Virginia Maternal Mortality Programs, Funding and Data Overview

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FUNDING

Maternal Mortality Review Team Funding

- Title V funds
- Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) Program:
  - Launched in 2019
  - Provides funding to 44 states and 2 territories to directly support Maternal Mortality Review Teams
  - Goals:
    1. Improve timeliness of case identification, data abstraction and case review.
    2. Facilitate an understanding of the drivers of maternal mortality and complications of pregnancy and better understand the associated disparities.
    3. Strengthen data analysis and dissemination.
    4. Increase the implementation of data-driven recommendations for the prevention of future deaths

Maternal Mortality Review Team Funding: ERASE MM

- VA MMRT
  - Awarded funds in September 2022.
  - Expanded Maternal Mortality Program Staff (OCME)
    - To include a data coordinator and research assistant.
  - Improved the timeliness of case review (currently reviewing 2021 cases)
  - Established a partnership with the VNPC:
    - To evaluate previous recommendations that have been made by the MMRT and assess barriers to implementation.
    - To facilitate the implementation of clinical and non-clinical recommendations to prevent future deaths.

Maternal Mortality Projects

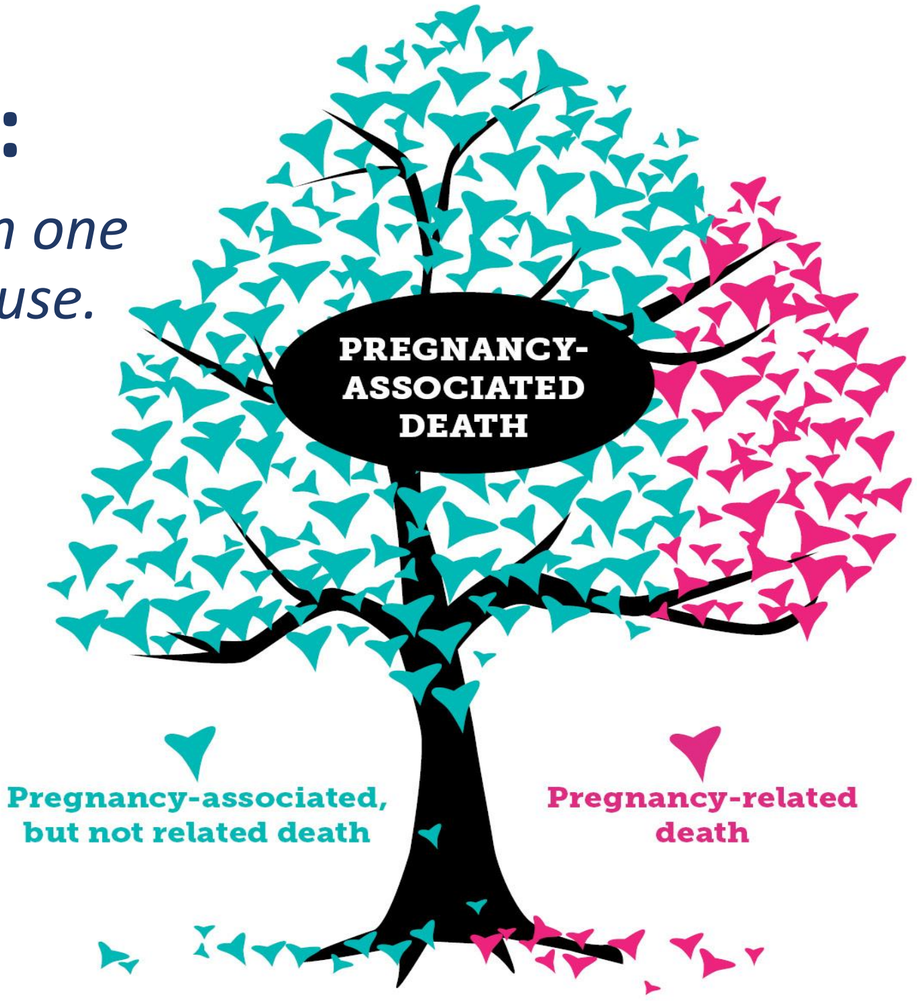
Definitions

Pregnancy-associated death (PAD):

- *The death of a woman while pregnant or within one year of the end of pregnancy, irrespective of cause.*

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.*



Sourced from: MMRIA Facilitation Guide and Review to Action (https://reviewtoaction.org/rsc-ra/term/80). Graphic sourced from: South Dakota DoH (https://doh.sd.gov/statistics/maternalmortality.aspx)

Virginia Maternal Mortality Program

- Two primary components
  - Pregnancy-Associated Mortality Surveillance System (PAMSS)
  - Maternal Mortality Review Team (MMRT)
    - Maternal Mortality Review Information App (MMRIA)

Pregnancy-Associated Mortality Surveillance System

- Collects information on all pregnancy-associated deaths in Virginia
- Includes data from 1999-2021 (data for 2021 is currently being reviewed by the Team)
- Allows for the identification and monitoring of patterns and trends related to pregnancy-associated deaths in Virginia
- Data includes:
  - Death certificate data
  - Pregnancy outcomes
  - Select health behaviors (recently added)
  - Insurance coverage (recently added)
  - Safety net services utilization such as SNAP, TANF, etc. (recently added)

Virginia MMRT Scope, Mission, and Vision

Scope:

To review all pregnancy-associated deaths of women with indication of pregnancy up to 365 days, regardless of cause.

Mission:

To identify all pregnancy-associated deaths in the Commonwealth, review those caused by pregnancy complications and other associated causes and identify the factors contributing to these deaths and recommend public health and clinical interventions that may reduce these deaths and improve systems of care.

Vision:

The Maternal Mortality review Committee's vision is to eliminate preventable maternal deaths, reduce maternal morbidities, and improve population health for women of reproductive age.

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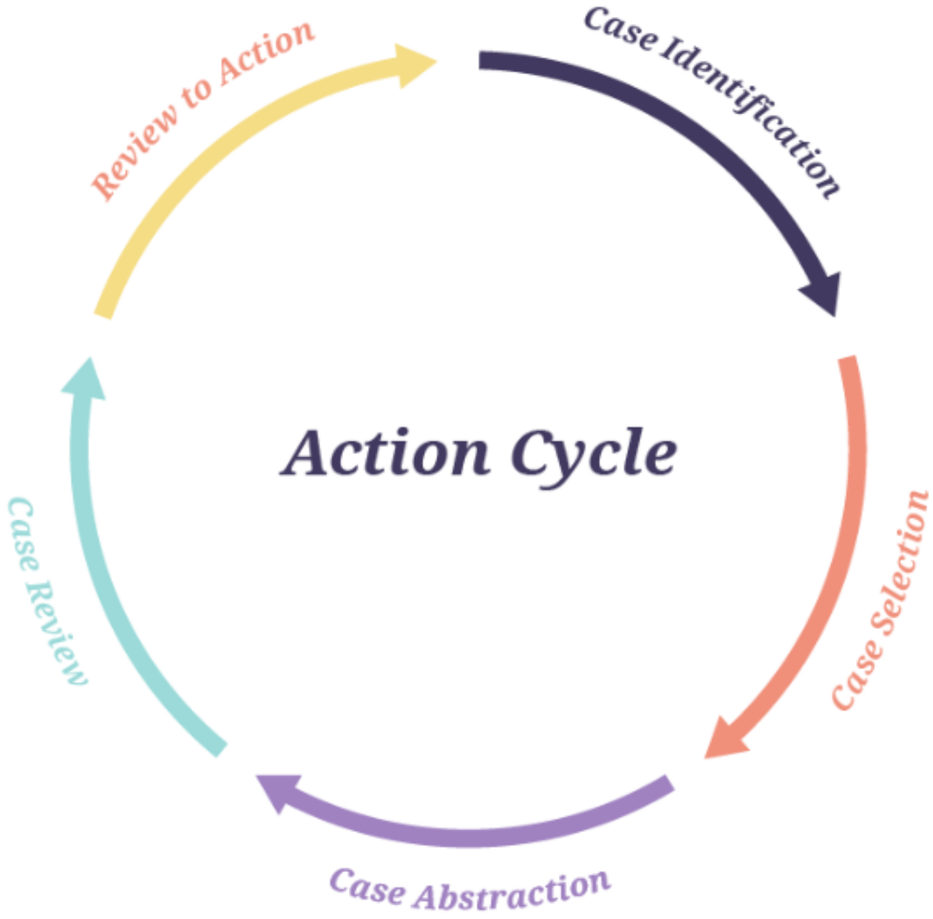
Maternal Mortality Review Teams: The gold standard for data on maternal deaths

- Part of an ongoing quality improvement cycle
- Incorporates multidisciplinary expertise, typically staffed by/hosted by public health agency
- Leads to understanding of the drivers of a maternal death and determination of what interventions will have the most impact at patient, provider, facility, system and community level to prevent future deaths



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

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Case Identification – Sources

Vital Record Linkage (maternal death and birth or fetal death)

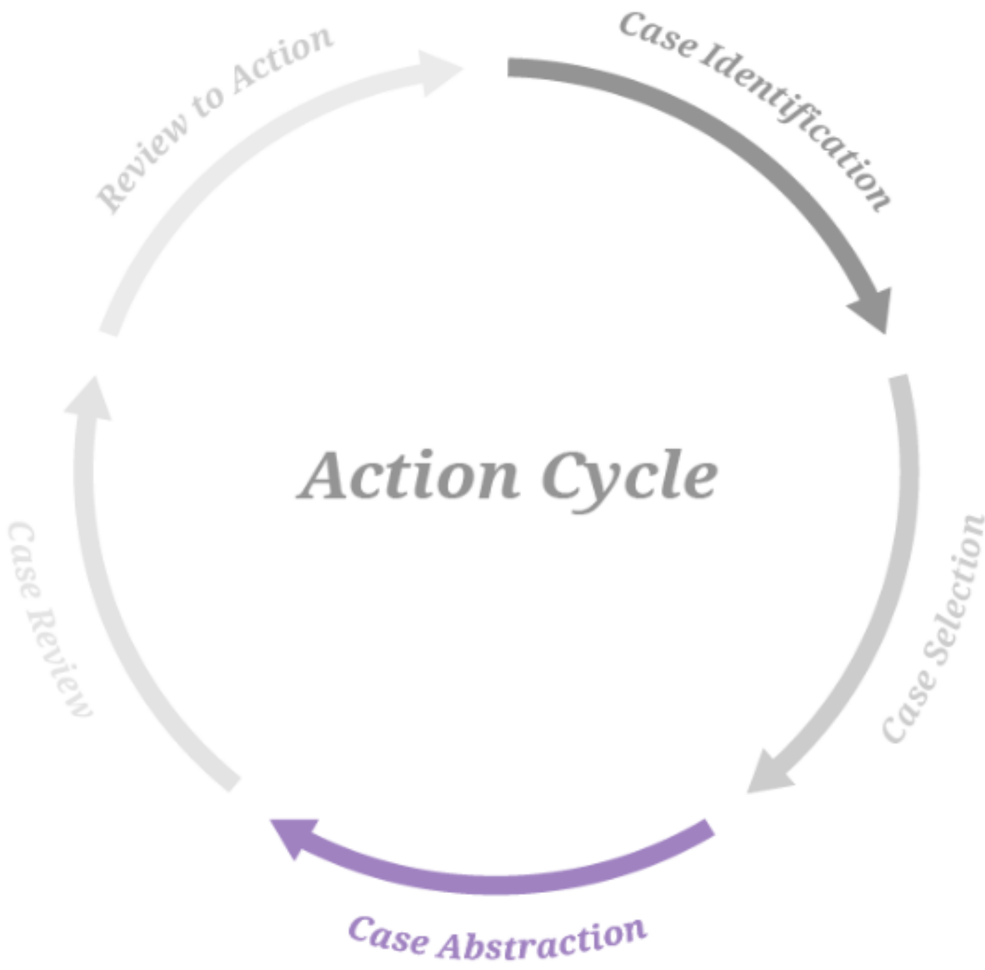
- Death certificates linked with birth and fetal death certificates for year prior to death
- Death records are selected for linkage if they are for:
  - Women ages 10 – 60 years and residents of the state, regardless of where the death occurred
- Death certificates that did not link, but have pregnancy checkbox marked, or contain ICD-10 O codes or select key words (e.g., amniotic, eclampsia)

Additional sources:

- Cases listed in the Virginia Violent Death Reporting System who were known to be pregnant within a year of death.
- Media reports
- Social media
- Obituaries

Case Abstraction Sources

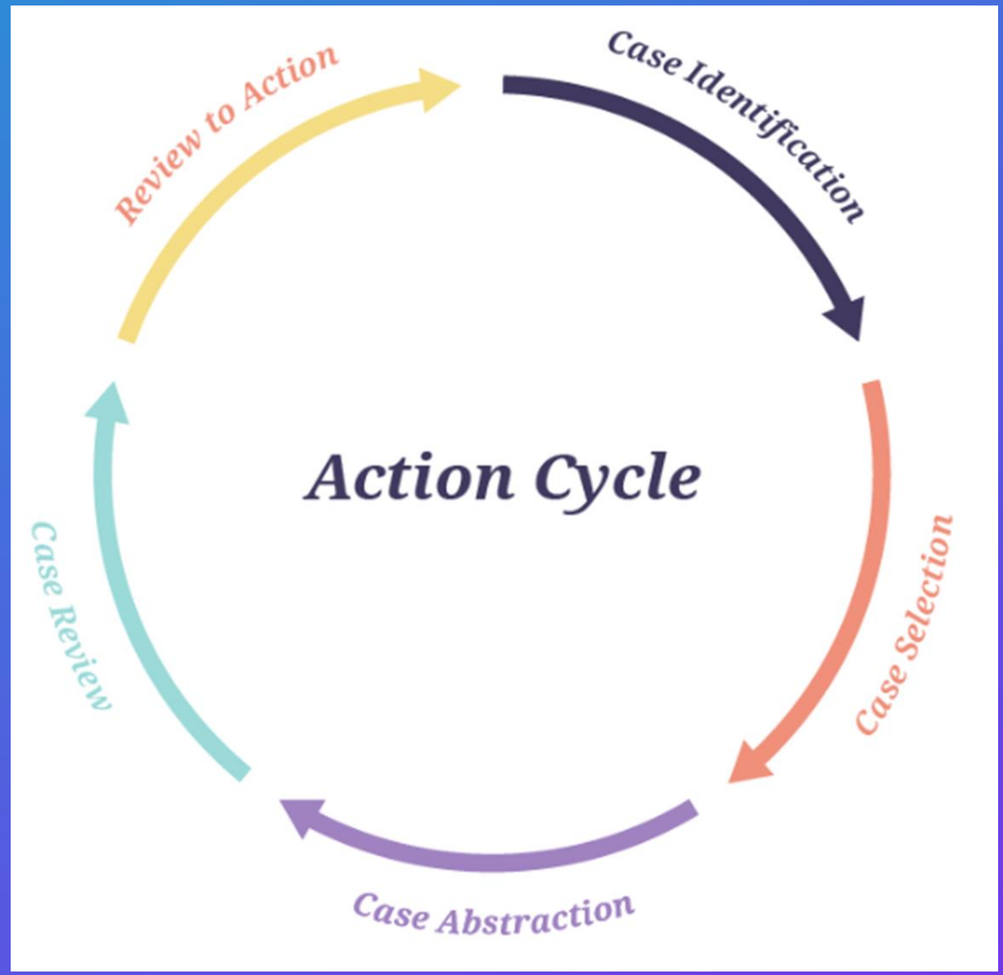
- Vital statistics (death certificates, birth certificates, fetal death records)
- Prenatal records
- Hospital records (outpatient and inpatient stays)
- Other provider/specialist records: these records may be from preconception/family planning clinics, or primary care providers, etc.
- Autopsy reports and case findings from hospital, coroner, or another medical examiner
- Police/investigative reports
- Social services records
- Mental health records
- Substance abuse treatment records
- Medical transport records
- Court records
- News articles, where relevant



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?



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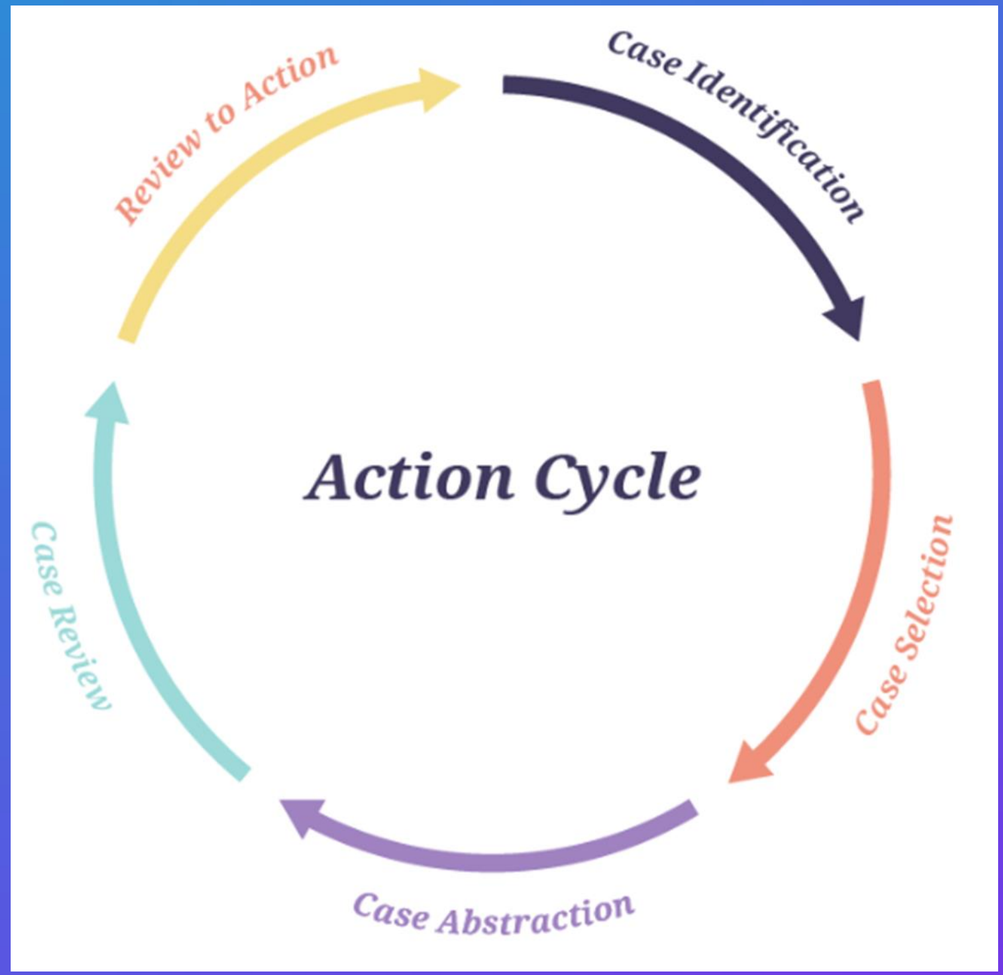
Contributors to Mortality – Social Determinants of Health

- Four Domains:
  - Community Structure & Systems Factors
  - Patient Factors
  - Healthcare System/Organizational Factors
  - Healthcare Professional Factors

Review to Action: Recommendation Development

- For each individual case, the Team assesses and/or recommends needed changes in the care received that may have led to better outcomes.
- The first step in the development of formal recommendations involves the analysis of recommendation themes from a completed year of case review.
- The Team then develops formal recommendations targeted towards specific agencies/organizations.
- All recommendations are vetted with the target agency/organization prior to public release.



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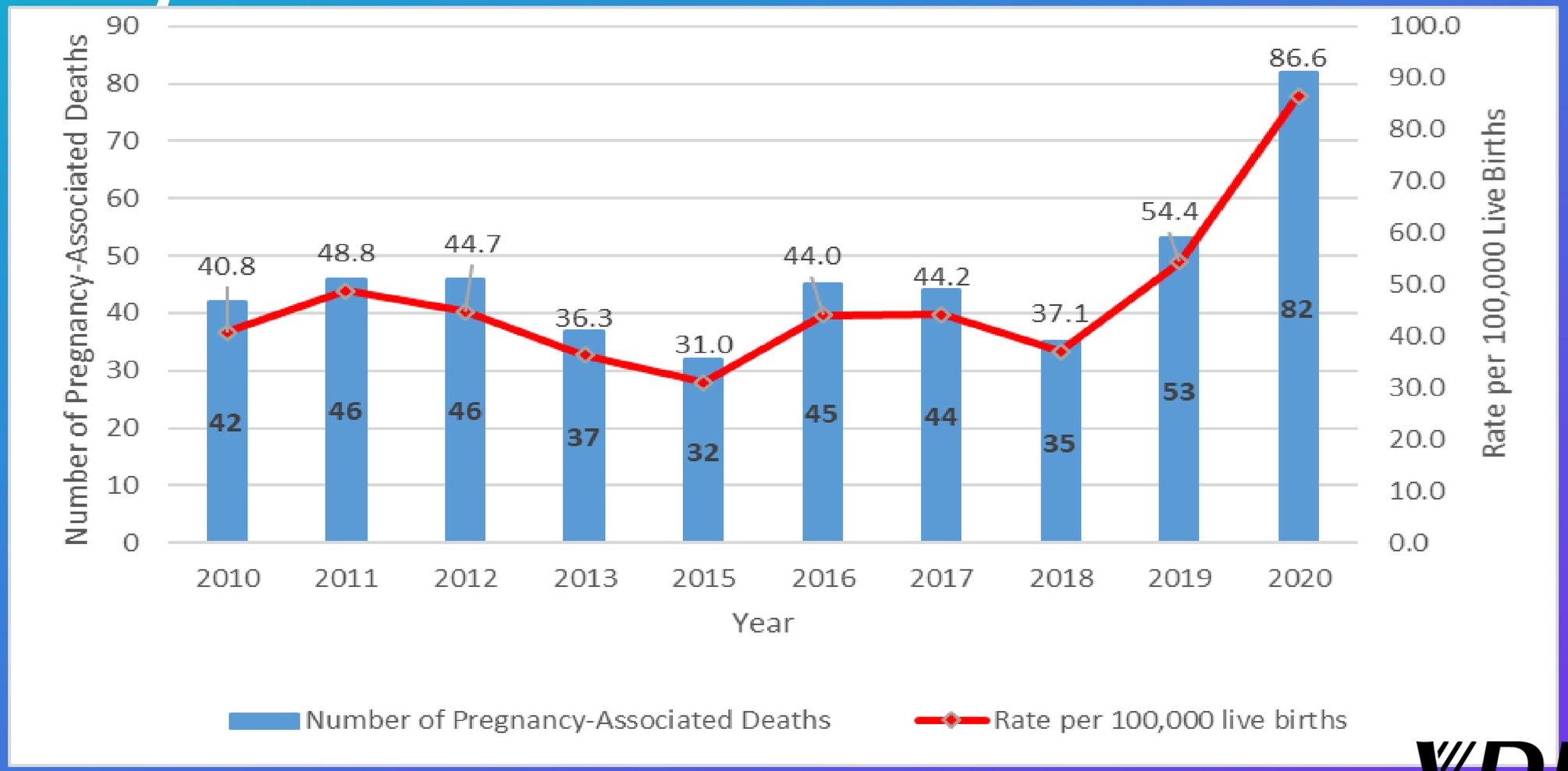
Maternal Mortality Data Overview

10-Year Trends in Pregnancy-Associated Mortality Ratio



***Data for 2019 and 2020 are preliminary

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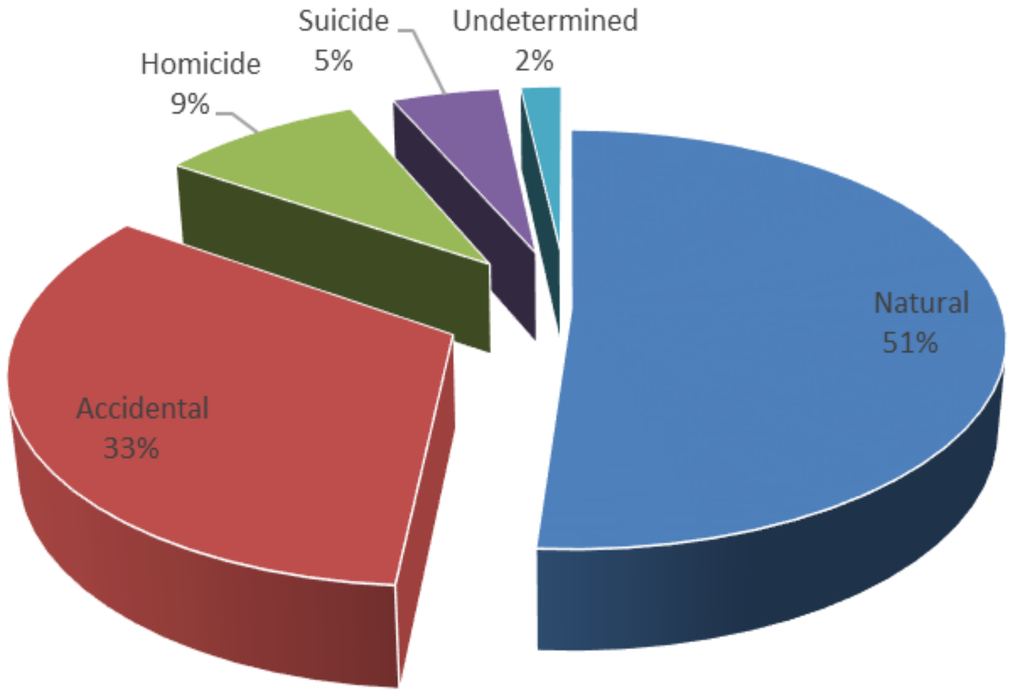
Overall Pregnancy-Associated Mortality Data, 2018-2020

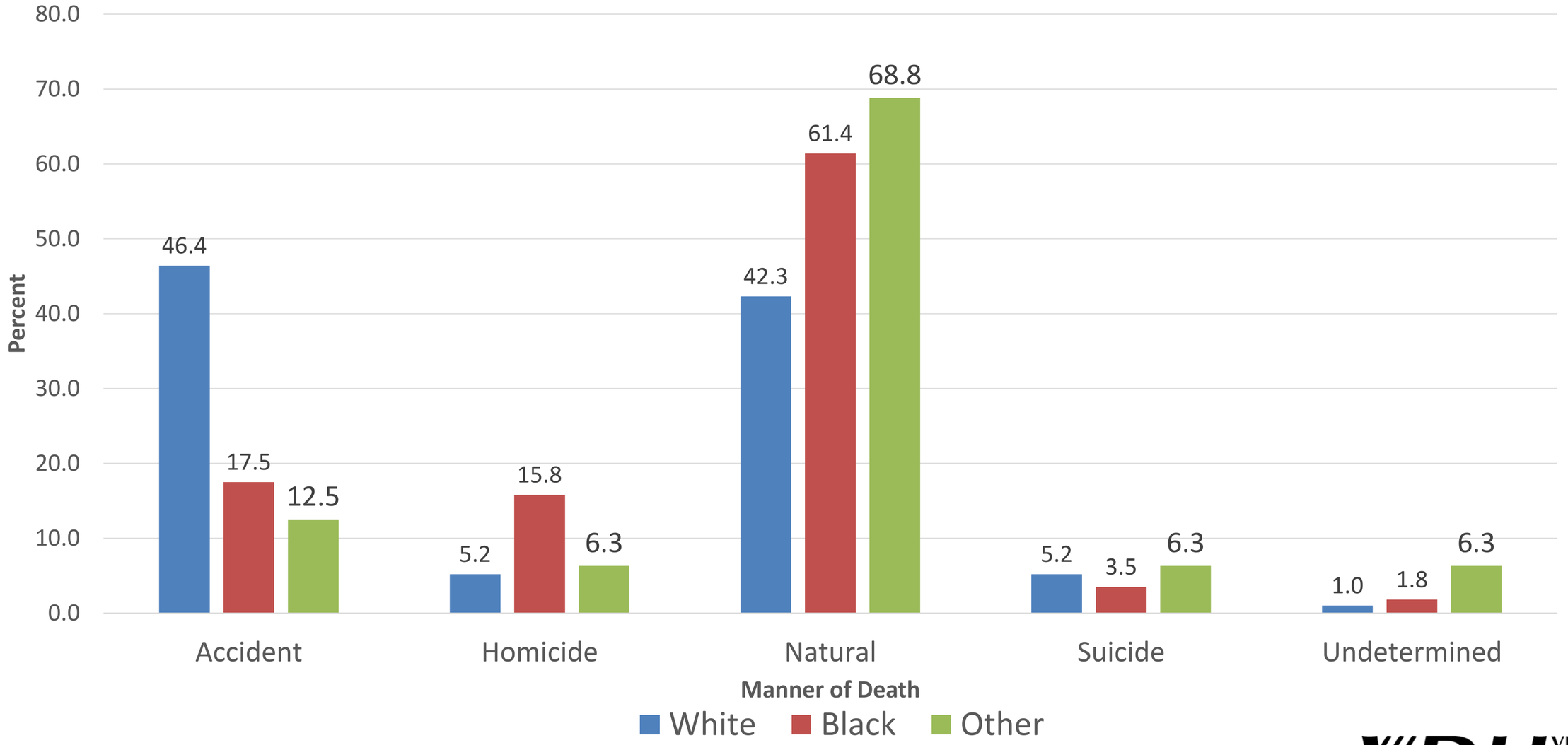
- 36% of deaths occurred while pregnant or on the day of delivery.

- 41.6% of deaths occurred 43 days or more past the date of delivery

- Leading causes of death:
  - Accidental overdoses (28.2%)
  - Cardiac conditions (10.6%)
  - Infection (9.4%)
  - Homicide (8.8%)
  - Hemorrhage (7.1%)



Racial Differences in Manner of Death, 2018-2020



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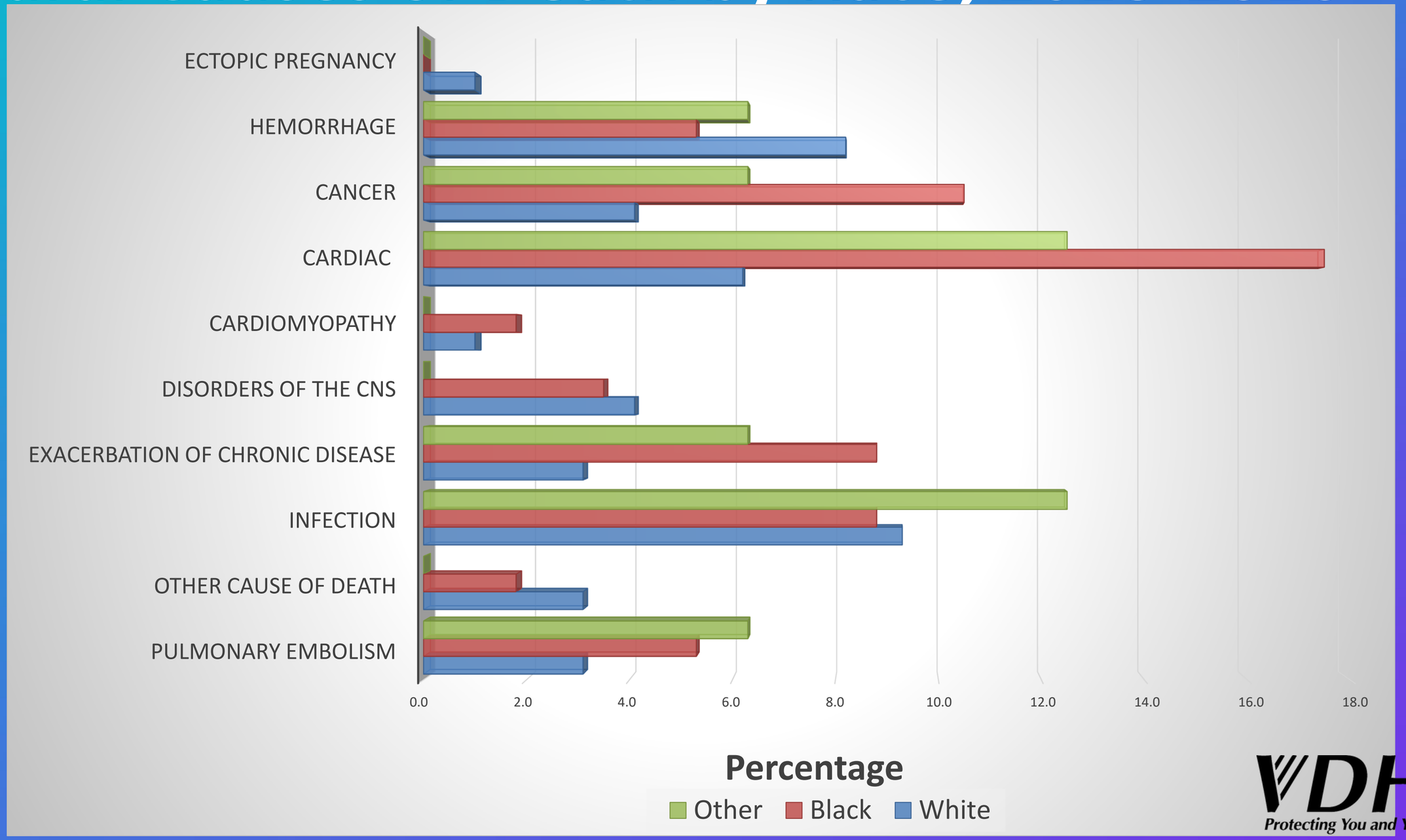
Natural Causes of Death by Race, 2018-2020



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Risk Factors Identified

- Mental illness
  - Depression
  - Anxiety
- Chronic substance abuse
- Intimate Partner Violence
- Chronic disease

Contributors to Mortality

- Community:
  - Lack of community outreach/support
  - Inadequate subsidy of care
- Provider-related:
  - Inadequate assessment of risk
  - Delay in or lack of diagnosis, treatment or follow-up
  - Failure to refer or seek consultation
  - Lack of communication between providers
  - Poor provider-patient communication

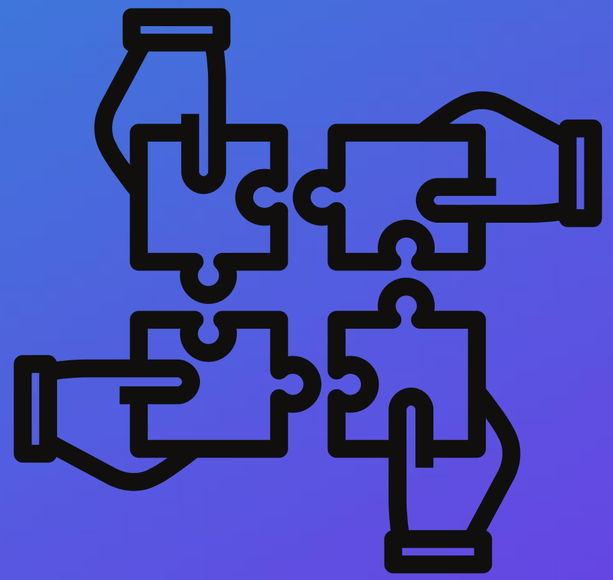
Contributors to Mortality

- Facility -related factors:
  - Inadequately trained personnel
  - Policies contributed to delay or inadequate treatment.
  - Lack of continuity of care

- Patient-related factors:
  - Chronic medical condition
  - Mental illness
  - Substance abuse
  - Noncompliance
  - Failure or delay in seeking care

Patient-related contributors to mortality often reflect other factors, including:

- Social/environmental factors
- Multiple life stressors and risk factors
- A lack of knowledge and understanding of the importance of certain events and appropriate treatment/follow-up.



Review to Action: Recommendation Themes

Education and Awareness

- Racial/ethnic health disparities
- Shared-decision making
- Cultural competency/cultural humility
- Implicit Bias

Utilization of Prescribed Management Pregnancy and Postpartum Algorithms for standards of care.

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Review to Action: Recommendation Themes

Screening & Referrals

- Screening, Brief Intervention and Referral to Treatment (SBIRT) for substance abuse
- Screening for mental illness
- Screening for intimate partner violence

Coordination of Care

Questions?

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