resolved to reduce maternal morbidity and mortality is to improve and increase access to care for Native Pregnant, Birthing and Postpartum people. Tribal and Urban Indian Health Leaders assert that the improved and expanded access must be for culturally relevant services throughout the continuum of pregnancy, birth and postpartum. This must include the will and necessity to address historical inequities and create trust in the health transformation system change through policy, inclusion, and allocation of funds.

Culturally relevant services require that the importance of 'Seven Generation Principles' are understood and integrated into service planning and delivery. Utilizing 'Seven Generation Principles' encompasses the understanding of the adverse impacts of historical and intergenerational trauma and ongoing structural and interpersonal racism. Additionally, the need for trauma-informed care in all aspects of care throughout the continuum, and the Native value of ensuring that decisions made today will have positive consequences for future generations.

Relevant services also include a healing team that is trusted by the Native Pregnant, Birthing and Postpartum People. An example of named members of a trusted team include midwives, doulas, elders, and WIC providers. Access to a trusted team is critical to engage Native pregnant people in early entry and consistent prenatal care. The improved and increased culturally relevant services must also include support and resources for both parents and be open to the fact that extended family are essential support for American Indians/Alaska Native Pregnant, Birthing, and Postpartum People. The roles of grandparents are especially relied on to fill many roles in our communities.

There was a lot of discussion about the need for more American Indian/Alaska Native specific data, not only for Tribal PRAMS, but for other issues that may be pertinent to AI/AN communities, but not recognized or accepted as critical. The Tribal and Urban Indian Health leaders listed a variety of issues observed in their communities and clinics that have adverse effects on Native maternal morbidity and mortality. The critical importance of maintaining the Tribal/UIHO Clinic as the medical home and assuring close and continual contact with their pregnant, birthing, and postpartum people throughout the continuum was also recommended.

There is a high level of concern from both the Community Conversation participants and the Leadership sessions about the discrimination, racism, and stereotyping that the Native Pregnant, Birthing and Postpartum people face, which cause high levels of stress and distrust in providers and the health care system overall. There is significant evidence about the negative effects of stress and toxic stress which pose developmental concerns for the baby, and emotional and physical health issues for parents and families. Racism and discrimination are core elements in the formation of American society based on centuries old policies, structures, and institutions. It will take long term commitment for intentional policy, systems, and societal change by many to cure it. However, a substantive recommendation that can move us in the right direction in the health system would be for the state to analyze and find ways to measure the harms caused by racism in health care systems to create momentum for change. Change that would see funding allocations for Tribal-led workforce development and training to increase the number of AI/AN health providers and educators that are needed to serve their communities. There are many system barriers at this time; funding, focus and prioritization could help us to successfully recruit, train and hire an AI/AN workforce to meet the needs stated by Tribal and AI/AN communities.

A long-standing recommendation when discussing MIH disparities is based on results of centuries of U.S. Indian policies that have resulted in the long-term health consequences of poor nutrition of AI/AN people. From the very beginning of forced relocation, to reservations which changed access to traditional and customary places to hunt, fish and gather, to the intentional underfeeding of the AI/AN children who were forced to live at boarding schools, to the nutrient poor commodity foods given to Tribes in the early days when it was an embarrassment on the world stage that America's first peoples were dying of starvation, generations of AI/AN people have been exposed to the risks of nutrient poor foods and underfeeding. Epigenetics now tell us that these experiences have long lasting effects that can impact AI/AN health to this day. The adverse health impacts of poor nutrition are of great concern to the Tribal/UIHO leaders and there were many nutrition-related concerns that were mentioned during the sessions. Again, Tribal-led solutions such as the Food Sovereignty Movement in Indian Country, need to be funded and supported. Having traditional food options in AI/AN diets is a goal of the Tribal/UIHO leaders. One Tribal/UIHO leader shared that her health advice to people is:

"No drugs, alcohol, tobacco or junk food."

"If buffalo, deer, and salmon are what's best for us, it is what is best for our babies. It makes our brains healthy. It just makes sense."

The Tribal and Urban Indian Health Organization leaders are very aware of, and invested in, the need to drastically and immediately improve the health of Native Pregnant, Birthing and Postpartum People. As one stated:

"We have to save our Existence!"

Recommendations to Department of Health and to the Legislature

The elimination of Native Maternal Mortality is an urgent priority. The 2019 MMRP Report to the Legislature revealed dramatic and highly disproportionate maternal mortality disparities for AI/AN people in WA State (see Image 1 [Figure 7] and Image 2 [Figure 4], Addendum pages 7 and 8). In the 2023 MMRP Report to the Legislature, the disparities have not improved. (See Figures 4a and 4b, MMRP report pages 25 and 26; and Figures 6a and 6b, MMRP report pages 30 and 31.) This is of great concern and requires immediate attention.

It is essential to AI/AN healing to rely on Tribally developed and implemented solutions. What the Tribes and UIHO's need is partnership with the state in funding and collaboration. It has been 500+ years of trauma and discrimination; it will take some time to heal. What we have learned in the 10 Conversations with Native Pregnant, Birthing and Postpartum People Community and Leadership sessions is reflected in the Tribal and Urban Indian Leadership Recommendations below:

1) The number one priority is to reduce Native Maternal Mortality until the disparity is eliminated.
2) Culturally appropriate engagement and building trust at the community level is critical to understanding root causes of Native Maternal Mortality and essential to finding appropriate solutions and strategies.
3) Tribal-led data needs assessments, planning, administration, and analysis, including Tribal PRAMS, to address root causes of AI/AN maternal morbidity and mortality, substance misuse, and harm reduction strategies.
4) Address historical inequities and create trust in health transformation system change through policy, inclusion, and allocation of funds to create and assure culturally relevant services.
5) Improved and expanded access for culturally relevant services and resources, utilizing Seven *Generations Principles*, throughout the continuum of pregnancy, birth and postpartum for both parents.
6) Funding, focus and prioritization to support Tribal-led Workforce planning and development to successfully recruit, train and hire an AI/AN workforce to support the needs of Native pregnant, birthing, and postpartum people.
7) Support and fund Tribal-led nutrition planning and project development initiatives, such as Food Sovereignty and First Foods (breastfeeding) work.

Ongoing and Current Work of the AIHC

Tribal-led and holistic approaches and continuity of work is very important to Tribal and Urban Indian Health Leaders. When you are continually underfunded and under-resourced, duplicative, and unnecessary rework is not welcome or efficient. In the overview presentation to the Tribal and UIHO leaders, the current and ongoing MIH work and projects were shared. It was agreed that these were important and should be integrated into the recommendations.

Recommendations and Support for AIHC Priority List

1) AIHC will continue to participate in the NW Portland Area Indian Health Board Community Health Aide Program (CHAP) development work to investigate and advocate for the inclusion of a MIH role in support of the AIHC's 2017 resolution in support of a reimbursable provider type to provide MIH services in Tribal/Urban Indian communities.
2) AIHC will continue to work with the Foundational Public Health Services (FPHS) Lifecourse sub-committee to look at potential alignment for shared services or projects across sectors based on Tribally established priorities.
3) Finalize and administer the AIHC MIH Work Group's baseline survey on providers, programs, and patients. Secure funding to successfully complete all phases of the survey: promotion, administration, analysis, and dissemination of results.
4) Update and evaluate the AIHC MIH Strategic Plan to reflect the current landscape of MIH in Indian Country.