Maternal Mortality in NM: Data and Recommendations from the Maternal Mortality Review Committee

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NMDOH
NEW MEXICO DEPARTMENT OF HEALTH

Disclosures/Conflicts of Interest

- No conflicts of interest
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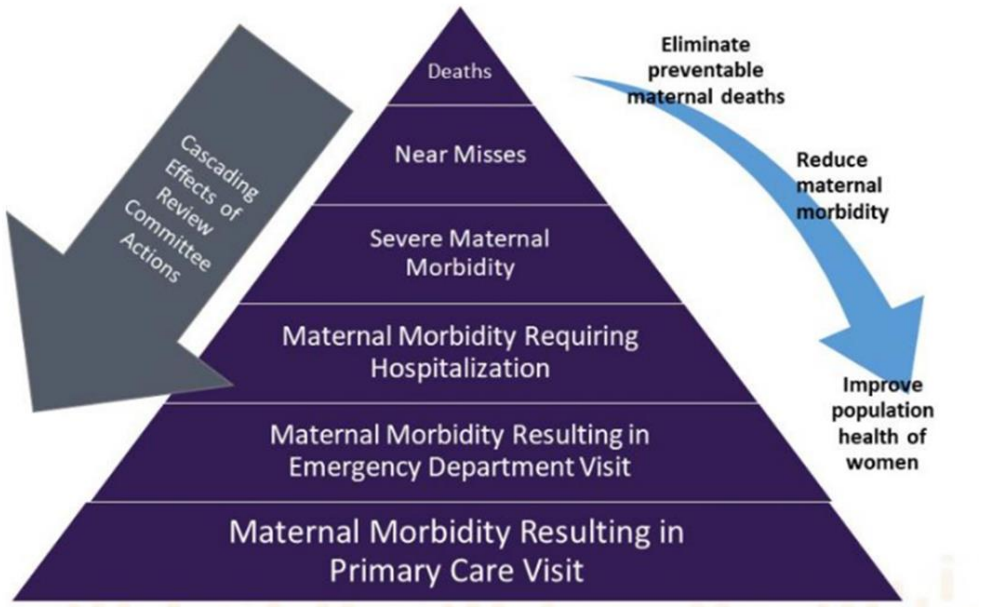
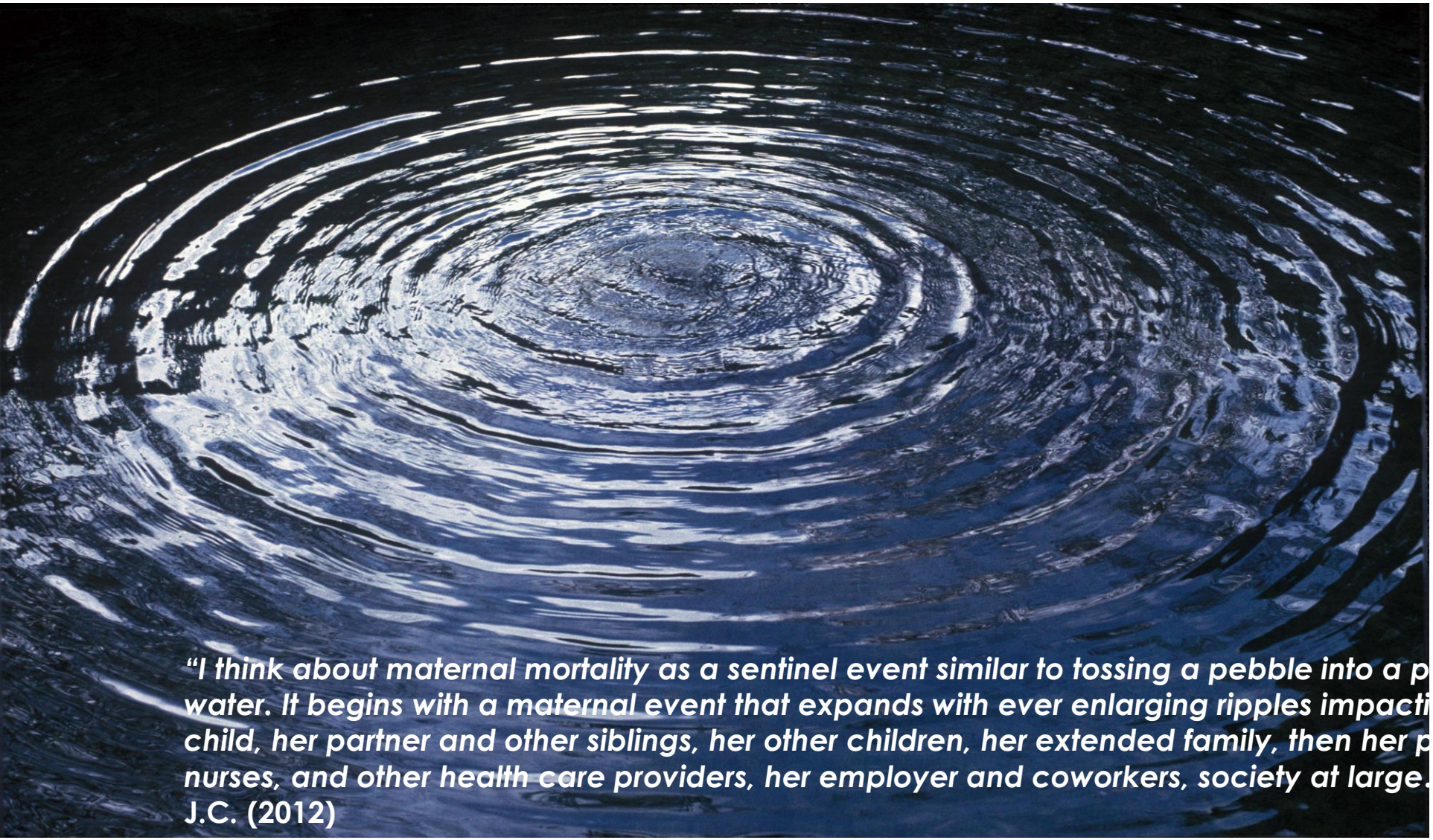
Objectives

At the end of this presentation, the attendee will be able to:

- Understand the importance and structure of maternal mortality reviews
- Discuss what is being done at a national level to decrease maternal mortality
- Learn how New Mexico is reviewing maternal deaths including findings and recommendations that have come out of the review process
- Recognize the importance of maternal mortality reviews as a means of examining disparities to inform prevention strategies and to improve maternal health inequities




“I think about maternal mortality as a sentinel event similar to tossing a pebble into a p
water. It begins with a maternal event that expands with ever enlarging ripples impacti
child, her partner and other siblings, her other children, her extended family, then her p
nurses, and other health care providers, her employer and coworkers, society at large.
J.C. (2012)

Definitions

Pregnancy-Associated Death

A death during or within one year of pregnancy, regardless of the cause. These deaths make up the universe of maternal mortality; within that universe are pregnancy-related deaths and pregnancy-associated, but not related deaths.

Pregnancy-Related Death

A death 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 physiologic effects of pregnancy.

Pregnancy-Associated, but Not Related Death

A death during or within one year of pregnancy, from a cause that is not related to pregnancy.

Pregnancy-Related Mortality Ratio

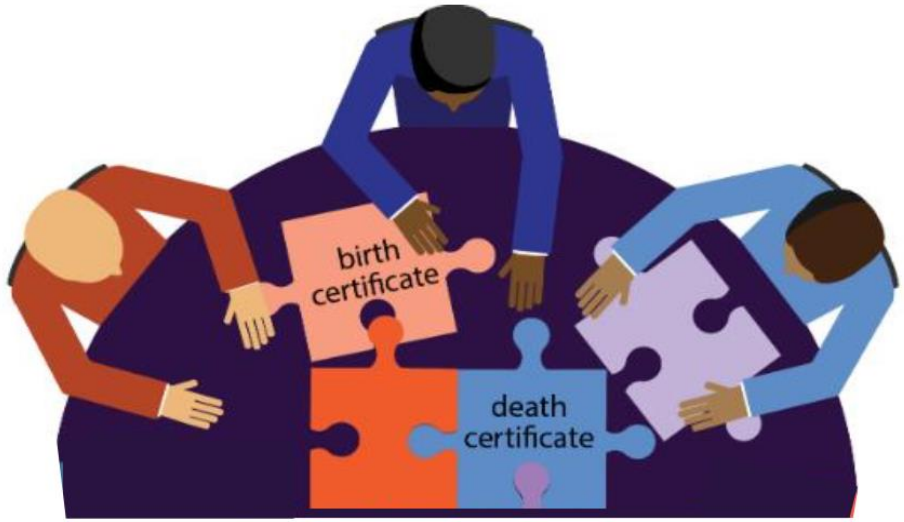
The number of pregnancy-related deaths (using the above definition) per 100,000 live births.

Preventability

A death is considered preventable if there was at least some chance of the death being prevented by one or more reasonable changes to patient, family, provider, facility, system, and/or community factors. This definition is used by MMRCs to determine if a death they review is preventable.

- https://reviewtoaction.org/learn/definitions

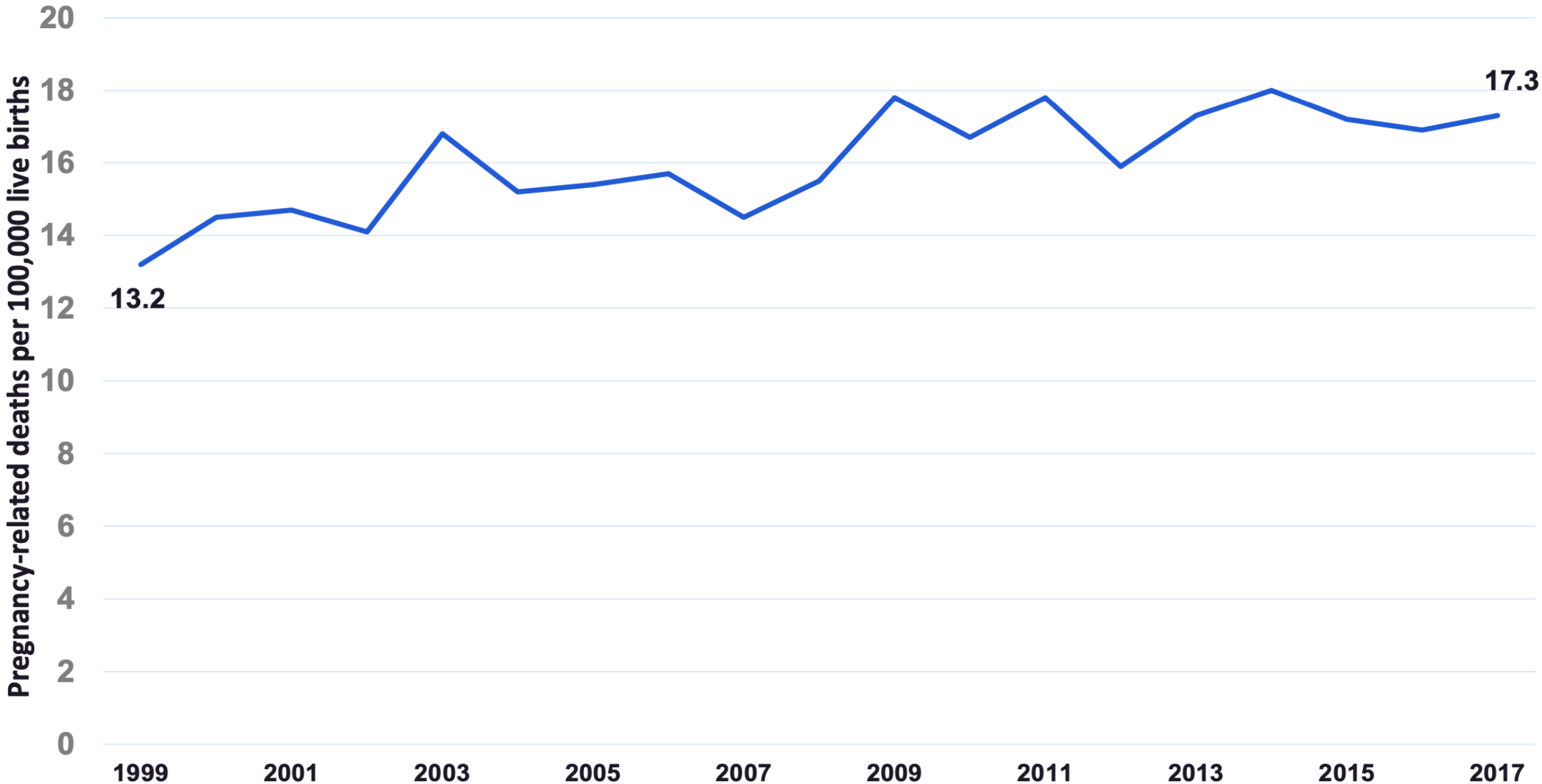
CDC's Pregnancy Mortality Surveillance System provides national maternal mortality data



Data Source	Death certificates and linked birth or fetal death certificates
Time Frame	During pregnancy – 1 year
Source of Classification	Medical epidemiologists
Terms	Pregnancy associated, (Associated and) Pregnancy related, (Associated but) Not pregnancy related
Measure	Pregnancy Related Mortality Ratio - # of Pregnancy Related Deaths per 100,000 live births
Purpose	Analyze clinical factors associated with deaths, publish information that may lead to prevention strategies

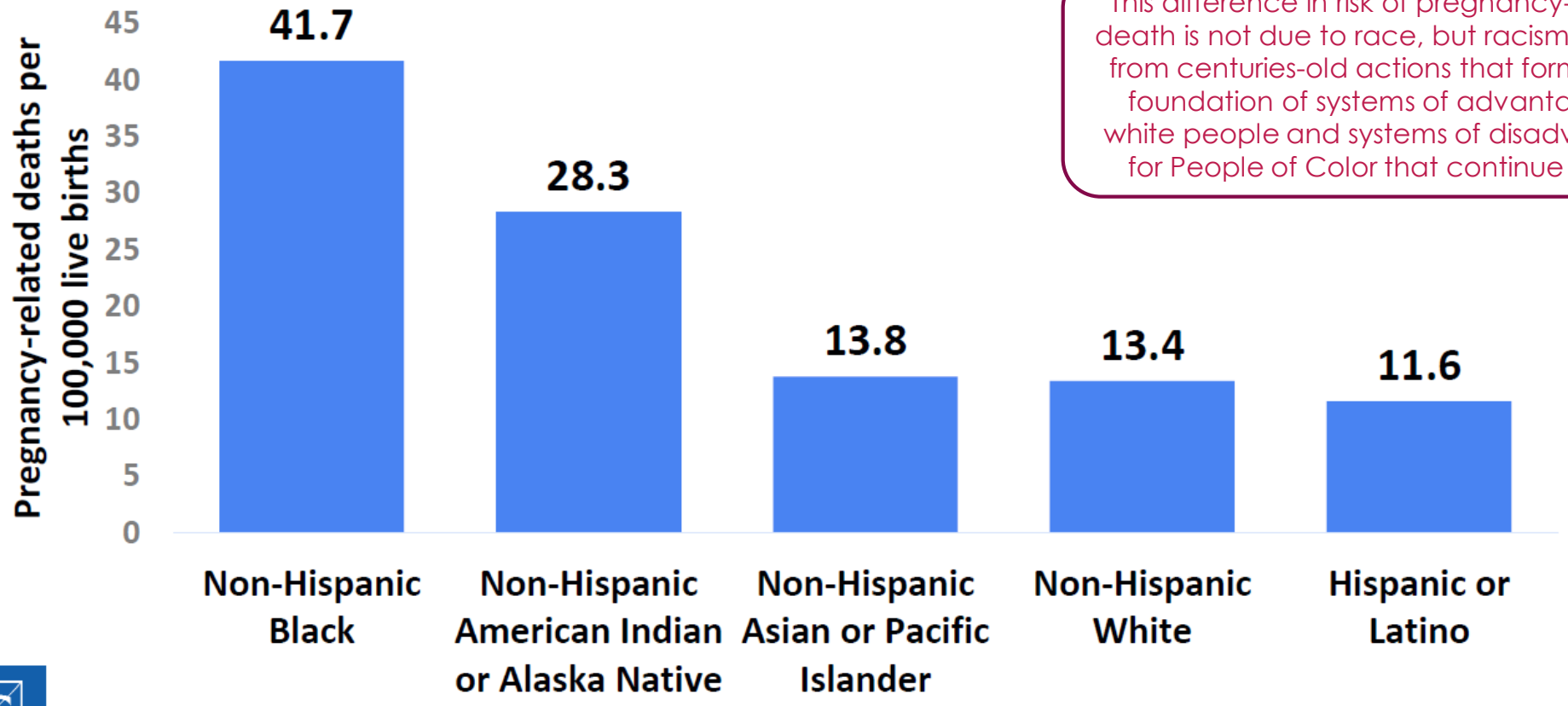
St. Pierre A, Zaharatos J, Goodman D, Callaghan WM. Challenges and opportunities in identifying, reviewing, and preventing maternal deaths. *Obstet Gynecol.* 2018;131(1):138–142.

U.S. pregnancy-related mortality ratio, PMSS* 1999-2017



*CDC Pregnancy Mortality Surveillance System: https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm

U.S. pregnancy-related mortality ratio by race/ethnicity, PMSS 2014-2017



This difference in risk of pregnancy-related death is not due to race, but racism. It stems from centuries-old actions that formed the foundation of systems of advantage for white people and systems of disadvantage for People of Color that continue today

*CDC Pregnancy Mortality Surveillance System: https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm

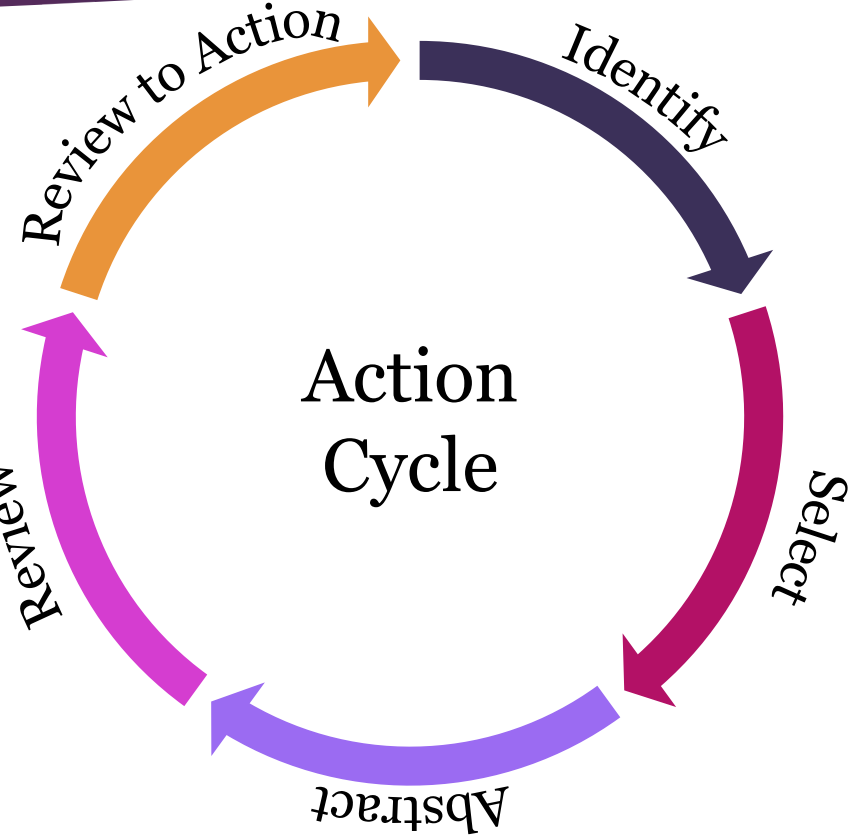
Jurisdiction-level Maternal Mortality Review Committees provide local maternal mortality data

Data Source	Death certificates and linked birth or fetal death certificates, medical records, social service records, autopsy, informant interviews, etc.
Time Frame	During pregnancy – 1 year
Source of Classification	Multidisciplinary committees
Terms	Pregnancy associated, (Associated and) Pregnancy related, (Associated but) Not pregnancy related
Measure	Pregnancy Related Mortality Ratio - # of Pregnancy Related Deaths per 100,000 live births
Purpose	Understand medical and non-medical contributors to deaths, prioritize interventions that effectively reduce maternal deaths

St. Pierre A, Zaharatos J, Goodman D, Callaghan WM. Challenges and opportunities in identifying, reviewing, and preventing maternal deaths. *Obstet Gynecol.* 2018;131(1):138–142.

Maternal Mortality Review Committees (MMRCs): The Gold Standard for State Based Data on Maternal Mortality

- Large scale quality improvement initiatives
- Evaluate the drivers of a maternal death
- Identify interventions that will have the most impact at *patient, provider, facility, system and community level to prevent future deaths*



Maternal Mortality Review…

Is

An Ongoing anonymous and confidential process of data collection, analysis, interpretation, and action

A Systematic process guided by policies, statutes, rules, etc.

Intended to move from data collection to prevention activities

Is not

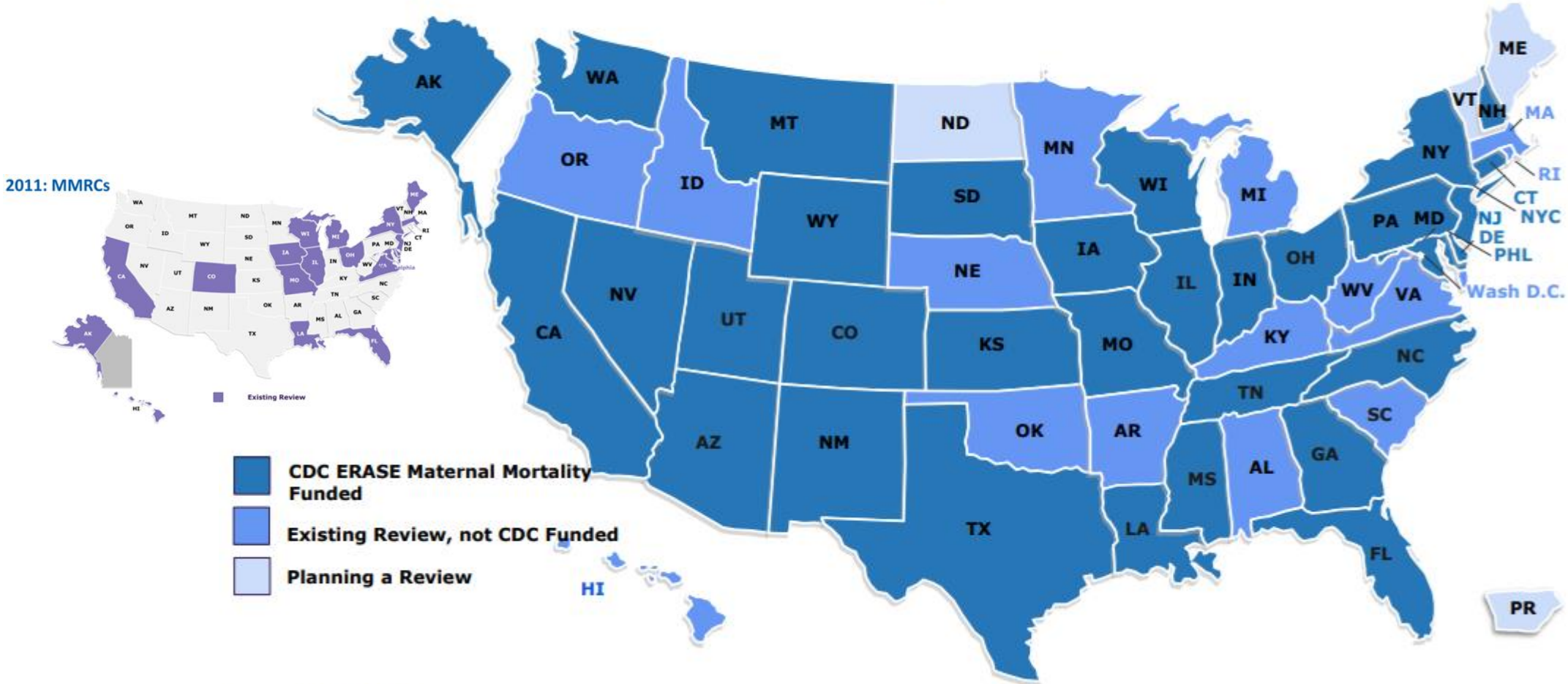
A mechanism for assigning blame or responsibility for any death

A research study

Peer review / Institutional review

A substitute for existing mortality and morbidity inquiries

Existing Maternal Mortality Review Committees (MMRCs)



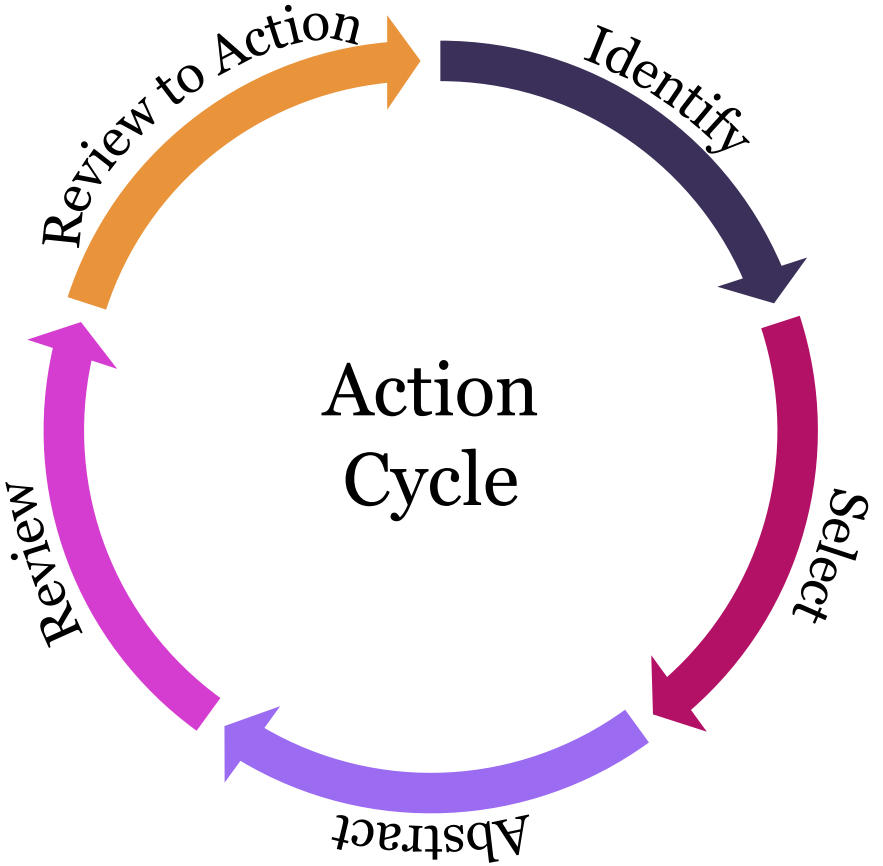
Updated 07/27/2021

Committee Membership

Organizations	Core Disciplines	Specialty Disciplines
Academic Institutions	Anesthesiology	Addiction Counseling
Behavioral Health Agencies	Community Advocate	Cardiology
Blood Banks	Community Birth Workers	Clergy
Community-Based Doula Program	Family Medicine	Community Leadership
Federally Qualified Health Centers	Forensic Pathology	Critical Care Medicine
FIMR/CDR Programs	Maternal Fetal Medicine/ Perinatology	Emergency Response
Healthy Start Agencies	Nurse Midwifery	Epidemiology
Homeless Services	Obstetrics and Gynecology	Genetics
Hospitals/ Hospital Associations	Patient Safety	Home Nursing
Private and Public Insurers	Perinatal Nursing	Law Enforcement
Prof. Assoc. State Chapters	Psychiatry	Mental Health Provider
Rural Health Associations	Public Health	Nutrition
State Medical Society	Social Work	Pharmacy
State Medicaid Agency		Public Health Nursing
State Title V Program		Quality/Risk Management
State Title X Programs		
Tribal Organizations		
Violence Prevention Agencies		

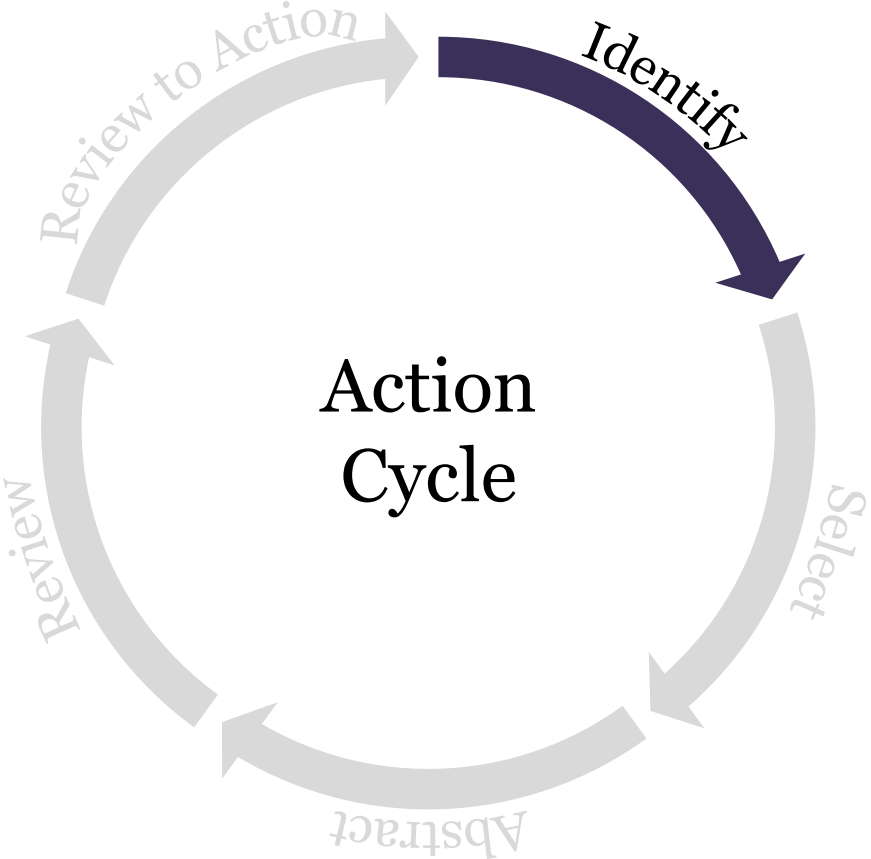
Sourced from: Review to Action (https://reviewtoaction.org/)

Review Process



Identification of Deaths

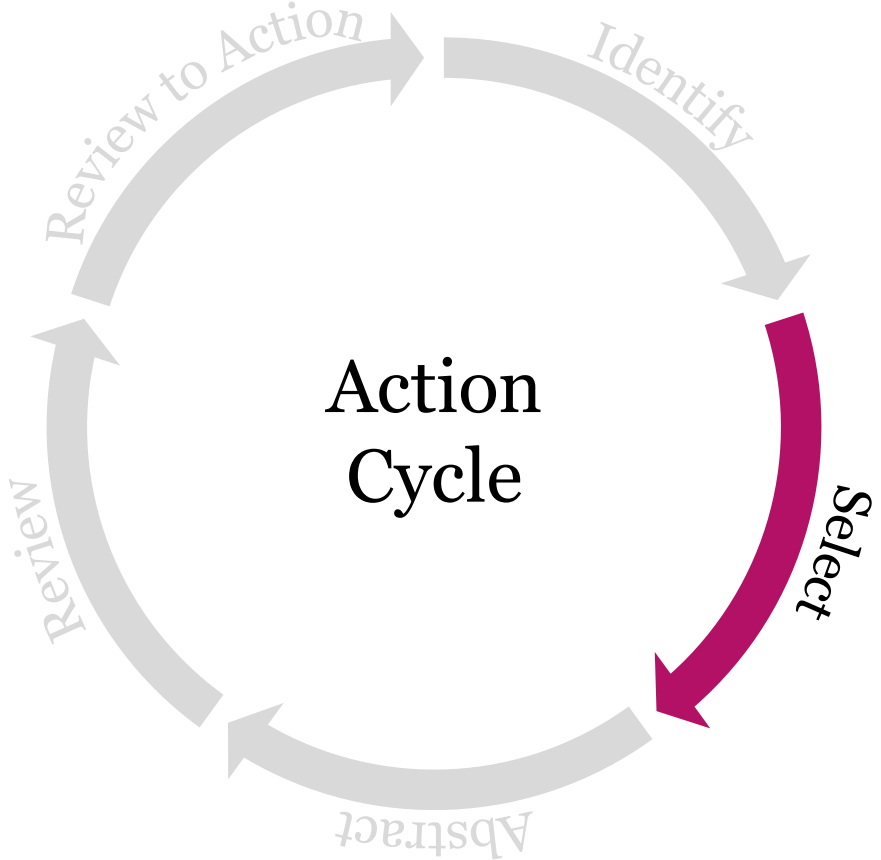
- The first task for MMRCs is to comprehensively identify pregnancy-associated deaths.
- Typically, pregnancy-associated deaths are identified by a state's Office of Vital Records (the official name of this office varies by state).
- Vital records (birth and death certificates) are the primary sources for identifying pregnancy-associated deaths.
- New Mexico identifies deaths by:
  - Linked death certificates to fetal birth/death certificates
  - ICD-10 O-codes (ie hemorrhage, eclampsia, etc)
  - Pregnancy check-box on death certificate



Sourced from: Review to Action (https://reviewtoaction.org/)

Selection of Deaths for Review

- Jurisdictions determine their scope based on available resources.
- Some jurisdictions may limit to cases most likely to be causally related to pregnancy (i.e. may exclude motor vehicle deaths from reviews).
- New Mexico reviews all pregnancy-associated deaths.

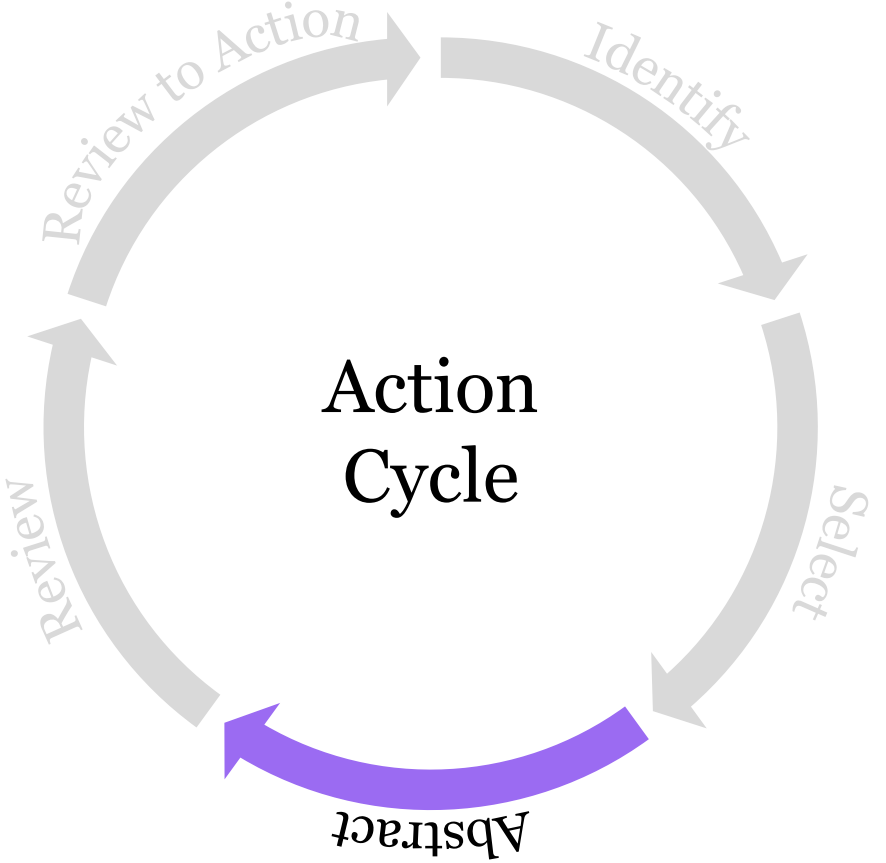


Sourced from: Review to Action (https://reviewtoaction.org/)

Abstraction

Recommended sources for information for abstraction:

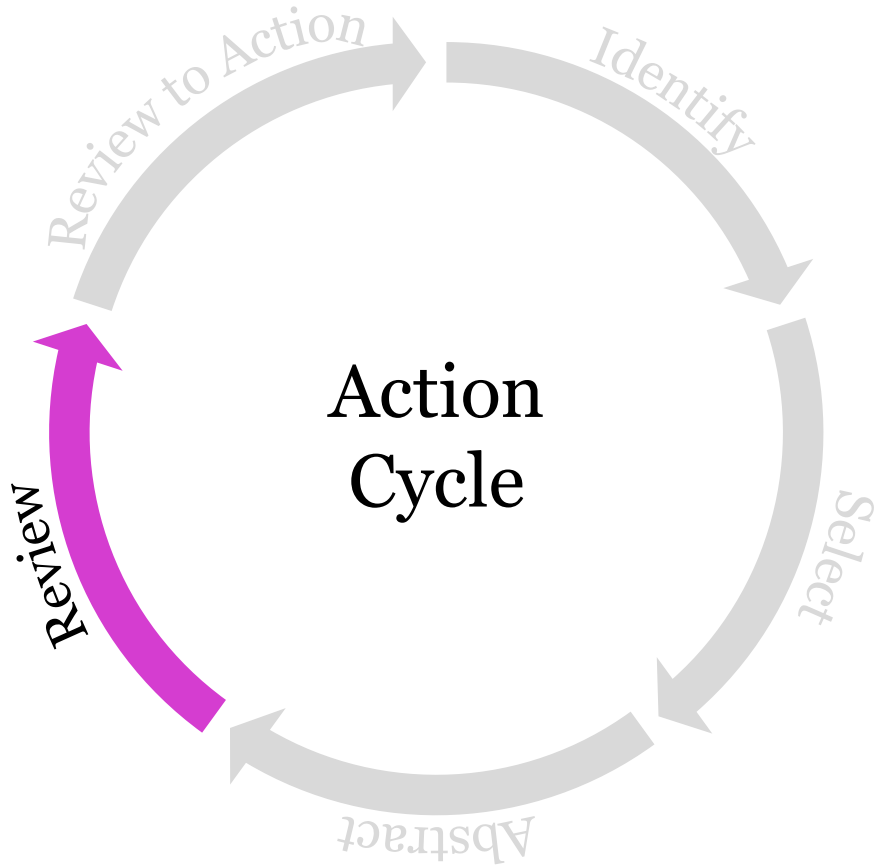
- Vital statistics (death certificates, birth certificates, fetal death records)
- Prenatal records
- Hospital records (outpatient and inpatient stays)
- Outpatient clinic records: these records may be from preconception/family planning clinics or primary care centers
- Autopsy reports and case findings from hospitals, coroners, or other medical examiners
- Police/investigative reports
- Medical transport records
- Personal interviews of providers, family, or friends
- PMP reports



Sourced from: Review to Action (https://reviewtoaction.org/)

Guiding Questions for Review Committees

- Was the death pregnancy-related?
- What was the underlying cause of death?
- Was the death preventable?
- What are the contributing factors to the death?
- What specific and feasible actions might have changed the course of events?



Sourced from: Review to Action (https://reviewtoaction.org/)

MMRCs use MMRIA

MMRIA is a data management system designed to house data necessary for facilitating comprehensive maternal mortality review.

MMRIA's **13 Abstraction Forms + 1 Committee Decisions Form** help MMRC members understand the story of a person's life, and the events leading to their death.

MMRIA MATERNAL MORTALITY REVIEW INFORMATION APP
ERASE MM
REVIEW to ACTION

PURPOSE of the MMRIA system

Primary purpose is to serve as a **repository** of medical and non-clinical information needed **for** Maternal Mortality Review Committee **case review**.

Secondary purpose is to **standardize** maternal mortality data collection, so that it can be used for surveillance, monitoring, and research.

MMRIA serves as a *one-stop shop* for Abstracted and Committee decision data.

MMRIA MATERNAL MORTALITY REVIEW INFORMATION APP
ERASE MM
REVIEW to ACTION

Case Study

- Let's take a moment to read through this case study.
- We will then use it as an example to guide us through the process of the MMRC review process.

The following case narrative has been created to highlight gaps in health care and social services delivery that, if remedied, could improve maternal health in the State of New Mexico. This case narrative does NOT describe any specific cases but has been created to illustrate themes that emerged from our review 2015-2018 maternal deaths.

"Beatriz" was a 19-year-old Hispanic person, pregnant for a third time, with a history of one miscarriage and one abortion (no living children). Beatriz reported a history of sexual violence and anxiety. She was screened for depression and anxiety, intimate partner violence, and substance use. All screens were negative, except for anxiety. Beatriz stated that she had a counselor whom she saw regularly. No efforts were made to connect with the counselor or note who was providing care. (Upon review of medical records, it was found that Beatriz had only one visit with the counselor.)

Beatriz was offered home visiting services, but the referral was made too late for her to qualify. She attended four of nine scheduled prenatal visits, reporting problems with transportation. When Beatriz arrived at the hospital with complaints of contractions, she appeared "out of it" per nursing notes. Beatriz was asked to consent to a urine drug screen and declined. She was admitted for early labor and proceeded to have a vaginal birth. Beatriz's newborn was tested for substances and found to have methamphetamines and opioids in his system. Stating concerns about drug use, unstable housing, and lack of support systems, CPS removed the baby from Beatriz's custody. Beatriz was discharged home from the hospital with plans for a two week postpartum follow-up.

Beatriz came to the emergency room five days later, belligerent and complaining of pain. A urine test showed methamphetamines and opioids present. Her pain issues were ignored as she was deemed to be "pain medication seeking," and she was discharged home. There is no note in the emergency room record indicating that Beatriz had been pregnant recently.

Beatriz attended her two-week postpartum visit, and sobbed, stating she was in terrible pain, that her heart was breaking, and that she wanted her baby back. Screening for depression was very high and she was instructed to go to the emergency psychiatric hospital for immediate evaluation. She went to the hospital but left without being seen. A week later, Beatriz was found dead in the bathtub at her boyfriend's house. She had drowned. Toxicology screen and autopsy showed multiple substances including toxic levels of Fentanyl in her blood. The cause of death was noted as an accidental overdose.

Page 1: Standardized MMRIA Committee Decisions Form

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v19 1

REVIEW DATE

Month Day Year

RECORD ID #

PREGNANCY-RELATEDNESS: SELECT ONE

- ☐ **PREGNANCY-RELATED**
  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
- ☐ **PREGNANCY-ASSOCIATED, BUT NOT -RELATED**
  The death of a woman 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**
- ☐ **NOT PREGNANCY-RELATED OR -ASSOCIATED**
  (i.e. false positive, woman was not pregnant within one year of her death)

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

- ☐ **COMPLETE**
  All records necessary for adequate review of the case were available
- ☐ **MOSTLY COMPLETE**
  Minor gaps (i.e. information that would have been beneficial but was not essential to the review of the case)
- ☐ **SOMEWHAT COMPLETE**
  Major gaps (i.e. information that would have been crucial 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 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	

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**

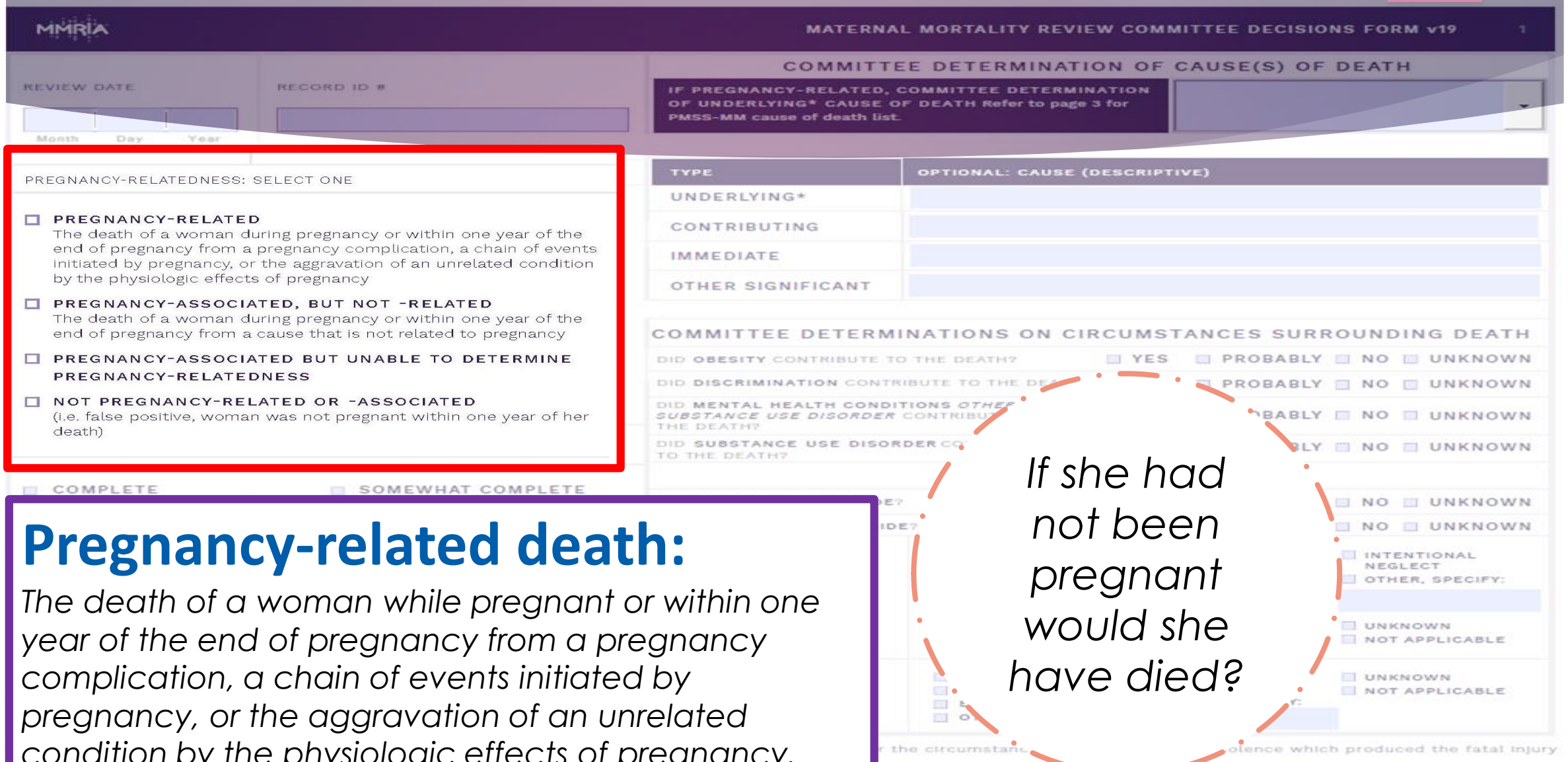
- ☐ FIREARM
- ☐ SHARP INSTRUMENT
- ☐ BLUNT INSTRUMENT
- ☐ POISONING/ OVERDOSE
- ☐ HANGING/ STRANGULATION/ SUFFOCATION
- ☐ FALL
- ☐ PUNCHING/ KICKING/BEATING
- ☐ EXPLOSIVE
- ☐ DROWNING
- ☐ FIRE OR BURNS
- ☐ MOTOR VEHICLE
- ☐ INTENTIONAL NEGLECT
- ☐ OTHER, SPECIFY:
- ☐ UNKNOWN
- ☐ NOT APPLICABLE

IF HOMICIDE, WHAT WAS THE **RELATIONSHIP OF THE PERPETRATOR TO THE DECEDENT**?

- ☐ NO RELATIONSHIP
- ☐ PARTNER
- ☐ EX-PARTNER
- ☐ OTHER RELATIVE
- ☐ OTHER 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

Review: Pregnancy-Related determination



Pregnancy-related death:

The death of a woman while pregnant 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.

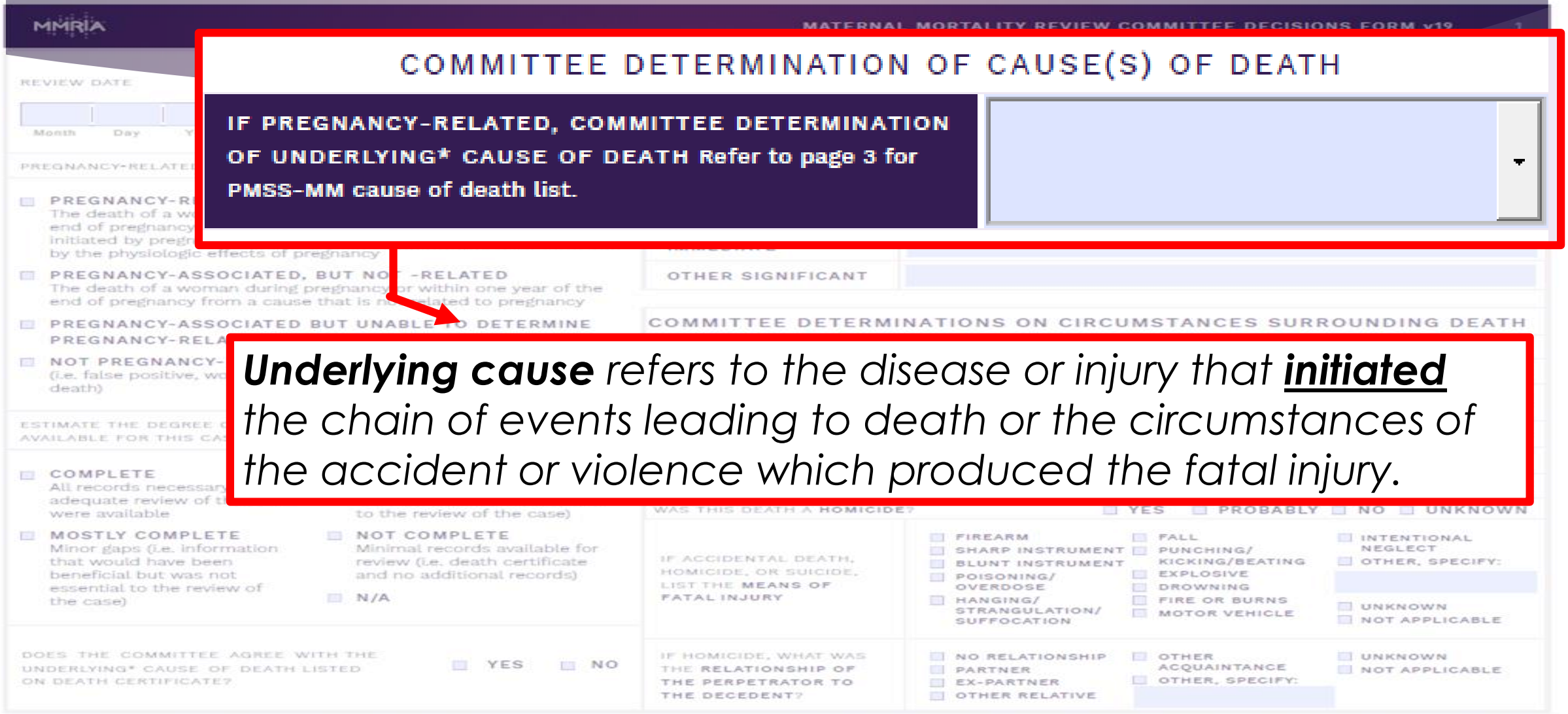
If she had not been pregnant would she have died?

Assessment of Pregnancy-Relatedness for Accidental Drug-Related Deaths and Suicides

Pregnancy Event	Pregnancy-Related Criteria	Case Example
Pregnancy complication	• Increased pain directly attributable to pregnancy or postpartum events leading to drug use or self-harm that is implicated in accidental death or suicide • Traumatic event in pregnancy or postpartum with a temporal relationship between the event leading to increased drug use or self-harm • Pregnancy-related complication likely exacerbated by drug use leading to subsequent death	➢ Back pain, pelvic pain, kidney stones, cesarean incision, perineal tear ➢ Removal of children from custody, relationship destabilization due to pregnancy, stillbirth, preterm delivery, dx of fetal anomaly, traumatic delivery experience ➢ Placental abruption or pre-eclampsia in setting of drug use
Chain of events initiated by pregnancy	• Cessation or attempted taper of medications for pregnancy-related concerns (neonatal, fetal risk, fear of CYFD involvement) leading to maternal destabilization or drug use and subsequent death • Inability to access inpatient or outpatient drug or mental health treatment due to pregnancy • Perinatal depression, anxiety, or psychosis resulting in maternal destabilization or drug use and subsequent death • Recovery or stabilization of substance use disorder achieved during pregnancy or postpartum with clear statement in records that pregnancy was motivating factor with subsequent relapse and death	➢ Substance use pharmacotherapy (methadone, buprenorphine) psychiatric medication, pain medication ➢ Health care providers uncomfortable treating pregnant women, facilities not available that accept pregnant women ➢ Depression diagnosed in pregnancy or postpartum resulting in suicide ➢ Relapse leading to overdose due to decreased tolerance or polysubstance use
Aggravation of underlying condition	• Worsening of underlying depression, anxiety, or other psychiatric condition in pregnancy or postpartum with documentation that mental illness led to self-harm or drug use and subsequent death • Exacerbation, undertreatment, or delayed treatment of pre-existing condition in pregnancy or postpartum leading to use of prescribed or illicit drugs resulting in death or suicide • Medical conditions secondary to drug use during pregnancy or postpartum that may be attributable to pregnancy-related physiology and increased risk of complications leading to death	➢ Pre-existing depression exacerbated in the postpartum period ➢ Undertreatment of chronic pain leading to misuse of medications or use of illicit drugs, resulting in death ➢ Stroke or cardiovascular arrest due to stimulant use

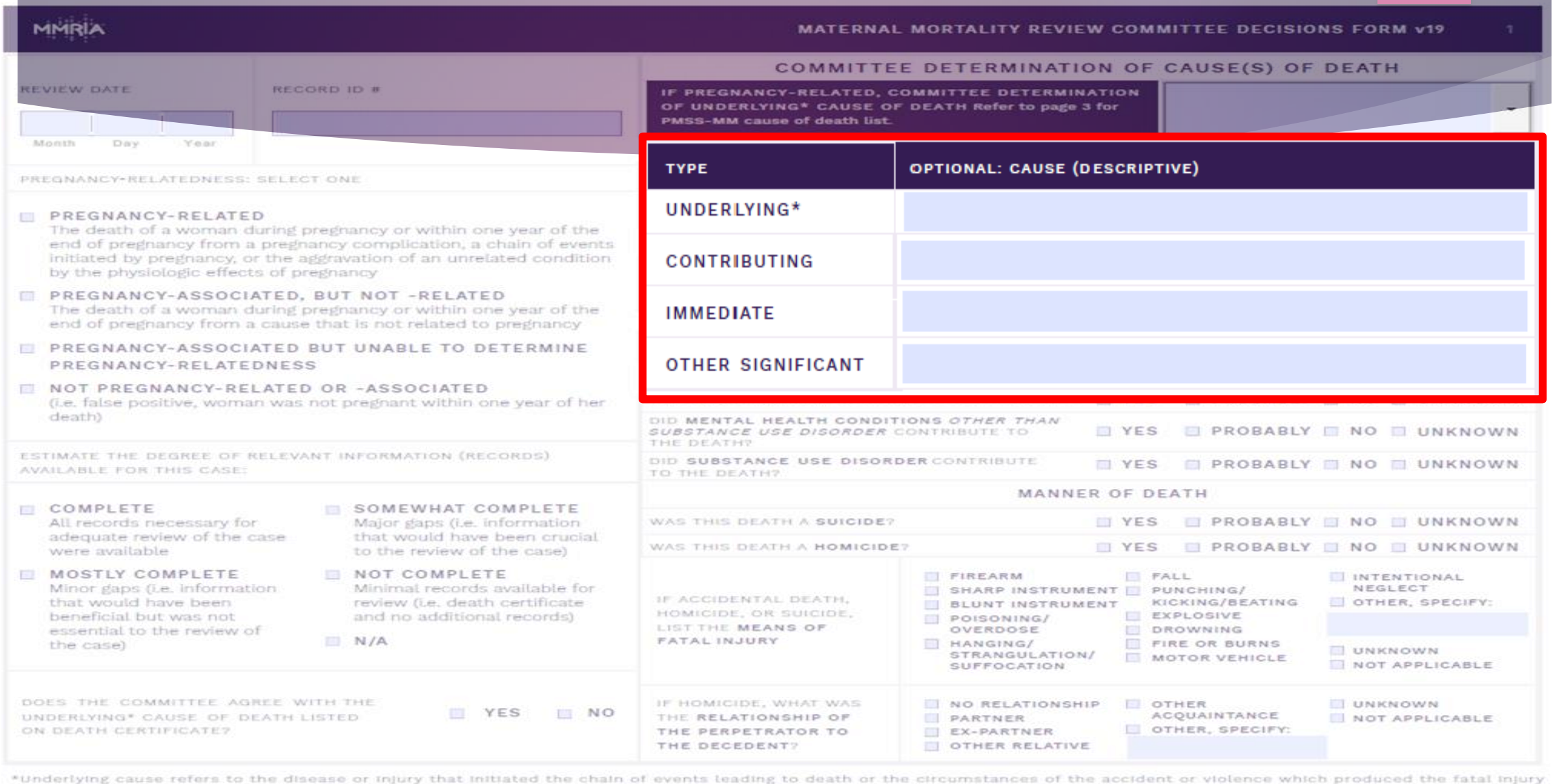
Pregnancy Related

Cause of Death (PMSS-MM codes)



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.*

Review: Determination of Cause of Death (descriptive)



MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v19

REVIEW DATE

Month Day Year

RECORD ID #

PREGNANCY-RELATEDNESS: SELECT ONE

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- PREGNANCY-ASSOCIATED, BUT NOT -RELATED
  The death of a woman 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
- NOT PREGNANCY-RELATED OR -ASSOCIATED
  (i.e. false positive, woman was not pregnant within one year of her death)

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

- COMPLETE
  All records necessary for adequate review of the case were available
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  Minor gaps (i.e. information that would have been beneficial but was not essential to the review of the case)
- SOMEWHAT COMPLETE
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- 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 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	

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
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- 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
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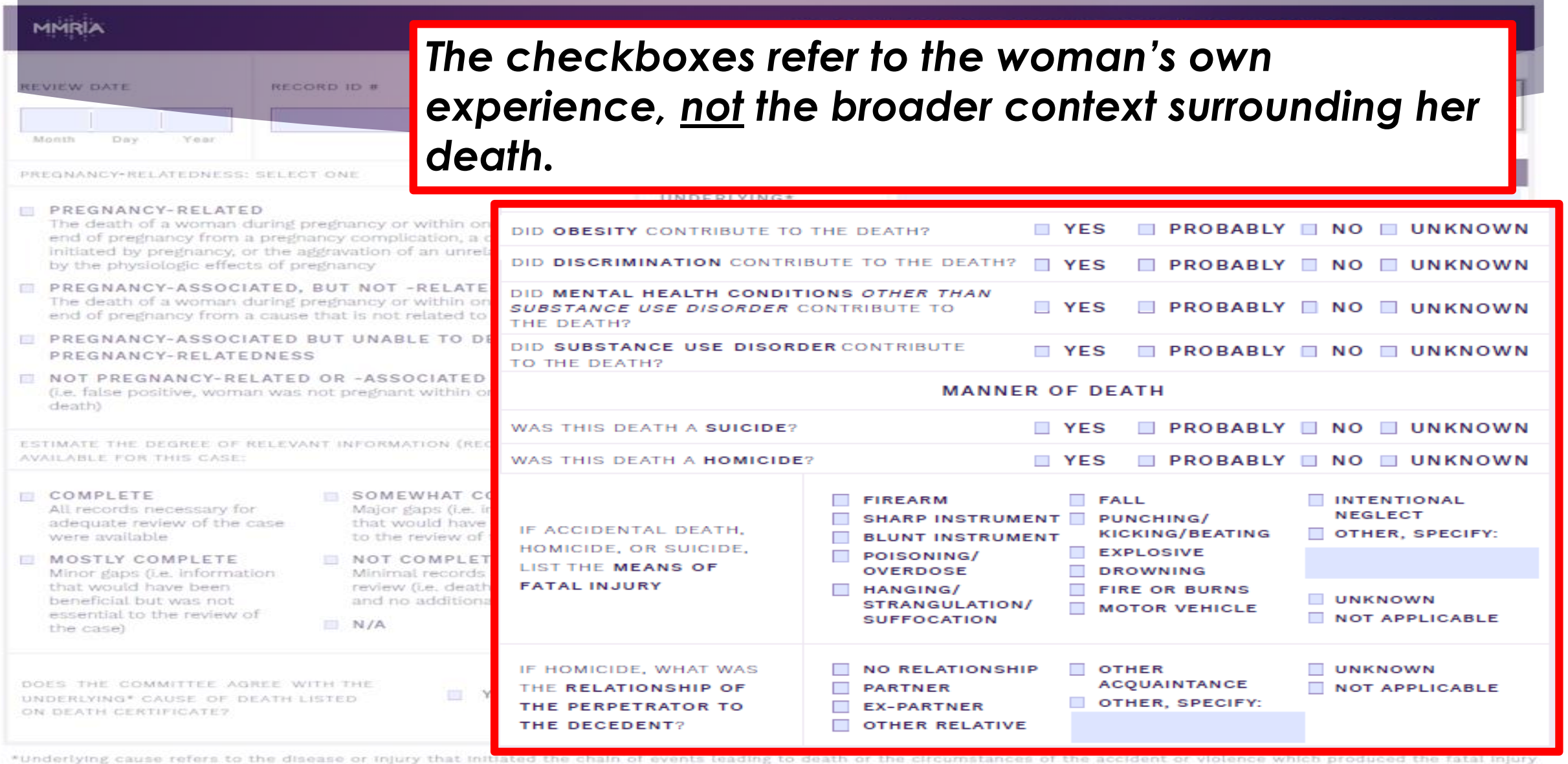
- OTHER RELATIVE
- OTHER ACQUAINTANCE
- OTHER, SPECIFY:
- UNKNOWN
- NOT APPLICABLE

*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

Committee Determinations on Circumstances Surrounding Death

The checkboxes refer to the woman's own experience, <u>not</u> the broader context surrounding her death.



MMRIA

REVIEW DATE — Month Day Year

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- PREGNANCY-ASSOCIATED, BUT NOT -RELATE…
  The death of a woman during pregnancy or within or… end of pregnancy from a cause that is not related to…
- PREGNANCY-ASSOCIATED BUT UNABLE TO DE… PREGNANCY-RELATEDNESS
- NOT PREGNANCY-RELATED OR -ASSOCIATED…
  (i.e. false positive, woman was not pregnant within or… death)

ESTIMATE THE DEGREE OF RELEVANT INFORMATION (REC… AVAILABLE FOR THIS CASE:

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- SOMEWHAT CO…
  Major gaps (i.e. i… that would have … to the review of …
- NOT COMPLET…
  Minimal records … review (i.e. death … and no additiona…
- N/A

DOES THE COMMITTEE AGREE WITH THE UNDERLYING* CAUSE OF DEATH LISTED ON DEATH CERTIFICATE? Y…

*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.

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
- OTHER ACQUAINTANCE
- OTHER, SPECIFY:
- UNKNOWN
- NOT APPLICABLE

Page 2: Standardized Committee Decisions Form

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v20 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
- Childhood abuse/ trauma
- 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
- 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.)

Sourced from: https://reviewtoaction.org/content/maternal-mortality-review-committee-decisions-form

Contributing Factors

CONTRIBUTING FACTORS AND RECOMMENDATIONS FOR ACTION (Continued from page 2)

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?

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(DESCRIPTIONS ON PAGE 4)

- Access/financial
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- Discrimination
- Environmental
- Equipment/ technology
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- Law Enforcement
- Legal
- Mental health conditions
- Outreach
- Policies/procedures
- Referral
- Social support/ isolation
- Structural racism
- Substance use disorder – alcohol, illicit/prescription drugs
- Tobacco use
- Unstable housing
- Violence
- Other

Contributing Factors

CONTRIBUTING FACTORS AND RECOMMENDATIONS FOR ACTION (Continued from page 2)

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)

DESCRIPTION OF ISSUE
(enter a description for EACH contributing factor listed)

Recommendations for Action

CONTRIBUTING FACTORS AND RECOMMENDATIONS FOR ACTION (Continued from page 2)

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

could have been averted, what were the specific and feasible actions that, if implemented or alte ed, 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)

MMRIA MATERNAL MORTALITY REVIEW INFORMATION APP

ERASE MM

REVIEW to ACTION

Specific and Actionable Recommendations

_____ should _____ _____.

(who?) (do what?) (when?)

WHO is the entity/agency who would have been/be responsible for the intervention?*

WHAT is the intervention and **WHERE** is the intervention point?*

- Patient/Family
- Provider
- Facility
- System
- Community

WHEN is the proposed intervention point?

- Among women of reproductive age ("preconception")
- In pregnancy and in the postpartum period
  - Labor & Delivery (L&D)
  - Prior to L&D hospitalization discharge
  - First 6 weeks postpartum
  - 42-365 days postpartum

*Enter recommendation at the relevant level (Patient/Family, Provider, Facility, System, Community).

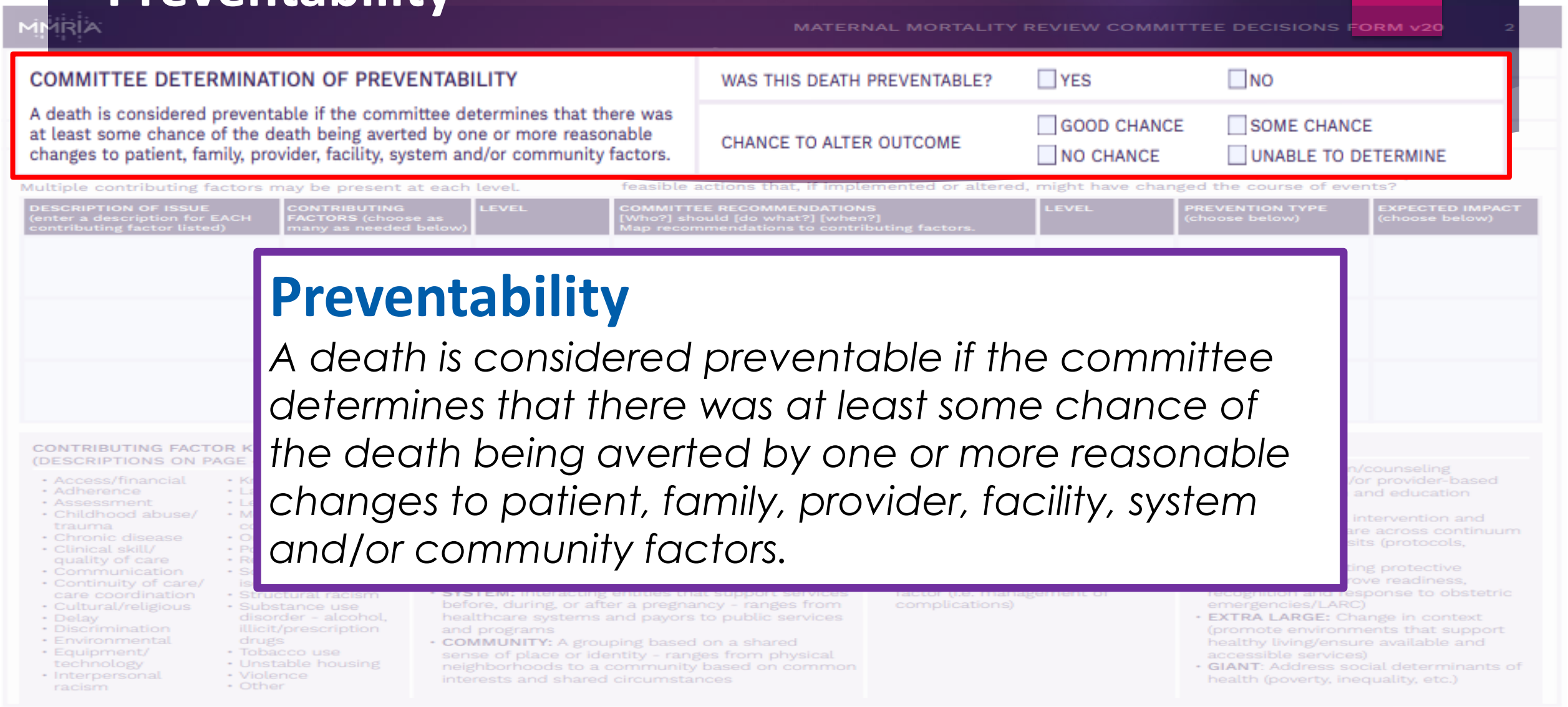
Sourced from: MMRIA Facilitation Guide, https://reviewtoaction.org/content/committee-facilitation-guide

Map Contributing Factors to Recommendations for Action

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
Probable SUD	Substance use dis	Patient/Far	The state should address the extremely limited availability of in-patient and community-based substance use disorder	System
Appeared to have discrimination in ED for "pain seeking"	Discrimination	Provider	Hospitals should implement evidence-based protocols and increase training on pain management for providers that includes	Facility
Lack of transportation to clinic visits	Access/financial	Patient/Far	Facilities should implement protocols that require screening for access to transportation to/from prenatal care and identify resources	Facility
Anxiety and depression in patient	Mental health co	Patient/Far	The state should increase access to perinatal mental health care by expanding treatment options and supporting alternative venues an	System
Lack of coordination between prenatal provider and counselor	Continuity of care	System	Facilities should increase resources for care coordination among perinatal care, substance use, and mental health treatment providers	Facility

MMRIA committee decisions form (https://reviewtoaction.org/content/maternal-mortality-review-committee-decisions-form)

Preventability



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.

Sourced from: Berg CJ, Harper MA, Atkinson SM, Bell EA, Brown HL, Hage ML, et al. Preventability of pregnancy-related deaths: results of a state-wide review. Obstet Gynecol 2005;106:1228–34. and https://reviewtoaction.org/content/maternal-mortality-review-committee-decisions-form

What have we learned from the MMRCs?

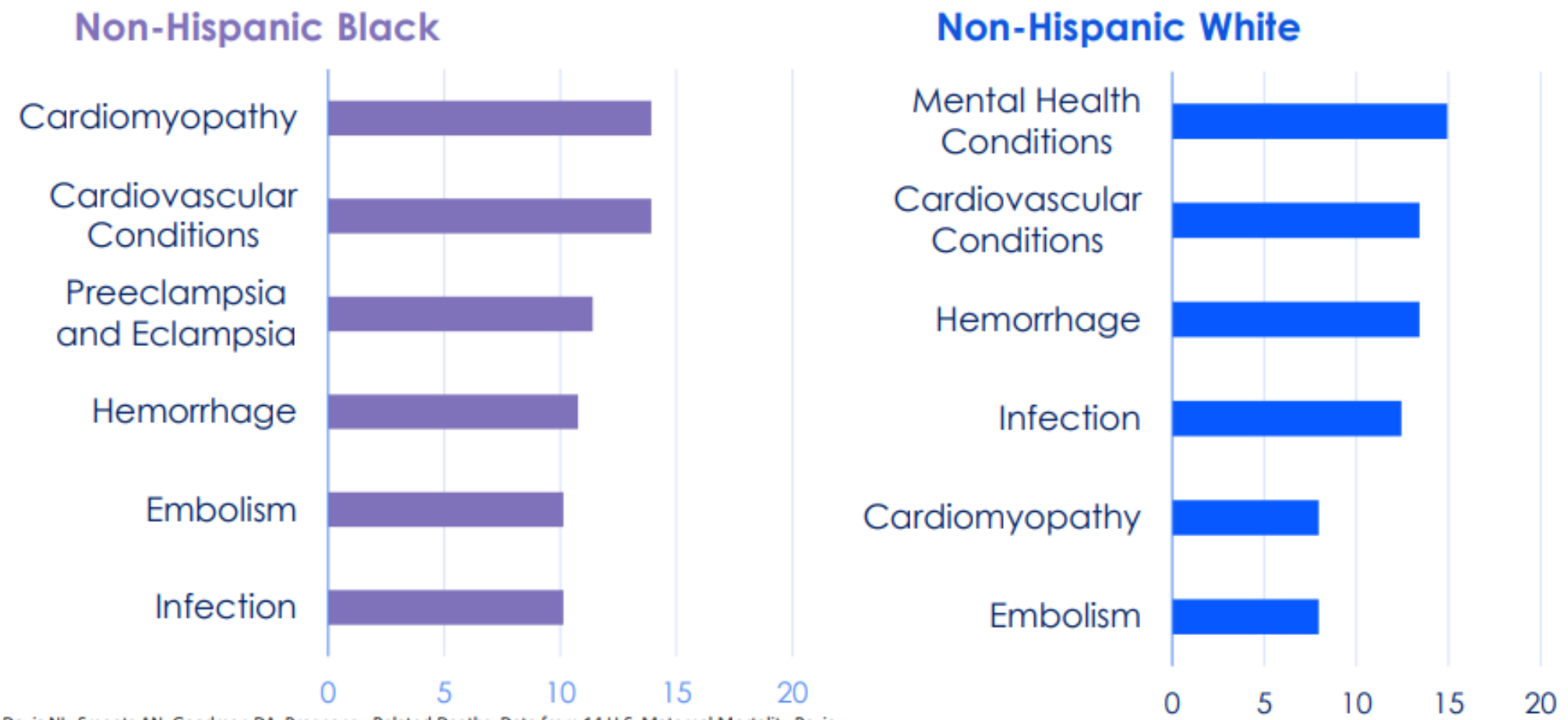
DATA FROM MMRIA

National Data: From 14 MMRCs (2008-2017)

- Approximately 1 in 3 deaths during or within a year of pregnancy were pregnancy-related.
- Leading causes of pregnancy-related deaths varied by race/ethnicity.
- 2 out of 3 deaths were determined to be preventable.

Sourced from: Davis, NL., Smoots AN., Goodman DA. Pregnancy-Related Deaths: Data from 14 U.S. Maternal Mortality Review Committees, 2008-2017
https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/mmr-data-brief.html

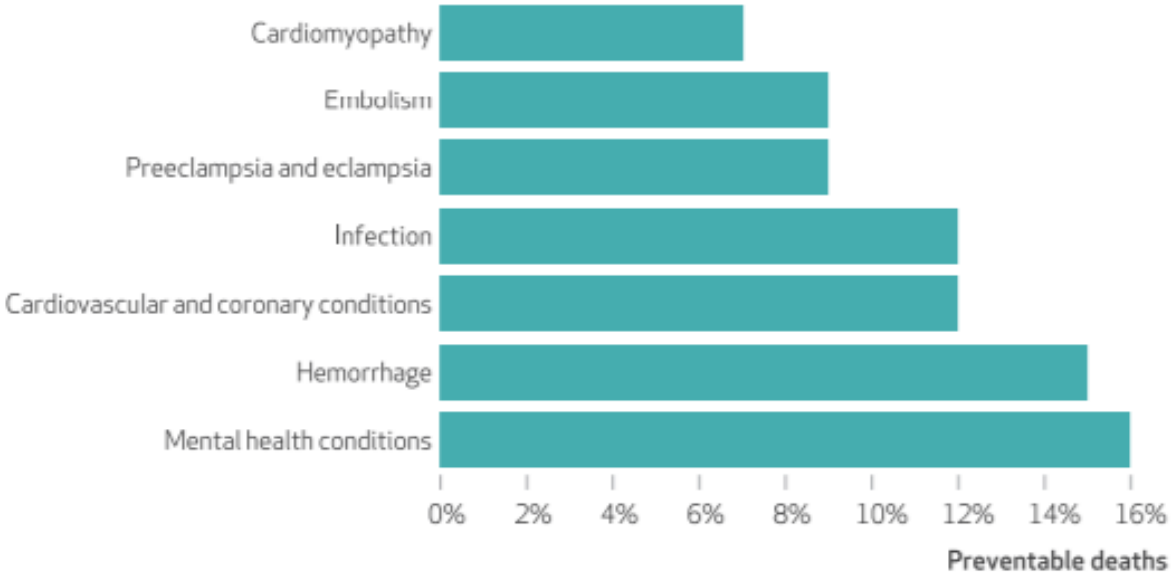
Leading Underlying Causes of Pregnancy-Related Deaths by Race/Ethnicity



Davis NL, Smoots AN, Goodman DA. Pregnancy-Related Deaths: Data from 14 U.S. Maternal Mortality Review Committees, 2008-2017. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2019

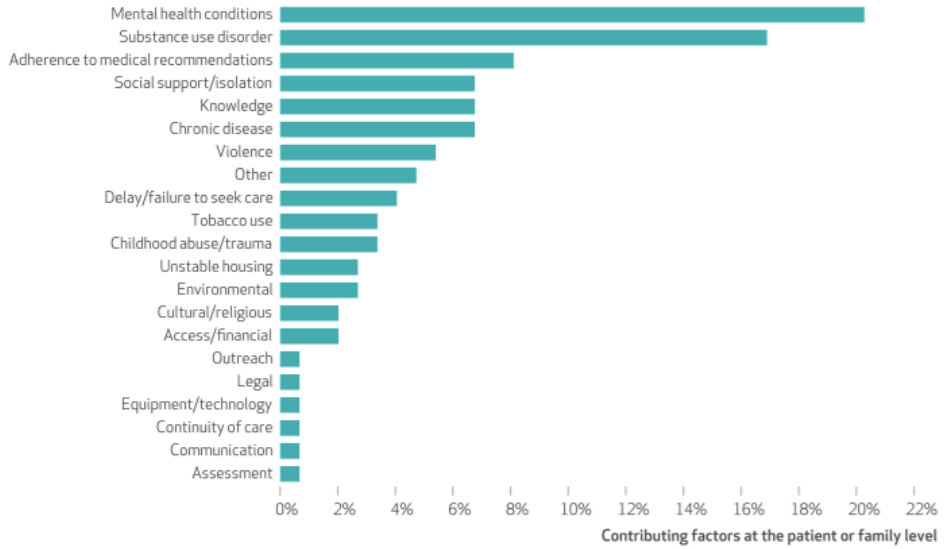
Preventable Pregnancy-Related Mental Health Deaths: Data from14 US Maternal Mortality Review Committees, 2008–17

Leading causes of pregnancy-related death among deaths determined to be preventable in 14 US states, 2008–17



SOURCE Authors' analysis of pregnancy-related deaths occurring during the period 2008–17 and determined by fourteen state Maternal Mortality Review Committees (as listed in the text) to be preventable. **NOTES** *N* = 226. Leading causes were defined as causes with at least ten deaths. Percentages do not sum to 100 percent.

Contributing factors at the patient or family level for pregnancy-related deaths attributable to mental health conditions in 14 US states, 2008–17



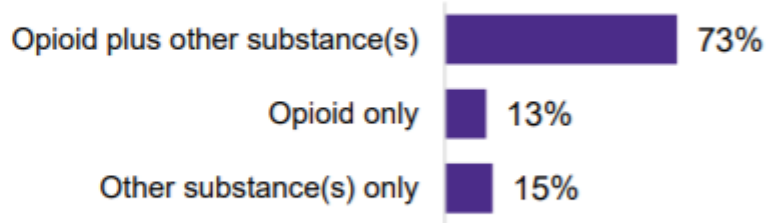
SOURCE Authors' analysis of pregnancy-related deaths attributable to mental health conditions occurring during the period 2008–17 and reviewed by fourteen state Maternal Mortality Review Committees (as listed in the text). **NOTE** There were a total of 148 contributing factors classified at the patient or family level.

Pregnancy-Associated Overdose Deaths: Data from 6 States in the Rapid Maternal Overdose Review Initiative, 2015-2019

89% **of 104 overdose deaths during or within one year of pregnancy were potentially preventable.**

Most (73%) pregnancy-associated overdose deaths occurred in the late postpartum period.

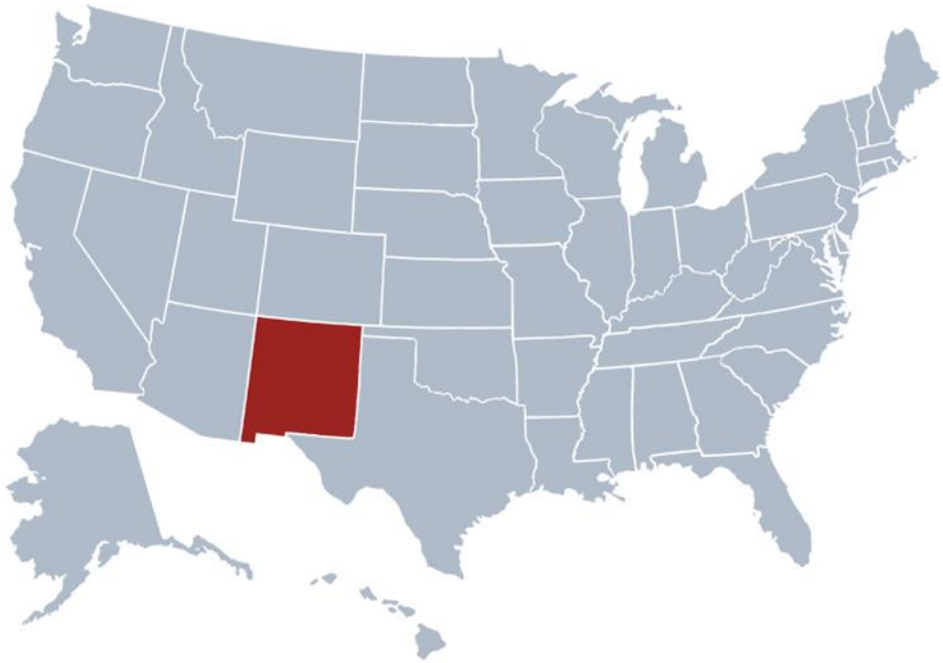
Most (86%) pregnancy-associated overdose deaths had an opioid present in autopsy toxicology.



Autopsy toxicology results were missing for 9 deaths (4 with no autopsy, 4 with autopsy but missing toxicology, 1 unknown). Other substances included alcohol, benzodiazepines, buprenorphine/methadone, cocaine, amphetamines, cannabinoids, and other substances.

Source: Smoots AN, Zaharatos J, Beauregard JL, Trost SL, Goodman DA. Pregnancy-Associated Overdose Deaths: Data from 6 states in the Rapid Maternal Overdose Review Initiative, 2015-2019. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2021.

New Mexico



New Mexico History

1998: DOH regulations created to establish an MMRC

'99-'08: Attempts to establish NM MMRC were unsuccessful, or successful but short-lived; one rendition put out the seatbelt campaign of the 2000's

2015: Bill introduced in NM Senate to create MMRC with added member protections–> did not get out of committee

2016: NM MMRC Task Force convened to discuss barriers to establishing an NM MMRC and help draft bill to legislate need for an MMRC

2017: Senate bill introduced by Senator Rodriguez -> eventually passed legislature but vetoed by Governor; NM Dept of Health supported the bill in concept and with the encouragement of leadership, proceeded forward with development of NM MMRC working off the 1998 regulations.

2018: Official NM MMRC formed with 3 meetings for the year –> reviewing 2015 deaths

2019: Bill to create NM MMRC passed in Rocket Docket session (could not be done in 2018 short-session)

2021: Bill introduced and passed with amendments to fix problems in existing 2019 statute

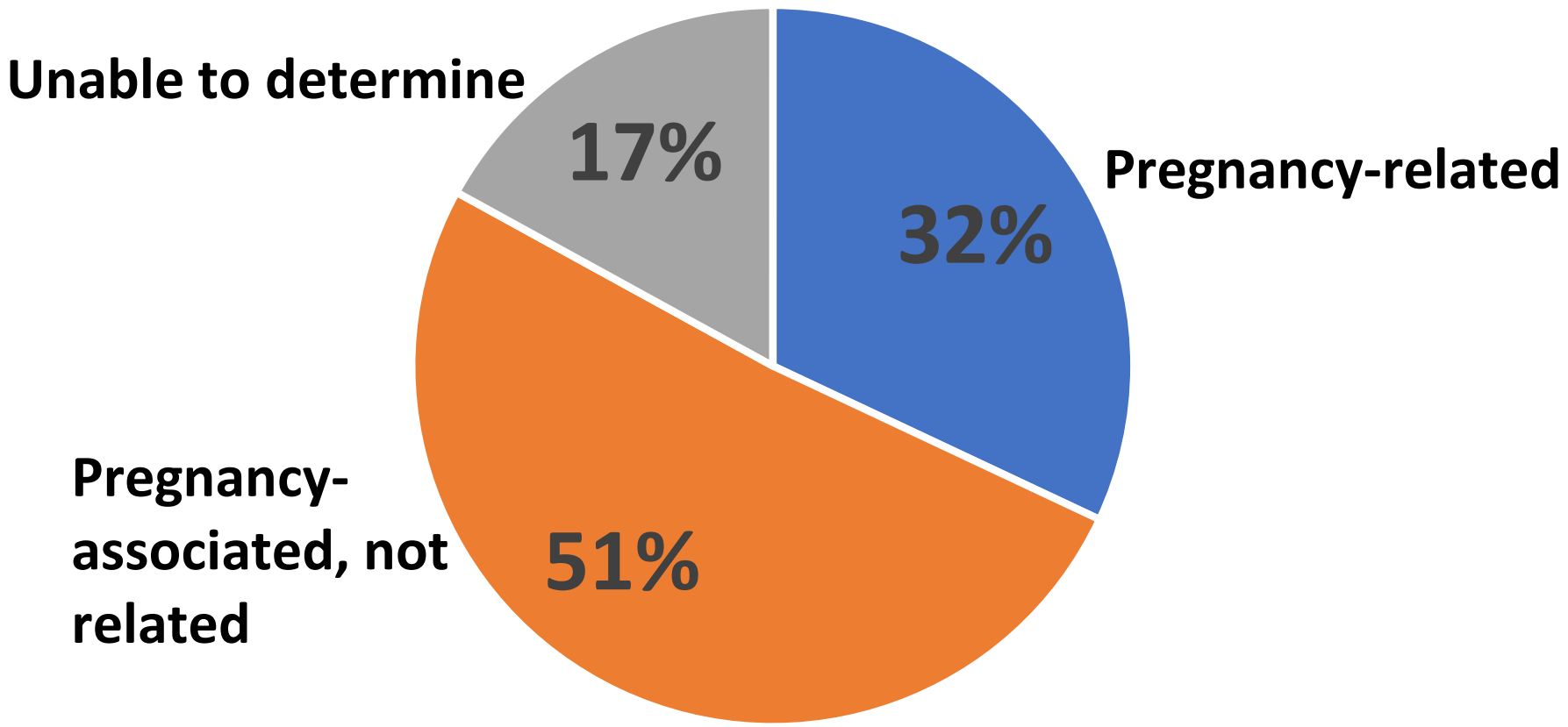
NM Data 2015-2018

PREGNANCY-ASSOCIATED DEATHS: N=77

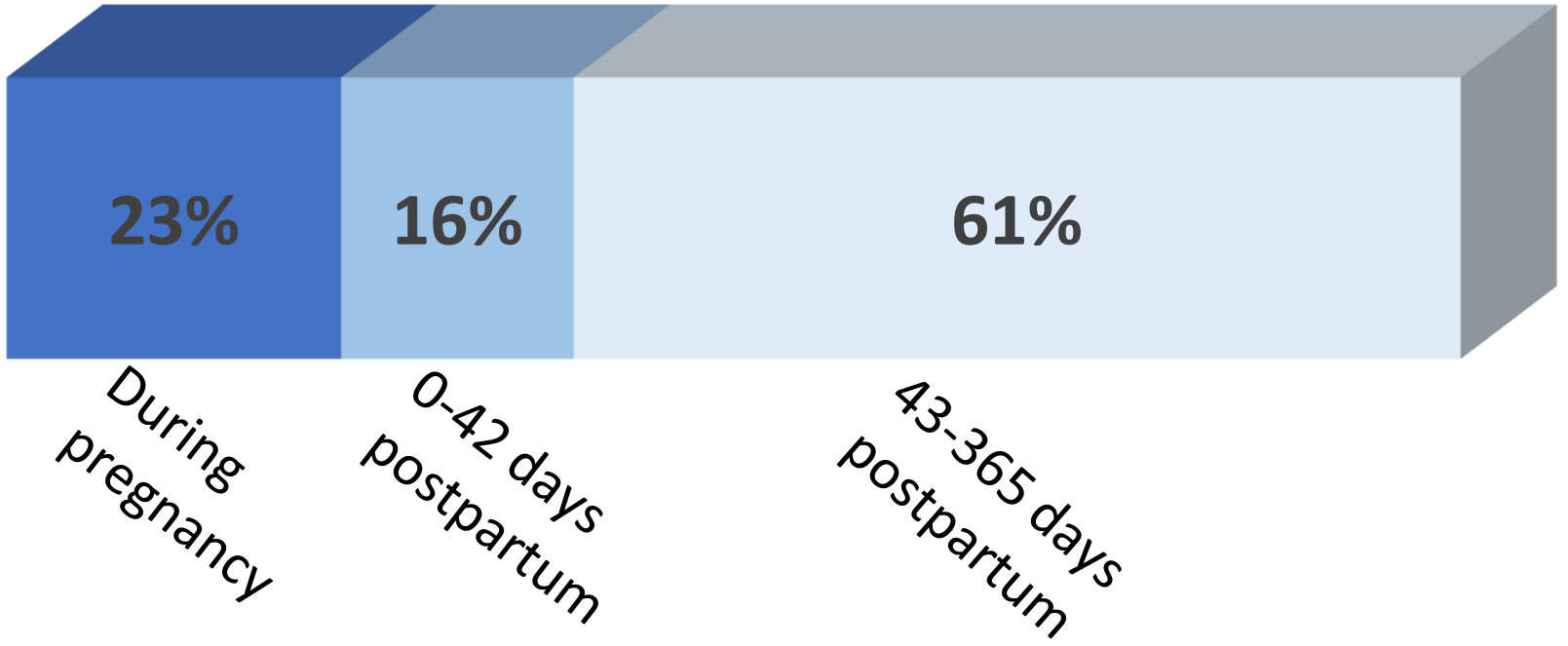
PREGNANCY-RELATED DEATHS: N=25

80% of deaths were found to be preventable

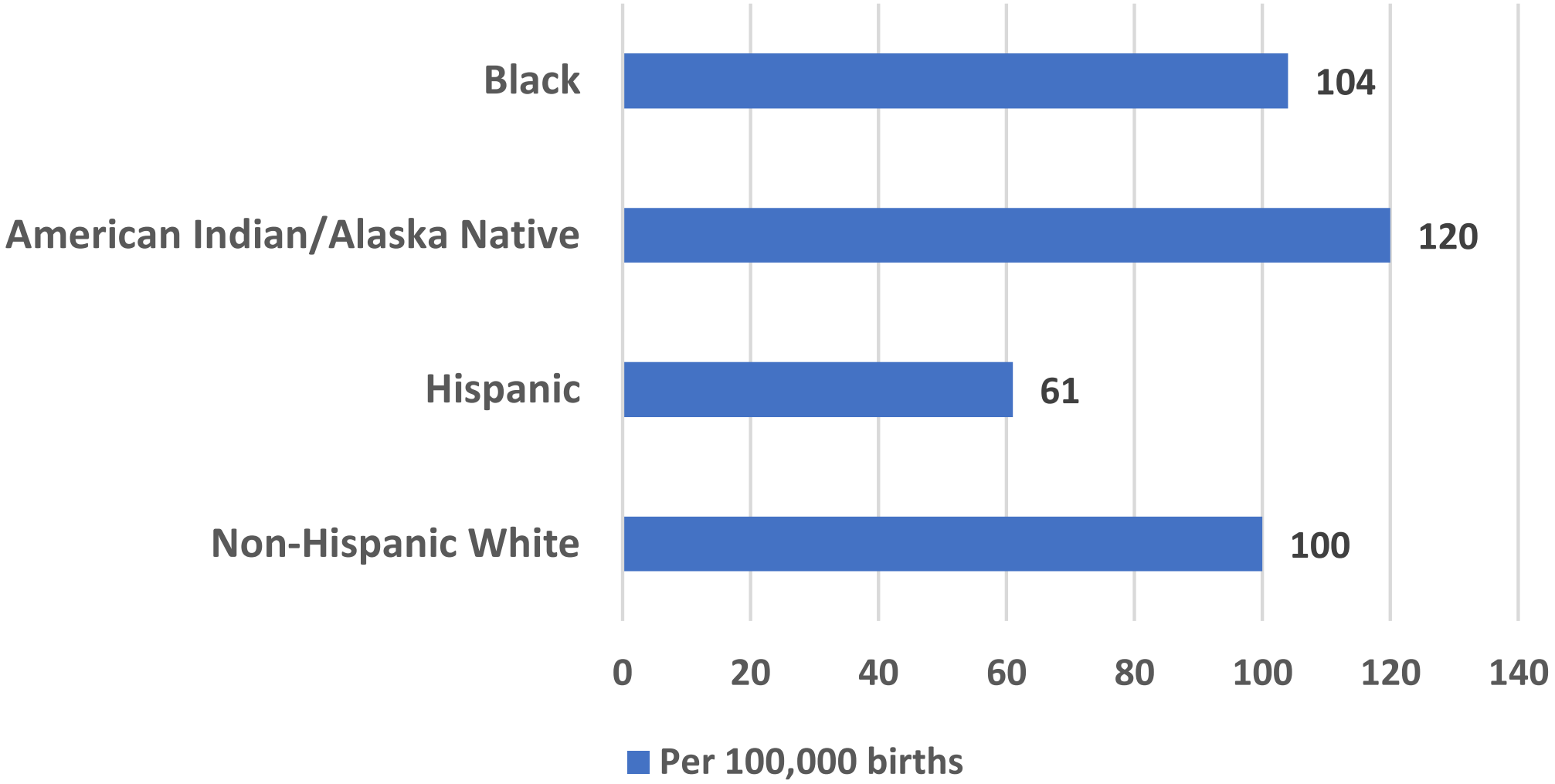
Pregnancy-Relatedness of Deaths



Timing of Death Related to Pregnancy

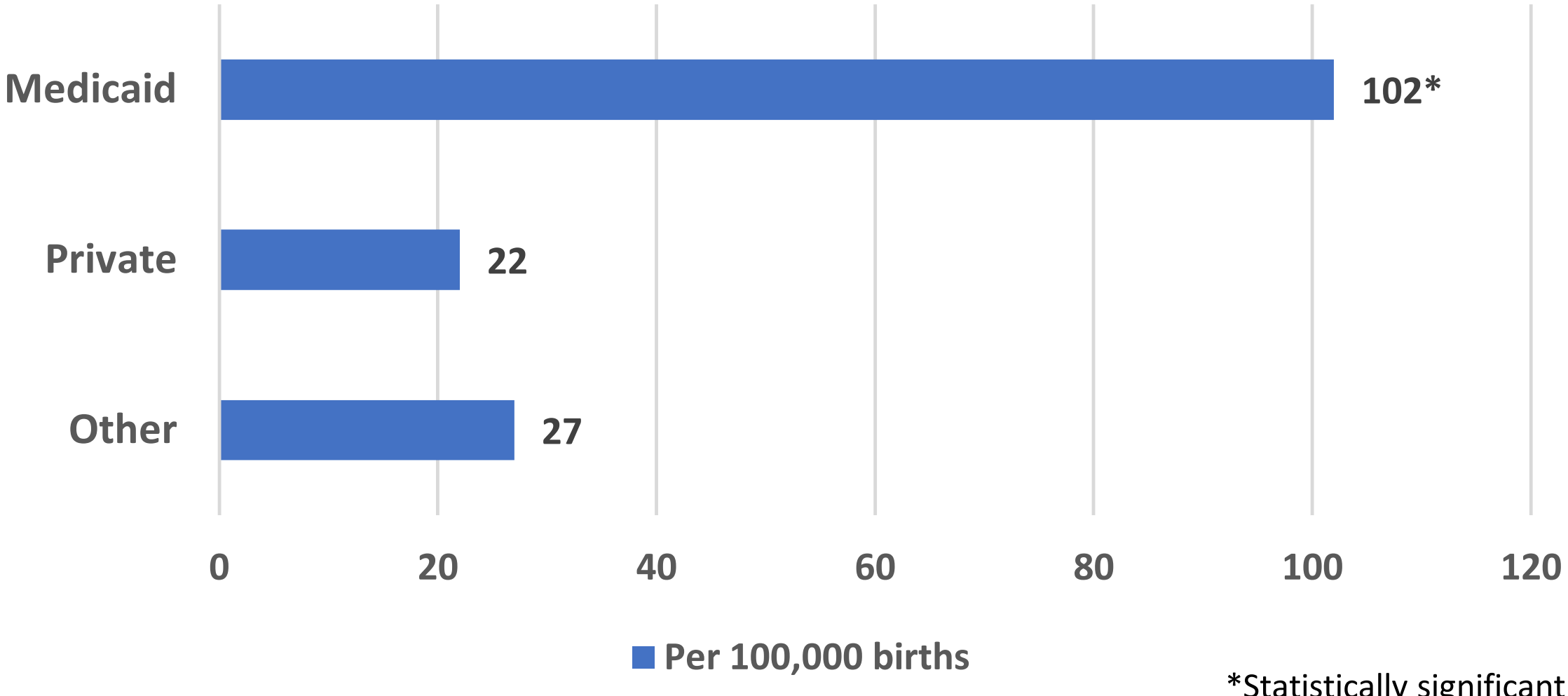


Pregnancy-Associated Mortality Ratio by Race/Ethnicity

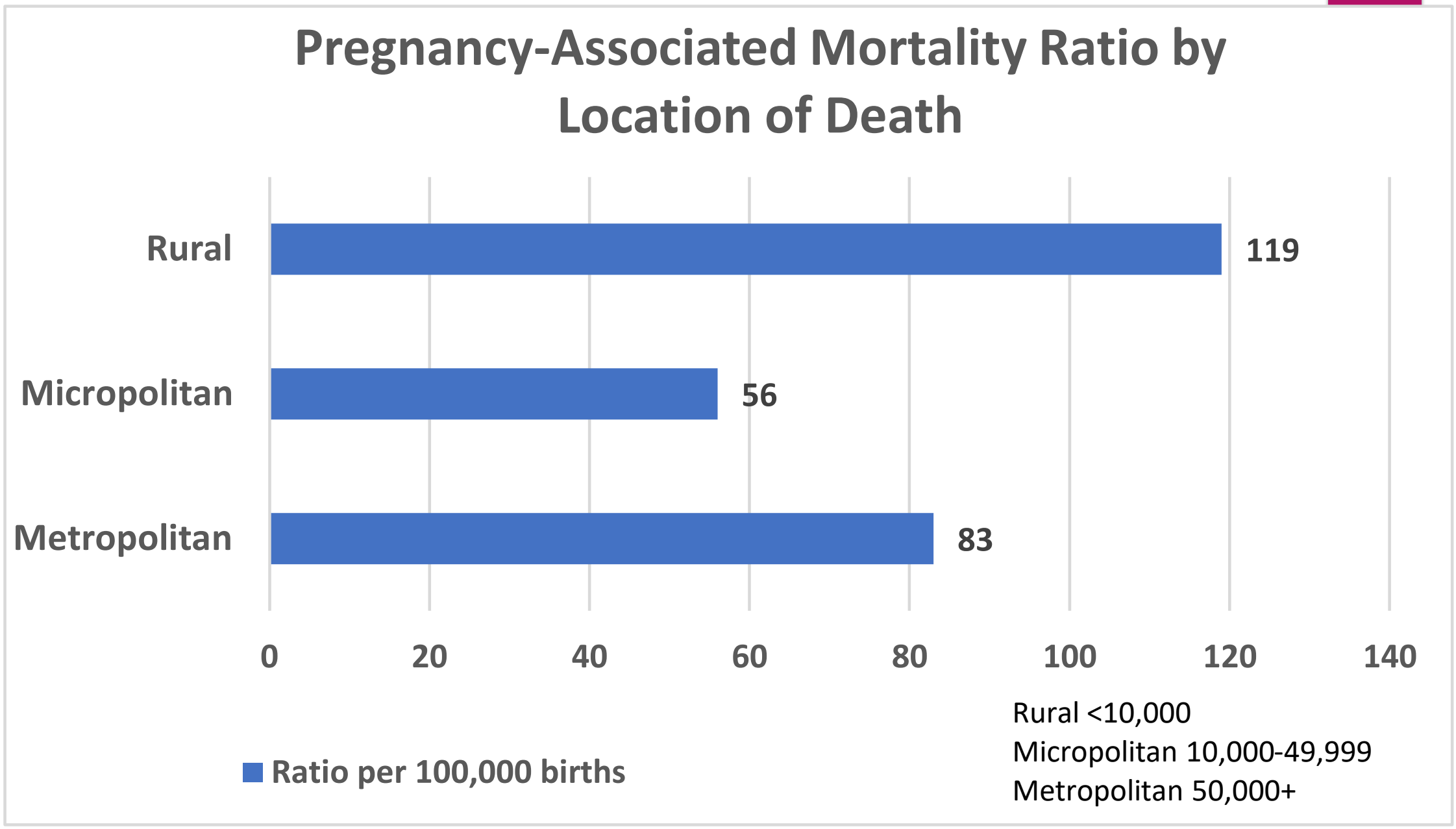


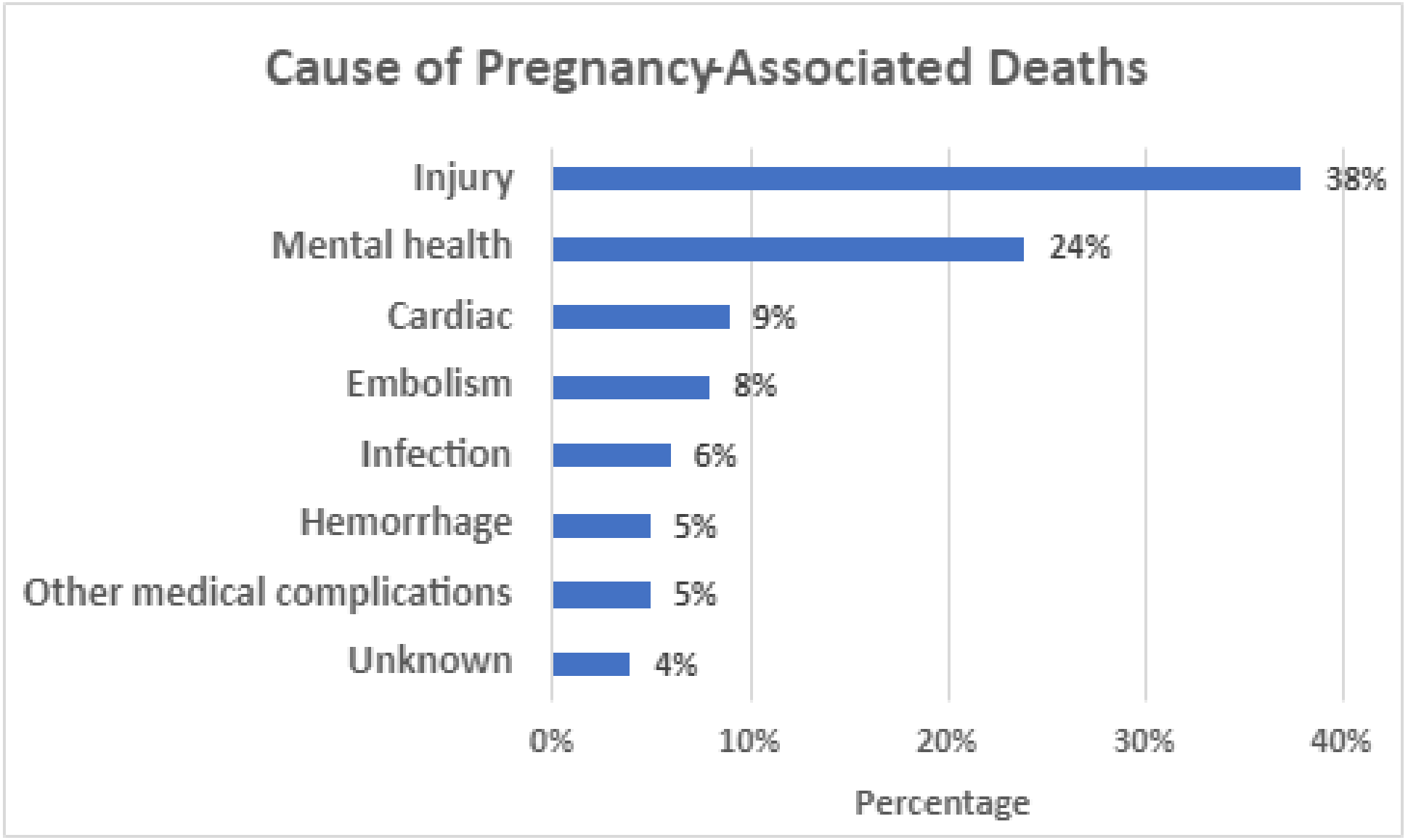
*Not statistically significant

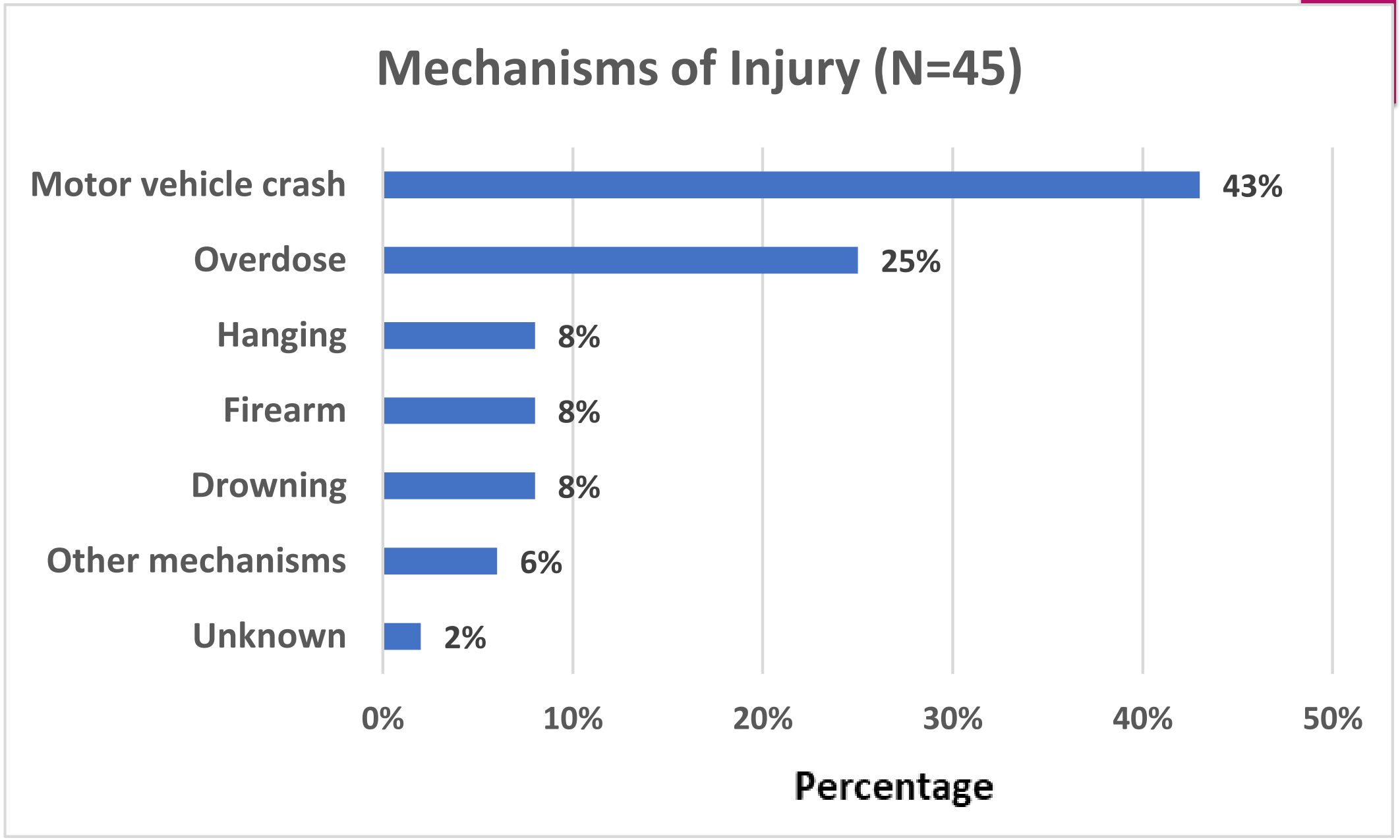
Pregnancy-Associated Mortality Ratio by Insurance Status

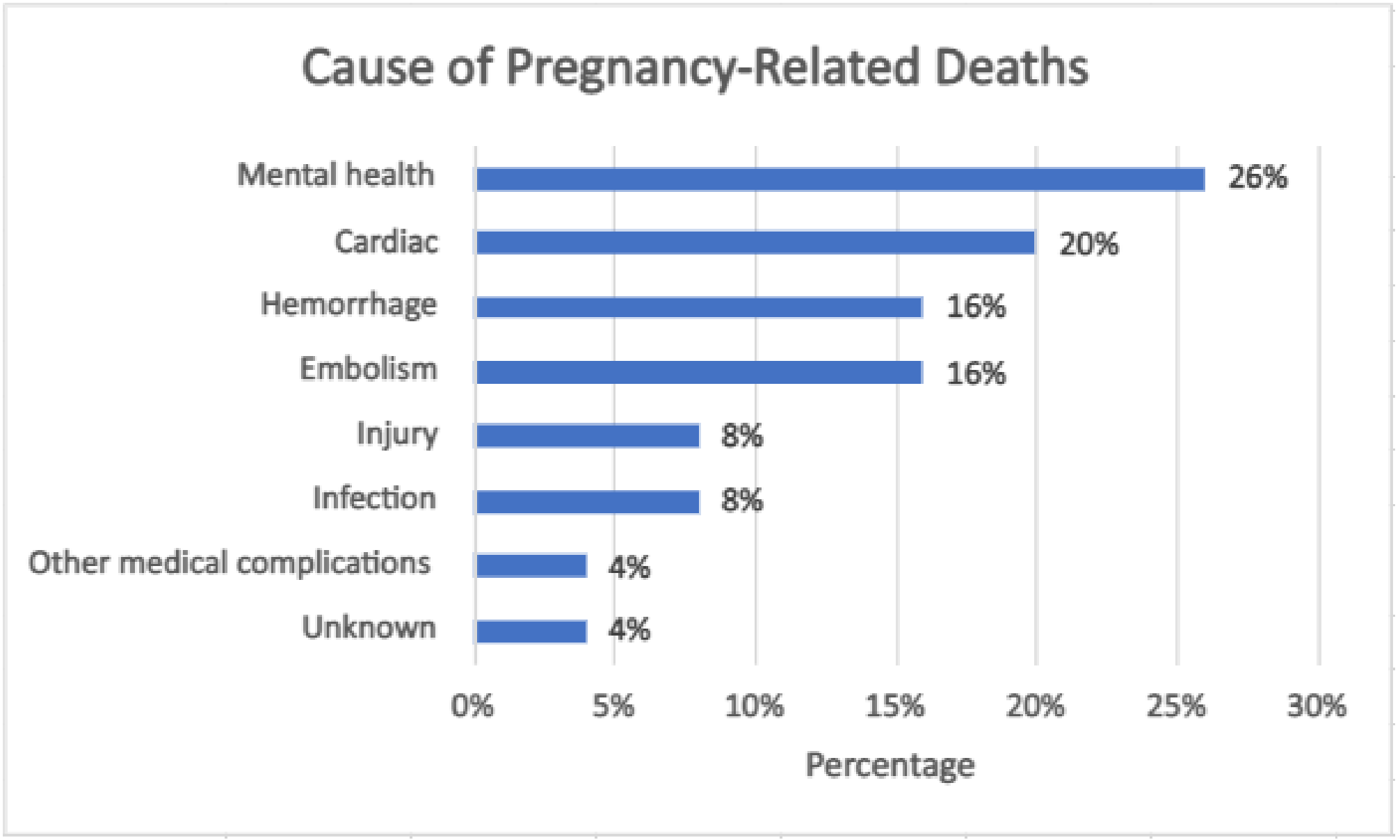


*Statistically significant

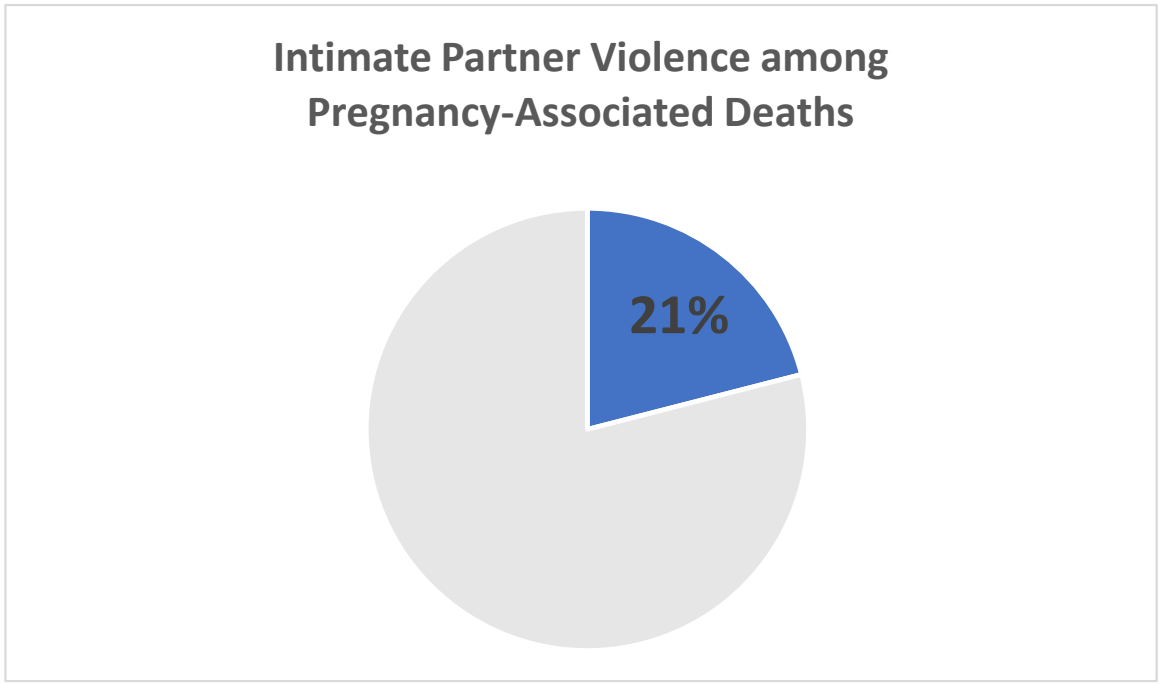

Pregnancy-Associated Mortality Ratio by Location of Death
Rural
Micropolitan
Metropolitan
119
56
83
0
20
40
60
80
100
120
140
Ratio per 100,000 births
Rural <10,000
Micropolitan 10,000-49,999
Metropolitan 50,000+

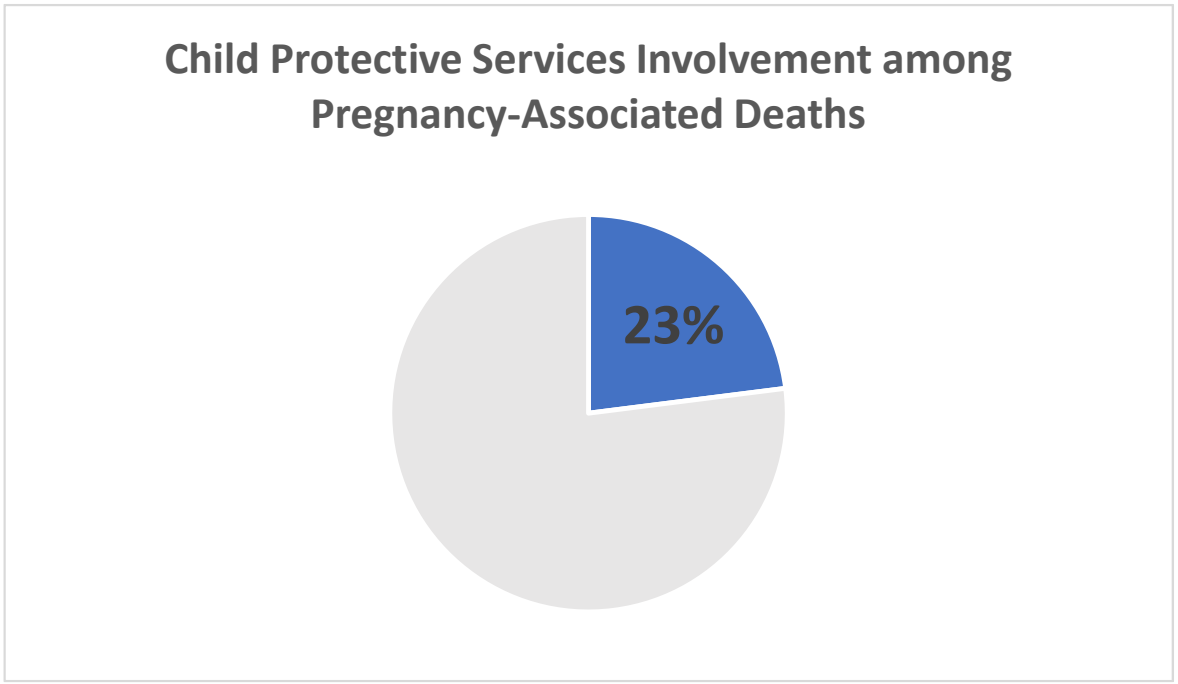

Cause of Pregnancy-Associated Deaths
Injury
Mental health
Cardiac
Embolism
Infection
Hemorrhage
Other medical complications
Unknown
38%
24%
9%
8%
6%
5%
5%
4%
0%
10%
20%
30%
40%
Percentage


Mechanisms of Injury (N=45)
Motor vehicle crash
Overdose
Hanging
Firearm
Drowning
Other mechanisms
Unknown
43%
25%
8%
8%
8%
6%
2%
0%
10%
20%
30%
40%
50%
Percentage

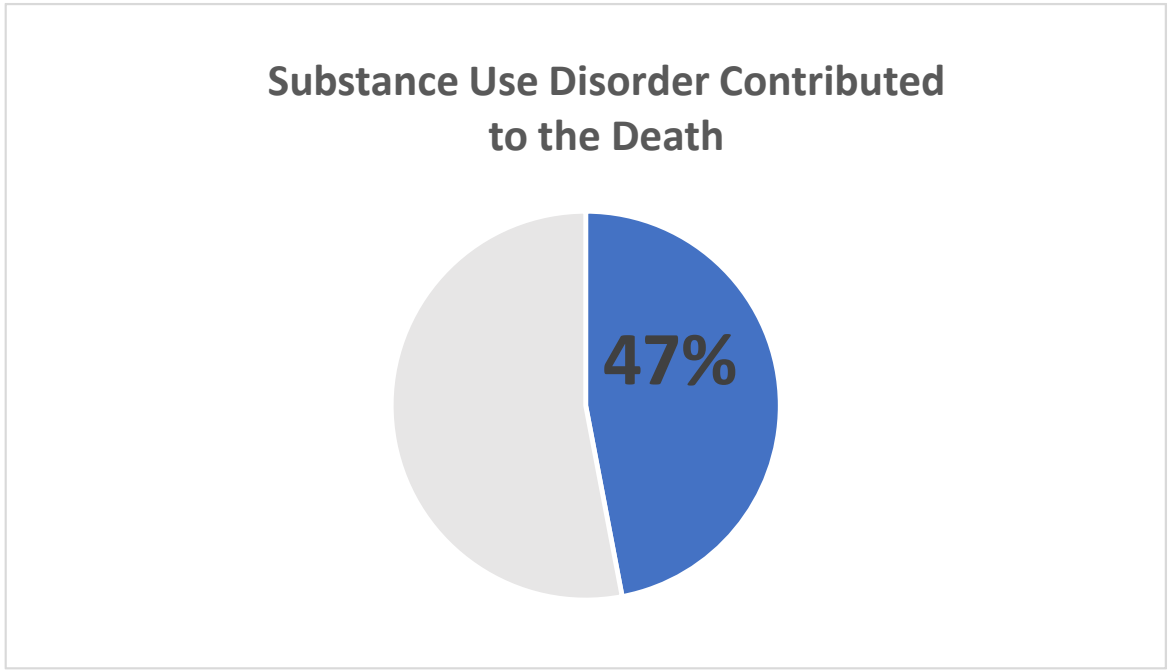

Cause of Pregnancy-Related Deaths
Mental health
Cardiac
Hemorrhage
Embolism
Injury
Infection
Other medical complications
Unknown
26%
20%
16%
16%
8%
8%
4%
4%
0%
5%
10%
15%
20%
25%
30%
Percentage

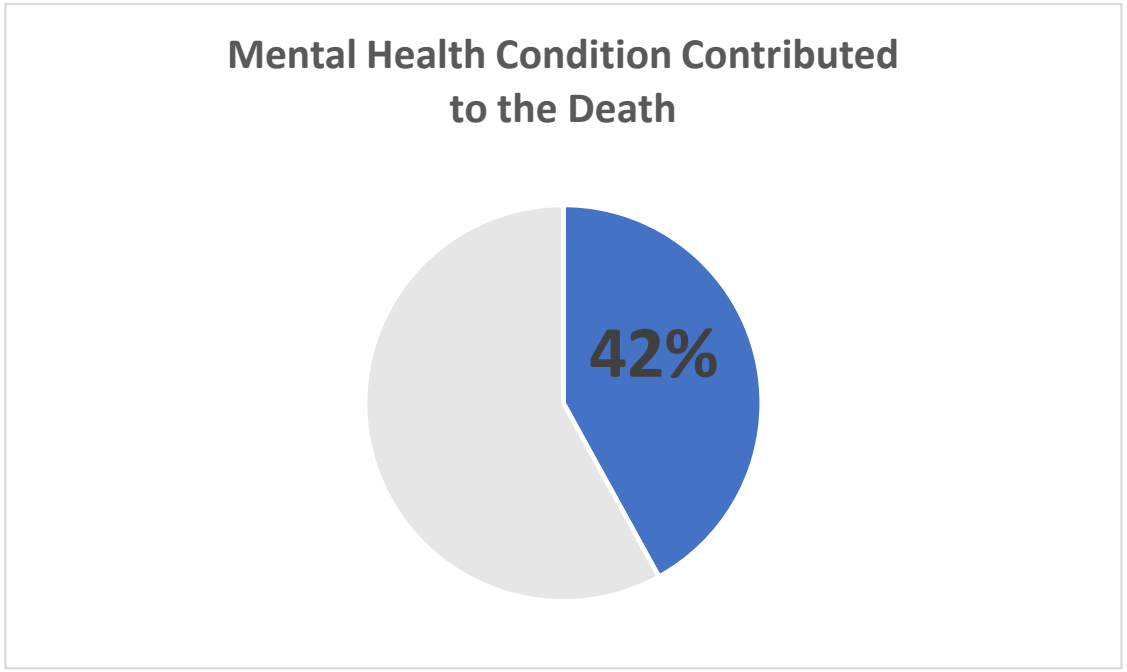
Social/Emotional Stressors Among Pregnancy-Associated Deaths





Pregnancy-Associated Deaths and SUD / MH Conditions





Pregnancy-Related Mortality Ratios

New Mexico - 25.8 deaths per 100,000 births
(2015-2018)

United States - 17.3 deaths per 100,000 births
(2017)

Priority Recommendations (2015-2018 reviews)

- Expand Medicaid eligibility to provide full pregnancy benefits coverage (including mental health, substance use and violence prevention services) to one year postpartum.
- Increase access to perinatal mental health care by expanding treatment options and supporting alternative venues and modes of care, especially in rural communities.
- Address the extremely limited availability of in-patient and community-based SUD treatment programs for pregnant and parenting individuals.
- Increase resources for care coordination among perinatal care, substance use, and mental health treatment providers.
- Incentivize all birthing hospitals, birth centers, and perinatal care clinics to ensure participation in ongoing perinatal quality improvement activities shown to reduce the leading causes of maternal mortality.
- Increase resources and support for prevention, detection, intervention, and treatment for intimate partner violence.

Perinatal Systems of Care

- Recruit and support mental health professionals within health systems to increase the mental health workforce across the state.
- Implement standardized screening tools within EMRs to trigger assessment for depression and other mental health disorders at each prenatal, postpartum, *and* newborn visit to allow better identification of pregnant and postpartum people with mental health disorders.
- Establish a coordinated system for postpartum follow-up if missed appointments are noted and include EMR tracking enhancements to alert clinic staff to "no-shows" and breaks in care.
- Implement protocols that require screening for access to transportation to/from prenatal care and identify resources for pregnant and postpartum people as needed.

Perinatal Systems of Care

Perinatal Health Systems should participate in the AIM SUD bundle through following activities:

- Require all perinatal care providers to receive training in SUD in pregnancy, including buprenorphine waiver trainings.
- Create protocols/guidelines for narcotic prescribing after procedures and circulate fewer narcotics in community.
- Require and implement training to staff and providers about respectful communication and create environments that are welcoming to pregnant and postpartum people with SUD (examples are trainings on unconscious bias and stigma related to SUD).
- Implement evidence-based protocols and increase training on pain management for providers that includes recognizing racial bias and possible discrimination towards patients in pain to help address under and over treatment.

Addressing Racism and Discrimination

A CLOSER LOOK AT INEQUITIES IN MATERNITY CARE

Discrimination in Maternal Health Care

- Growing recognition that discrimination contributes to adverse maternal health outcomes
- One quarter of pregnant people perceive discrimination during delivery hospitalization
- Associated with worse communication, lower patient ratings of care, less adherence to treatment recommendations, and poorer overall health

Sourced from presentation by E. Howell (2019)
Attanasio L. Med Care. 2015 Oct;53(10):863-871; Hausmann LR. Med Care. 2008;46(9):905–914. Hausmann LRM. Med Care. 2011;49(7):626–633; Weech-Maldonado R. Med Care. 2013;50(9 Supplement 2):S62–S68. Blanchard J. J Fam Pract. 2004;53(9):721–731.

Structural racism isn't about "bad people" - it's about systems that don't allow for equity.

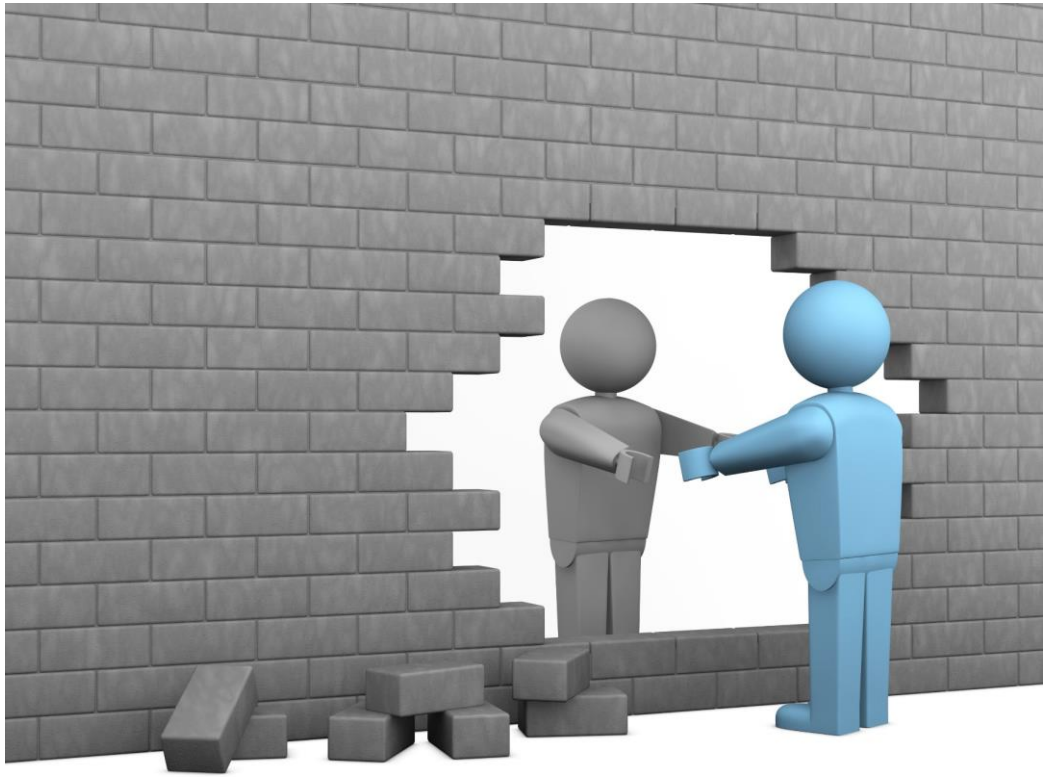
Salas (2021)

“*All policies, even the most trivial, are either racist or anti-racist, — they support equity, or they don’t*”

IBRAM X KENDI

How can our policies support equity?

Improve Access



Remove Barriers

Sourced from presentation by Salas (2021)

What MMRCs are doing to address disparities

- Using tools to identify discrimination and racism
- Identifying social determinants of health and community factors
- Diversifying committee membership
- Naming discrimination and racism in committee reviews and proposing recommendations to target these areas
- Training members: Health Equity & Unconscious Bias trainings
- Informant Interviews

Self-Care

The expectation that we can be immersed in trauma and not be affected is like walking through water and not getting wet.

- Ifetayo White

Sourced from MMRIA User Meeting IV, Atlanta, December 2019

References

- Badreldin N, Grobman WA, Yee LM. Racial disparities in post-partum pain management. Obstet Gynecol. 2019;134(6):1147-1153.
- Berg CJ, Harper MA, Atkinson SM, Bell EA, Brown HL, Hage ML, et al. Preventability of pregnancy-related deaths: results of a state-wide review. Obstet Gynecol 2005;106:1228–34. and https://reviewtoaction.org/content/maternal-mortality-review-committee-decisions-form
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Thanks!
Questions?
Comments?

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