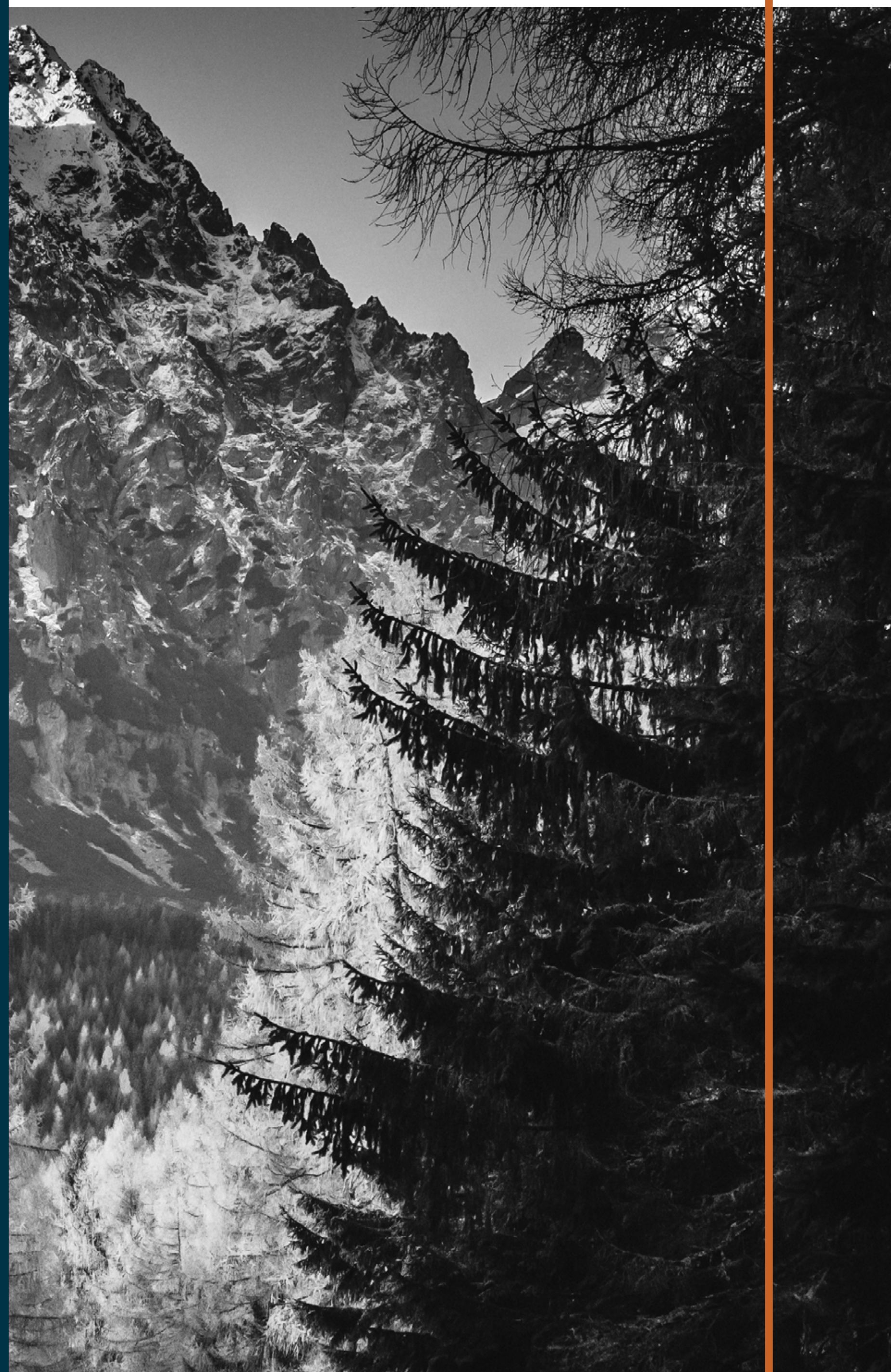
2020

MATERNAL DEATHS IN IDAHO

A report of findings by the Maternal Mortality Review Committee



Idaho maternal & child health

THIS REPORT WAS PREPARED BY:

Idaho Department of Health and Welfare
Division of Public Health
Maternal Mortality Review Program

Jennifer Liposchak, Program Manager, Maternal Mortality Review Program

Stephanie Walters, RN, BSN, PHN, Nurse Abstractor, Maternal Mortality Review Program

Ward Ballard, MCH Research Analyst, Bureau of Vital Records and Health Statistics

Pam Harder, Research Analyst Supervisor, Bureau of Vital Records and Health Statistics

Katherine Humphrey, MS, CHES, Section Manager, Maternal and Child Health Section

Cristi Litzsinger, Bureau Chief, Bureau of Clinical and Preventive Services

We would like to acknowledge the members of the Idaho Maternal Mortality Review Committee for donating their time and expertise to reduce the morbidity and mortality of women in Idaho.

Lucky Bourn, D-ABMDI, Pres. ISACC
Committee Position: Coroner

Krysta Freed, LM, CPM
Committee Position: Licensed Midwife

Caitlin Gustafson, MD
Committee Position: Physician with Specialty in Family Medicine with a Practice that Includes Maternity Care and Delivery

Magni Hamso, MD, MPH, FACP, FASAM
Additional Committee Member: Medical Director, Medicaid

Frances Harris, CNM, WHNP
Committee Position: Licensed Advanced Practice Professional Nurse Midwife

Megan Hartigan
Additional Committee Member: Public Health Representative - Suicide and Overdose Expertise

JJ Hartwell, EMT, RN
Committee Position: Licensed Emergency Medical Services Provider

Lisa Hollett, RN
Committee Position: Licensed Registered Nurse

Katherine Humphrey, MS, CHES
Committee Position: Public Health Representative - Maternal & Child Health Expertise

Amelia Huntsberger, MD, FACOG
Committee Position: Physician with Specialty in Family Medicine, OBGYN, or Emergency Medicine that Includes Maternity Care and Delivery in a Rural Setting

Julie Meltzer, MD
Committee Position: Physician with Specialty in Obstetrics and Gynecology

Ian Phillips, FP-C
Additional Committee Member: Licensed Emergency Medical Services Provider

Stacy T. Seyb, MD
Committee Position: Physician with Specialty in Maternal Fetal Medicine, Committee Chair

Brynn Shireman, LMSW, C-SWHC
Committee Position: Licensed Master Social Worker

Garth Warren, MD
Committee Position: Medical Examiner

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DEFINITIONS

The following definitions will be used throughout this report.

Maternal Morbidity: unexpected outcomes of labor and delivery that result in short-or long-term consequences to a woman's health.

Pregnancy-associated death (or maternal death*): is the death of a woman from any cause during pregnancy or within one (1) year following the end of the pregnancy.[1]

Pregnancy-related death: the death of a woman 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.

* For this report, a maternal death is defined as listed above and in Idaho Code and meets the same definition as pregnancy-associated death. This definition does not follow the National Center for Health Statistics and the World Health Organization's definition of a maternal death; The death of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental causes.

EXECUTIVE SUMMARY

Idaho Code Title 39, Chapter 96, gives the Department of Health and Welfare the authority to coordinate the activities of the Maternal Mortality Review Committee (MMRC). This interdisciplinary group from across the state reviews every maternal death and makes recommendations to improve the care for women and to reduce or eliminate preventable deaths. This report includes information about the maternal deaths in Idaho that occurred in 2020. Findings comparing 2018, 2019, and 2020 maternal deaths are included in Appendix A.

Key Findings

- Eleven women died in Idaho while pregnant or within one year of pregnancy.
- All eleven deaths were determined to be preventable.
- Nine of the eleven deaths were determined to be pregnancy-related.
- Eight of the eleven women were Medicaid participants.
- The most common contributing factors in these eleven women's deaths were: lack of knowledge regarding importance of event, treatment, or follow up and lack of continuity (see Appendix B for definitions).
- The most common underlying cause of death was mental health conditions, which includes deaths related to suicide, substance use disorder, overdose/poisoning, and unintentional injuries determined by the MMRC to be related to a mental health condition. This was followed by cardiovascular conditions and infection.
- Idaho's 2020 MMRC Pregnancy-Related Mortality Ratio (PRMR) was 41.8 pregnancy-related deaths per 100,000 live births. This is an increase from the 2019 MMRC PRMR of 13.6 and the 2018 MMRC PRMR of 18.7.

Key Recommendations

- The Idaho Legislature should remove the sunset date on Title 39, Chapter 96, so that the MMRC can continue.
- A Statewide Perinatal Quality Collaborative should be established to promote best practice and multidisciplinary care for pregnant women.
- Idaho Medicaid should expand coverage for pregnant women to 12 months postpartum, regardless of pregnancy outcome.

- Facilities, systems, and communities should increase access, education, and funding for mental health resources across the state, including access to mental health care providers for patients both in-person and by telehealth.
- Facilities and systems should increase funding and access for maternal medical specialty consultative options for providers (e.g., mental health and chronic disease).
- Facilities should institute communication channels between providers for better coordination of care for patients, especially for patients with mental health conditions, chronic disease, or other potentially high-risk scenarios that have been identified.
- Facilities should have a better health information exchange, where electronic health record systems can interface and allow for providers to obtain records and care notes from previous providers both internal and external to their hospital system.
- Coroners should send decedents that meet the definition of pregnancy-associated death for an autopsy and/or toxicology if the decedents are less than 50 years of age and do not appear to have sustained trauma.

MATERNAL MORTALITY REVIEW PROCESS

The Idaho Maternal Mortality Review (MMR) Program was established in 2019 and adopted a standardized annual review process. This process was adapted from Review to Action, a resource developed by the Association of Maternal and Child Health Programs (AMCHP), the Centers for Disease Control and Prevention (CDC) Foundation, and the CDC Division of Reproductive Health. The review process (Action Cycle) is shown in Figure 1 and is explained in more detail below.

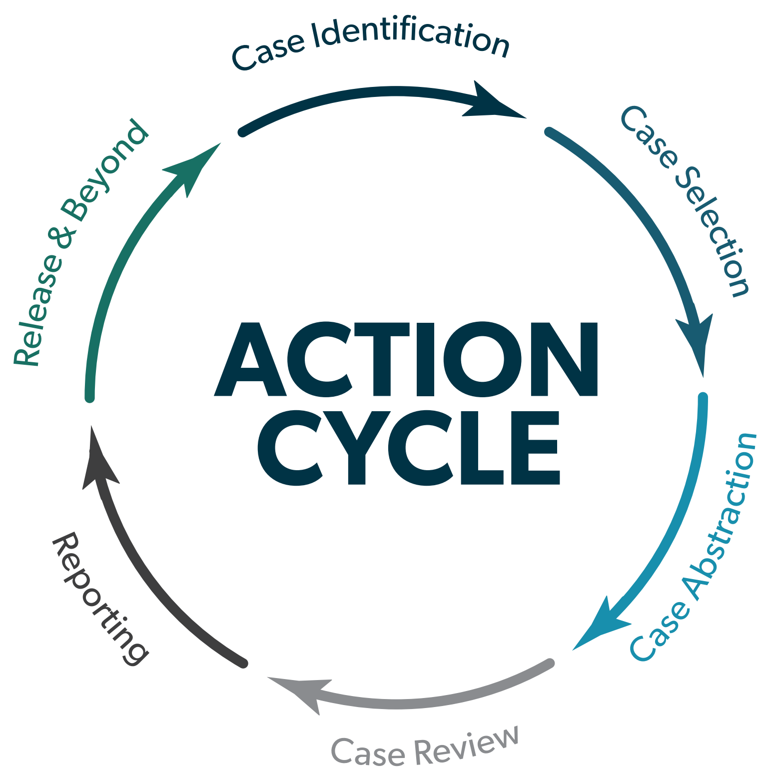


Figure 1 - reviewtoaction.org/implement/process-review

Case Identification

The MMR Program works with the Bureau of Vital Records and Health Statistics (BVRHS) to identify deaths for review. The Maternal and Child Health Research Analyst, in BVRHS, notifies the MMR Program Manager when a death record is received and the pregnancy checkbox on the death certificate has been marked (see Figure 2). The Research Analyst also notifies the MMR Program if the cause of death listed on the death certificate includes a code that is related to obstetrics, but the pregnancy checkbox is not marked. These codes could include, but are not limited to, conditions such as eclampsia, postpartum hemorrhage, or amniotic fluid embolism.

30. IF FEMALE (Aged 10-54):

- ☐ Not pregnant within a year
- ☐ Pregnant at time of death
- ☐ Not pregnant, but pregnant within 42 days of death
- ☐ Not pregnant, but pregnant 43 days to 1 year before death
- ☐ Unknown if pregnant within the past year

Figure 2 - Pregnancy Checkbox Example

After collecting a list of deaths that occurred within the review timeframe, the Research Analyst matches the death certificates with birth certificates or stillbirth certificates of the infant (if applicable) associated with the pregnant women. If a woman was pregnant at the time of her death, there may not be an associated birth certificate or stillbirth certificate. These records are kept strictly confidential between the BVRHS and the MMR Program. Members of the MMRC do not have access to personally identifiable information.

Case Selection

The MMRC scope is to review all pregnancy-associated deaths for each year – which is the best practice in maternal mortality surveillance.

Case Abstraction

Once death certificates have been received, the MMR Program Manager reviews them and solicits relevant records from a variety of sources (e.g., healthcare facilities, law enforcement, and coroners). For each death, records are reviewed and then abstracted into a case narrative by the MMR Program Manager and the Maternal and Child Health (MCH) Registered Nurse (RN). Case narratives are summaries of the events that occurred leading up to a woman's death with all personally identifiable information, locations, and names redacted. These case narratives are provided to the MMRC members so they can review the facts of each death with an objective, unbiased perspective.

A Maternal Mortality Reviews is:

- An ongoing anonymous and confidential process of data collection, analysis, interpretation, and action;
- A systematic process guided by Idaho Code and policies; and
- Intended to move from data collection to prevention activities.[2]

It is important to remember that a Maternal Mortality Review is not:

- A mechanism to assign blame or responsibility for any death,
- A research study,
- A peer review,
- An institutional review, or
- A substitute for existing mortality and morbidity inquiries or reviews.[2]

Case Review

For the review process, MMRC members typically convene in-person and review the case narratives. Due to the COVID-19 pandemic, the 2020 meetings were held in a secure, virtual format. Due to the multi-disciplinary positions on the MMRC, the members can make recommendations at the patient, provider, facility, system, and community levels. These recommendations are intended to address factors the MMRC identifies as "contributing factors" to a woman's death. A full list of contributing factors and their definitions can be found in Appendix B.

Reporting

The MMRC is required to deliver an annual report of the findings and recommendations to the Idaho Legislature and to make these findings and recommendations available to health care providers, health care facilities, and the general public. This complex data is presented in a way to help stakeholders act on key findings to prevent future maternal deaths.

The MMR Program continues to improve how these findings and recommendations are presented as more data becomes available and inequities are identified.

Release & Beyond

The MMR Program seeks to widely distribute the annual report and partner with stakeholders and decision makers to move MMRC data and recommendations to action.

In May 2022, the CDC released a new resource, State Strategies for Preventing Pregnancy-Related Deaths: A Guide for Moving Maternal Mortality Review Committee Data to Action, to support these efforts. It presents an iterative four-step process to translate data into action (see Figure 3).

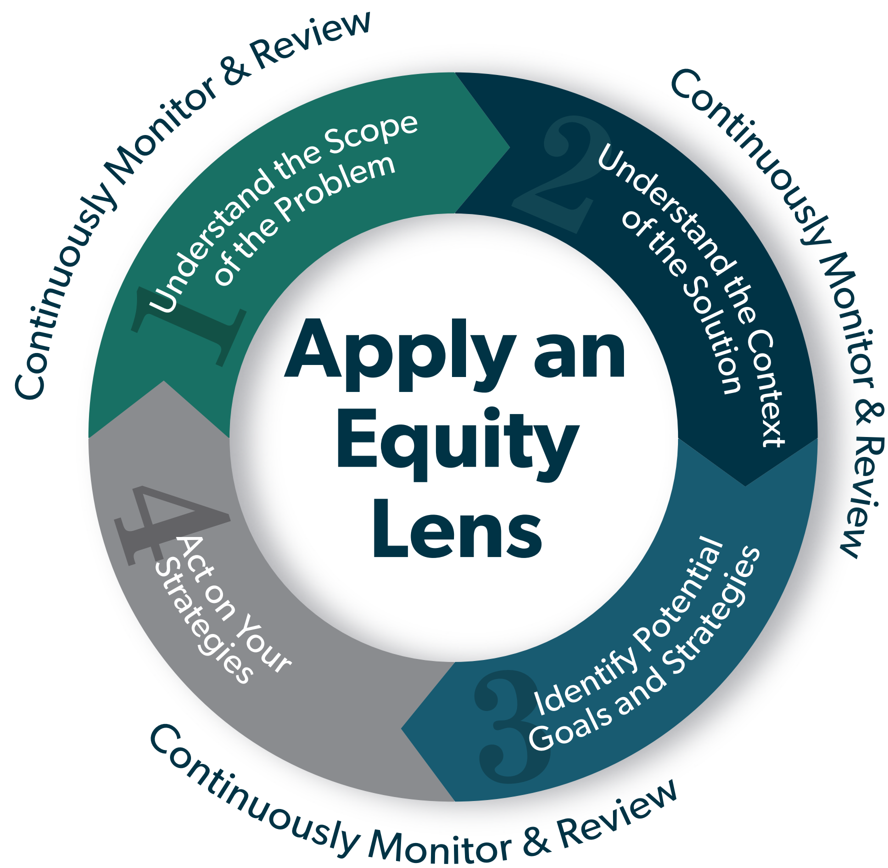


Figure 3 - Steps to moving MMRC data to action to reduce maternal mortality, from Centers for Disease Control and Prevention, 2022

Organizations that seek to implement MMRC recommendations are encouraged to review the guide above and connect with the MMR Program to share both their challenges and successes in reducing maternal mortality and morbidity.

2020 MATERNAL MORTALITY DEATH REVIEW

The MMRC reviews each death using the CDC's standardized MMRC Decision Form to answer the following questions:

1. Was the death pregnancy-related?
2. What was the cause of death?
3. Was the death preventable?
4. What were the factors that contributed to the death?
5. What are the recommendations and actions that address these contributing factors?
6. What is the anticipated impact of these actions if implemented?

Findings

Twelve deaths were identified using the pregnancy checkbox. One pregnancy checkbox was found to be marked in error, and the death was not reviewed or included in Idaho's MMR data. A total of eleven pregnancy-associated deaths were identified and brought forward to the MMRC for review. Five of the deaths could be linked to a birth or stillbirth certificate. For the other six cases, the woman was pregnant at the time of death.

Demographics

Table 1 describes the demographics of all the pregnancy-associated deaths that occurred in 2020.

Pregnancy-Associated Deaths Demographics, 2020		
Age (5 – year age groups)	**Number of Deaths**	**Percentage of Deaths**
15 to 19 years	0	-
20 to 24 years	2	18%
25 to 29 years	5	45%
30 to 34 years	3	27%
35 to 39 years	1	9%
40 to 44 years	0	-
45 to 49 years	0	-

Pregnancy-Associated Deaths Demographics, 2020		
Race/Ethnicity	**Number of Deaths**	**Percentage of Deaths**
Non-Hispanic, White	10	91%
Non-Hispanic, Black	0	-
Hispanic	1	9%
American Indian/Alaska Native	0	-
Pacific Islander	0	-
Bi-racial	0	-
Race/Ethnicity	**Number of Deaths**	**Percentage of Deaths**
Married	5	45%
Married, but Separated	0	-
Widowed	0	-
Divorced	2	18%
Never Married	4	36%
Unknown/Not specified	0	-
Education	**Number of Deaths**	**Percentage of Deaths**
8th Grade or Less	1	9%
9th-12th Grade; No Diploma	2	18%
High School Grad or GED Completed	3	27%
Some College; No Degree	3	27%
Associate's Degree	1	9%
Bachelor's Degree	1	9%
Master's Degree	0	-
Doctorate or Professional Degree	0	-
Not specified	0	-

Table 1 - Pregnancy-Associated Deaths Demographics, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

District of Residence

The numbers shown in Table 2 indicate the health district where each woman resided prior to her death. It does not indicate where the woman died. To keep the woman's death confidential, the deaths are displayed by health district and not at the county level. Refer to Figure 4 for a map of Idaho's health districts.

Pregnancy-Associated Deaths District of Residence, 2020		
District of Residence	*Number of Deaths*	*Percentage of Deaths*
Health District 1	1	9%
Health District 2	0	-
Health District 3	4	36%
Health District 4	0	-
Health District 5	3	27%
Health District 6	3	27%
Health District 7	0	-

Table 2 - Pregnancy-Associated Deaths District of Residence, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

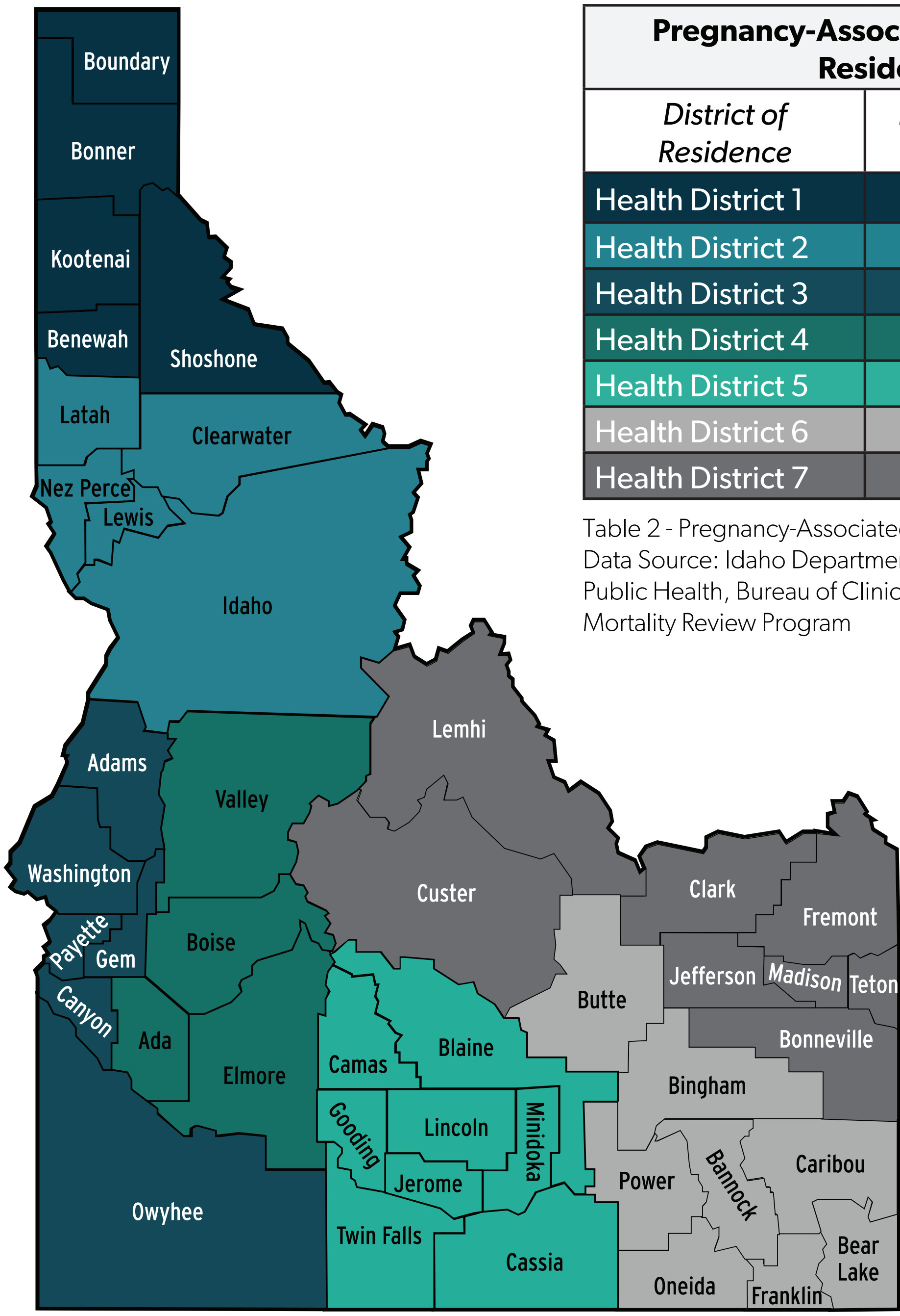


Figure 4 - Idaho Health Districts

Pregnancy Checkbox Status

When looking at timing of death, in six of the eleven deaths the woman was pregnant, in three of the eleven deaths the woman was pregnant within 42 days of death, and in two of the eleven deaths the woman was pregnant 43 to 365 days before her death (Figure 5).

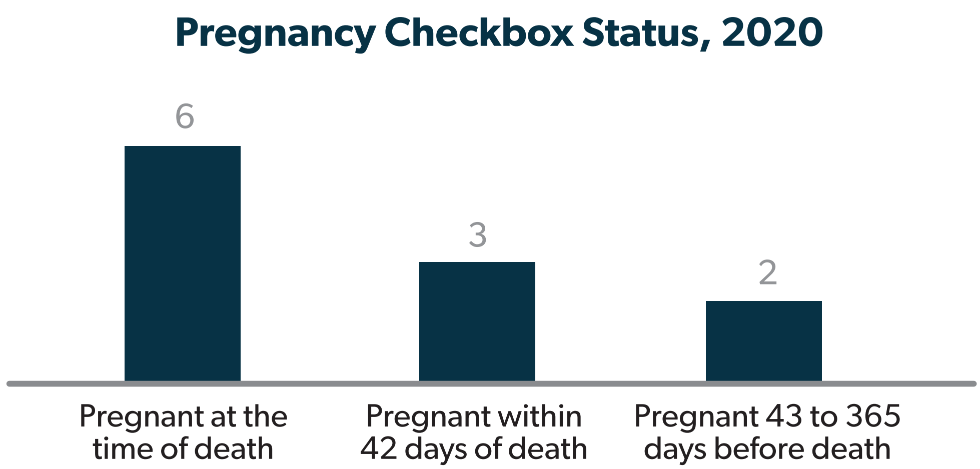


Figure 5 - Pregnancy Checkbox Status, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

Question 1: Was the death pregnancy-related?

Each death is classified into one of three categories: pregnancy-related, pregnancy-associated but not related, or pregnancy-associated but unable to determine pregnancy-relatedness.

After reviewing the deaths, the MMRC members determined that nine of the eleven deaths were pregnancy-related.

Pregnancy-Relatedness Status, 2020	Number of Deaths	Percentage of Deaths
Pregnancy-Related	9	**82%**
Pregnancy-Associated, but NOT Related	2	**18%**
Pregnancy-Associated but Unable to Determine Pregnancy Relatedness	0	**-**

Table 3 - Pregnancy-Relatedness Status, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

MMRC Pregnancy-Related Mortality Ratio

The Pregnancy-Related Mortality Ratio (PRMR) is a calculation that tells us the number of pregnancy-related deaths per 100,000 live births.

$$\frac{\text{\# of pregnancy-related deaths}}{\text{\# of live births}} \times 100{,}000$$

It's important to note how pregnancy-related deaths are defined for the PRMR you are viewing, as they may not allow for a direct comparison.

Figure 6 shows Idaho MMRC PRMR with pregnancy-related deaths reviewed and determined by Idaho's MMRC and defined as the death of a woman while pregnant or within 1 year of the end of a pregnancy – regardless of the outcome, duration or site of the pregnancy – from any cause related to or aggravated by the pregnancy or its management.

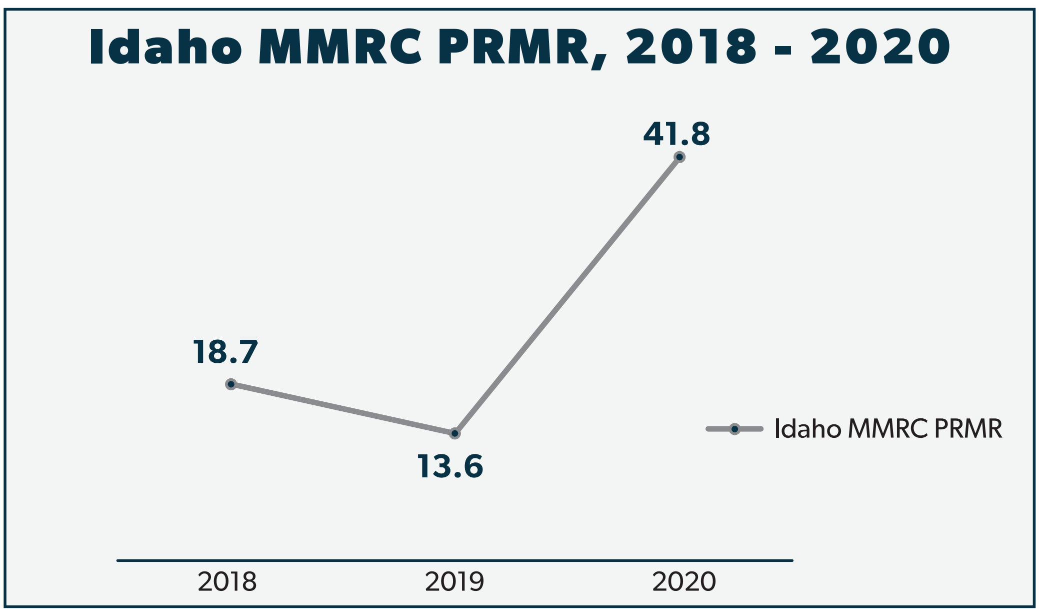


Figure 6 - Idaho MMRC PRMR, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

How the MMRC defines and determines pregnancy-related deaths for the Idaho MMRC PRMR is one of the most comprehensive and in-depth views of maternal deaths because all pregnancy-associated deaths are reviewed to determine pregnancy-relatedness, regardless of the underlying cause of death. This includes deaths that are due to injury or accidental causes such as substance use disorder, overdose, and suicide. Not only is the MMRC PRMR the most comprehensive, but it can also often be the most accurate. Death reviews can find instances where the pregnancy checkbox on the death certificate was marked incorrectly. They can also identify when an underlying cause of death may have been used improperly and the woman's death was not pregnancy-related.

Figure 7 shows Idaho's PRMR with pregnancy-related deaths defined as the death of a woman while pregnant or within 1 year of the end of a pregnancy – regardless of the outcome, duration, or site of the pregnancy– from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

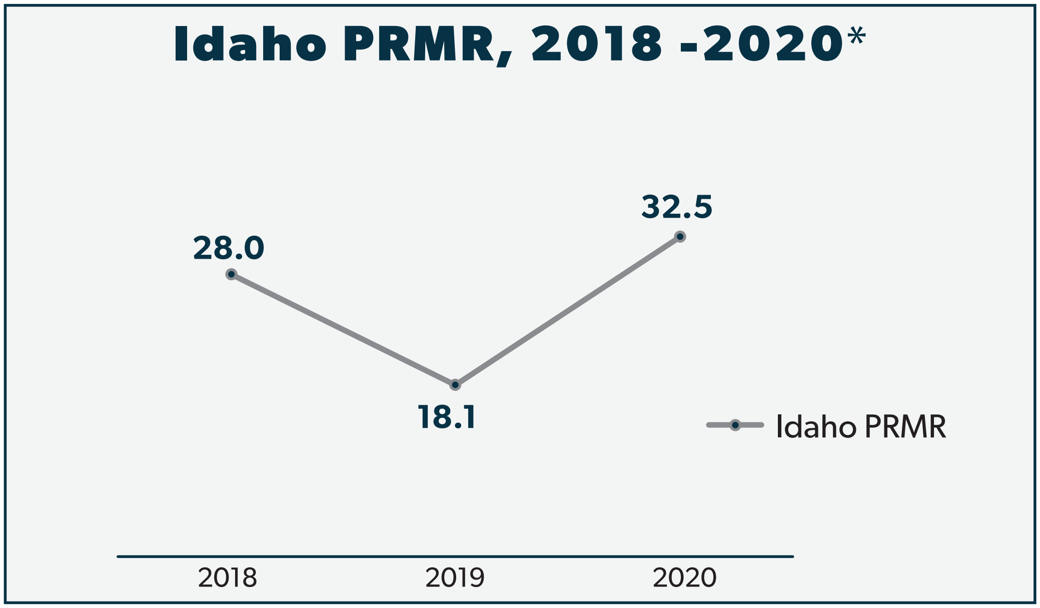


Figure 7 - Idaho PRMR, 2018-2020*
Data are based on data from Idaho resident death certificates.
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Vital Records and Health Statistics, 2022

* Pregnancy-related deaths among Idaho females. Only those deaths with the underlying cause of death assigned to International Statistical Classification of Diseases, 10th Revision (ICD–10) code numbers A34, O00-O99 are included.

Figure 8 shows Idaho's Maternal Mortality Ratio as defined by the World Health Organization, "the death of a woman while pregnant or within 42 days of delivery or termination, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes."

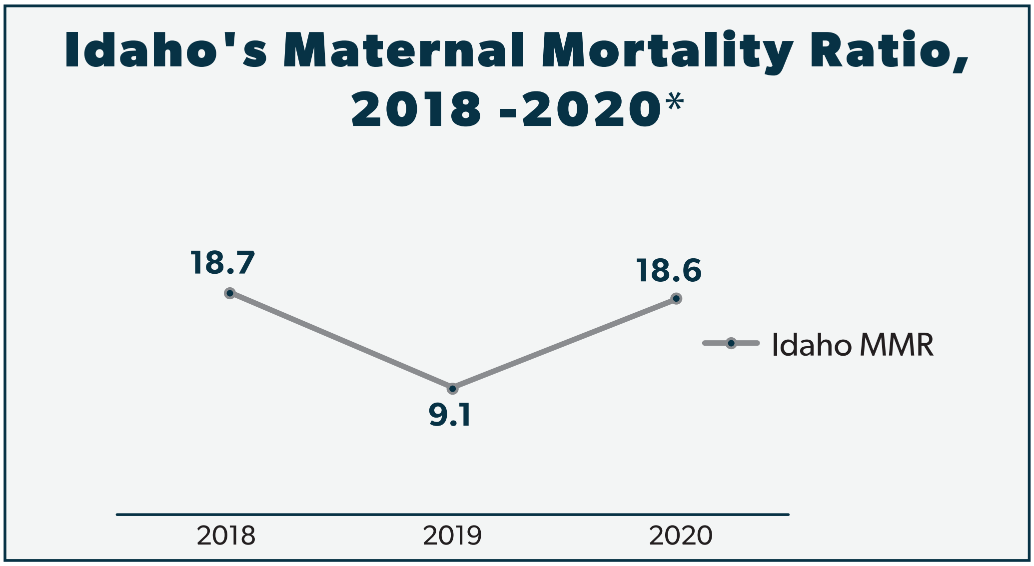


Figure 8 - Idaho Maternal Mortality Ratio, 2018-2020*
Data are based on data from Idaho resident death certificates.
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Vital Records and Health Statistics, 2022

A PRMR can also be calculated based on race/ethnicity, education, age, or other demographics to compare populations and to analyze factors that make individuals more likely to die from pregnancy-related events. Nationally, there are large racial disparities in pregnancy-related deaths. For example, American Indian/Alaska Native and Black women are 2-3 times more likely to die from a pregnancy-related cause than white women.[3]

* Maternal deaths among Idaho females while pregnant or within 42 days of delivery or termination, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. Only those deaths with the underlying cause of death assigned to International Statistical Classification of Diseases, 10th Revision (ICD–10) code numbers A34, O00-O95, or O98-O99 are included.

Question 2: What was the cause of death?

As part of the review, the MMRC determines the underlying cause of death for pregnancy-related cases. The underlying cause of death refers to the disease or injury which initiated the chain of events leading to death or the circumstances of the accident or violence which produced the fatal injury.[4] After the cause of death is determined, the MMRC assigns the death to one of 21 categories determined by the CDC to report pregnancy-related deaths. Occasionally, the cause of death is unknown and will be labeled as such. The MMRC-identified primary underlying causes of death for 2020 are shown in Figure 9.

Categories

- Amniotic Fluid Embolism
- Anesthesia Complications
- Autoimmune Disease/Collagen Vascular
- Cardiomyopathy
- Cardiovascular Conditions*
- Cerebrovascular Accidents
- Conditions Unique to Pregnancy**
- Embolism - Thrombotic
- Hematologic
- Hemorrhage
- Hypertensive Disorders of Pregnancy***
- Infection
- Injury (Intentional/Unintentional)
- Mental Health Conditions****
- Neurologic/Neurovascular Conditions
- Pulmonary Conditions
- Renal Disease
- Unknown

* Cardiovascular conditions include deaths due to coronary artery disease, pulmonary hypertension, acquired and congenital valvular heart disease, vascular aneurysm, hypertensive cardiovascular disease, Marfan Syndrome, conduction defects, vascular malformations, and other cardiovascular disease; and excludes cardiomyopathy and preeclampsia, eclampsia, and chronic hypertension with superimposed preeclampsia which are categorized separately.

** Conditions unique to pregnancy include gestational diabetes, hyperemesis and liver disease of pregnancy.

*** Hypertensive disorders of pregnancy include preeclampsia and eclampsia.

**** Mental health conditions include deaths related to suicide, substance use disorder, overdose/poisoning, and unintentional injuries determined by the MMRC to be related to a mental health condition.

MMRC-Identified Primary Underlying Causes of Death for Pregnancy-Related Deaths, 2020:

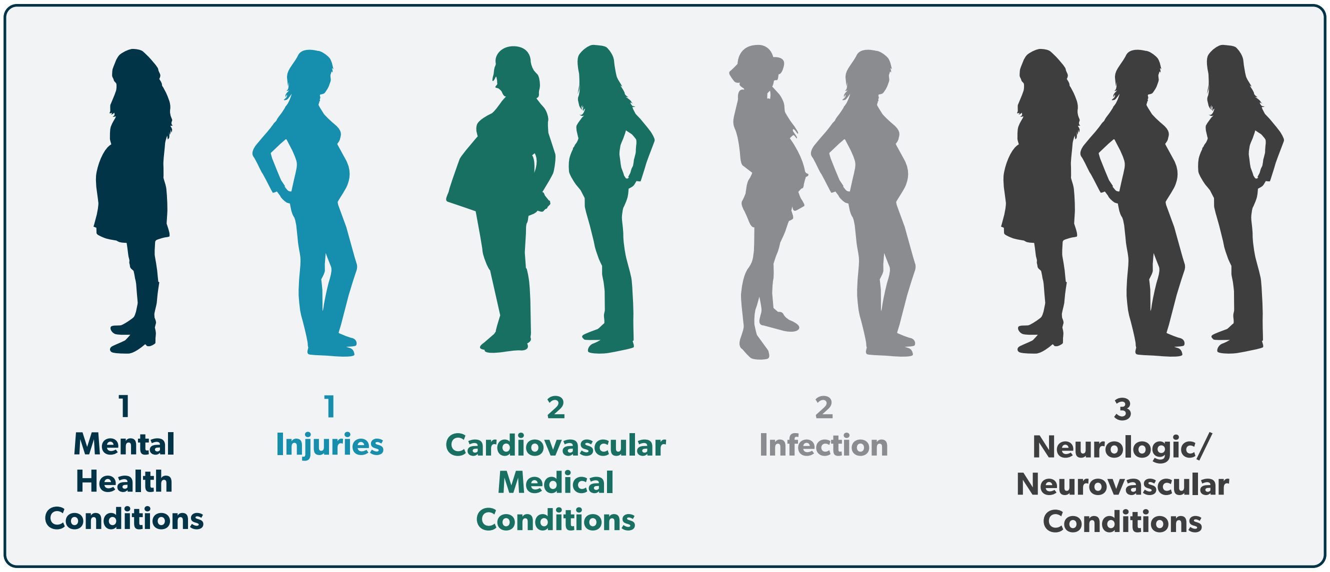


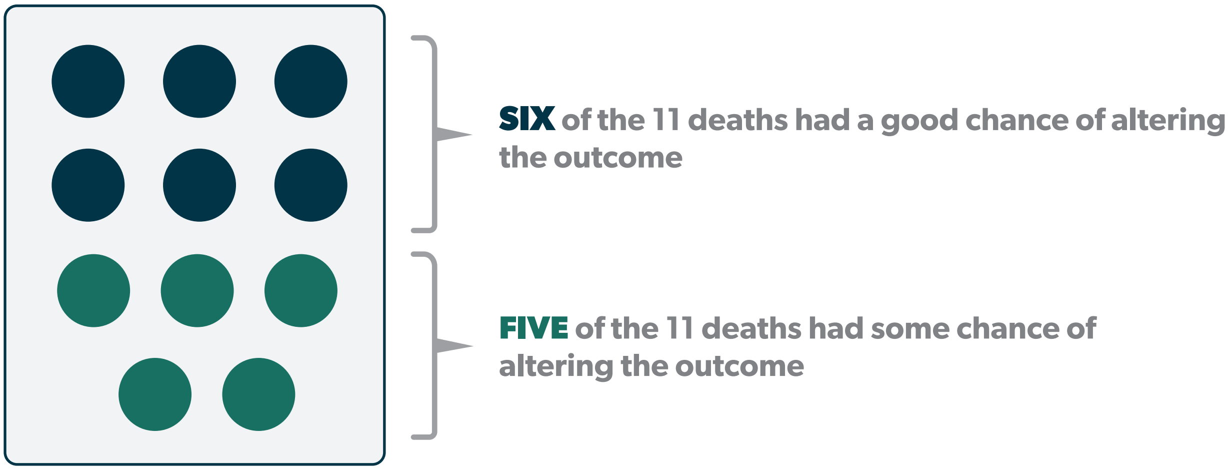
Figure 9 - MMRC-Identified Primary Underlying Cause of Death for Pregnancy Related Deaths, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

It's also noted if the MMRC agrees with the underlying cause of death listed on the death certificate. In eight of the deaths, the MMRC did agree with the cause of death listed; in three of the deaths, they did not. This does not necessarily mean the causes of death listed were incorrect; however, MMRCs often have more information available to them than the person who filled out the death certificate.

Question 3: Was the death preventable?

The MMRC members determine if a death was preventable and answers a yes/no question: Was the death preventable? Per the CDC MMRC decision form, a death is considered preventable if the MMRC 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.[4] The MMRC then decides the chance of being able to alter the outcomes: good chance, some chance, no chance, or unable to determine.

In 2020, the committee determined that all **11 deaths** could have been prevented.



Question 4: What were the factors that contributed to this death?

The MMRC answers specific questions as to whether mental health conditions, obesity, and substance use disorder contributed to the death. Contributing factors are significant conditions contributing to the death, but not resulting in the underlying cause of death. It is important to note that the MMRC uses "probably" when there is not specific proof of each condition, which is especially difficult when determining if mental health conditions contributed to the death. Obesity was not identified as a contributing factor in any of the deaths.

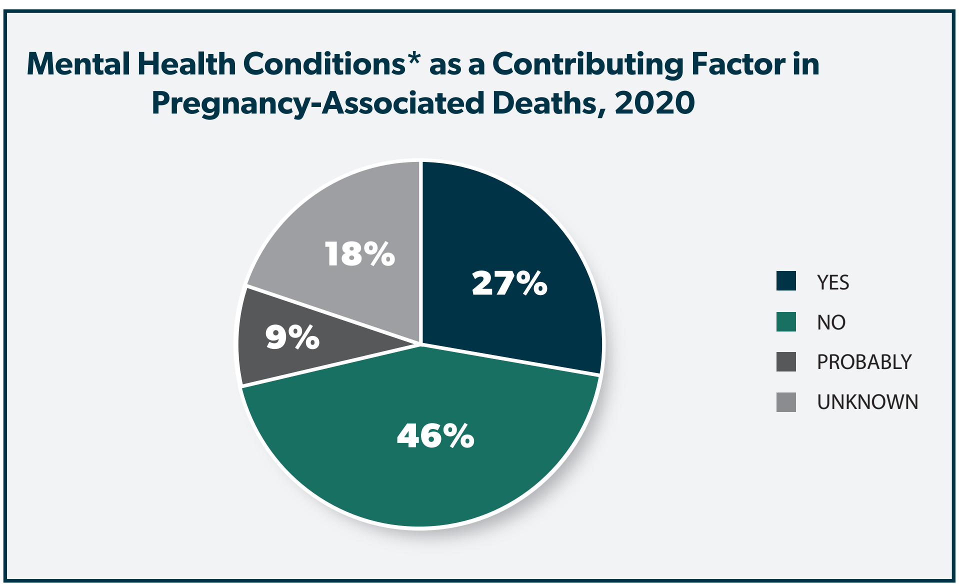


Figure 10 - Mental Health Conditions* as a Contributing Factor in Pregnancy-Associated Deaths, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

* Other than Substance Use Disorder.

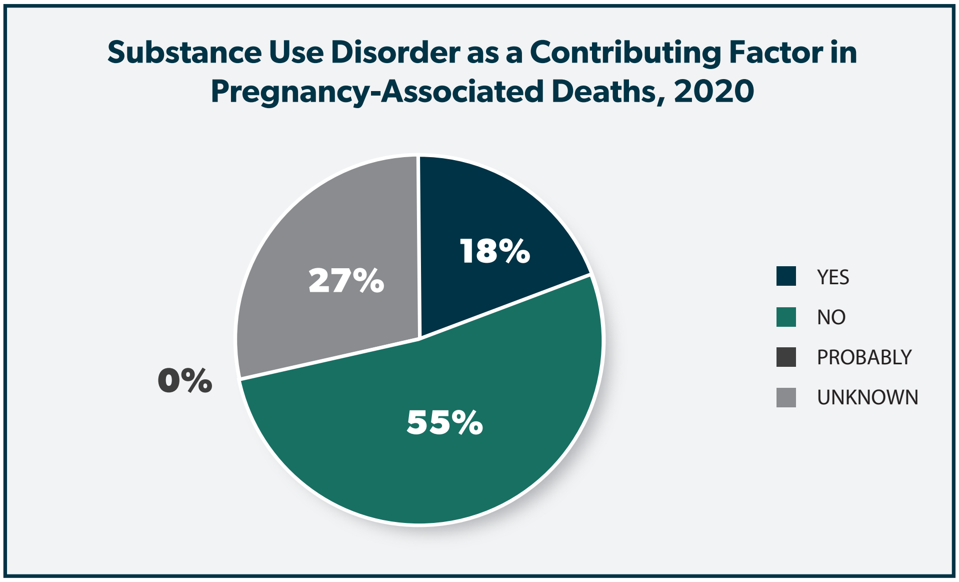


Figure 11 - Substance Use Disorder as a Contributing Factor in Pregnancy-Associated Deaths, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

Additional contributing factors are identified throughout the review of each death. Each factor is categorized into the following levels: patient/family, provider, facility, systems of care, or community and form the basis for the MMRC's recommendations.

The following were contributing factors identified during the review and the number of cases in which each contributing factor appeared. The definitions for these factors can be found in Appendix B:

- Lack of Continuity of Care: 5
- Chronic Disease: 2
- Poor Communication/Lack of Case Coordination: 2
- Lack of Knowledge: 7
- Lack of Referral or Consultation: 3
- Lack of Access/Financial Resources: 2
- Failure to Screen/Inadequate Assessment of Risk: 2
- Mental Health Conditions: 3
- Unstable Housing: 1
- Substance Use Disorder: 2
- Discrimination: 1
- Lack of Social Support/Isolation: 2
- Lack of Standardized Policies/Procedures: 1
- Cultural/Religious: 2
- Inadequate Law Enforcement Response: 1
- Adherence to Medical Recommendations: 1
- Inadequate Community Outreach/Resources: 1

Question 5: What are the recommendations and actions that address these contributing factors?

The MMRC members develop recommendations to help prevent future deaths from occurring. The CDC suggests using the following question to help MMRCs find case-specific recommendations:

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

Recommendations are aimed at specific 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.

The MMRC also strives to ensure recommendations are effective and address who should do what and when.

The following is a list of all 51 recommendations made during the 2020 Death Review

2020 MMRC Recommendations

Patient/Family

- Patients should inform providers of all current medications and dosage.
- Individuals should always wear their seatbelt and wear it correctly, including during pregnancy.

Providers

- Providers should provide closer follow up care during the postpartum period for patients with chronic disease.
- Providers should implement the American College of Obstetricians and Gynecologists (ACOG) standard of care for postpartum visits occurring 2-3 weeks after delivery.
- Providers should follow nationally recognized clinical management guidelines regarding pregnancy and heart disease (ACOG Practice Bulletin: Pregnancy & Heart Disease May 2019).
- Providers should consider obtaining therapeutic drug levels for medications that can be affected by pregnancy.
- Communication between prenatal providers and mental health providers should take place when the patient is being or has been seen by both. This communication should occur during the prenatal and postpartum periods.
- Prenatal providers should consult with a psychiatrist for input regarding medication changes and/or medication management during pregnancy.
- Providers should make referrals to Idaho Mental Health Crisis Centers and the Suicide Hotline if patients are exhibiting signs of extreme distress or suicidal thoughts.
- Provider education should be increased about community resources for mental health/behavioral health and substance use disorder.
- Providers should utilize Idaho's Prescription Drug Monitoring Program.
- Providers should make referrals to the Maternal, Infant, and Early Childhood Home Visiting Program for pregnant and postpartum women when applicable.
- Providers should include proper seatbelt wearing techniques during prenatal care.

Facility

- Facilities should institute communication channels between providers for better coordination of care for patients, especially for patients with mental health conditions, chronic disease, or other potentially high-risk scenarios that have been identified.

- Facilities should develop relationships with other facilities providing different levels of care and chronic disease specialists who can provide consultation and/or referrals for better coordination of care for patients with chronic disease throughout pregnancy.
- Facilities should manage pregnant women with moderate or high-risk cardiovascular disease during pregnancy, delivery, and the postpartum period in medical centers with a multidisciplinary Pregnancy Heart Team.
- Facilities should provide education to emergency department providers on cardiac conditions that put pregnant and postpartum women at high-risk for a cardiac event.
- Facilities should use validated/Edinburgh Postnatal Depression Scale screening tools at 1st prenatal visits, labor and delivery hospitalization, and 1st postpartum follow-up visit for depression, anxiety, and intimate partner violence. Screening should always be done privately with the patient.
- Facilities should have a better health information exchange, where electronic health record systems can interface and allow for providers to obtain records and care notes from previous providers both internal and external to their hospital system.
- Facilities should implement Adverse Childhood Experiences and Social Determinants of Health screenings during pediatric visits for the mother.
- Facilities should provide education to staff on Adverse Childhood Experiences screening.
- Facilities should establish care coordination plans and make appropriate referrals when substance use disorder has been identified in the prenatal, labor and delivery, or postpartum periods.
- Facilities should provide education to families on postpartum depression and resources in the community available to them.
- Facilities and systems should increase funding and access for maternal medical specialty consultative options for providers (e.g., mental health and chronic disease).

System

- The Idaho Legislature should remove the sunset date on Title 39, Chapter 96, so that the MMRC can continue.
- A Statewide Perinatal Quality Collaborative (PQC) should be established to promote best practice and multidisciplinary care for pregnant women.
- State funds should be allocated for the Division of Public Health to develop a Statewide PQC.
- Once established, the PQC should disseminate resources and tools to be used by providers/facilities for treating patients with substance use disorder and opioid use disorder.
- Patients with diagnosed mental health conditions should have access to a licensed psychiatrist.
- Idaho Medicaid should expand coverage for pregnant women to 12 months postpartum, regardless of pregnancy outcome.
- Idaho Medicaid should research the feasibility and implementation of electronic consultations, or interprofessional consults, for providers.
- Once established, the PQC should assist in creating an Idaho-specific version of the Perinatal Psychiatry Consultation Line from the University of Washington's Department of Psychiatry and Behavioral Sciences (Partnership Access Line for Moms). This is a free telephone consultation service for health care providers caring for pregnant or postpartum patients.
- Project ECHO Idaho should continue to be utilized as an educational resource for healthcare professionals, and IDHW should pursue using this platform for addressing maternal health outcomes.
- Project ECHO Idaho should conduct a training series for ER doctors about pregnant and postpartum clinical care.
- Subsidized housing programs should prioritize housing for pregnant women/ women with children.
- The State of Idaho should increase funding and support for social services.

- Systems working on substance use disorders should educate providers on working with pregnant and postpartum patients with substance use disorder and reducing stigma.
- Systems working on substance use disorder should educate law enforcement on working with community members with substance use disorder and reducing stigma.
- Systems should educate providers on the use of medications for mental health in pregnant and postpartum patients.
- Public Health should expand general public access to Naloxone and provide education on its use, especially for pregnant and postpartum women with identified substance use disorder.
- Transition/Care Coordination plans should be established upon discharge from labor and delivery for high-risk patients with substance use and mental health conditions.
- Providers, facilities, and insurance companies should proactively reach out to pregnant and postpartum women with substance use disorder and provide appropriate referrals.
- Coroners should send decedents that meet the definition of pregnancy-associated death for an autopsy and/or toxicology if the decedents are less than 50 years of age and do not appear to have sustained trauma.
- Law enforcement should make direct contact with the party of concern when conducting a welfare check.
- Professionals trained in obstetric care should provide education to communities of faith-based healing about resources available to them such as midwives and doulas.
- Healthcare systems and public health systems should make home visiting programs, such as Nurse-Family Partnership and Healthy Start, available statewide and normalize them in communities.
- The State of Idaho should invest in resources and programs that assist women with the transition from pregnancy to the postpartum period, such as postpartum support groups, expanding home visiting, and lactation support.

- Third-party payers should pay for home visiting programs, such as Nurse-Family Partnership and Healthy Start.
- Public Health should promote and provide education on proper seatbelt use, including during pregnancy.

Community

- Once established the PQC should do proactive outreach to behavioral health services for pregnant and postpartum women.
- Laypersons assisting with deliveries in communities of faith-based healing should receive some form of obstetric education/training.

Question 6: What is the anticipated impact of these actions if implemented?

Each recommendation made by the MMRC is assigned a level of prevention: primary, secondary, or tertiary.

- Primary prevention are actions that prevent the contributing factor before it occurs.
- Secondary prevention are actions that reduce the impact of a contributing factor once it has occurred.
- Tertiary prevention are actions that reduce the impact or progression of what has become an ongoing contributing factor.[5]

Next, the MMRC assigns each specific recommendation an expected level of impact if the recommendation is implemented, ranging from small to giant. Expected impact levels are adapted from the Health Impact Pyramid (Figure 12). Recommendations that are "giant" or aimed at the bottom of the pyramid, have the greatest potential for population level impact. Actions that are "small" or are aimed at the top of the pyramid, make an impact at the individual level. MMRCs should have a variety of recommendations that are aimed at all levels of impact.

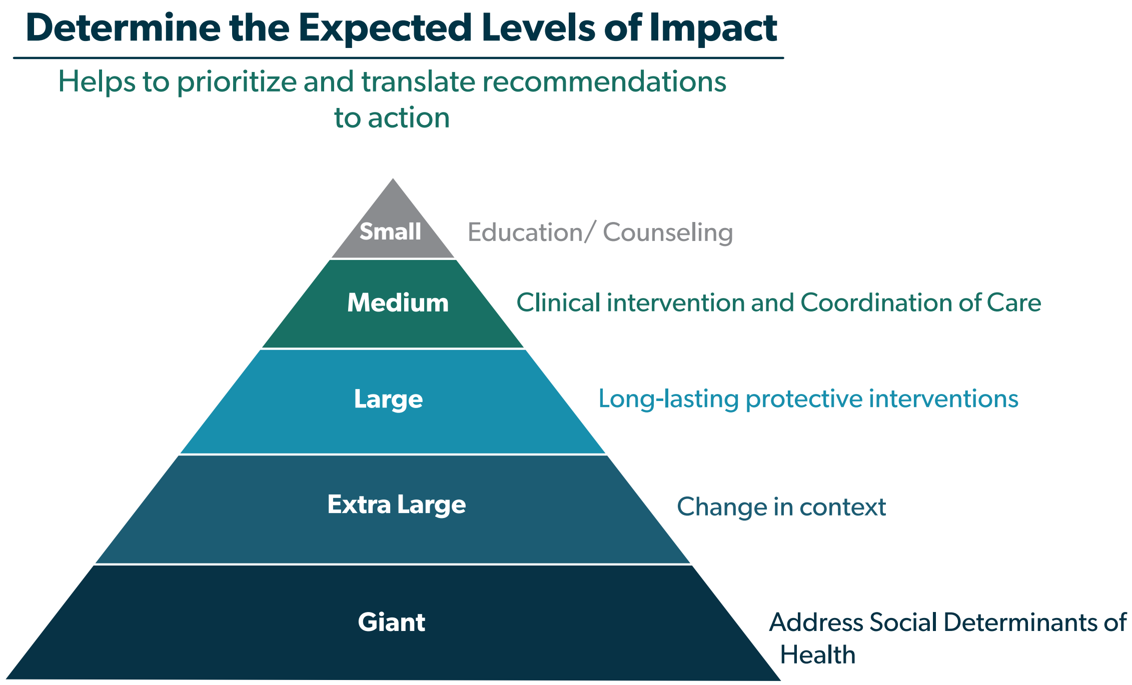


Figure 12 - Expected Level of Impact if Recommendation is Implemented
Building U.S. Capacity to Review and Prevent Pregnancy-associated Deaths (2018). Report from nine maternal mortality review committees. Retrieved from http://reviewtoaction.org/Report_from_Nine_MMRCs

In Figures 13 and 14, the recommendations are sorted by their level of impact and level of prevention. Of the 51 recommendations made in 2020, 13 have a small level of impact and 3 have a giant level of impact.

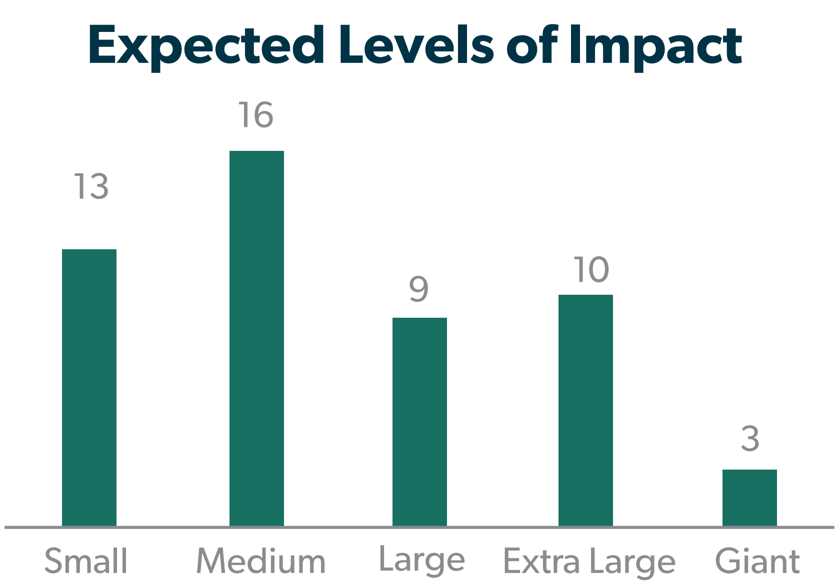


Figure 13 - Expected Impact Level, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

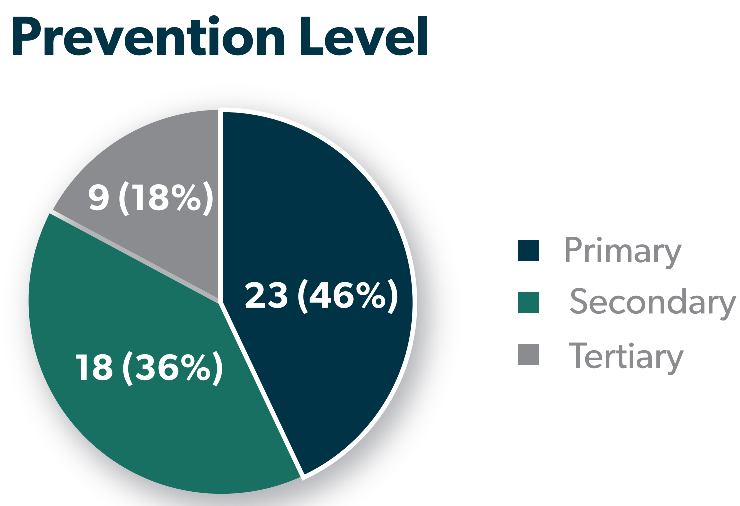


Figure 14 - Prevention Level, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

If we look at all the expected impact levels for each recommendation and the level at which the recommendation was made, we see that all "giant" recommendations and most "large" and "extra large" recommendations are at the system level. Many "small" recommendations were related to education at multiple levels. All the "large" recommendations were made at the facility and system levels.

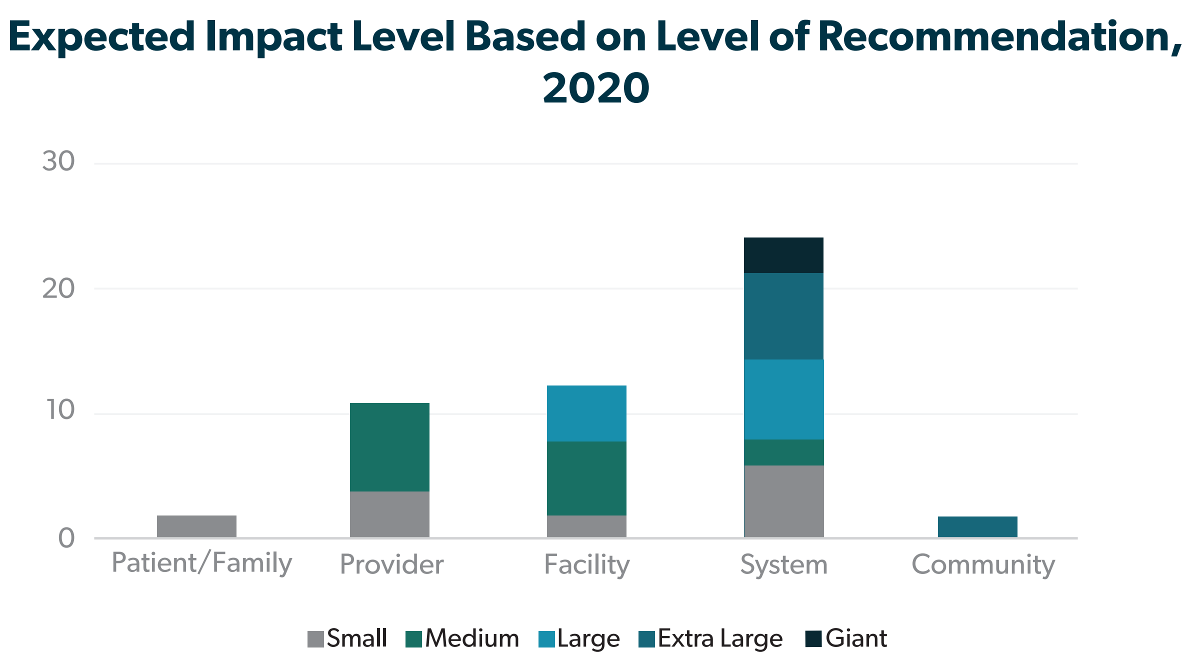


Figure 15 - Expected Impact Level Based on Level of Recommendation, 2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

MMR PROGRAM UPDATES

COVID-19 Impact on Maternal Deaths in Idaho:

In reviewing all pregnancy-associated deaths for 2020, the MMRC found that COVID-19 was not an underlying cause of death in any of the cases. In one case the MMRC felt that an infection, possibly COVID-19, may have been a contributing factor, but was ultimately unable to make a definitive determination based on the information available to them. The MMR Program did request COVID-19 test results from the Bureau of Communicable Disease Prevention and no records of a positive test were found for any of the 2020 pregnancy-associated deaths. The MMRC will assess if COVID-19 was an underlying cause or contributing factor in all pregnancy-associated deaths during future reviews.

Standardized Criteria for Reviewing Pregnancy-Associated Suicides and Accidental Drug-Related Deaths:

For the first time, the MMR Program used standardized criteria to review pregnancy-associated suicides and accidental drug-related deaths. These criteria are based on CDC's pregnancy-related death criteria and were developed and first used by the Utah Perinatal Mortality Review Committee as a standardized evaluation tool to assess suicide and accidental drug-related death. After application of the criteria, the Utah Perinatal Mortality Review Committee determined that pregnancy itself was the inciting event leading to the majority of suicides and accidental drug-related deaths among pregnant and postpartum women.[6]

Studies are ongoing on the nationwide acceptability of these criteria, but they have been available and circulating as part of the CDC's technical assistance to state MMRCs since 2019. Using them allows the MMRC to have a standard approach when reviewing suicide and drug-related deaths to determine pregnancy-relatedness. The full list of criteria can be found in Appendix C.

Pregnancy-Associated Deaths, Health Insurance Coverage:

When reviewing maternal deaths, it can be difficult to determine the type of health insurance coverage the person had during pregnancy, during the postpartum period, or at the time of death. Often, the only source of data is the type of insurance listed on the birth certificate that has been linked to the maternal death. The MMR Program was able to work with Medicaid's Medical Director, who joined the MMRC in 2021, to look at the number of maternal deaths that had Medicaid coverage for 2018-2020. Table 4 shows the number of pregnancy-associated deaths that were Medicaid participants.

Pregnancy-Associated Deaths with Medicaid* 2018-2020		
Year	Number of Deaths	Percentage of Total Deaths
2018	5	50%
2019	5	100%
2020	8	73%

Table 4 - Pregnancy-Associated Deaths with Medicaid*, 2018 - 2020
Data Source: Idaho Department of Health and Welfare, Division of Medicaid

Medicaid participants make up a large portion of pregnancy-associated deaths and the MMR Program will continue to request this data for future reports. This information can help the MMRC make more targeted recommendations and may help stakeholders prioritize data and recommendations to put into action.

Removal of the Sunset Date from MMRC Legislation:

The MMR Program will work with Division of Public Health leadership, with approval from the Idaho Department of the Health and Welfare leadership, to propose legislation during the 2023 Idaho Legislative Session to remove the sunset date in the existing MMRC statute. The removal of the sunset date will allow the MMRC to continue to conduct comprehensive multidisciplinary reviews of maternal deaths in Idaho, identify the drivers of maternal mortality and morbidity, make recommendations to improve the health of women and infants, and reduce the incidence of maternal mortality and morbidity in the state.

* Person was active in Medicaid until date of death.

DATA AND RECOMMENDATIONS IN ACTION

In 2020, the Idaho Maternal and Child Health (MCH) Section was invited to work with Idaho Medicaid, the Division of Behavioral Health, and the Center for Drug Overdose and Suicide Prevention on an application for technical assistance through the National Academy for State Health Policy (NASHP) MCH Policy Innovation Program. The Idaho team applied to focus efforts primarily on Medicaid-eligible pregnant women who are struggling with substance use disorders. The Idaho team's application was accepted and over the past year they've been receiving technical assistance from NASHP and working toward the following goals: increase the percentage of pregnant Medicaid participants with moderate to severe substance use disorder who engage in behavioral treatment, increase the percentage of pregnant Medicaid participants with moderate to severe opioid use disorder who continue or start medications for opioid use disorder, and decrease the percentage of maternal deaths related to substance use disorder.

The MMR Program will focus on creating Idaho's first Perinatal Quality Collaborative (PQC) to provide a venue to implement and measure the effect of recommendations made by the MMRC [2019 Recommendation].
In 2021, Idaho's MCH Health Program Manager met with other states' PQC leaders to discuss their structure, funding sources, project selection and adoption processes, and membership. The MCH Section, which houses the MMR Program, determined that partnering with an external entity would provide more sustainability for establishing Idaho's PQC.

The MCH Section began the subgrant solicitation process for the Idaho PQC in February 2022 and awarded the subgrant to Comagine Health in April 2022. Comagine Health will be responsible for creating a stakeholder engagement plan and making a recommendation to the MCH Section on the best-suited structure for Idaho's PQC. They will also develop a data management plan to determine the best way to collect and analyze hospital data to improve maternal health outcomes.

Establishment of a PQC will provide Idaho with an avenue for reviewing and acting upon MMRC recommendations. It will also put Idaho in a good position to enroll with the Alliance for Innovation on Maternal Health and begin implementation of their Patient Safety Bundles.

Providers should utilize the Maternal, Infant, and Early Childhood Home Visiting Program for pregnant and postpartum women when applicable [2019 Recommendation].

For Fiscal Year 2023, the Idaho Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program will work with partners to expand home visiting services from 12 counties to 27 counties, which were identified by the 2020 MIECHV Statewide Needs Assessment. This expansion offers an opportunity to reach even more families and expand access to services.

NEXT STEPS

As shown in the Review Process Cycle (Figure 1) the release of the annual report signals the end of one cycle and the beginning of another. The MMR Program is committed to reflecting on processes and identifying opportunities for improvement. The MMRC continues to meet annually and review the prior year's deaths. Findings and recommendations will continue to be published in an annual report and will be provided to the legislature and made available to the public.

If you are interested in being on the list-serv to receive the annual MMRC report, please email IdahoMCH@dhw.idaho.gov.

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1. legislature.idaho.gov/wp-content/uploads/statutesrules/idstat/Title39/T39CH96.pdf
2. reviewtoaction.org/rsc-ra/term/80
3. www.cdc.gov/reproductivehealth/maternal-mortality/disparities-pregnancy-related-deaths/infographic.html
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6. Smid M.C., Maeda J., Stone N.M., Sylvester H., Baksh L., Debbink M.P., Varner M.W., Metz T.D. 2020, Oct. Standardized Criteria for Review of Perinatal Suicides and Accidental Drug-Related Deaths. Obstet Gynecol.,136(4):645-653.

APPENDIX A: COMBINED FINDINGS FROM 2018-2020 MMRC CASE REVIEWS

Below are the findings from the 26 pregnancy-associated deaths that occurred between 2018 and 2020. With continued reviews, the MMR Program will have the ability to analyze trends regarding maternal deaths in Idaho.

Pregnancy-Associated Deaths Demographics, 2018-2020				
Demographics	Number of Deaths			Percentage of Deaths
	2018	2019	**2020**	2018-2020
Age (5-year age groups)				
15 to 19 years	0	0	**0**	-
20 to 24 years	4	1	**2**	27%
25 to 29 years	0	2	**5**	27%
30 to 34 years	2	2	**3**	27%
35 to 39 years	4	0	**1**	19%
40 to 44 years	0	0	**0**	-
45 to 49 years	0	0	**0**	-
Race/Ethnicity				
Non-Hispanic, White	4	4	**10**	69%
Non-Hispanic, Black	0	0	**0**	-
Hispanic	2	0	**1**	11%
American Indian/Alaska Native	1	1	**0**	8%
Pacific Islander	1	0	**0**	4%
Bi-racial	2	0	**0**	8%
Marital Status				
Married	5	0	**5**	39%
Married, but Separated	0	0	**0**	-
Widowed	0	0	**0**	-
Divorced	0	1	**2**	11%
Never Married	5	4	**4**	50%
Unknown/Not Specified	0	0	**0**	-

Education				
8th Grade or Less	1	1	**1**	11%
9th-12th Grade; No Diploma	1	1	**2**	15%
High School Grad or GED Completed	5	1	**3**	35%
Some College; No Degree	0	2	**3**	19%
Associate's Degree	2	0	**1**	11%
Bachelor's Degree	1	0	**1**	8%
Master's Degree	0	0	**0**	-
Doctorate or Professional Degree	0	0	**0**	-
Not specified	0	0	**0**	-

Table 5 - Pregnancy-Associated Deaths Demographics, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

District of Residence, 2018-2020				
	Number of Deaths by Year			Percentage of Deaths
District of Residence	2018	2019	**2020**	**2018-2020**
Health District 1	2	0	**1**	**12%**
Health District 2	0	2	**0**	**8%**
Health District 3	3	0	**4**	**27%**
Health District 4	0	0	**0**	**-**
Health District 5	1	2	**3**	**23%**
Health District 6	0	1	**3**	**15%**
Health District 7	4	0	**0**	**15%**

Table 6 - Pregnancy-Associated Deaths District of Residence, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

The Idaho MMRC reviewed a total of 26 pregnancy-associated deaths occurring in 2018, 2019, and 2020. Of these, sixteen (62%) were related to or aggravated by pregnancy or its management (pregnancy-related deaths) and four (15%) were due to a cause unrelated to pregnancy (pregnancy-associated, but NOT -related deaths). The other six (23%) were determined to be pregnancy-associated, but the MMRC was unable to determine pregnancy-relatedness.

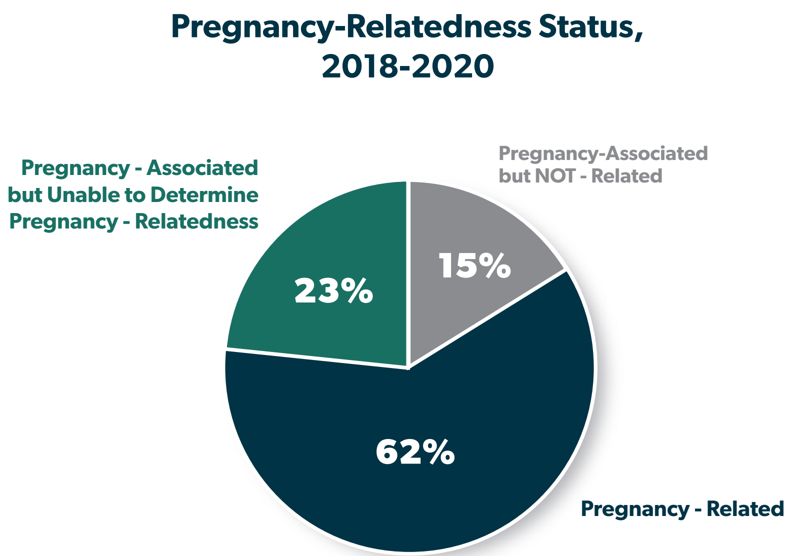

Figure 16 - Pregnancy-Relatedness Status, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

When combining all 2018, 2019, and 2020 deaths, 46% occurred while the woman was pregnant and 31% happened in the first 42 days after pregnancy.

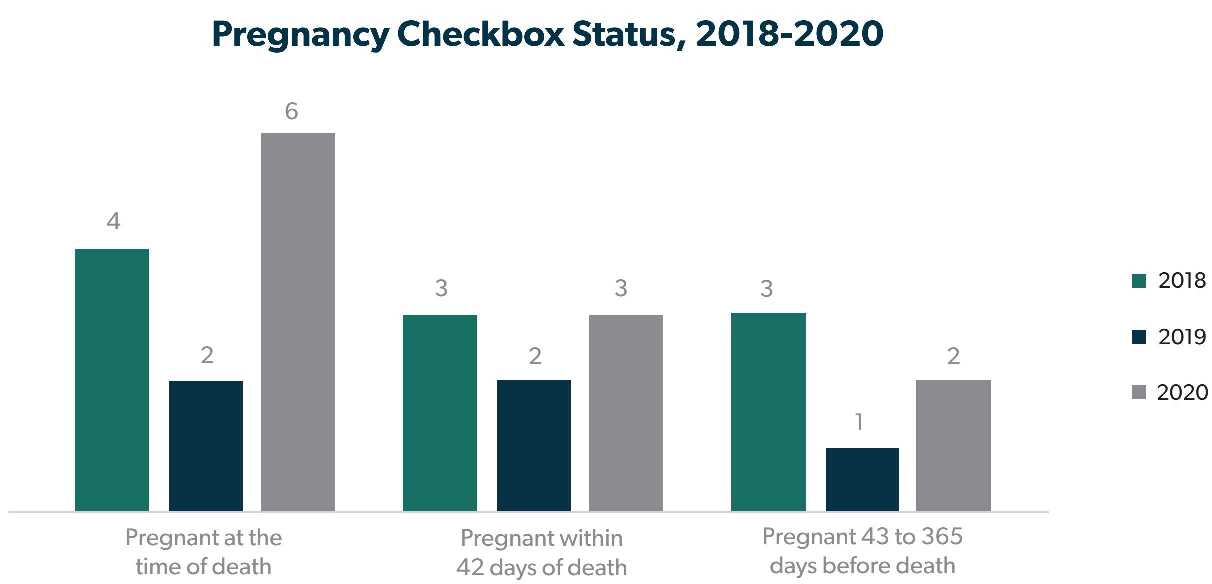

Figure 17 - Pregnancy Checkbox Status, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

Between 2018-2020 deaths, 50% of pregnancy-related deaths in Idaho happened while the woman was pregnant and another 31% happened in the first 42 days after a pregnancy as seen in Figure 17.

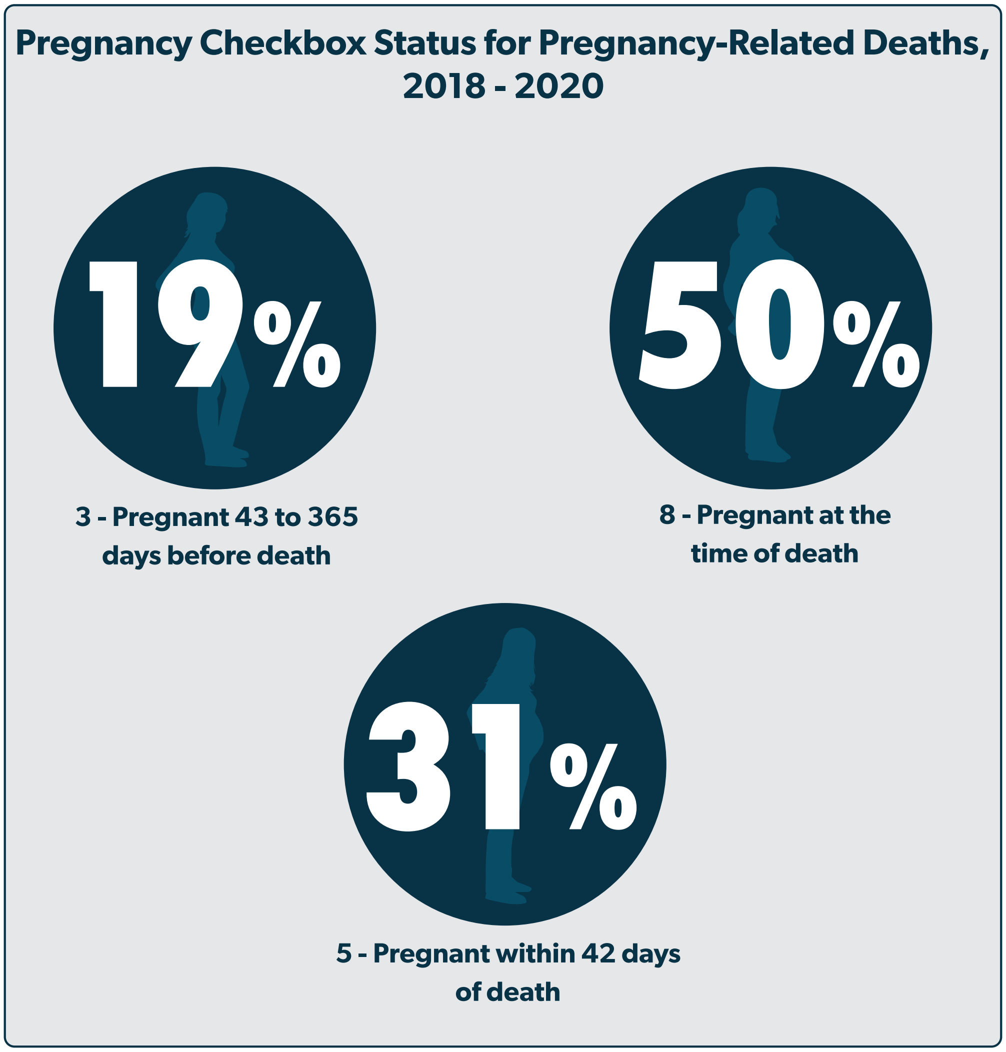

Figure 18 - Pregnancy Checkbox Status for Pregnancy-Related Deaths, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

In looking at the five-year age intervals of when the maternal deaths occurred between 2018-2020, 81% of the deaths were evenly distributed between 20-24 years of age, 25-29 years of age, and 30-34 years of age (27% each). The remaining 19% occurring between 35-39 years of age.

Pregnancy-Associated Deaths by Age, 2018-2020

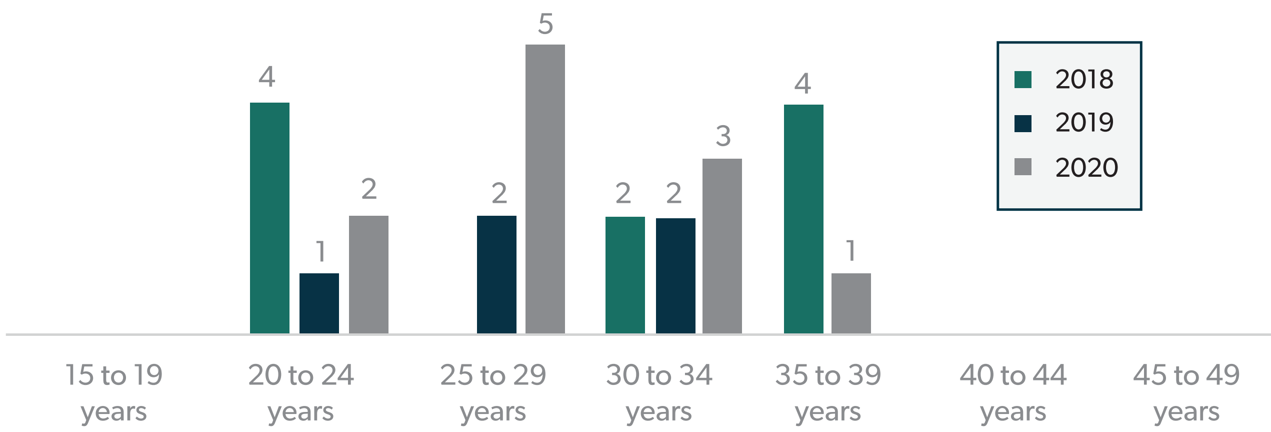

Figure 19 - Pregnancy-Associated Deaths by Age, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

In looking at the pregnancy-related deaths from 2018-2020, the MMRC has identified the underlying causes of death listed in Figure 20.

MMRC Determined Underlying Cause of Death for All Pregnancy-Related Deaths, 2018-2020

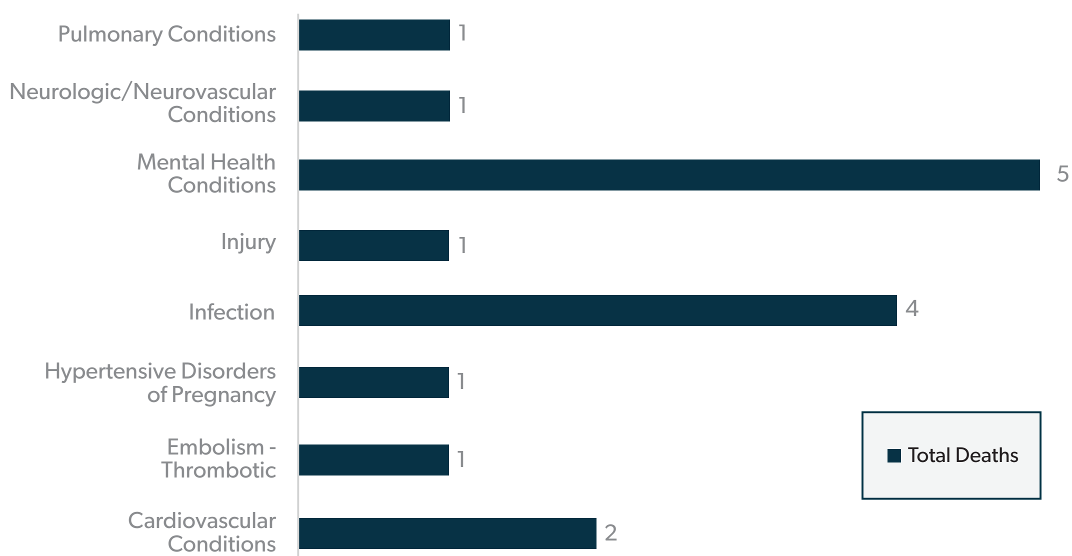

Figure 20 - MMRC Determined Underlying Cause of Death for all Pregnancy-Related Deaths, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

In looking at all pregnancy-associated deaths between 2018-2020, 19% had mental health conditions as a contributing factor, 23% probably had mental health conditions as a contributing factor, 8% had obesity as a contributing factor, and 35% had substance use disorder as a contributing factor. It is important to note that the MMRC uses "probably" when there is not specific proof of each condition, which is especially difficult when determining if mental health conditions contributed to the death.

Mental Health Conditions* as a Contributing Factor in Pregnancy-Associated Deaths, 2018-2020

Figure 21 - Mental Health Conditions* as a Contributing Factor in Pregnancy-Associated Deaths, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

Obesity as a Contributing Factor in Pregnancy-Associated Deaths, 2018-2020

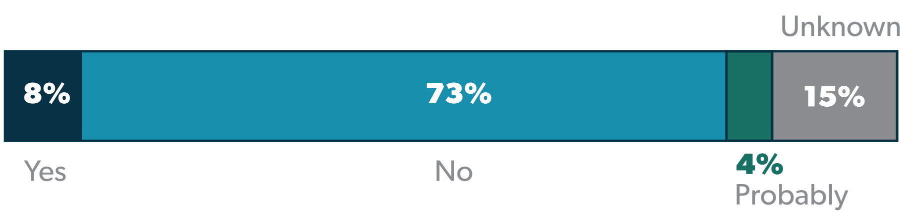

Figure 22 - Obesity as a Contributing Factor in Pregnancy-Associated Deaths, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

Substance Use Disorder as a Contributing Factor in Pregnancy-Associated Deaths 2018-2020

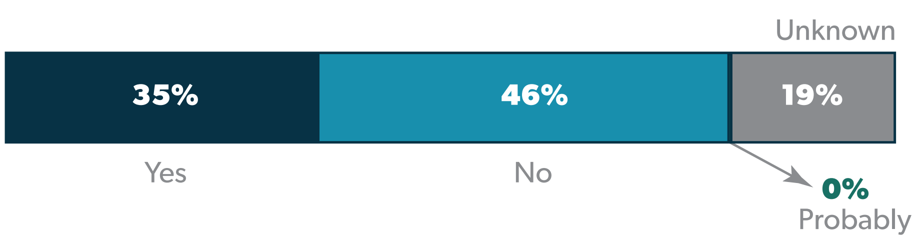

Figure 23 - Substance Use Disorder as a Contributing Factor in Pregnancy-Associated Deaths, 2018-2020
Data Source: Idaho Department of Health and Welfare, Division of Public Health, Bureau of Clinical and Preventive Services, Maternal Mortality Review Program

* Other than Substance Use Disorder.

APPENDIX B: MMRIA CONTRIBUTING FACTOR DESCRIPTIONS

CONTRIBUTING FACTOR DESCRIPTIONS

LACK OF **ACCESS/FINANCIAL** RESOURCES
System issues, e.g. lack or loss of healthcare insurance or other financial duress, as opposed to woman's noncompliance, impacted woman's ability to care for herself (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 woman's 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 woman at risk for a poor clinical outcome recognized, and the woman was not transferred/transported to a provider able to give a higher level of care.

CHILDHOOD SEXUAL ABUSE/TRAUMA
The patient experienced 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; physical or emotional abuse or violence other than that related to sexual abuse during childhood.

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 current 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 woman's complete records or did not communicate woman's status sufficiently. Lack of continuity can be between prenatal, labor and delivery, and postpartum providers.

CULTURAL/RELIGIOUS, OR LANGUAGE FACTORS Demonstration 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 carried a diagnosis of a psychiatric disorder. This includes postpartum depression.

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 woman'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.

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)

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

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 a woman's health status (e.g. acute methamphetamine intoxication exacerbated pregnancy-induced hypertension, or woman was 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).

UNSTABLE HOUSING
Woman 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, or stranger.

OTHER
Contributing factor not otherwise mentioned. Please provide description.

APPENDIX C: STANDARDIZED CRITERIA FOR REVIEWING PREGNANCY-ASSOCIATED SUICIDES AND DRUG-RELATED DEATHS

Pregnancy complication

a. Increased pain directly attributable to pregnancy or postpartum events (e.g., back pain, pelvic pain, UTI/kidney stones, cesarean incision, or perineal tear pain) leading to self-harm or drug use of prescribed or illicit drug use that is implicated in subsequent suicide or accidental death.

b. Traumatic event in pregnancy or postpartum (stillbirth, preterm delivery, diagnosis of fetal anomaly, traumatic delivery experience, relationship destabilization due to pregnancy, removal of child(ren) from custody) with a temporal relationship between the event leading to self-harm or increased drug use and subsequent death.

c. Pregnancy-related complication (preeclampsia/eclampsia, placental abruption) likely exacerbated by drug use leading to subsequent death.

Chain of events initiated by pregnancy

a. Cessation or attempted taper of substance use treatment/pharmacotherapy (e.g. methadone or buprenorphine) for pregnancy-related concerns (e.g., fetal risk or fear of child protective service involvement) leading to maternal destabilization, self-harm and/or drug use and subsequent death.

b. Cessation of medications (e.g. chronic pain medications, psychiatric medications) due to pregnancy-related concerns (e.g., neonatal withdrawal, fetal growth, congenital anomalies) leading to maternal destabilization, self-harm and/or drug use and subsequent death.

c. Inability to access inpatient or outpatient drug or mental health treatment due to pregnancy (e.g., providers uncomfortable with treating pregnant women, facilities not available that accept pregnant women).

d. Post-partum depression, anxiety, or psychosis resulting in maternal destabilization, self-harm and/or drug use and subsequent death.

e. Recovery/stabilization achieved during pregnancy or postpartum with clear statement in records that pregnancy was motivating factor with subsequent relapse and overdose due to decreased tolerance and/or multiple drug use (prescribed opioids or illicit or misused opioids) and subsequent death.

Aggravation of an unrelated condition by the physicologic effects of pregnancy

a. Worsening of underlying depression, anxiety, or other psychiatric condition in pregnancy or postpartum period with documentation that mental illness led to drug self-harm and/or drug use and subsequent death.

b. Exacerbation, under-treatment or delayed treatment of pre-existing condition (e.g., chronic pain) in pregnancy or postpartum leading to self-harm and/or use of prescribed or illicit drugs use resulting in death.

c. Medical conditions secondary to drug use (stroke or cardiovascular arrest due to stimulant use) in setting of pregnancy or postpartum that may be attributable to pregnancy-related physiology and increased risk of complications leading to death.

IDAHO DEPARTMENT OF
HEALTH & WELFARE
DIVISION OF PUBLIC HEALTH

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