UPDATE ON MATERNAL MORTALITY IN THE U.S. AND NEW MEXICO

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AWHONN NM SECTION CONFERENCE
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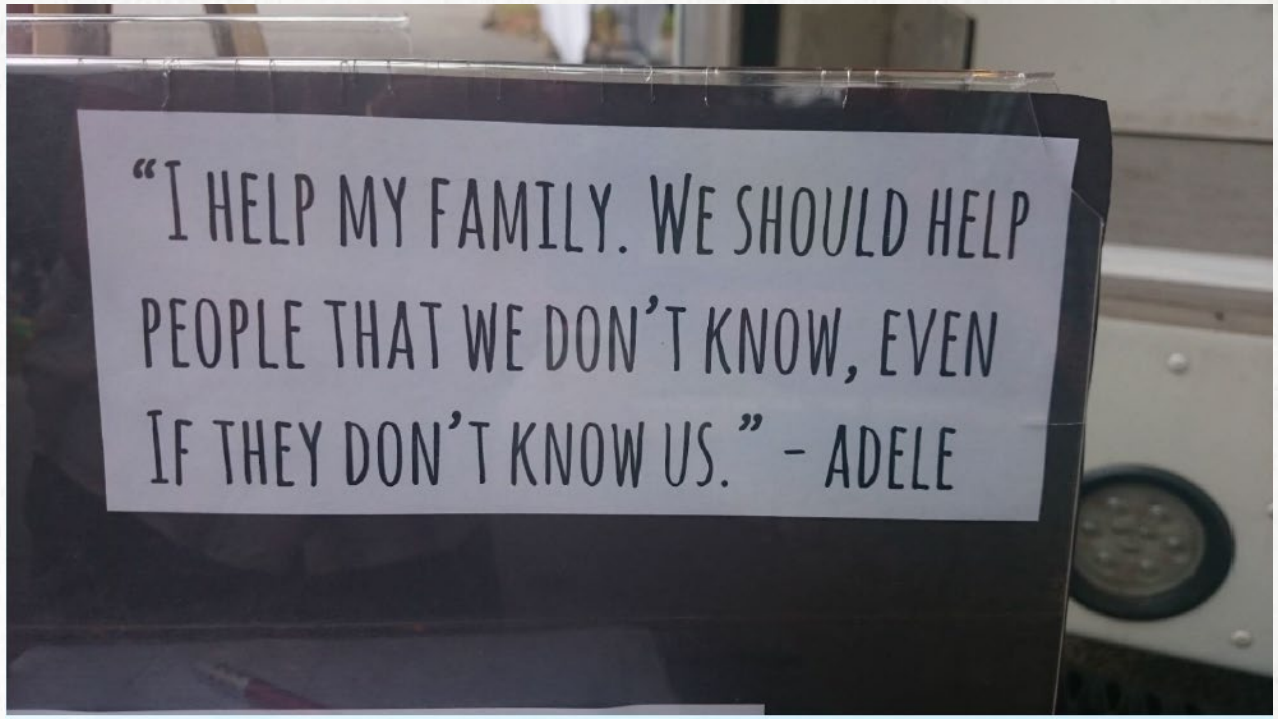
DISCLOSURES

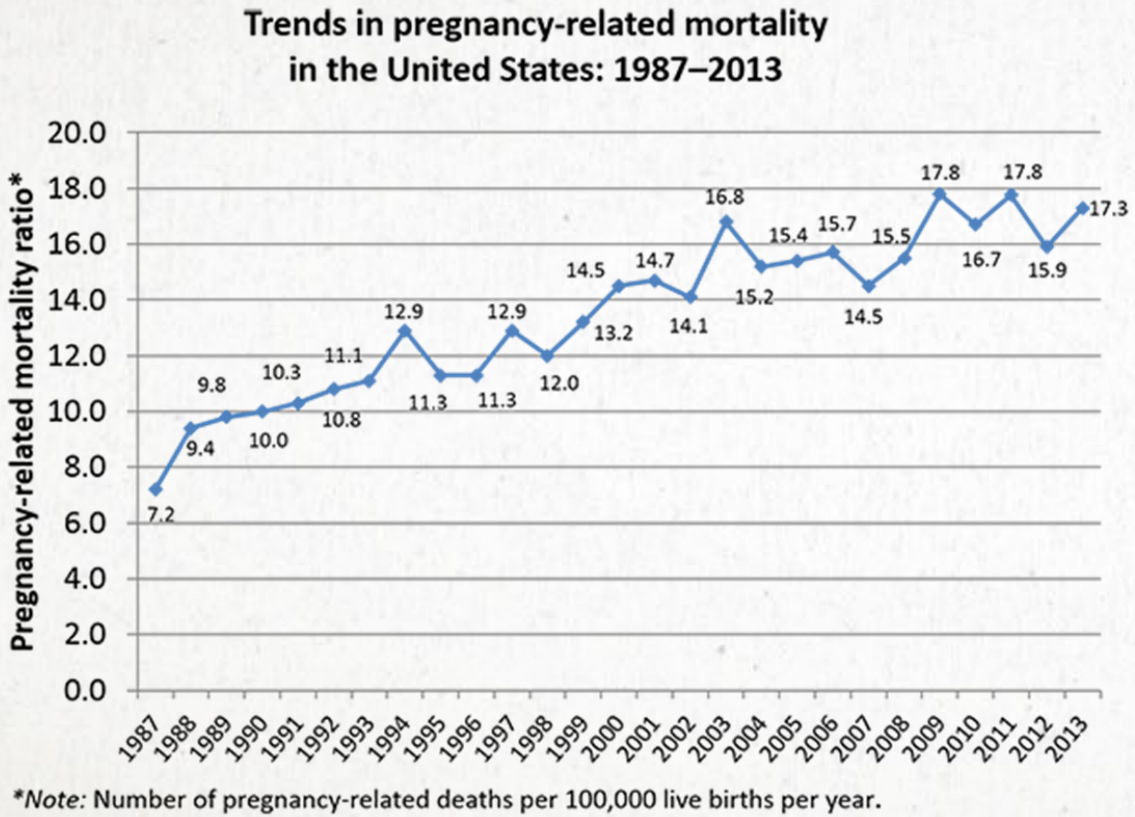
- Nothing to disclose
- No conflicts of interest



OBJECTIVES

- Provide an overview of maternal mortality in the U.S.
- Explain maternal mortality data and terminology
- Describe the maternal mortality review process
- Share maternal mortality review resources and tools
- Provide an overview of New Mexico data and unique challenges for the state

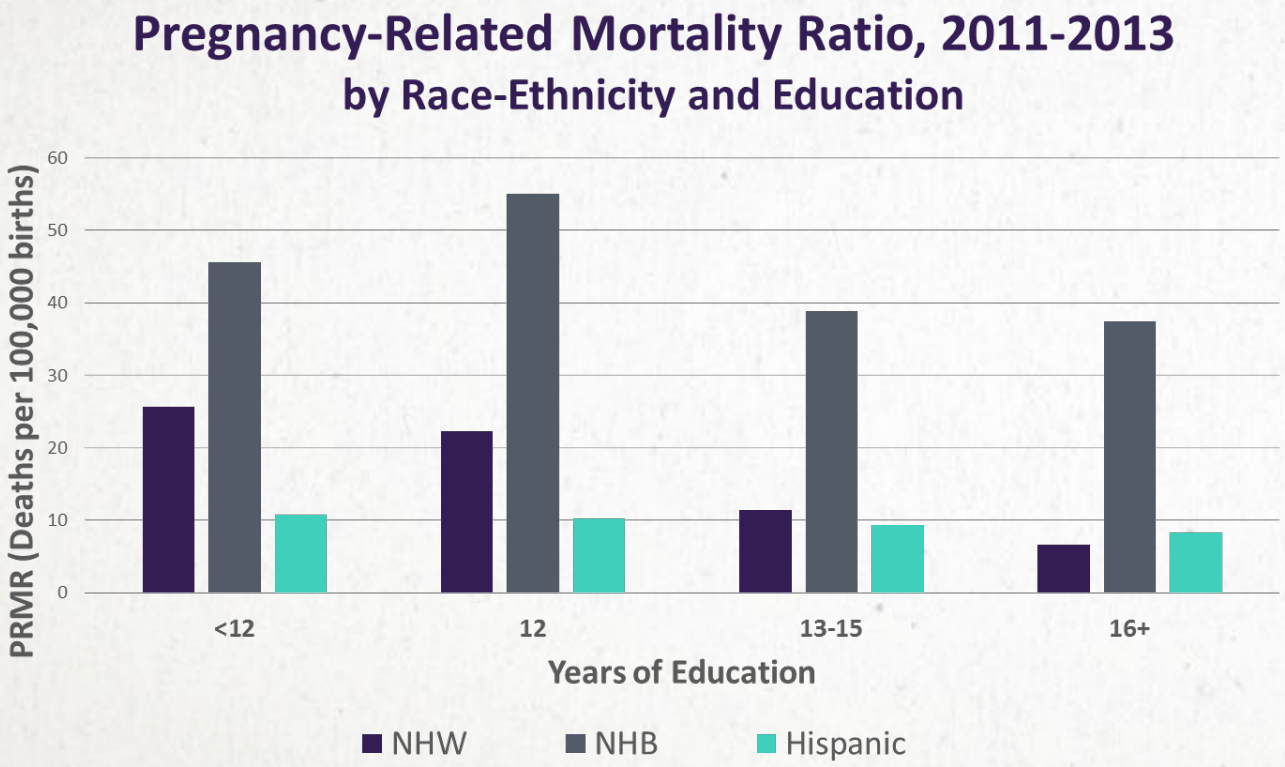
CURRENT CHALLENGE

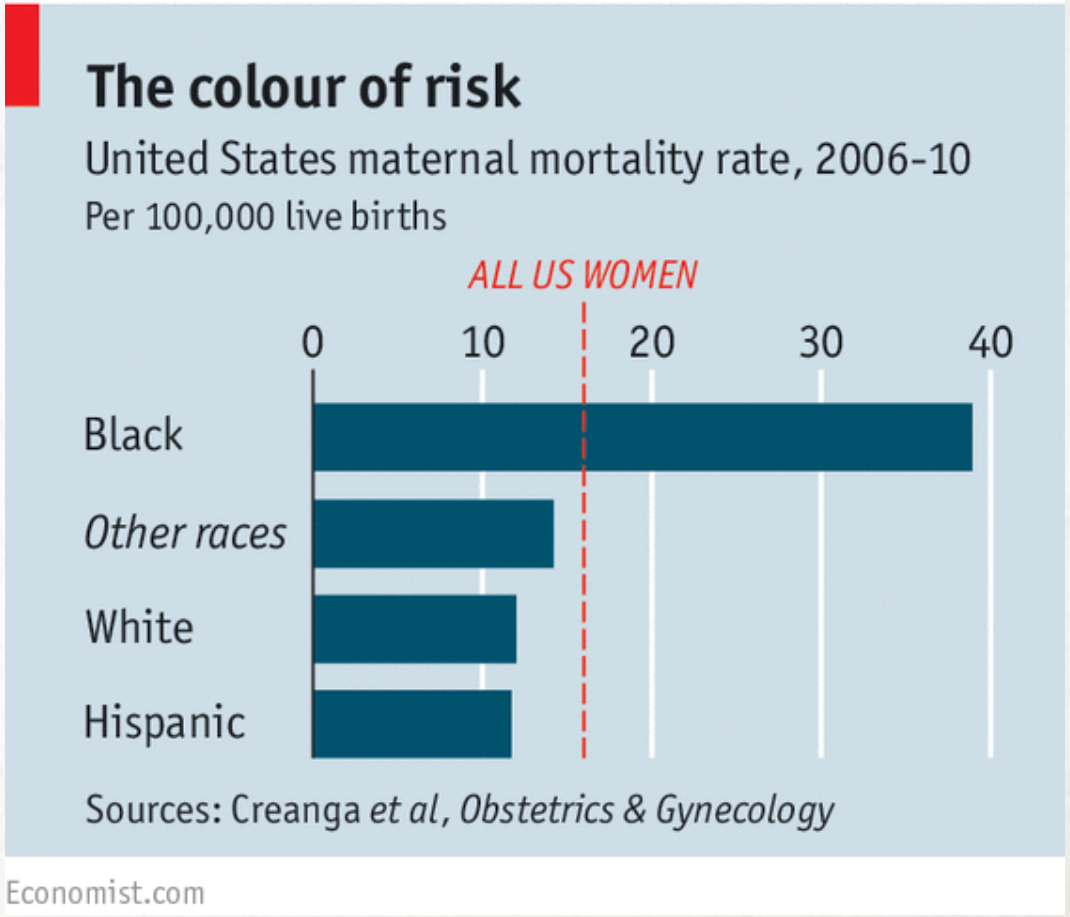


Note: Number of pregnancy-related deaths per 100,000 live births per year.

http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html

DISPARITIES



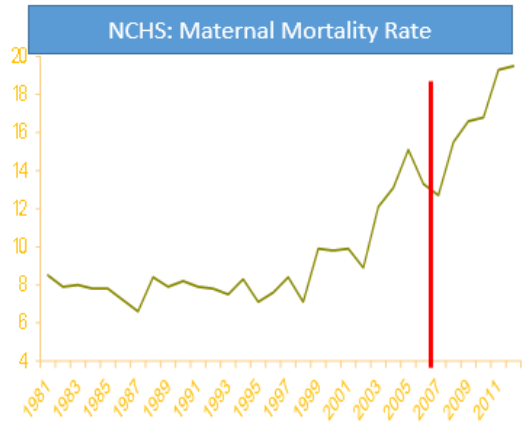


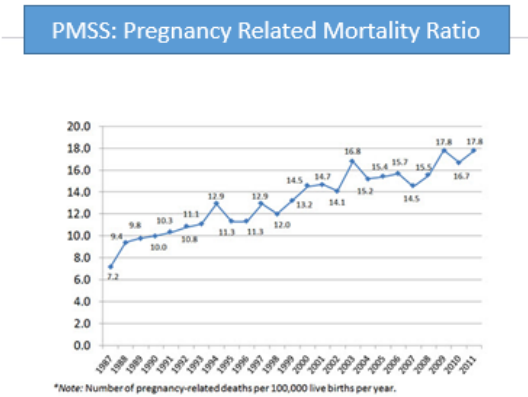
POSSIBLE REASONS FOR THE RISE

- Increasing maternal age, obesity, and chronic conditions
- Factors related to the quality of health care, both inpatient and outpatient, were likely to have been involved
- Social factors, (i.e., lower socioeconomic status, low levels of social support or coping skills, chronic exposure to social stressors such as racism), or differential access to health care may have played an important role.
- Better data collection may account for increased rates: ICD-10 codes (1999), pregnancy check box added (2003) to the death certificate

NATIONAL SOURCES FOR DATA COLLECTION

- 2 main sources for national estimates of maternal mortality (through CDC):
  - National Center for Health Statistics (NCHS)
  - Pregnancy Mortality Surveillance System (PMSS)



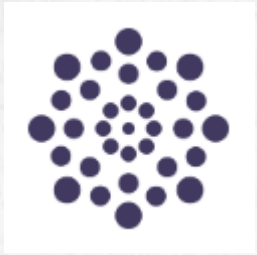


Note: NCHS stopped officially reporting the Maternal Mortality Rate in 2007

Sources:

- Maternal Mortality Rate – CDC WONDER. http://wonder.cdc.gov/ucd-icd10.html
- Pregnancy Related Mortality Ratio – PMSS. http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html

DEFINITIONS



- Pregnancy-associated death
  - The death of a woman while pregnant or within one year of the termination 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-associated, but not related death
  - 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 (e.g.. a pregnant woman dies in an earthquake).

- 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.

DATA COLLECTION

WHO: Maternal Mortality

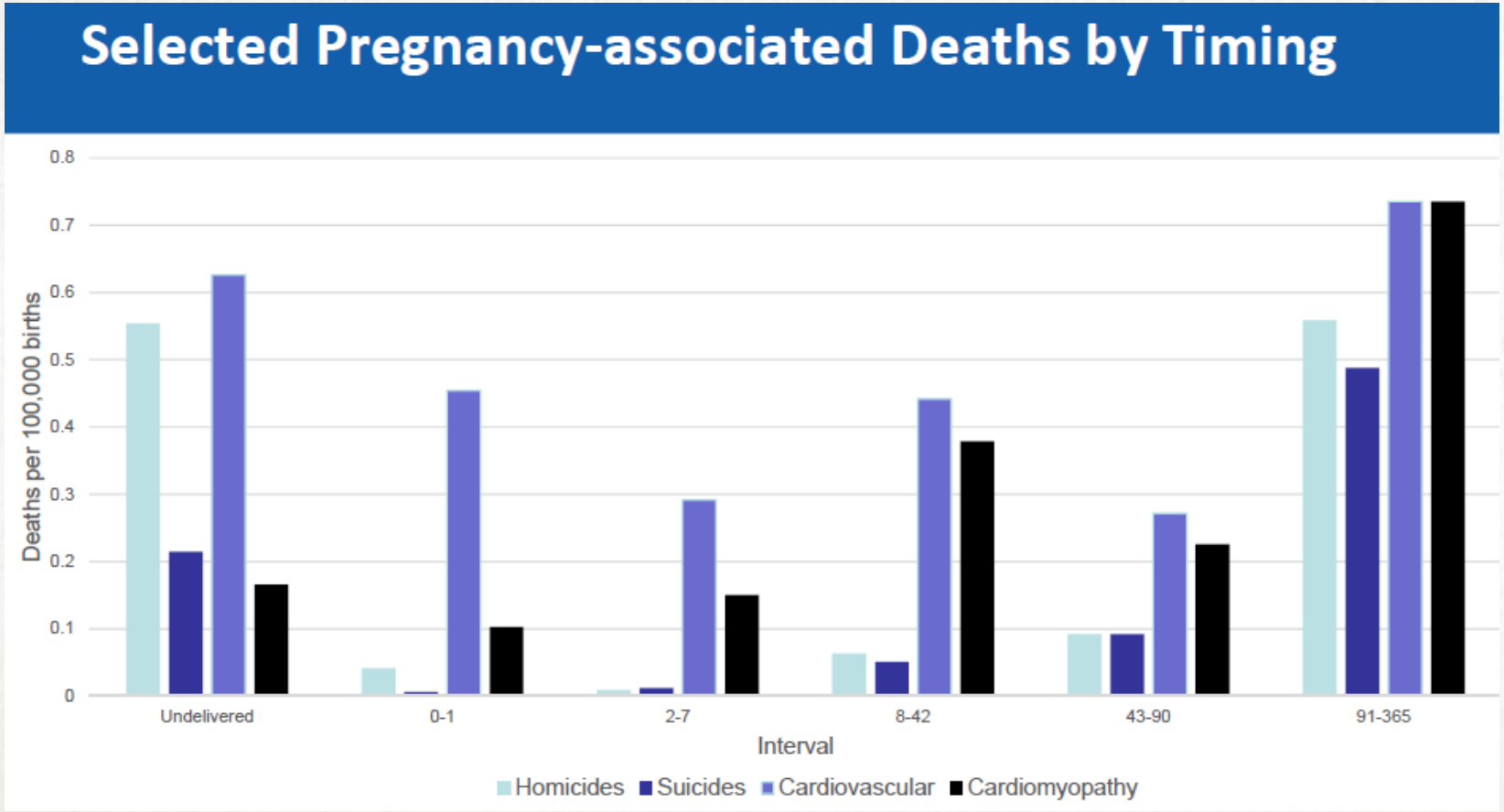
- Death during pregnancy or within 42 days after delivery from a pregnancy related cause
- Data collected is from Death Certificates with a specified range of O-codes
- Used for national and international comparisons
- In the 2000's a pregnancy checkbox was added to the U.S. Death Certificate to better capture maternal deaths

CDC: Maternal Mortality

- Death during pregnancy or within one year after delivery from a pregnancy related cause
- Data collected from Death Certificates, Birth Certificates and other administrative data and reviewed by an experienced team at the CDC Pregnancy Maternal Surveillance System (PMSS)
- Data published every 3-6 years

Slide from Elliott K. Main, MD

WHAT SHOULD WE COUNT?



Slide from William M. Callaghan, MD, MPH

WHY A MATERNAL MORTALITY REVIEW PROCESS?

	CDC – National Center for Health Statistics (NCHS)	CDC – Pregnancy Mortality Surveillance System (PMSS)	Maternal Mortality Review Committees
Data Source	Death certificates	Death certificates linked to fetal death and birth certificates	Death certificates linked to fetal death and birth certificates, **medical records, social service records, informant interviews…**
Time Frame	During pregnancy – 42 days	During pregnancy – 365 days	During pregnancy – 365 days
Source of Classification	ICD-10 codes	Medical epidemiologists (PMSS-MM)	**Multidisciplinary committees**
Terms	Maternal death	Pregnancy associated, (Associated and) Pregnancy related, (Associated but) Not pregnancy related	Pregnancy associated, (Associated and) Pregnancy related, (Associated but) Not pregnancy related
Measure	Maternal Mortality Rate - # of Maternal Deaths per 100,000 live births	Pregnancy Related Mortality Ratio - # of Pregnancy Related Deaths per 100,000 live births	Pregnancy Related Mortality Ratio - # of Pregnancy Related Deaths per 100,000 live births
Purpose	Show national trends and provide a basis for international comparison	Analyze clinical factors associated with deaths, publish information that may lead to prevention strategies	Understand medical and non-medical contributors to deaths, prioritize interventions that effectively reduce maternal deaths

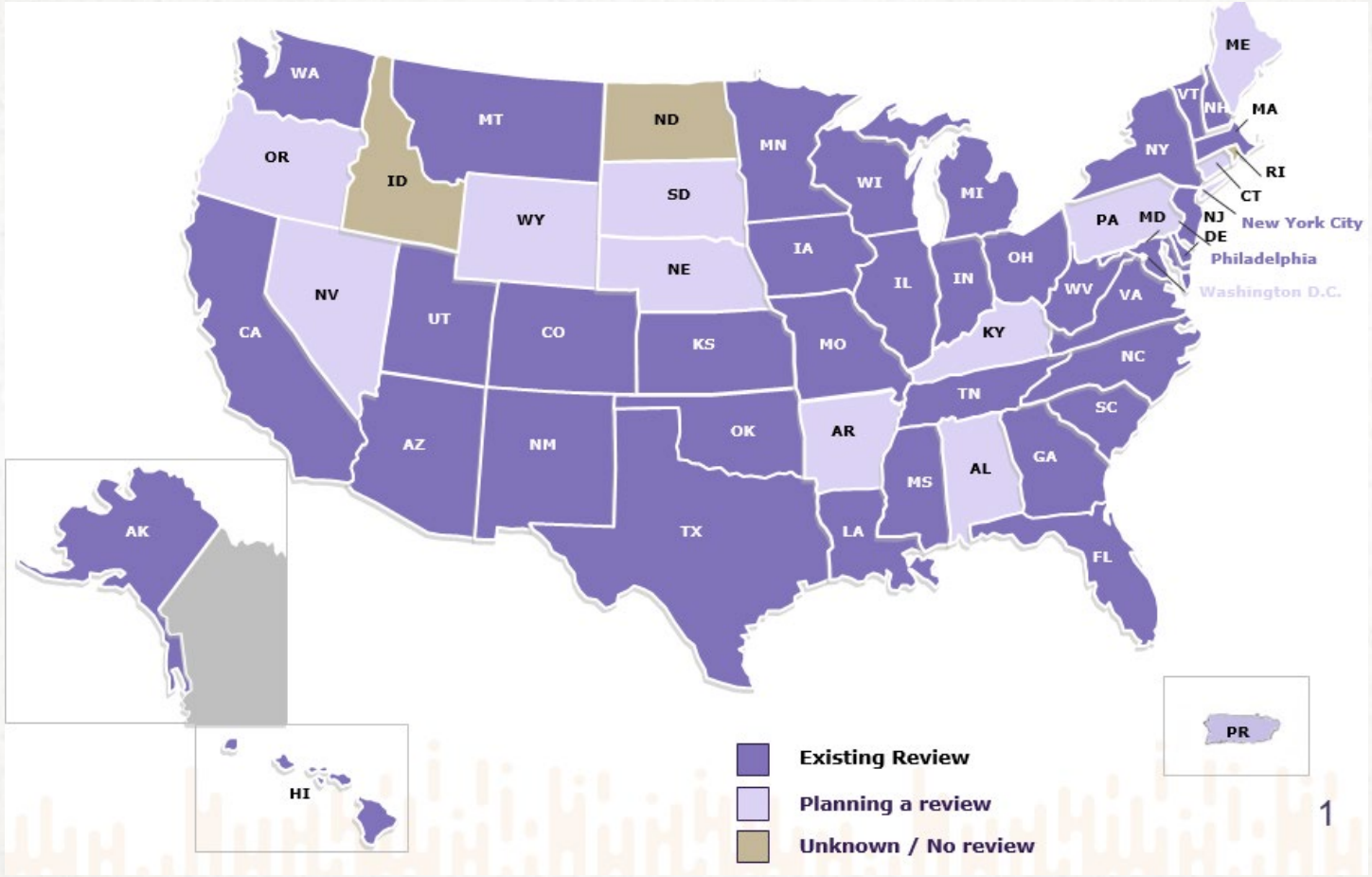
Nicely reviewed in:

- Callaghan, William M. 2012. Overview of maternal mortality in the United States. Seminars in perinatology. 36; 1: 2-6.
- Berg C, et al. (Editors). Strategies to reduce pregnancy-related deaths: from identification and review to action. Atlanta: Centers for Disease Control and Prevention; 2001

PURPOSE OF A REVIEW COMMITTEE

- The purpose of the review process is to find solutions, not assign blame.
- The implementation of solutions and interventions identified by the committee is the ultimate goal of the review process – data collection and analysis alone do not have a purpose.

MAP OF MMRC STATES – 38 STATES AND 2 CITIES



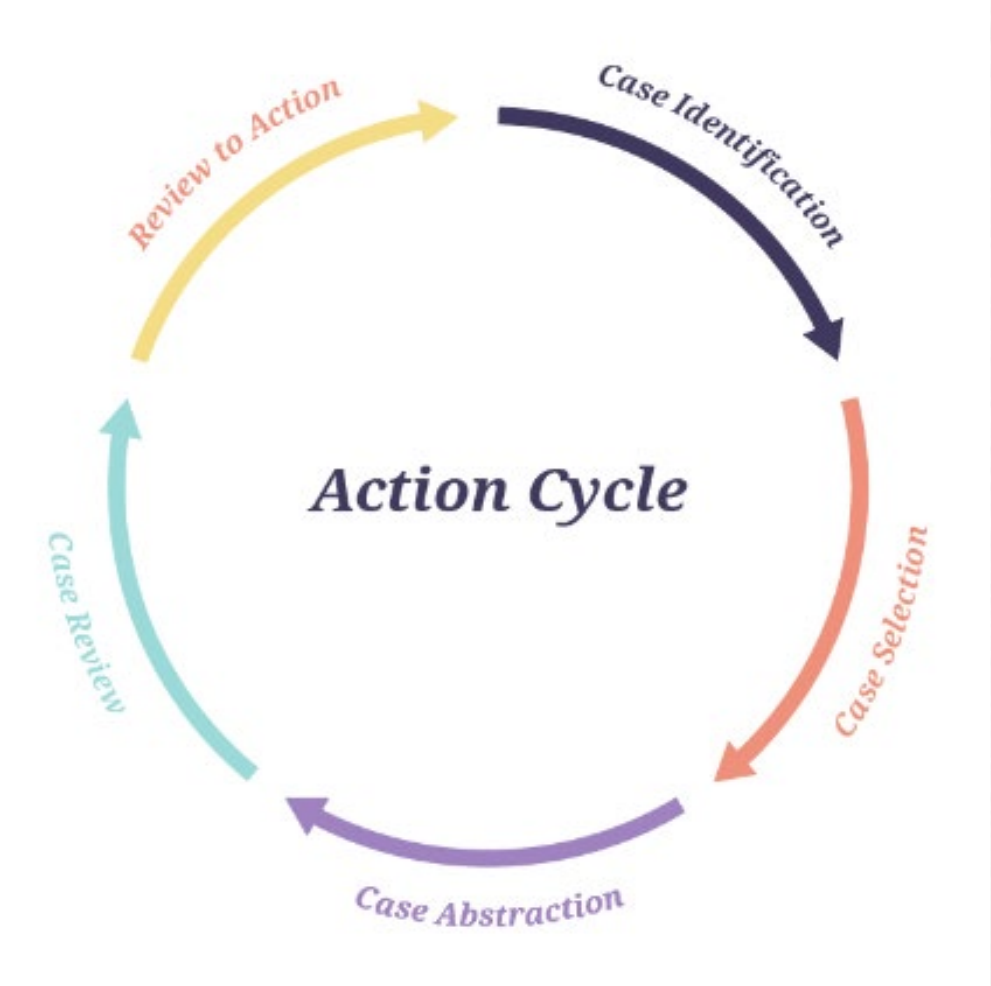
MATERNAL MORTALITY REVIEW COMMITTEES

- Maternal mortality review is a standard and comprehensive system primarily operating at the state level.
  - MMRCs identify, review, and analyze maternal deaths; disseminate findings; and act on the results.
- A MMRC gathers extensive information about each individual case of maternal death selected for review, and this information is synthesized into a story for that case.
- The committee convenes to further fill in the story and, for each case, answer the question, “What happened?”
- The committee then determines if the death was related to or aggravated by pregnancy.
  - If so, the death is one counted in the state’s pregnancy-related mortality ratio.
- Committee members also will craft recommendations specific to the case to ensure that a similar story doesn’t unfold in the future.

WHAT IS A FULLY FUNCTIONAL REVIEW COMMITTEE?

- It has required authority and protections
- It has defined stakeholders and multidisciplinary membership
- It has a defined purpose, mission, vision, and scope
- It has processes that are established and documented
- It uses data to develop information
- It translates information/recommendations to action (directly/indirectly)

ONGOING QUALITY IMPROVEMENT CYCLE



MATERNAL MORTALITY REVIEW COMMITTEE

https://www.youtube.com/watch?v=jtKde7hGz4I

MEMBERS

- Chair(s)
- Abstractor(s)
- Administrative support
  - Coordinator
  - Epidemiologist(s)
  - Database manager
- Diverse membership

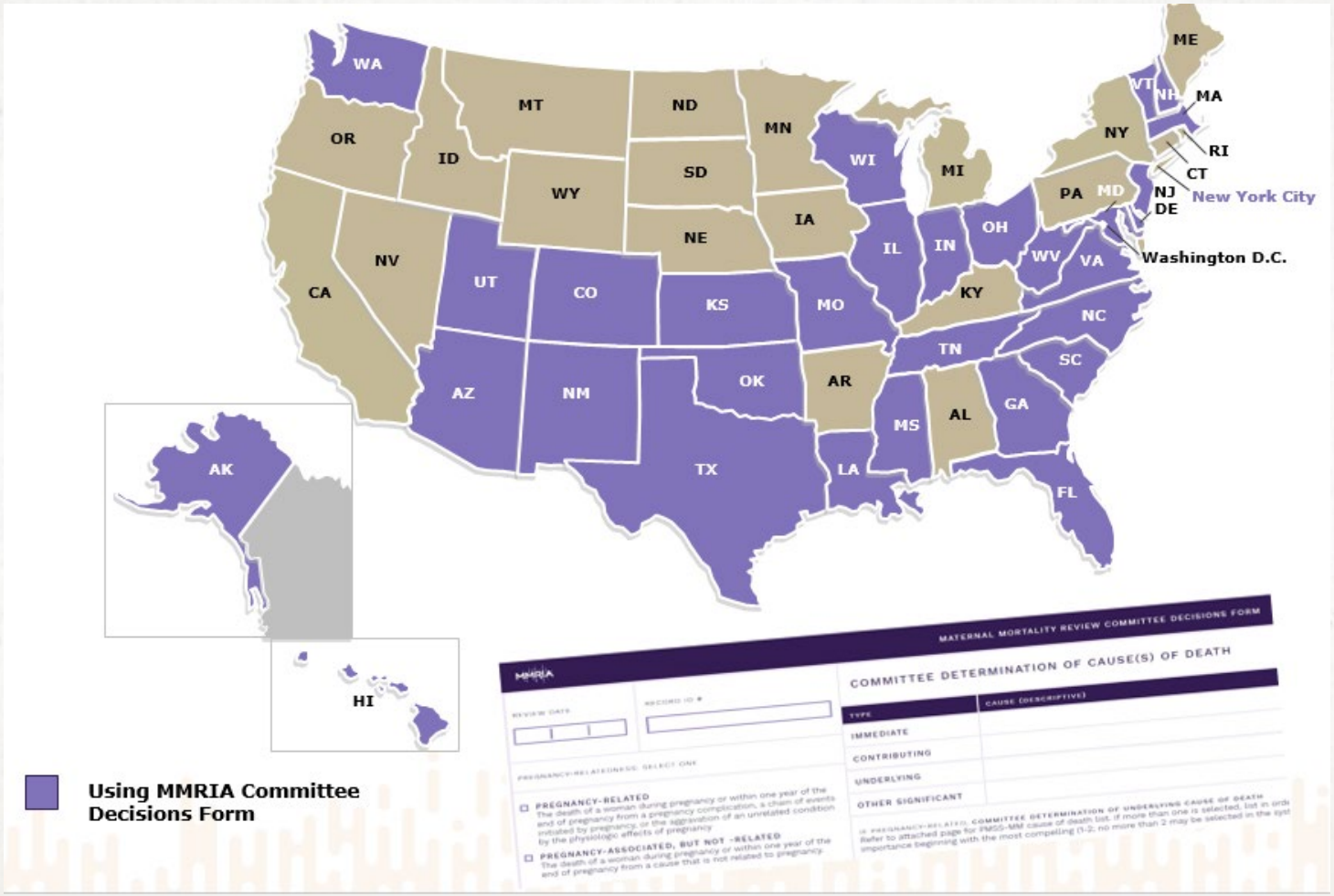
Organizations	Core Disciplines	Specialty Disciplines
Academic Institutions	Anesthesiology	Cardiology
Behavioral Health Agencies	Family Medicine	Clergy
Blood Banks	Forensic Pathology	Community Leadership
Community Advocate	Maternal Fetal Medicine/ Perinatology	Critical Care Medicine
Federal Qualified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

MATERNAL MORTALITY REVIEW INFORMATION APPLICATION - MMRIA

- MMRIA is a data system designed to empower the maternal mortality review community to create action through a common data language
  - System is provided free of cost to maternal mortality review committees for their own use
  - The system and the data live within state jurisdiction
    - If jurisdictions wish to share data, they may do so, but it is not required
  - Secure
- MMRIA is designed to support and standardize:
  - Data abstraction
  - Case narrative development
  - Documentation of committee decisions
  - Routine analysis

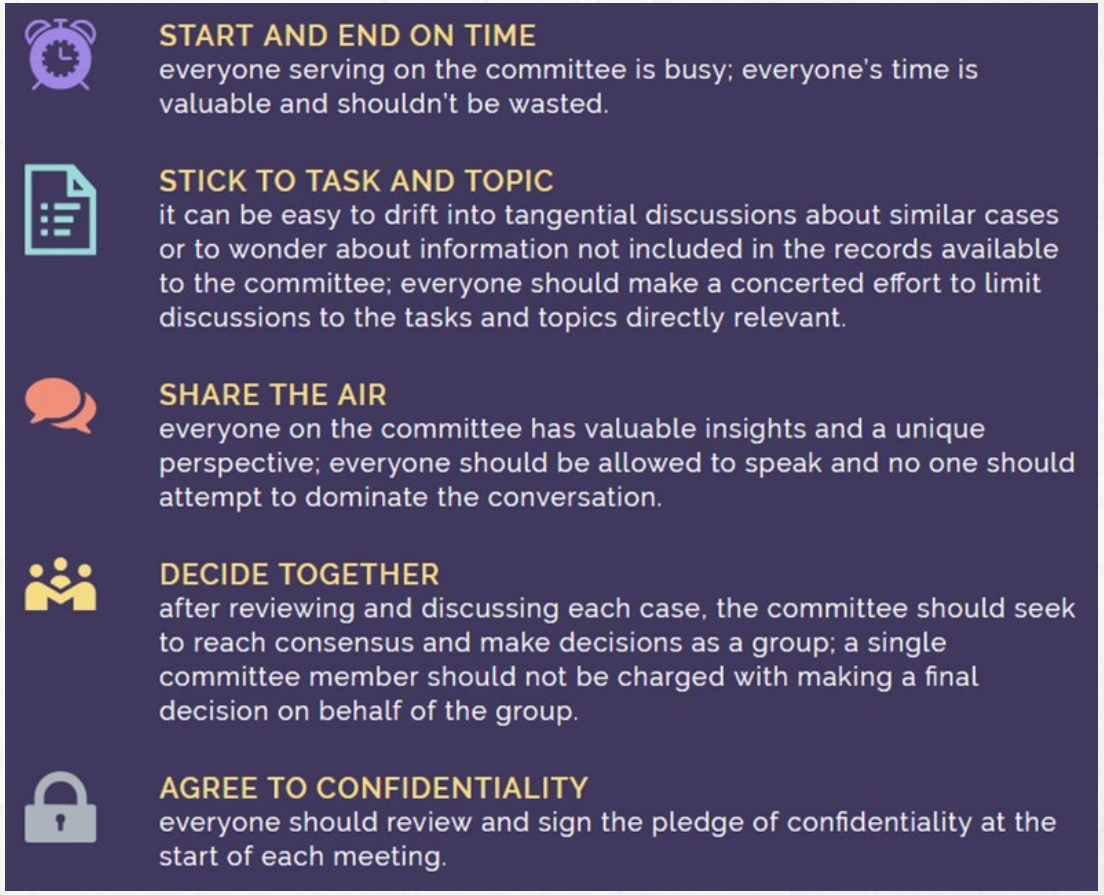
MMRIA
MATERNAL
MORTALITY REVIEW
INFORMATION APP

COMMON LANGUAGE – 31 STATES USING MMRIA



EXAMPLE OF AN MMRC MEETING

- Introductions
- Ground rules
  - Includes confidentiality statement agreement
- Mission, vision, definitions



MOCK CASE: CASE NARRATIVE

- The patient presented as a 30-year-old, Black-Haitian (born in Haiti) homemaker with a high school education who was separated from her husband. She was a gravida 6 para 0414, who died with cause of death cardiogenic shock secondary to peripartum cardiomyopathy due to non-ST elevated myocardial infarction (NSTEMI), six weeks after delivery. Medical history was significant for heart failure and development of asthma after delivery in 2005. Body mass index (BMI) was 33.8. Life course issues significant for chronic smoker, single mom, living with her sister, Creole-speaking on Medicaid, with restraining order against father of baby (FOB).

- Entry into prenatal care was at 36 weeks with four visits at a hospital clinic with an obstetrician (OB). Prenatal history was significant for late entry into care and anemia. There were no referrals made during the prenatal period.

- There were no noted health events prior to delivery. She presented to hospital at 38.3 weeks gestation for induction/augmentation of labor. On admission, she requested sister adopt infant and a social service consult was made. Delivery was by an OB, method was spontaneous vaginal delivery (SVD) with epidural anesthesia. No obstetric complications noted. Infant was 38 weeks' gestation and weighed 7 pounds/2 ounces, Apgar scores were 9/9. Day after delivery, she developed dry cough, chest x-ray (CXR) was negative. Social service consult completed for adoption request but due to potential for lengthy paternity legal issues, adoption plans were to be formalized after discharge. Mother and infant were discharged to home. Decedent had scheduled early postpartum visit at 2 weeks. At visit, she complained of (c/o) being tired and still having pain. Edema noted in lower extremities, and she was encouraged to ambulate more and quit smoking. Two days later, she presented to emergency room (ER) (same as delivery facility) with complaints of right-sided chest pain and shortness of breath. Studies negative for pulmonary embolus. CXR noted cardiomegaly consistent with postpartum state. Pain relieved with narcotics, and she was discharged home with instructions to follow up with her primary care physician (PCP). Three weeks later, she presented to a different emergency department (ED) with c/o shortness of breath (SOB) and chest pain. She was diagnosed with NSTEMI and cardiogenic shock and admitted to intensive care unit (ICU). Seven hours after admission, she was transferred out to higher level cardiac care. Cardiac catheterization was completed. Cardiac support given but patient died seven days after admission. The case was not referred to the medical examiner (ME) and no autopsy was performed.

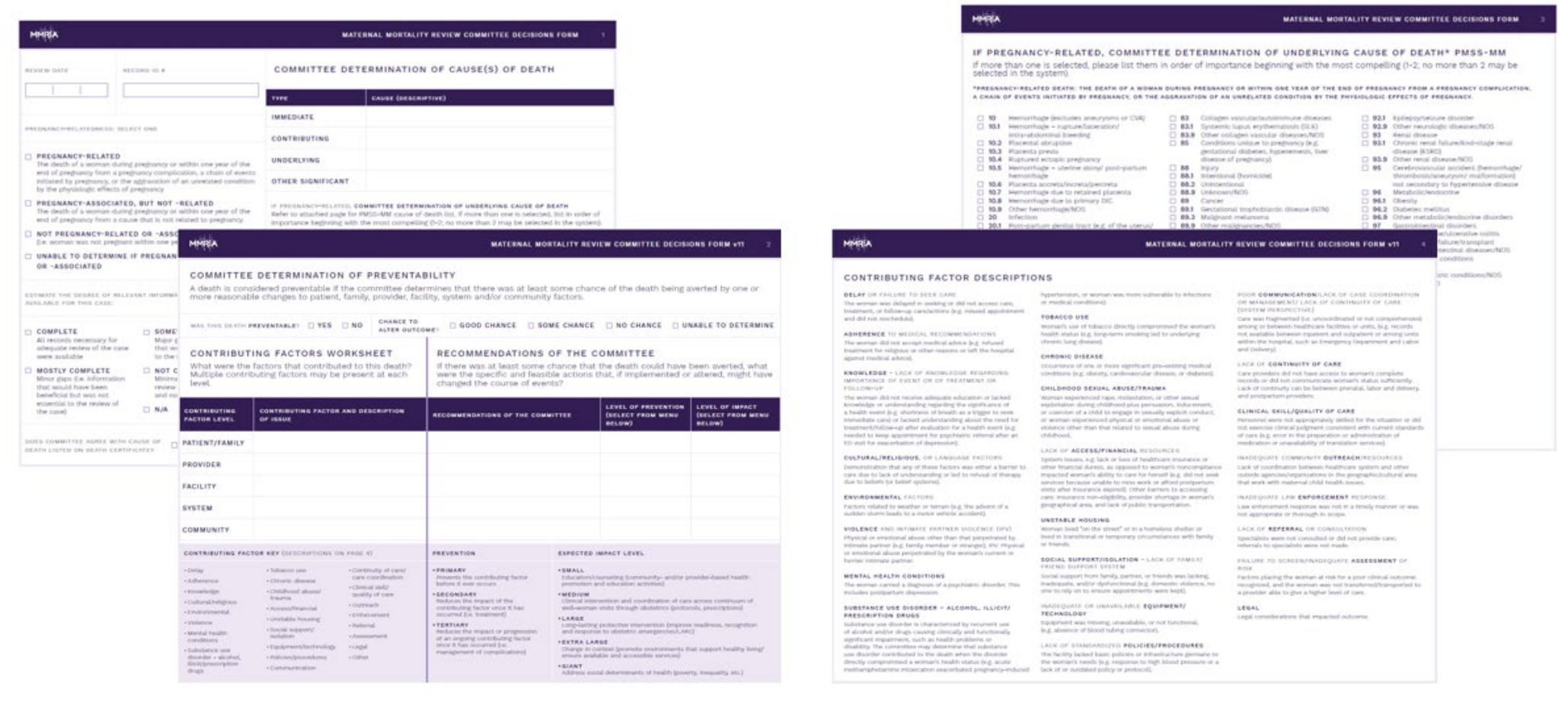
DISCUSSION BY THE MMRC

- https://youtu.be/w-TLT4lHXbo

MATERNAL MORTALITY REVIEW COMMITTEE CONSENSUS, DECISIONS AND NEXT STEPS

- https://www.youtube.com/watch?time_continue=123&v=zGbiFBSHjLg

HOW ARE COMMITTEE DECISIONS CAPTURED?



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MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM

COMMITTEE DETERMINATION OF CAUSE(S) OF DEATH

TYPE	CAUSE (DESCRIPTIVE)
IMMEDIATE	
CONTRIBUTING	
UNDERLYING	
OTHER SIGNIFICANT	

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.

NOT PREGNANCY-RELATED OR -ASSOCIATED

UNABLE TO DETERMINE IF PREGNANCY-RELATED OR -ASSOCIATED

COMPLETE

MOSTLY COMPLETE

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v11

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 ☐ SOME CHANCE ☐ NO CHANCE ☐ UNABLE TO DETERMINE

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?

CONTRIBUTING FACTOR LEVEL	CONTRIBUTING FACTOR AND DESCRIPTION OF ISSUE	RECOMMENDATIONS OF THE COMMITTEE	LEVEL OF PREVENTION (SELECT FROM MENU BELOW)	LEVEL OF IMPACT (SELECT FROM MENU BELOW)
PATIENT/FAMILY				
PROVIDER				
FACILITY				
SYSTEM				
COMMUNITY				

CONTRIBUTING FACTOR KEY (DESCRIPTIONS ON PAGE 4)

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

PREVENTION

- 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 an ongoing contributing factor once it has occurred (i.e. management of complications)

EXPECTED IMPACT LEVEL

- 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 through obstetrics (protocols, prescriptions)
- LARGE: Long-lasting protective intervention (improve readiness, recognition and response to obstetric emergencies/LMIC)
- 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.)

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MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM

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

If more than one is selected, please list them in order of importance beginning with the most compelling (1-2, no more than 2 may be selected in the system).

*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.

- 10 Hemorrhage (excludes aneurysms or CVA)
- 10.1 Hemorrhage + rupture/laceration/ intra-abdominal bleeding
- 10.2 Placental abruption
- 10.3 Placenta previa
- 10.4 Ruptured ectopic pregnancy
- 10.5 Hemorrhage + uterine atony/ post-partum hemorrhage
- 10.6 Placenta accreta/increta/percreta
- 10.7 Hemorrhage due to retained placenta
- 10.8 Hemorrhage due to primary DIC
- 10.9 Other hemorrhage/NOS
- 20 Infection
- 20.1 Post-partum genital tract (e.g. of the uterus/
- 83 Collagen vascular/autoimmune diseases
- 83.1 Systemic lupus erythematosis (SLE)
- 83.9 Other collagen vascular diseases/NOS
- 85 Conditions unique to pregnancy (e.g. gestational diabetes, hyperemesis, liver disease of pregnancy)
- 88 Injury
- 88.1 Intentional (homicide)
- 88.2 Unintentional
- 88.9 Unknown/NOS
- 89 Cancer
- 89.1 Gestational trophoblastic disease (GTN)
- 89.3 Malignant melanoma
- 89.9 Other malignancies/NOS
- 92.1 Epilepsy/seizure disorder
- 92.9 Other neurologic diseases/NOS
- 93 Renal disease
- 93.1 Chronic renal failure/kind=stage renal disease (CKD)
- 93.9 Other renal disease/NOS
- 95 Cerebrovascular accident (hemorrhagic/ thrombosis/aneurysm/ malformation) not secondary to hypertensive disease
- 96 Metabolic/endocrine
- 96.1 Obesity
- 96.2 Diabetes mellitus
- 96.9 Other metabolic/endocrine disorders
- 97 Gastrointestinal disorders

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v11

CONTRIBUTING FACTOR DESCRIPTIONS

DELAY OR FAILURE TO SEEK CARE

The woman was delayed in seeking or did not access care, treatment, or follow-up care/actions (e.g. missed appointment and did not reschedule).

ADHERENCE TO MEDICAL RECOMMENDATIONS

The woman did not accept medical advice (e.g. refused treatment for religious or other reasons or left the hospital against medical advice).

KNOWLEDGE – LACK OF KNOWLEDGE REGARDING IMPORTANCE OF EVENT OR OF TREATMENT OR FOLLOW-UP

The woman 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).

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).

ENVIRONMENTAL FACTORS

Factors related to weather or terrain (e.g. the advent of a sudden storm leads to a motor vehicle accident).

VIOLENCE AND INTIMATE PARTNER VIOLENCE (IPV)

Physical or emotional abuse other than that perpetrated by intimate partner (e.g. family member or stranger); IPV: Physical or emotional abuse perpetrated by the woman's current or former intimate partner.

MENTAL HEALTH CONDITIONS

The woman carried a diagnosis of a psychiatric disorder. This includes postpartum depression.

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

Woman's use of tobacco directly compromised the woman's health status (e.g. long-term smoking led to underlying chronic lung disease).

CHRONIC DISEASE

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

CHILDHOOD SEXUAL ABUSE/TRAUMA

Woman experienced rape, molestation, or other sexual exploitation during childhood plus persuasion, inducement, or coercion of a child to engage in sexually explicit conduct; or woman experienced physical or emotional abuse or violence other than that related to sexual abuse during childhood.

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.

UNSTABLE HOUSING

Woman lived "on the street" or in a homeless shelter or lived in transitional or temporary circumstances with family or friends.

SOCIAL SUPPORT/ISOLATION – LACK OF FAMILY/ FRIEND SUPPORT SYSTEM

Social support from family, partner, or friends was lacking, inadequate, and/or dysfunctional (e.g. domestic violence, no one to rely on to ensure appointments were kept).

INADEQUATE OR UNAVAILABLE **EQUIPMENT/ TECHNOLOGY**

Equipment was missing, unavailable, or not functional, (e.g. absence of blood tubing connector).

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).

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**

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.

CLINICAL SKILL/QUALITY OF CARE

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).

INADEQUATE COMMUNITY **OUTREACH**/RESOURCES

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

INADEQUATE LAW **ENFORCEMENT** RESPONSE

Law enforcement response was not in a timely manner or was not appropriate or thorough in scope.

LACK OF **REFERRAL** OR CONSULTATION

Specialists were not consulted or did not provide care; referrals to specialists were not made.

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.

LEGAL

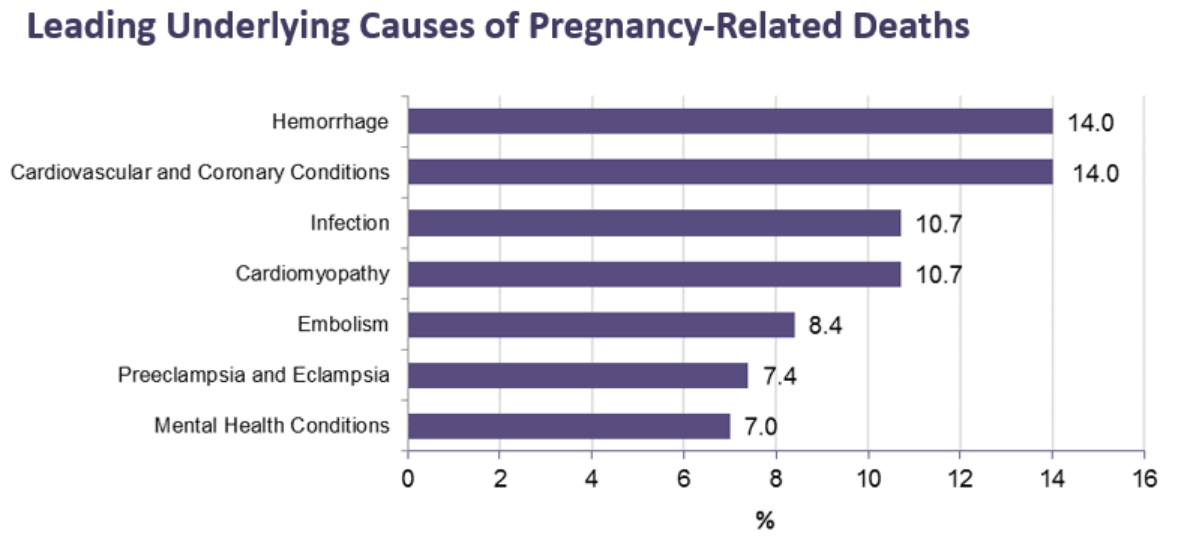
Legal considerations that impacted outcome.

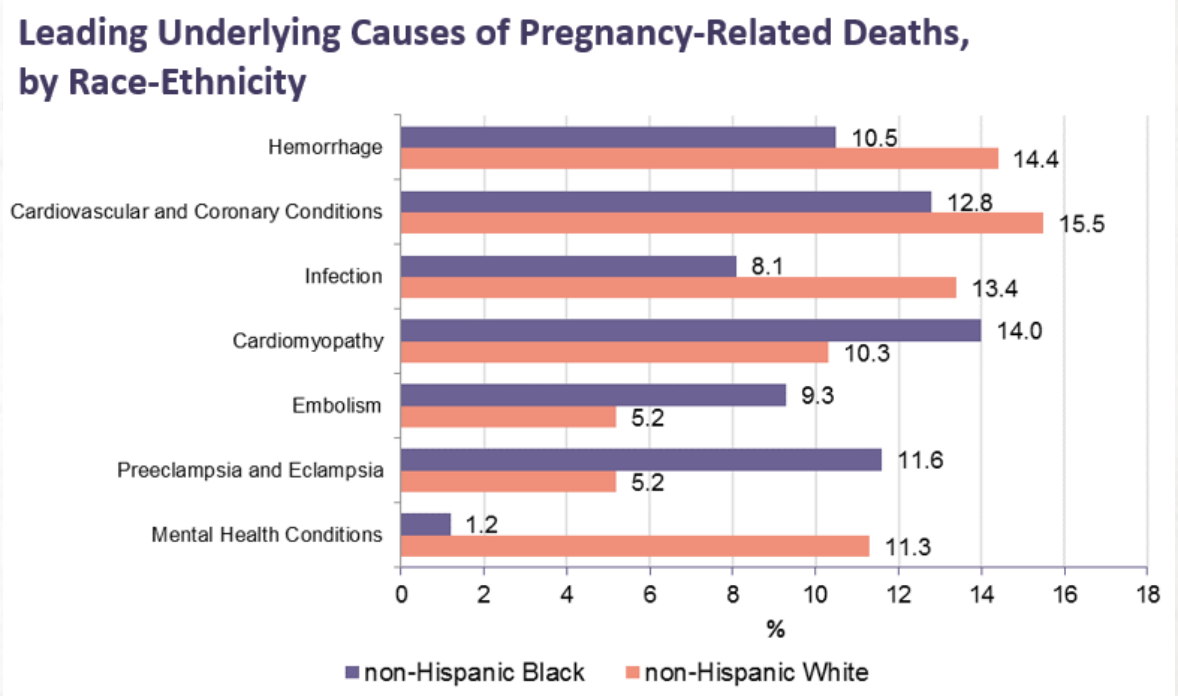
HOW DATA CAN BE USED TOGETHER

- A report of data from **nine** states using a standard data-collection system provides an in-depth analysis of causes of death, preventability, and specific recommendations for action.
- For example:
  - It confirms that most pregnancy-related deaths are preventable and highlights key opportunities for prevention.
  - Nearly half of all pregnancy-related deaths were caused by hemorrhage, cardiovascular and coronary conditions, cardiomyopathy or infection.
  - Causes of death differ by race, which highlights unique opportunities for prevention.

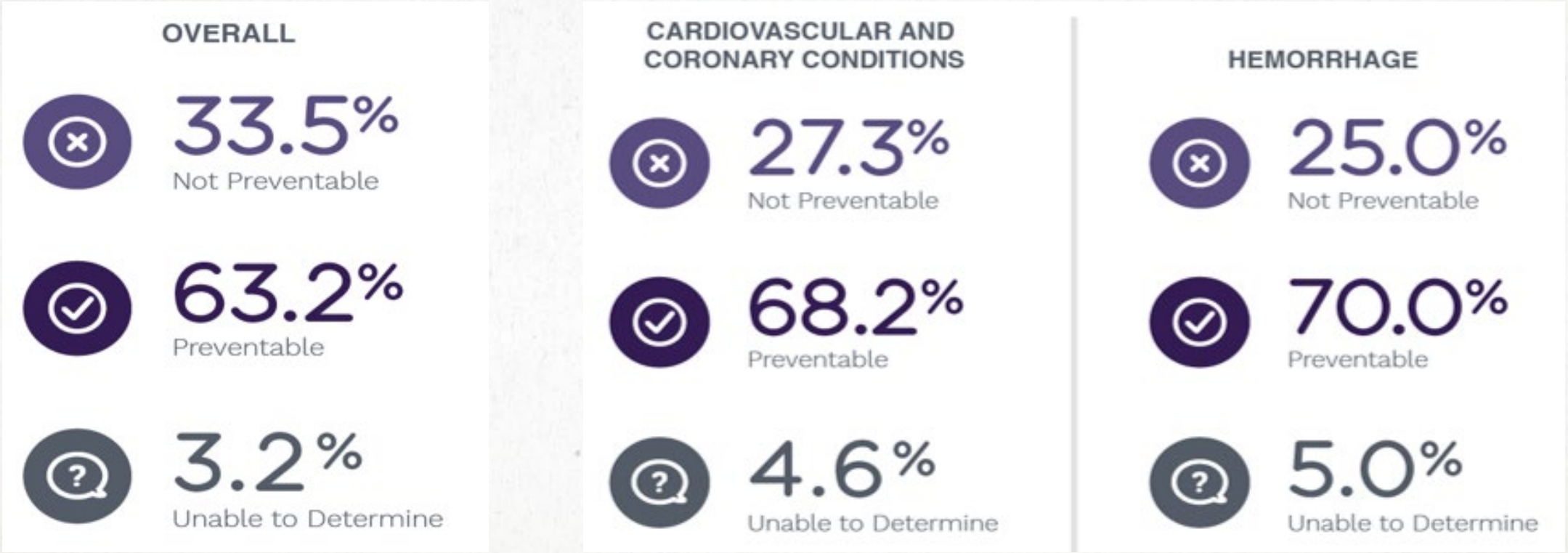
FINDINGS: DISTRIBUTION OF PREGNANCY-RELATED DEATHS BY TIMING OF DEATH IN RELATION TO PREGNANCY

FINDINGS: CAUSE OF DEATH (WITH COMPARISON OF RACE/ETHNICITY)

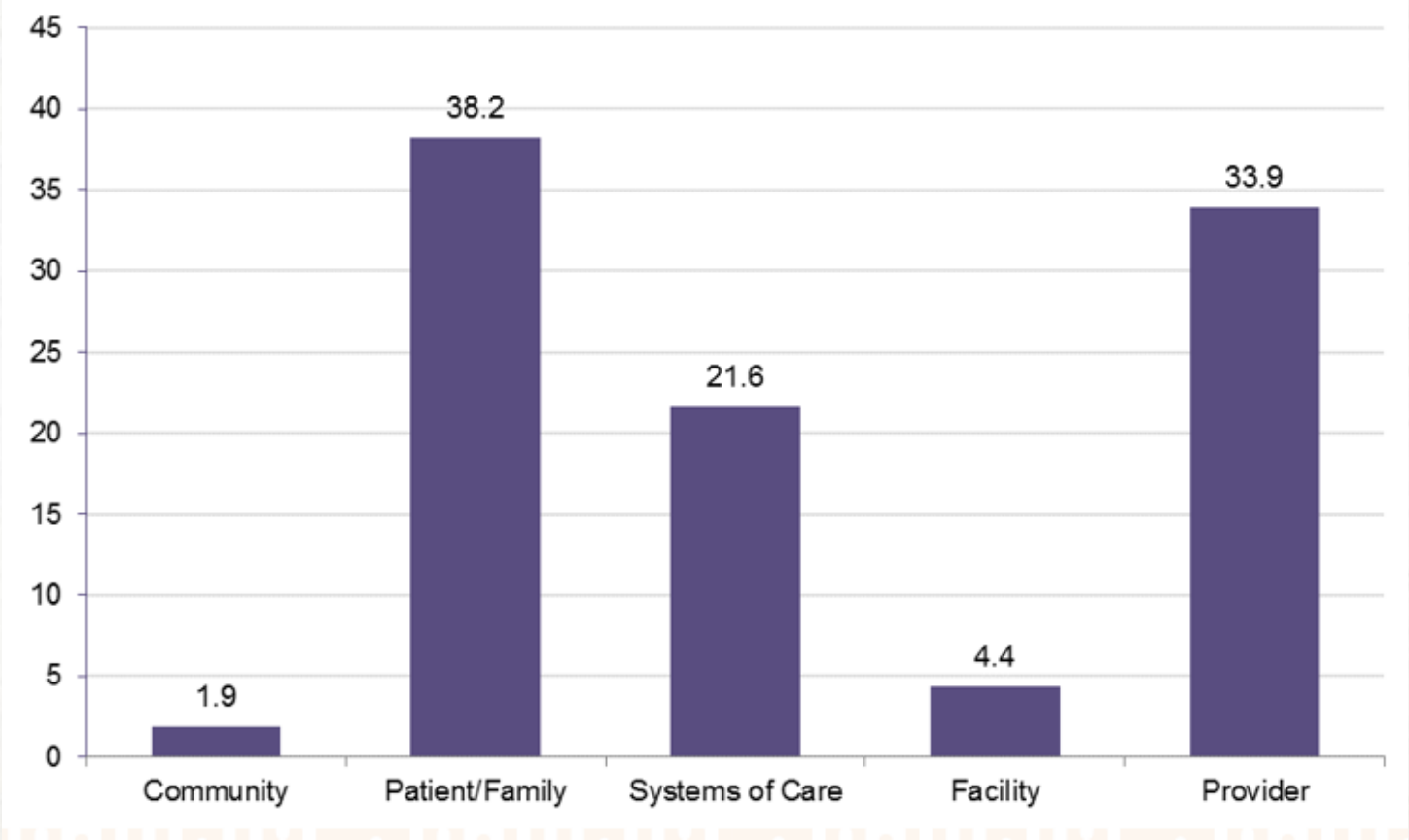




FINDINGS: DISTRIBUTION OF PREVENTABILITY AMONG PREGNANCY-RELATED DEATHS

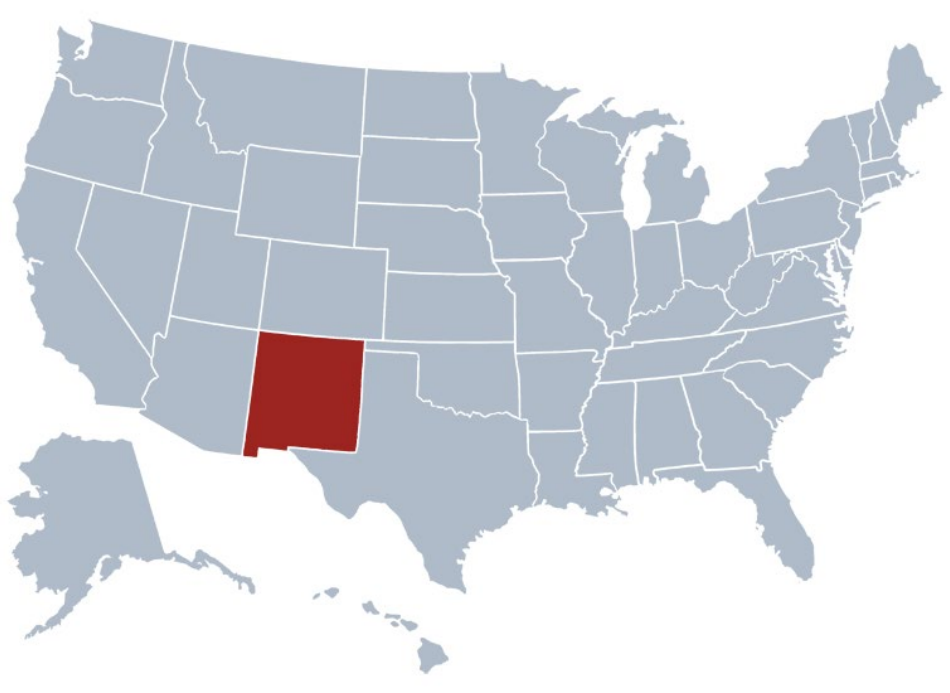


FINDINGS: DISTRIBUTION OF CONTRIBUTING FACTORS AMONG PREGNANCY-RELATED DEATHS



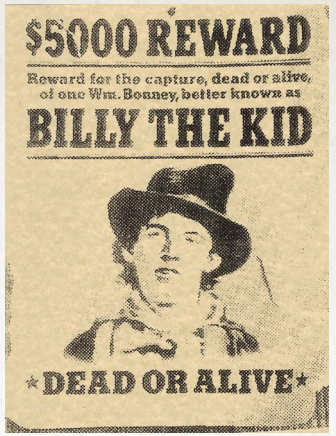
FINDINGS: RECOMMENDED ACTIONS TO ADDRESS THE FACTORS

- Improve training
- Enforce policies and procedures
- Adopt maternal levels of care/ensure appropriate level of care determination
- Improve access to care
- Improve patient/provider communication
- Improve patient management for mental health conditions
- Improve procedures related to communication and coordination between providers
- Improve standards regarding assessment, diagnosis and treatment decisions
- Improve policies related to patient management, communication and coordination between providers, and language translation
- Improve policies regarding prevention initiatives, including screening procedures and substance use prevention or treatment programs



NEW MEXICO

NEW MEXICO'S MMRC - TIMELINE



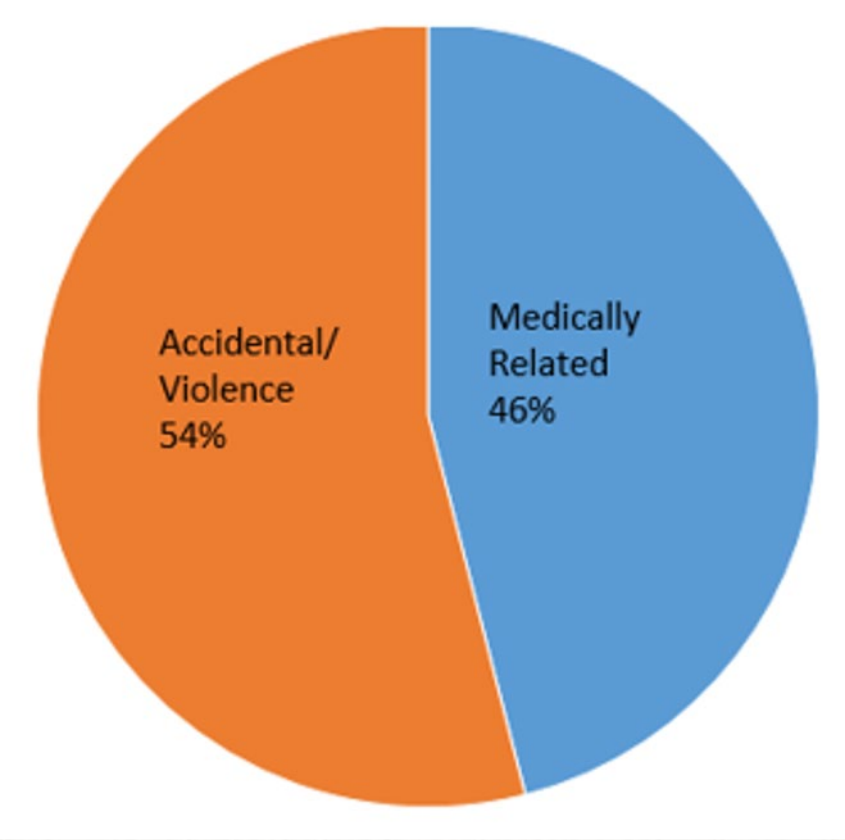
- 1998 - DOH regulations created to establish an MMRC
- 1999-2008 – A number of attempts to establish MMRC were unsuccessful
- 2015 – Bill introduced in NM Senate to create MMRC –> did not get out of committee
- 2016 – NM MMRC Task Force convened to discuss barriers to a NM MMRC and help to draft bill to legislate the need for an MMRC
- 2017 – Senate bill introduced by Senator Rodriquez -> 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
- 2018 – Official NM MMRC formed with 3 meetings for the year –> reviewing 2015 deaths
- 2019 – Plan to try to re-introduce bill (could not be done in 2018 short-session)

DATA AVAILABLE FROM 2010-2014

- Deaths from 2010-2014 were identified by either:
  - “O” death codes
  - Linked infant birth and maternal death certificates
  - Check box on death certificate stating pregnant at time of death or within 1 year of end of a pregnancy
- 97 maternal deaths were identified
- Data abstracted from birth/death certificates
- No review of hospital, OMI, or police reports done for further data
- No review by committee to verify cause of death and preventability

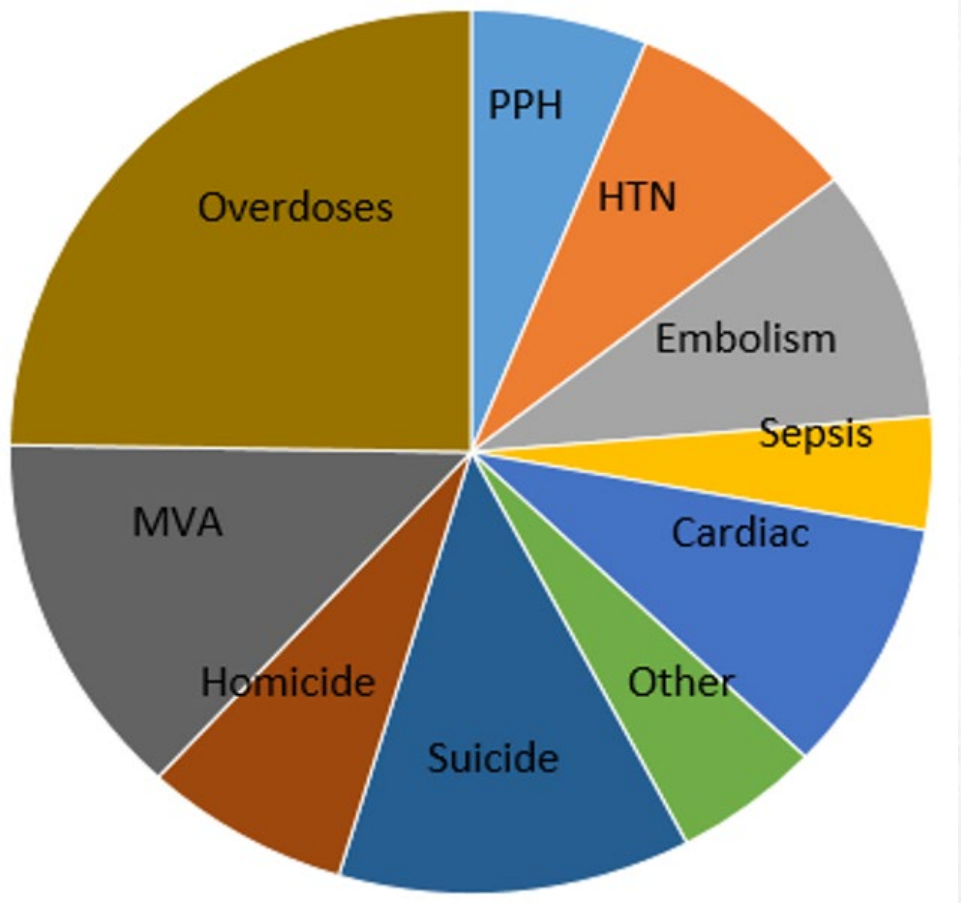
AGGREGATE DATA FROM 2010-2014 (N=97)

- Pregnancy Associated Deaths



AGGREGATE DATA FROM 2010-2014 (N=97)

- Death certificate stated "cause of death"

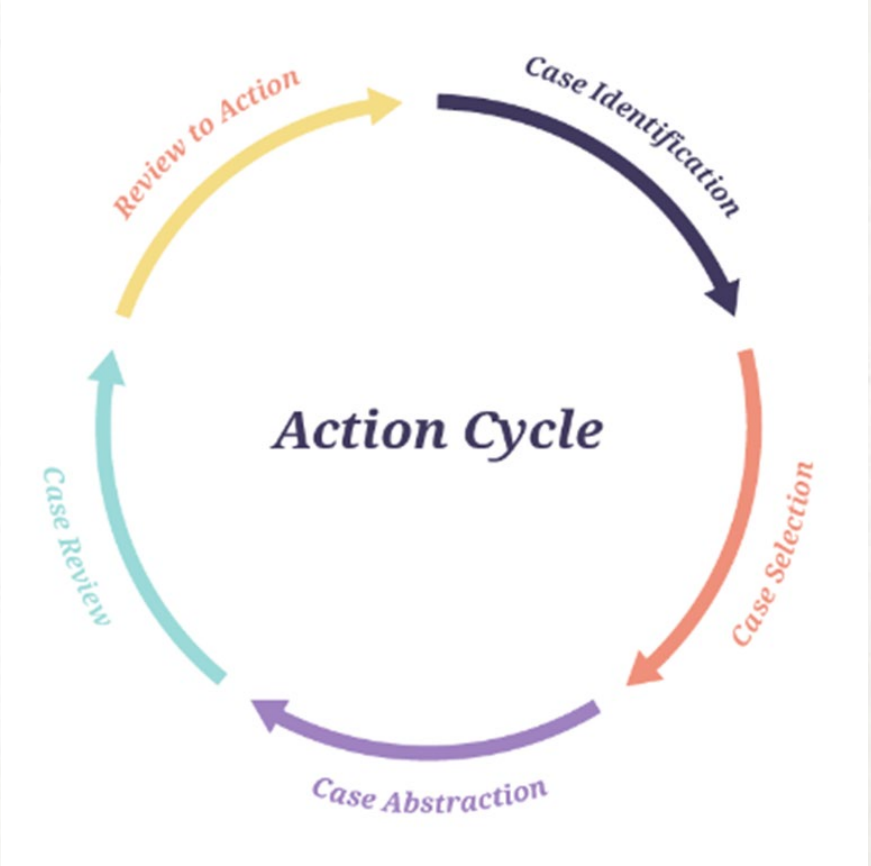


FORMATION OF THE NM MMRC

- Executive leadership committee formed
- Support from CDC – training and multi-state meetings
- Policy and Procedures manual developed, including development of forms (like confidentiality form)
- Identification of membership -> application and vetting process
- Data: identifying cases, request of records, and abstraction
- Scheduling of meetings

MMRC REVIEW OF MATERNAL DEATHS 2015

- Cases identified by DOH and verified by abstractors
- Total of 19 pregnancy associated deaths – all reviewed
- Hospital and clinic records requested; OMI reports and police reports reviewed
- Medical records abstracted into MMRIA data base
- 3 MMRC meetings scheduled in 2018
- De-identified summaries presented to MMRC to determine pregnancy related or associated, accuracy of cause of death, whether preventable, contributing factors, recommendations and for prevention, and potential impact of recommendations



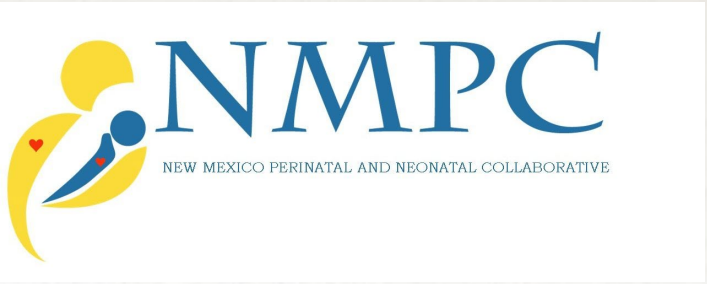
MEMBERSHIP

- Co-chairs: Clinical (OBGYN) and Administrative (DOH) Chairs
- DOH personnel – MMR Coordinator, Epidemiologist, and Lead abstractor
- Medical Specialties – OB-GYN, MFM, Family Medicine, Emergency Medicine, Midwifery, Nursing, Mental Health, Anesthesiology/Critical Care, Pathologist and Medical Examiner
- Member organizations: AWHONN, ACNM, ACOG
- Representatives from NM Perinatal Collaborative, IHS, NM Hospital Association, OB epidemiologist, and experts as needed

FUTURE DIRECTIONS

- Plan 4 meetings in 2019 to review 2016 cases
- Due to small numbers of deaths in the state, it is necessary to review 5+ years to have enough numbers to make any conclusions or trend success of interventions, and for confidentiality purposes
- Sharing data with CDC
- Re-introduction of MMRC bill in 2019
- AIM bundles!

THE NM PERINATAL COLLABORATIVE JOINS AIM!



- The NMPC was established in 2014 to improve the health of women and children through quality initiatives in NM birthing hospitals
  - The NMPC has since collaborated with birthing hospitals and sent teams to implement quality initiatives in:
    - Postpartum contraception
    - OB hemorrhage
    - Neonatal opioid withdrawal syndrome
- The NMPC plans to initiate a new strategy in early 2019 to collaborate with all birthing hospitals in the state through Project ECHO, a telemedicine platform, to implement maternal safety bundles

ALLIANCE FOR INNOVATION IN MATERNAL HEALTH (AIM)

- AIM is a national data driven maternal safety and quality improvement initiative.
- AIM works through state teams and health systems to align national, state, and hospital level quality improvement efforts to improve overall maternal health outcomes through the implementation of safety bundles.
- AIM has developed individual safety bundles to address the common complications in pregnancy, such as postpartum hemorrhage, hypertension, and substance use in pregnancy.
- AIM bundles are designed to be implemented through a collaborative, multidisciplinary model.

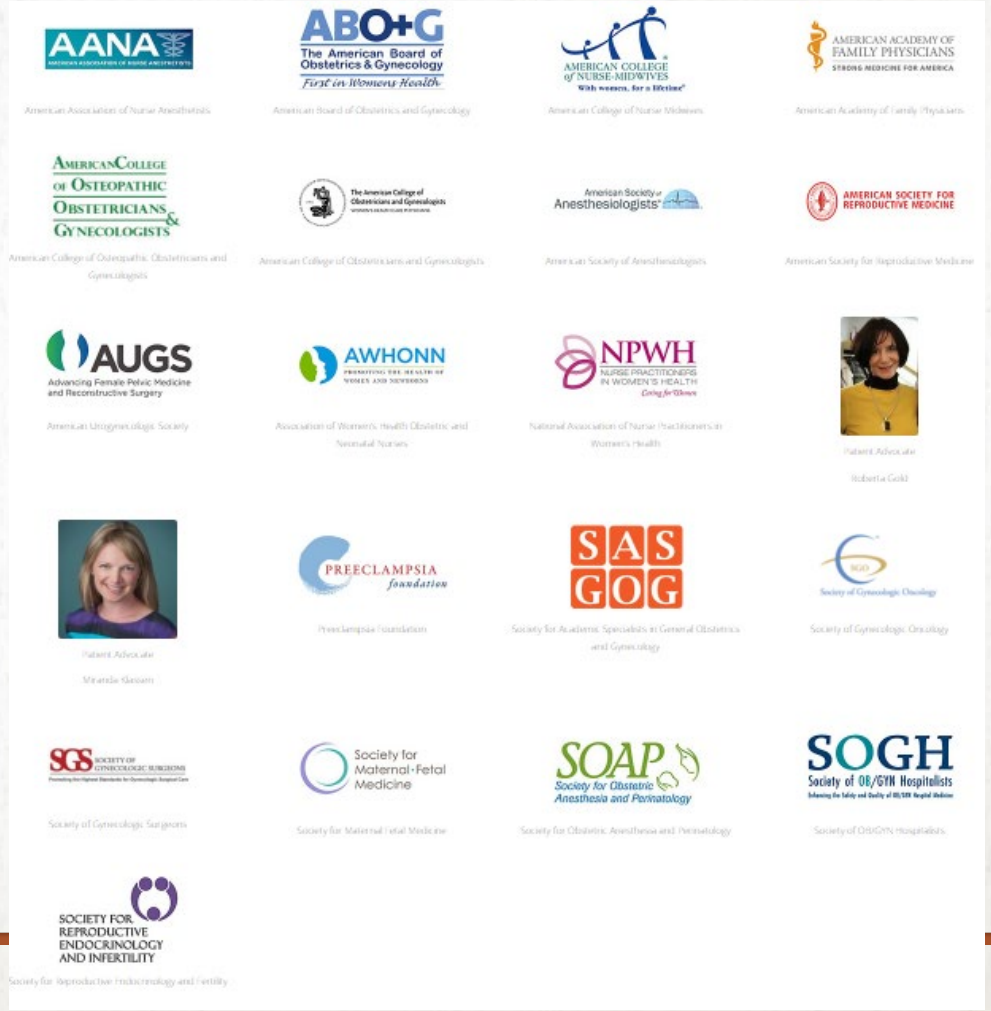
WHY JOIN UP WITH THE NMPC AND AIM?

- Access Patient Safety Bundles & Tools proven to save lives and reduce maternal morbidity
  - The most common complications associated with childbirth involves lack of recognition and delayed response from the health care team and/or health care system.
- Join a growing community dedicated to maternal safety and quality
  - AIM connects you to a growing partnership and peer-to-peer support network through facilitated conference calls, collaborative online platforms and face-to-face meetings.
- Champion a culture of maternal safety in the U.S.
  - When you join the AIM Collaborative, you will build your capacity to track your progress and benchmark your outcomes through a national data center to drive rapid-cycle and continuous quality improvement efforts.
- Benefits towards accreditation
  - The AIM safety bundles are increasingly assessed as part of hospital accreditation nationally.

AIM APPROACH – TEAM WORK!

- Develop maternal safety bundles through representative multidisciplinary teams
- Drive AIM with multidisciplinary partners with national promotion to implement maternal safety bundles within birth facilities.

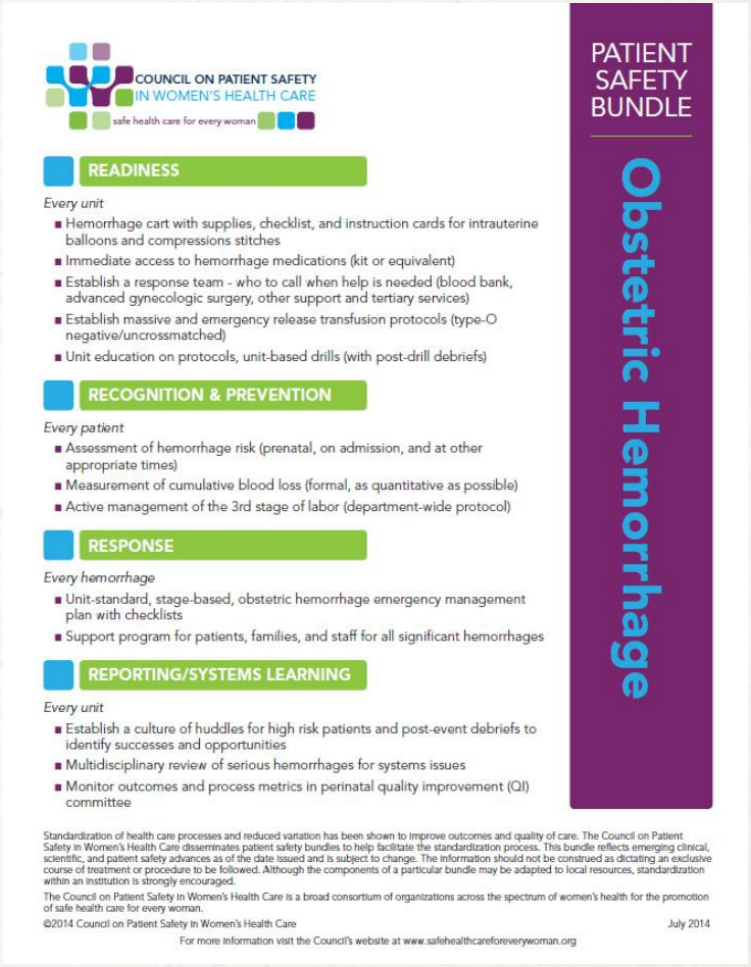
MEMBERSHIP OF THE COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE:



MATERNAL SAFETY BUNDLES

- Maternal Mental Health: Depression and Anxiety
- Maternal Venous Thromboembolism (+AIM)
- Obstetric Care for Women with Opioid Use Disorder (+AIM)
- Obstetric Hemorrhage (+AIM)
- Postpartum Care Basics for Maternal Safety
  - From Birth to the Comprehensive Postpartum Visit (+AIM)
  - Transition from Maternity to Well-Woman Care (+AIM)
- Prevention of Retained Vaginal Sponges After Birth
- Reduction of Peripartum Racial/Ethnic Disparities (+AIM)
- Safe Reduction of Primary Cesarean Birth (+AIM)
- Severe Hypertension in Pregnancy (+AIM)
- Severe Maternal Morbidity Review (+AIM)
- Support After a Severe Maternal Event (+AIM)

- Prevention of Surgical Site Infections After Gynecologic Surgery



COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE

safe health care for every woman

PATIENT SAFETY BUNDLE

Obstetric Hemorrhage

READINESS

Every unit

- Hemorrhage cart with supplies, checklist, and instruction cards for intrauterine balloons and compressions stitches
- Immediate access to hemorrhage medications (kit or equivalent)
- Establish a response team - who to call when help is needed (blood bank, advanced gynecologic surgery, other support and tertiary services)
- Establish massive and emergency release transfusion protocols (type-O negative/uncrossmatched)
- Unit education on protocols, unit-based drills (with post-drill debriefs)

RECOGNITION & PREVENTION

Every patient

- Assessment of hemorrhage risk (prenatal, on admission, and at other appropriate times)
- Measurement of cumulative blood loss (formal, as quantitative as possible)
- Active management of the 3rd stage of labor (department-wide protocol)

RESPONSE

Every hemorrhage

- Unit-standard, stage-based, obstetric hemorrhage emergency management plan with checklists
- Support program for patients, families, and staff for all significant hemorrhages

REPORTING/SYSTEMS LEARNING

Every unit

- Establish a culture of huddles for high risk patients and post-event debriefs to identify successes and opportunities
- Multidisciplinary review of serious hemorrhages for systems issues
- Monitor outcomes and process metrics in perinatal quality improvement (QI) committee

Standardization of health care processes and reduced variation has been shown to improve outcomes and quality of care. The Council on Patient Safety in Women's Health Care disseminates patient safety bundles to help facilitate the standardization process. This bundle reflects emerging clinical, scientific, and patient safety advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Although the components of a particular bundle may be adapted to local resources, standardization within an institution is strongly encouraged.

The Council on Patient Safety in Women's Health Care is a broad consortium of organizations across the spectrum of women's health for the promotion of safe health care for every woman.

July 2014

For more information visit the Council's website at www.safehealthcareforeverywoman.org

NM AIM PROGRAM

- On February 9th 2019, as part of the annual UNM Women's Health Conference, the NMPC will hold a launch meeting, for representatives from birthing hospitals throughout NM
- Following the launch, the NMPC will host every-other-week telementoring sessions through Project ECHO to implement and adapt the safety bundles
- Telementoring sessions will provide coaching and assistance in implementation of each bundle and train hospitals to collect data to track progress
- We will be starting with a postpartum hemorrhage bundle, followed by an Opioid Use Disorder bundle

LAUNCH OF AIM IN 2019

- The NMPC will host a launch meeting in Albuquerque on February 9th, during the annual UNM Women's Health Conference (WHC)
- This launch meeting is designed for key stakeholders and hospital staff (Chief Nurse/Unit Director, OB Manager (could be MD or RN/APN/CNM), Chief OB, Quality Director/Risk Manager)
- We request that identified leadership (including the L&D unit nursing director) from your hospital attend the WHC to learn more about the AIM programs in NM; we are looking for these individuals to be AIM champions for their hospital!
- The WHC will be offered at a discounted rate of $125 for up to 2 members identified as AIM champions; in order to qualify for the reduced conference fee of $125, attendance is required at the AIM session at the WHC.

SAVE THE DATE

2019 Annual Women's Health Conference

February 8-9, 2019 | Sheraton Albuquerque Uptown

Registration Opens November 2018

Visit the UNM CME-PD website for more information

Questions? HSC-CMEWEB@SALUD.UNM.EDU or Call 505-272-3942

ACCME ACCREDITED WITH COMMENDATION

A conference for physicians, nurse midwives, nurse practitioners, physician assistants, nurses and related health care professionals. This activity has been approved for *AMA PRA Category 1 Credit(s)™*. This event has also been submitted to the New Mexico Nurses Association Accredited Approver Unit for approval to award contact hours.

Topics and Sessions Include:

USPSTF National Guidelines • Menopause • STI Updates • Health Provider Resilience • Sexual Health

Managing Anxiety & Depression • Office Emergencies • Women with Disabilities • Hands-On Workshops

Presented by

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DEPARTMENT OF OBSTETRICS & GYNECOLOGY

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HEALTH SCIENCES

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OVERALL

33.5%
Not Preventable

63.2%
Preventable

3.2%
Unable to Determine

HEMORRHAGE

25.0%
Not Preventable

70.0%
Preventable

5.0%
Unable to Determine

Half of maternal deaths are preventable.

Save lives by teaming up with AIM.

THANK YOU…

- Special thanks for their work on MMRC and use of slides:
  - Sharon Phelan, MD – Co-Chair (Clinical) of NM MMRC
  - Katie Avery, CFNP, MS – NMDOH MMRC Coordinator
  - Julie Zaharatos, MPH – CDC, Partnerships and Outreach Manager

QUESTIONS?

THANK YOU!

CONTACT INFO: KNARDINI@SALUD.UNM.EDU