

Preventing Pregnancy-Related Deaths from Obstetric Hemorrhage: Lessons Learned in California and Priorities for Ongoing Quality Improvement

Data from in-depth maternal mortality reviews

November 13, 2026

WEBINAR HOUSEKEEPING

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Slides and recording will be available after the webinar

You'll get an email with information on how to access the webinar materials

Contact hours

MCCPOP is approved as a provider of continuing education by the California Board of Registered Nurses, Provider # 3104. This course has been approved for up to 1.0 contact hours. Attendees must attend the webinar for at least 50 minutes to receive contact hour certification.

Post-Webinar Evaluation Survey

In order to receive continuing education credits, you must complete the post-webinar evaluation survey

Submit your questions during this webinar using the Q&A Box

Continuing Education Information

MCCPOP
Mid-Coastal California
Perinatal Outreach Program

- If you attend as a team, please contact **contactmccpop@stanford.edu** to request the group sign-in form. The form must be reviewed and approved by a supervisor, manager or nurse educator.

- Attendees will be eligible for contact hours through the the Mid-Coastal California Perinatal Outreach Program (MCCPOP). MCCPOP is approved as a provider of continuing education by the California Board of Registered Nurses, Provider #3104. This course has been approved for **1.0** contact hour.

- Attendees must remain on the webinar **for at least 50 minutes** and are required to complete the evaluation post session, in order to receive contact hours.



WELCOME

BRYAN OSHIRO, MEDICAL DIRECTOR, CMQCC



Dr. Oshiro is a Maternal-Fetal Medicine physician Loma Linda University where is Vice Chair of the Department of Obstetrics and Gynecology at Riverside University Health System. He is also Associate Clinical Professor at UC Riverside School of Medicine and affiliated with Loma Linda University Medical Center.

He co-chaired the American College of Obstetricians and Gynecologists Patient Safety Committee for District IX and received the Elaine Whitelaw Service Award from the March of Dimes for his work on a five-state initiative to eliminate elective deliveries less than 39 weeks' gestation.

Primary Institutions:
CMQCC, Riverside University Health System, and Loma Linda University School of Medicine

Agenda & Presenters



AGENDA

Lessons Learned in California and Priorities for Ongoing Quality Improvement

- Background and History of OB Hemorrhage Mortality and QI in California
- Current Picture: OB Hemorrhage Mortality, 2009-2024
- Moving Forward: Pitfalls, Preventability Opportunities and the Role of Bias/Discrimination and Structural Racism
  - Case Study: Ectopic Pregnancy
  - Case Study: Atony
- Respectful, Supportive, Equitable Care
- Q&A

Learning Objectives

MCCPOP 1.0 Contact hours

Upon completion of this program, the attendee will be able to:

- Identify top two underlying causes of obstetric hemorrhage deaths in California
- Identify three contributing factors to obstetric hemorrhage deaths
- How to escalate care for pregnant and postpartum patients using Maternal Early Warning Signs in all locations of care (ED, OR, PACU, Postpartum, L&D)

PANELISTS



Moderator: Christine H. Morton, PhD is a Senior Research Sociologist at CMQCC

Panelists

Malini Nijagal, MD, MPH**,** is an obstetrician and gynecologist at UCSF Health and Zuckerberg San Francisco General Hospital and Trauma Center

Miranda Klassen is the Executive Director of the Amniotic Fluid Embolism Foundation

Neeru Gupta, MD, Medical Director for Risk Management and Patient Safety (TPMG) KP National Perinatal Patient Safety Clinical Lead OB/GYN Kaiser Permanente

Marla Seacrist, PhD, RN is a professor at California State University, Stanislaus



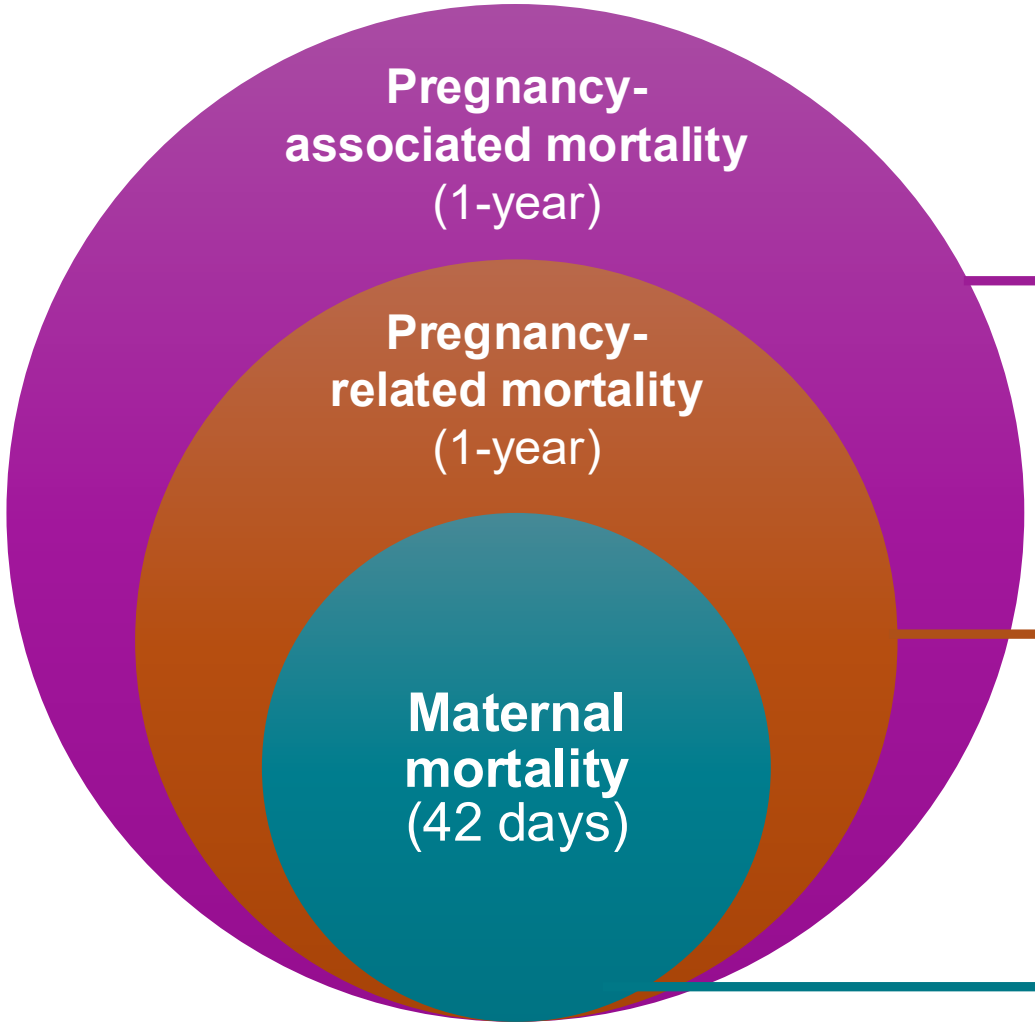
In honor of the women who died while pregnant or giving birth.

We vow to work to end preventable maternal mortality and increase racial equity in maternal quality of care.

About the California Pregnancy-Associated Mortality Review (CA-PAMR)



Definitions: Maternal Mortality vs. Pregnancy-related Mortality



Pregnancy-associated mortality:
Deaths due to any cause during pregnancy and up to one year after pregnancy (includes deaths **not related** to pregnancy)

Pregnancy-related mortality (CDC-PMSS):
Deaths during pregnancy and up to one year after pregnancy that are related to pregnancy

Maternal mortality (WHO / CDC-NCHS):
Deaths during pregnancy and up to 42 days after pregnancy that are related to pregnancy or its management

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Source: Eugene Declercq and Laurie Zephyrin, *Maternal Mortality in the United States: A Primer* (Commonwealth Fund, Dec. 2020).

Confidential - Low

CDC = Centers for Disease Control and Prevention
NCHS = National Center for Health Statistics
WHO = World Health Organization

Mandated by **SB 65 California Momnibus Act** legislation (enacted in 2022)

CA-PARC
California Pregnancy-Associated Review Committee

Encompasses all programs for tracking and investigating morbidity and maternal deaths

https://go.cdph.ca.gov/PARC

CA-PMSS
California Pregnancy Mortality Surveillance System

Timely and accurate statewide counts and rates of pregnancy-related deaths

CA - SMM
Severe Maternal Morbidity Deliberations

Implementing

CA - SMM
Severe Maternal Morbidity Dashboards

Timely and accurate statewide counts of severe maternal morbidity

PAMR
Pregnancy-Associated Mortality Reviews (multiple committees)

In-depth reviews for quality improvement
Southern CA; Central Valley

CDPH

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Meet our Maternal Mortality Team

CA-PARC



Kimberly D. Gregory, MD, MPH
Appointed Chair

CDPH MCAH Division



Paula Krakowiak, PhD, MS
Program Director



Harman Chauhan, PhD, MS, MPH
Research Scientist III



Deepika Mathur, MD
Research Scientist III



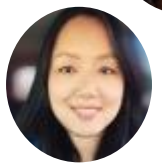
Kristie Nguyen, MPH, RN
Research Scientist II



Stephanie Nunes, MPH
Research Scientist I



Tina Rylee, PhD
Research Scientist III



Dan (Susan) Sun, MA
Data Specialist

California Maternal Quality Care Collaborative



Christine H. Morton, PhD
Research Sociologist



Christa Walczak, MSN, RN,
C-ONQS, C-EFM, CLE *Clinical Lead*



Patrisha Cherry, MPH
Program Manager

Public Health Institute



Christy McCain, MPH
Research Scientist



Delphina Alvarez, AA
Administrative Assistant



Karene Matterson, MA, BSN
Abstractor



Kristienne McFarland,
PhD, MS, CNM *Abstractor*

Pregnancy-related Mortality Investigations: CA-PAMR

Multidisciplinary Committees

Clinicians

Public Health Professionals

Community Advocates

Patient/Family

An individual (and family) before, during and after a pregnancy

Clinician

An individual who provides care, treatment, and/or advice



Facility

A physical location where direct care is provided

Community

A grouping based on a shared sense of place or identity

System

Entities supporting services across the pregnancy continuum

CDPH

CA-PAMR guiding philosophy



- Health care teams do the best they can
- Maternal deaths reveal how **systems** do not support quality care for every patient, every time
- Our goal is to identify opportunities to improve care and prevent maternal deaths

CA-PAMR Approach



Diverse, equity-centered committee reviews maternal deaths.



Multidisciplinary Expertise: OBs, MFMs, ED physicians, anesthesiologists, cardiologists, nurses, midwives, behavioral health specialists, doulas, and public health professionals.



Confidential reviews identify contributing factors, systemic failures, and prevention opportunities.



Findings lead to actionable recommendations at patient, clinician, facility, community and system levels.

Background and History of OB Hemorrhage QI in California



CALIFORNIA HISTORY

Pregnancy-related mortality & morbidity due to Obstetric Hemorrhage (OB HEM)

CA-PAMR 1.0

- First statewide review of pregnancy-related deaths (2002-2007) found 97% of OB HEM deaths had good or some chance to alter the outcome
- Statewide taskforce created OB HEM TOOLKIT (2009-2010)
- CMQCC OB HEM Quality Improvement Collaborative with 130 participating hospitals (2015-16)

QI IMPACT

- First-time hospitals in the QI collaborative experienced 21% reduction in severe maternal morbidity (SMM)
- Hospitals with prior OB HEM QI experience saw 29% reduction in SMM
- Narrowed the outcome disparities between Black and white women by > 60% (as measured by SMM and transfusion rates)

CA-PAMR OB HEM

- Statewide committee reviewed OB HEM mortality from 2014-2018
- Results published in Green Journal (Krakowiak et al 2025) and summarized in CDPH FactSheets
- Key findings:
  - Placenta Accreta major driver
  - C-Sections increased risk
  - 63% deemed preventable

Main EK, Cape V, Abreo A, et al. Reduction of severe maternal morbidity from hemorrhage using a state perinatal quality collaborative. Am J Obstet Gynecol 2017;216:298.e1-11.
Main EK, Chang S-C, Dhurjati R, et al. Reduction in racial disparities in severe maternal morbidity from hemorrhage in a large-scale quality improvement collaborative. Am J Obstet Gynecol 2020
Krakowiak P et al Pregnancy-Related Mortality in California Due to Obstetric Hemorrhage. Obstet Gynecol 2025;00:1–10

CMQCC OB Hemorrhage Toolkit V3.0, revised 2022

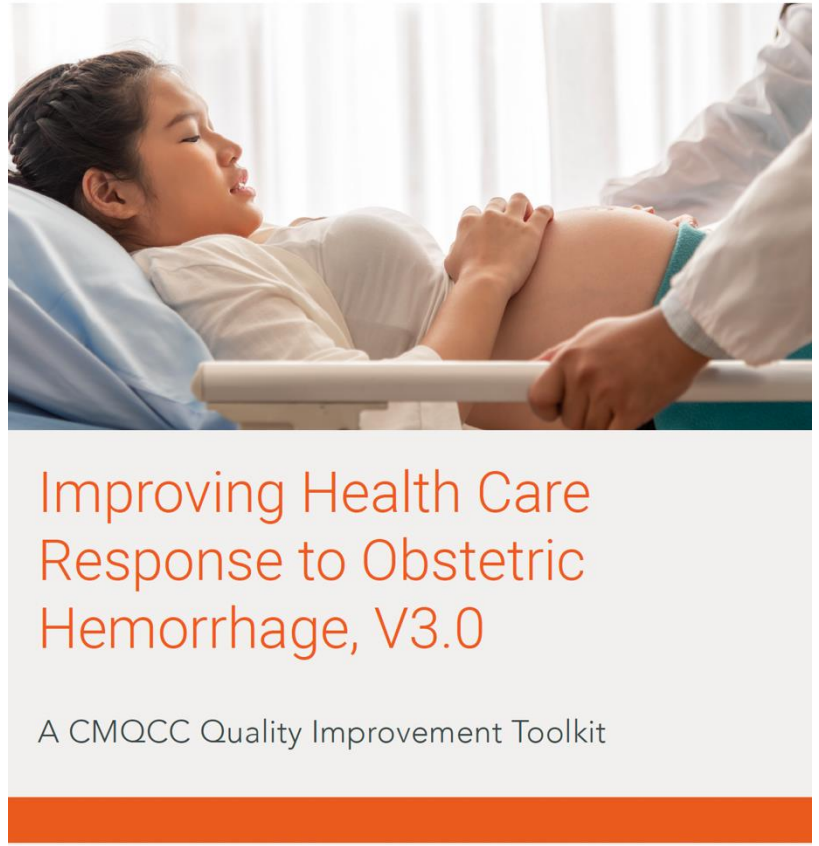
Hosted on CMQCC websites *(No cost to download)*

- Appendices available as standalone PDFs to encourage uptake
- Organized along the 5 Rs – Readiness, Recognition, Response, Reporting/Systems Learning and Respectful, Supportive, Equitable Care

Public webinars *(No cost to attend)*

- Co-authors and community representatives as speakers
- Content includes overview of rationale, clinical considerations, patient resources, implementation resources, and Q&A
- Archived recording and slides

CMQCC



FINDINGS FROM PAMR 1.0 informed Quality Improvement Opportunities to Improve Readiness to Address OB HEM

Readiness: Place, Provider and Patient		
Hospital Readiness: Standardized Policies	**Provider Readiness: Improve Knowledge**	**Patient Readiness**
Implement standardized policies to guide practice • Hemorrhage policy • Massive transfusion policy • Quantification of blood loss policy • 911 transport policy	Plan for high-risk pregnant woman that may include • Transfer to appropriate maternal level of care or specialist • Increase hematocrit before labor or surgery in women who refuse blood transfusions • Investigate and train in all surgical techniques to address blood loss • Education for all maternity care clinicians	Providers should ensure that women with known risk factors give birth at facilities prepared to perform higher-level procedures and are well prepared with information and social support before, during and after the birth.
Hospital Best Practices	**Provider Education**	**Patient Education**
• Simulation drills • Triage algorithm for emergency department • Immediate physician availability • Reduce overall cesarean rates • Standardized discharge teaching	• Educate emergency medicine clinicians about risk factor and signs and symptoms of uterine rupture • High-risk woman with history of previa with no plan for birth at inappropriate level of care	• Clinicians educate women with prior uterine surgery re warning signs of bleeding, uterine rupture • Prenatal and discharge education, including effective communication with women and families regarding risk, risk reduction, presence of symptoms, when to seek immediate care, and mental health needs

Seacrist M, et al. JOGNN, 48, 288–299; 2019. https://doi.org/10.1016/j.jogn.2019.03.002

Quality Improvement Opportunities to Improve Recognition

Recognition: Missed Symptoms or Misdiagnosed

Assess Risk Factors Throughout Stay	Anticipatory Preparation
• Grand multiparity • Previous cesarean • Obesity • Low-lying placenta • Known previa • Known accreta • Refuses blood transfusions • History of postpartum hemorrhage • Risk assessment before and after childbirth • Augmentation or induction • Prolonged labor • Elevated temperature • Magnesium sulfate	• Type and crossmatch blood • Hemorrhage cart and medications readily available • Second large-bore intravenous line • Review laboratory values • Review hemorrhage policy

Recognition: Missed Symptoms or Misdiagnosed

Missed Symptoms:	Recommendations:
• **Pain** • **Tachycardia** • **Hypotension** • **Cold, clammy, pale** • **Shortness of breath** • **Abdominal distension** • **Low urine output** • **Decreased oxygen saturation**	• Cumulative and quantitative assessment of blood loss • Assess and report abnormal warning signs or symptoms

Missed Diagnosis:	Recommendations:
• **Did not recognize uterine rupture** • **Pulmonary embolism**	• Implement standardized policies and protocols • Clinician education

Seacrist M, et al. JOGNN, 48, 288–299; 2019. https://doi.org/10.1016/j.jogn.2019.03.002

Quality Improvement Opportunities to Improve Response to Obstetric Hemorrhage

Response: Delays and Lack of Coordination of Care	
Delay in Treatments	**Coordination of Care**

• Type and crossmatch blood when risk factors are present
• If first-line treatment doesn't work, go to next treatment
• Treat aggressively: give medications and blood as soon as blood loss is evident; no need to wait for laboratory results
	• Implement emergency management plan with immediate response, which may include
	  • Transfer level of care
	  • Coordination of care
	  • Seeking consultations when needed
	  • Chain-of-command policy for nurse–physician communication
	  • Staff empowerment to report concerns
	  • Transfusing blood and blood products in a timely manner

Seacrist M, et al. JOGNN, 48, 288–299; 2019. https://doi.org/10.1016/j.jogn.2019.03.002



Obstetric Hemorrhage CA-PAMR Expert Committee Statewide review of deaths 2014-2018

Elliott Main, MD – COMMITTEE CHAIR



Alexander Butwick MD, MS
(Obstetric Anesthesia)



Malini Nijagal MD, MPH
(Obstetrics/Gynecology)



Larry Shields, MD
(Maternal Fetal Medicine)



Neeru Gupta, MD
(Obstetrics/Gynecology)



Carolina Reyes, MD, ABOG
(Maternal Fetal Medicine)



Amanda Williams, MD, MPH, FACOG
(Obstetrics/Gynecology)



Miranda Klassen
(Patient/Family Advocacy)



Marla Seacrist, RN, PhD, MSN, BSN
(Perinatal Nursing)



Elizabeth Yznaga DNP, MSN
(Midwifery)

OB HEM CA-PAMR, 2014-2018

Publication and Factsheets

Original Research

Pregnancy-Related Mortality in California Due to Obstetric Hemorrhage

Paula Krakowiak, PhD, MS, Christine H. Morton, PhD, Christy McCain, MPH, Dan Sun, MA, Deepika Mathur, MD, Alexander J. Butwick, MBBS, MS, Neeru Gupta, MD, Malini A. Nijagal, MD, MPH, Amanda Williams, MD, MPH, Marla Seacrist, PhD, RN, Laurence E. Shields, MD, Carolina Reyes, MD, Miranda Klassen, BS, Elizabeth Yznaga, DNP, MSN, and Elliott K. Main, MD

OBJECTIVE: To identify underlying causes, contributing factors, and quality-improvement opportunities of pregnancy-related hemorrhage deaths.

METHODS: The California Pregnancy-Associated Mortality Review examined pregnancy-related hemorrhage deaths in California that occurred in 2014–2018. Data were abstracted from multiple sources (vital records, hospital encounter data, medical records, and coroner or autopsy reports). A multidisciplinary expert panel reviewed all case summaries. Data from reviews were aggregated to determine underlying causes of death, preventability, contributing factors, and quality-improvement opportunities at the patient, clinician, facility, and system levels.

RESULTS: During the study period, there were 2,409,732 live births and 49 pregnancy-related hemorrhage deaths. Placenta accreta spectrum accounted for 16 (32.7%) of deaths; intra-abdominal bleeding and uterine atony each accounted for 10 deaths (20.4%). Compared with the California birth population, a significantly higher proportion of women who died were born in China (14.3% vs 3.9%); were 35 years of age or older (49.0% vs 21.9%); had two or more prior births (57.4% vs 29.1%); had cesarean deliveries (74.4% vs 31.8%); or delivered at hospitals with fewer than 1,200 births per year (33.3% vs 12.2%) (all $P<.05$). The committee determined that 63.3% of all hemorrhage deaths were highly preventable with substantial variation by cause. Clinician-, facility-, and system-level contributing factors were noted in 88.9% of cases and included delayed response or escalation (77.8%), delayed recognition (72.2%), and insufficient quantities of blood products used (52.8%). Corresponding quality-improvement opportunities included timely hemorrhage risk assessment; increased vigilance for identifying signs and symptoms of hemorrhage; escalation of care and aggressive management; preparation for hemorrhage complications and ongoing training for all hospitals, particularly low-resource facilities; and adherence to severe hemorrhage protocols.

CONCLUSION: Obstetric hemorrhage remains a leading cause of pregnancy-related mortality and has multiple causes with various levels of preventability. Optimizing system-based approaches for hemorrhage preparedness, detection, and clinical management is critical to reduce preventable deaths from hemorrhage, especially among patients who do not respond to first-line treatment.

(Obstet Gynecol 2025;00:1–10)

DOI: 10.1097/AOG.0000000000005847

From the Maternal, Child and Adolescent Health Division, California Department of Public Health, Sacramento, the Public Health Institute, Santa Cruz, the Marian Perinatal Center, Pacific Central Coast Community Clinics, San Luis Obispo, the Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, University of California, Davis, Sacramento, the California Maternal Quality Care Collaborative and Department of Obstetrics and Gynecology–Maternal-Fetal Medicine, Stanford University, Stanford, the Department of Anesthesia and Perioperative Care and the Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, and the Kaiser Permanente San Francisco Medical Center, San Francisco, the School of Nursing, California State University, Stanislaus, Turlock, the Amniotic Fluid Embolism Foundation, Vista, and the California Nurse-Midwives Association, Santa Rosa, California.

The authors thank Kathleen Green-Barbour, Ann Kristienne McFarland, and Makia White for medical records abstraction and case summary preparation; Delphina Alvarez for administrative support related to medical records procurement and data entry; Christa Sakowski for substantive feedback regarding maternal quality improvement toolkits; and Kristie Nguyen for administrative support related to manuscript formatting and submission. This maternal mortality review was supported by Title V Maternal Child Health Block Grant funds from the Health Resources and Services Administration to the California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division (6 B04MC52910-01-05).

Each author has confirmed compliance with the journal's requirements for authorship.

Corresponding author: Paula Krakowiak, PhD, MS, Maternal, Child and Adolescent Health Division, California Department of Public Health, Sacramento, CA; paula.krakowiak@cdph.ca.gov.

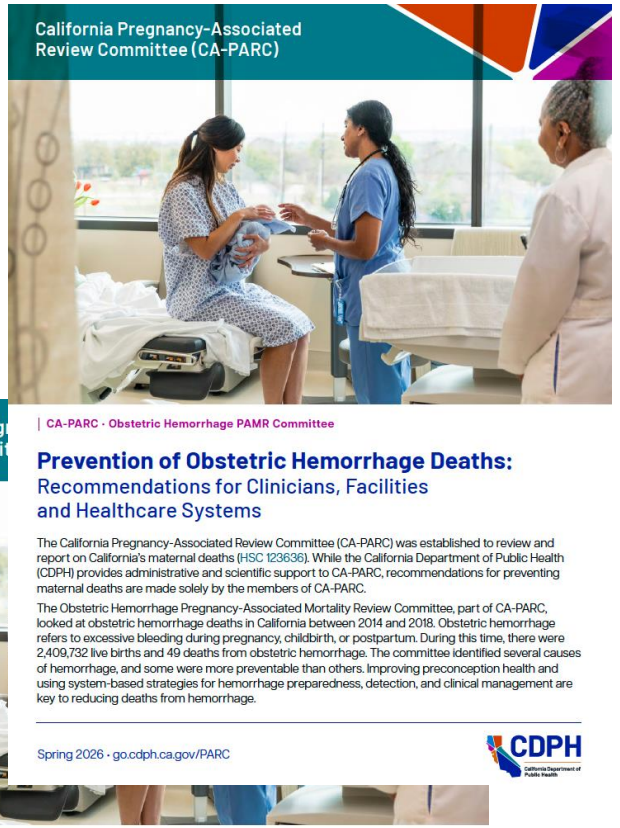
Financial Disclosure

Amanda P. Williams disclosed receiving payments from Mahmee (maternal health startup company) as an employee and Bloomlife (maternal health startup company) while serving on their Board of Directors. The other authors did not report any potential conflicts of interest.

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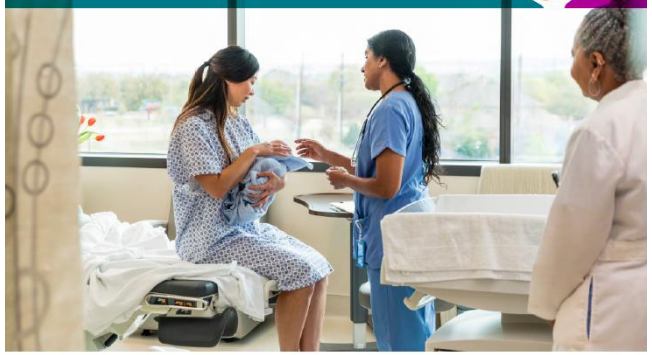




Factsheet based on 2014-2018 OB HEM PAMR: Prevention of Obstetric Hemorrhage Deaths:

Recommendations for Agencies, Organizations and Institutions

California Pregnancy-Associated Review Committee (CA-PARC)



CA-PARC · Obstetric Hemorrhage PAMR Committee

Prevention of Obstetric Hemorrhage Deaths:

Recommendations for Agencies, Organizations, and Institutions

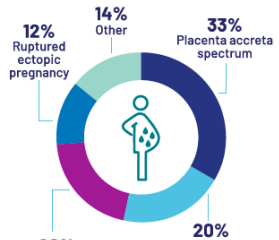
The California Pregnancy-Associated Review Committee (CA-PARC) was established to review and report on California's maternal deaths (HSC 123636). While the California Department of Public Health (CDPH) provides administrative and scientific support to CA-PARC, recommendations for preventing maternal deaths are made solely by the members of CA-PARC.

The Obstetric Hemorrhage Pregnancy-Associated Mortality Review Committee, part of CA-PARC, looked at obstetric hemorrhage deaths in California between 2014 and 2018. Obstetric hemorrhage refers to excessive bleeding during pregnancy, childbirth, or postpartum. During this time, there were 2,409,732 live births and 49 deaths from obstetric hemorrhage. The committee identified several causes of hemorrhage, and some were more preventable than others. Improving preconception health and using system-based strategies for hemorrhage preparedness, detection, and clinical management are key to reducing deaths from hemorrhage.

Key findings from reviews of 49 obstetric hemorrhage deaths:

After cardiovascular disease, **hemorrhage was the second leading cause** of pregnancy-related deaths in California from 2014 to 2018

Top causes of hemorrhage*:



*Total doesn't add up to 100% due to rounding

Placenta accreta spectrum is a group of placental disorders caused by the placenta attaching abnormally to the uterus (womb) which can lead to serious pregnancy complications such as severe hemorrhage.

Intra-abdominal bleeding/laceration is bleeding in the space between abdominal muscles and internal organs as a result of a pregnancy complication or complications of surgery.

Uterine atony refers to uterus muscles failing to contract (tighten) after childbirth, which is needed to close off blood vessels.

Ruptured ectopic pregnancy is when the fertilized egg attaches and grows outside the uterus and bursts causing life-threatening bleeding.

Characteristics of the individuals who died:

58% had two or more births prior to death compared to 29% of the birthing population

75% had a first-time or repeat cesarean delivery compared to 32% of the birthing population

33% gave birth at hospitals with fewer than 1,200 annual births (low birth volume) compared to 12% of the birthing population

Key findings from reviews of 49 obstetric hemorrhage deaths:

Preventability:

63% of all hemorrhage deaths likely could have been avoided, with some causes—such as uterine atony and intra-abdominal bleeding/lacerations—more preventable than others

Health Care Contributing Factors:

89% of the deaths were linked to clinician, facility, or healthcare system factors that happened during or after labor in hospitals

78% delays in acting quickly or getting more advanced care

72% delays in recognizing the signs and symptoms of hemorrhage

53% not giving enough blood products when it was needed

Patient-level Contributing Factors:

55% of deaths were related to patient-level factors

20% Anemia (low iron)

18% Chronic conditions like heart disease or obesity

These findings were adapted from Krakowiak P, Morton CH, et al. Pregnancy-Related Mortality in California Due to Obstetric Hemorrhage. Obstet Gynecol. 2025 Feb 13. doi: 10.1097/AOG.0000000000005847. Reprinted with permission from Wolters Kluwer Health, Inc., copyright #6290470073999

CA-PARC Prevention Recommendations for Agencies, Organizations, and Institutions:

- **Encourage sexual and reproductive health education** in schools, clinics, and other community settings.
- **Raise awareness** via an educational media campaign **about menstrual cycles and warning signs of ectopic pregnancy** among individuals who can get pregnant.
- **Raise awareness** via educational campaigns **about the importance of having good iron stores prior to and during pregnancy.**
- **Develop** wrap-around, person-centered, accessible support **services for** pregnant and postpartum **individuals with complex social needs and barriers to** accessing quality **care**.
- **Educate families to not delay calling 911 or going to the Emergency Department in emergent situations** for pregnant or postpartum individuals.
- **Decriminalize** consequences for pregnant or postpartum persons with **substance use disorder to encourage** all to **access** care early and often.

The findings and recommendations in this document are those of CA-PARC and do not necessarily represent the views or opinions of the California Department of Public Health (CDPH) or the California Health and Human Services Agency. While CDPH provides administrative and scientific support to CA-PARC, recommendations for preventing maternal deaths are made solely by the members of CA-PARC.

CDPH/MCAH acknowledges the invaluable contributions of the CA-Pregnancy-Associated Mortality Review Committee (Obstetric Hemorrhage) in generating essential data for this factsheet from their reviews of maternal deaths.

Resources:

- Identifying and Managing Obstetric Emergencies in Nonobstetric Settings: Developed by The American College of Obstetrics and Gynecology and the Centers for Disease Control and Prevention (CDC).
- Improving Health Care Response to Obstetric Hemorrhage Toolkit, Version 3.0: A toolkit for clinicians and healthcare facilities outlining best practices to manage obstetric hemorrhage using the 4-R Framework: Readiness, Recognition & Prevention, Response, and Reporting/Systems Learning.
- CDC HEAR HER Campaign: A resource for women who are pregnant to raise awareness of urgent maternal warning signs during and after pregnancy.

Also see Recommendations for Clinicians, Facilities and Healthcare Systems.

The role of Bias, Discrimination and Structural Racism

STRUCTURAL

- "Least Healthy" Communities: outcomes related to zip code/where one lives:
  - Socio-economics
  - Race-ethnicity
  - Transportation
  - Safety/Violence

ACCESS to care

HEALTH STATUS
coming into pregnancy

INSTITUTIONAL

- Quality interpretation services
- Adequate support/training around caring for people with:
  - Substance Use Disorder
  - Mental Health conditions
  - Trauma History
  - Different culture/religion (i.e. Jehovah's Witness)

ACCESS to care

RECOGNITION of signs/symptoms (counseling & communication)

INTER-PERSONAL

- Disrespectful treatment
- Bias (i.e., not taking pain seriously)
- Labeling patient as "difficult", '"challenging", "uncooperative", "frequent flyer"

ACCESS to care

RECOGNITION of signs/symptoms

RESPONSE to signs/symptoms

Racism, Discrimination & Bias in The Hospital Action Guide for Respectful and Equity-Centered Obstetric Care

Where to find the definitions, the evidence and the tools

1 DEFINE

Key Terms

The **Key Terms page** defines terms used throughout the Guide, such as racism.

You'll also find terms like discrimination and bias in the Guide. For additional definitions, see the **Racial Equity Tools Glossary**.

2 UNDERSTAND

Module 1: Understanding the Need for Birth Equity

Explains how and why racism, discrimination and implicit bias are root causes of maternal inequities.

- 1.1 Race as a risk marker
- 1.2 Intersectionality (patient Ophelia)

Go to Module 1 →

3 ACT

Module 5: Creating a Culture of Respectful Care

Equity-centered tools that go beyond California's Implicit Bias Training to change culture and care.

- 5.1 NICHQ™ Respectful Maternity Care Toolkit
- 5.1 Reflection: Nurse Manager Ben

Go to Module 5.1 →

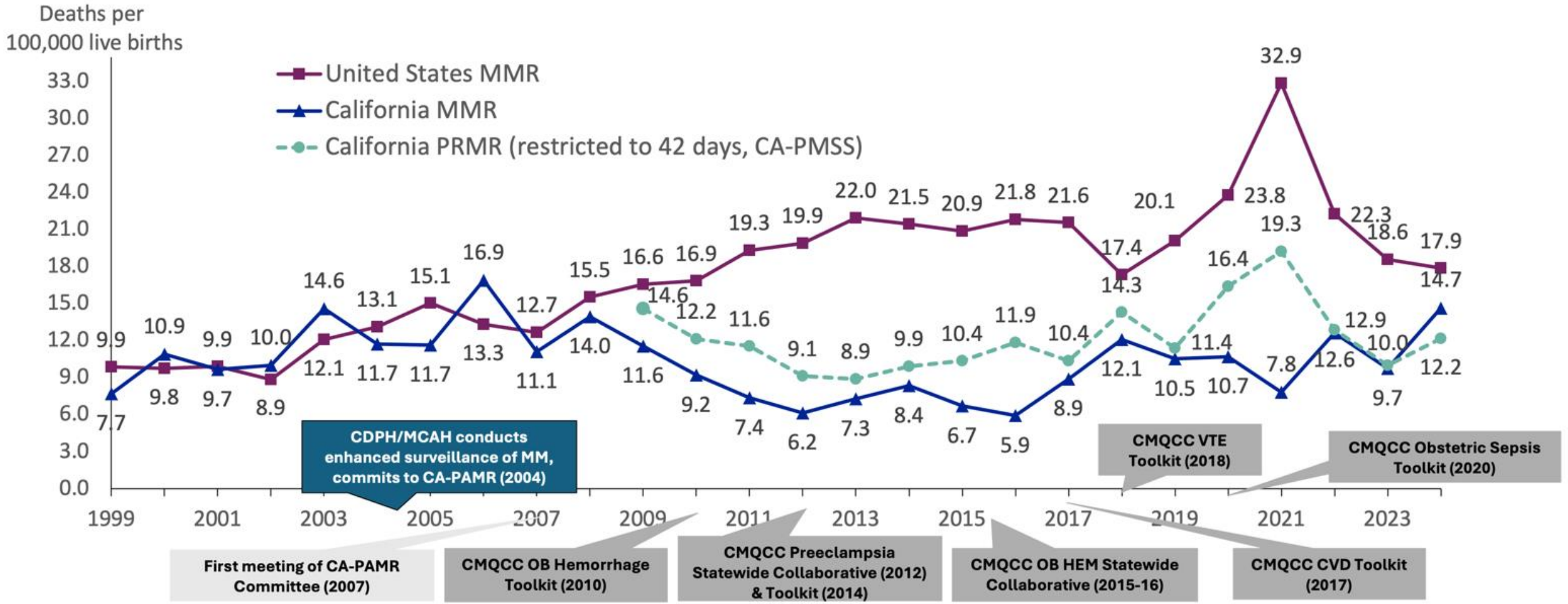
GET STARTED Start here so your team shares one language when naming contributing factors in case reviews

Create a **CMQCC Account** to access the Guide | New to CMQCC Accounts? View the **CMQCC Accounts Tutorial**

OVERALL TRENDS: OB Hemorrhage Mortality, 2009-2024



Maternal Mortality Ratio (MMR) in the U.S. and California (1999–2024) with CMQCC Toolkit Launch Dates

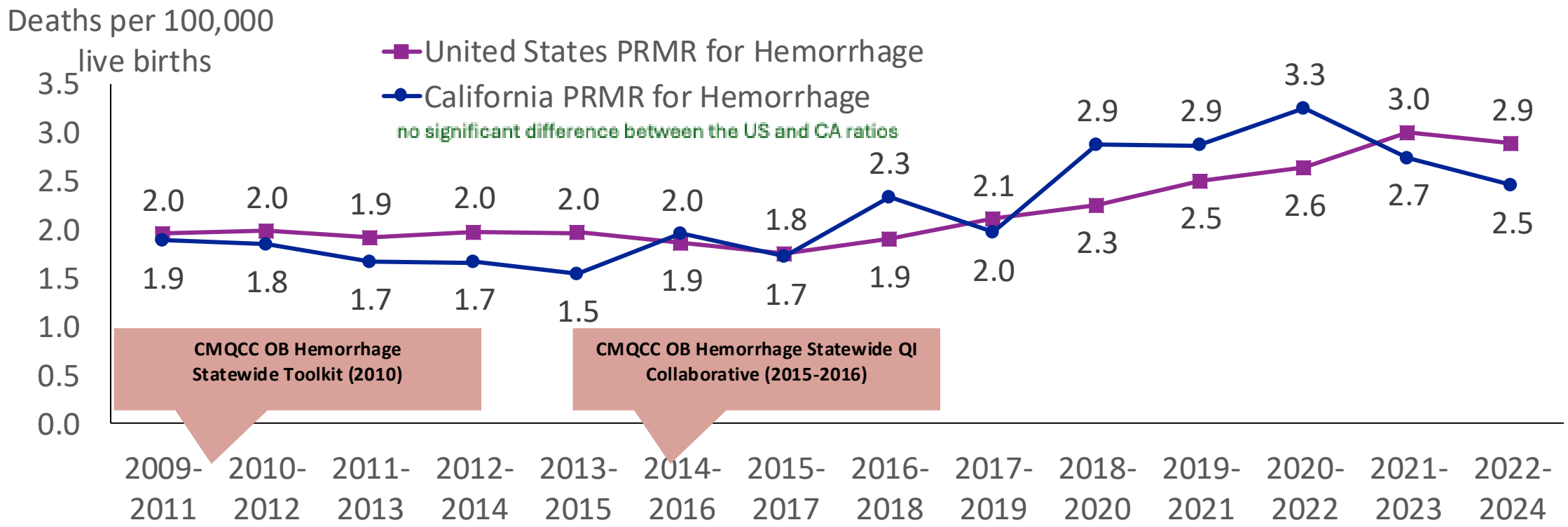


Maternal mortality ratio (MMR) = Number of maternal deaths per 100,000 live births, up to 42 days after the end of pregnancy. Maternal deaths in California were identified using ICD-10 cause of death classification for obstetric deaths (codes A34, O00-O95, O98-O99) from the California death certificate data (1999-2013), the California pregnancy status errata file (2014-2021), and the California Comprehensive Mater Death file (2022-2024). Data on U.S. maternal deaths are published by the National Center for Health Statistics and found in the CDC WONDER Database for years 1999 or later (accessed at http://wonder.cdc.gov on September 17, 2026).

CDPH

Pregnancy-Related Mortality Ratio (PRMR) for Hemorrhage (up to 1 year)

United States and California 2009-2024

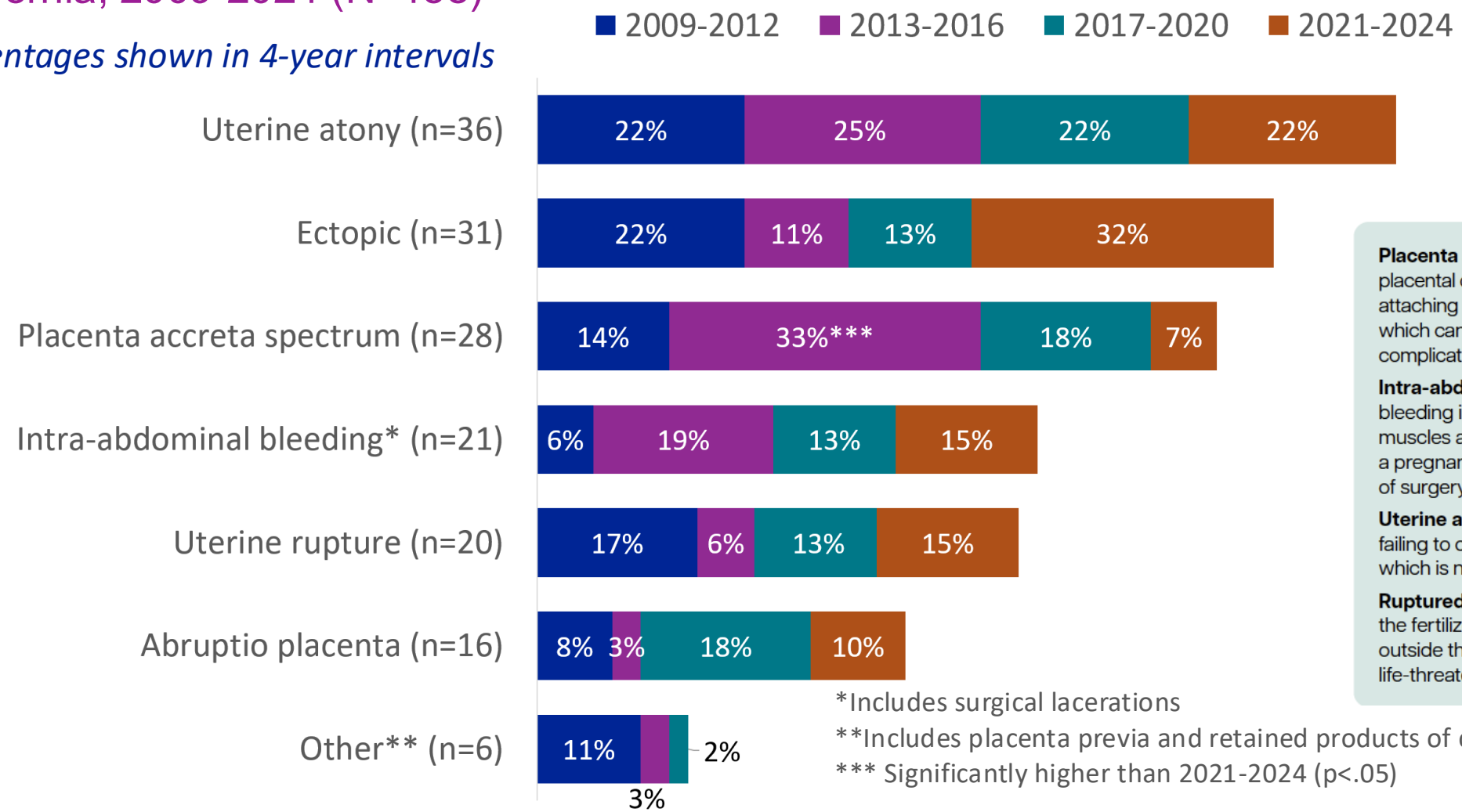


Pregnancy-related mortality ratio (PRMR) for hemorrhage = Number of pregnancy-related hemorrhage deaths per 100,000 live births, up to one year after the end of pregnancy. Causes of pregnancy-related deaths were determined through case review by the CA-PMSS committee (2009-2013, 2019-2024), the Hemorrhage committee (2014-2018), the Southern California PAMR committee (2019-2024, Southern California cases only), and the Central Valley PAMR committee (2023-2024, Central Valley cases only). Data on U.S pregnancy-related hemorrhage deaths were obtained from Njie F, et al. Trends in pregnancy-related mortality in the United States: Pregnancy Mortality Surveillance System, 2005–2024. Obstet Gynecol 2026;148. Data on U.S live births were obtained from CDC WONDER(https://wonder.cdc.gov/) and CDC Vital Statistics Online Data Portal (https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm#Births). Accessed August 31, 2026.

Trends in Causes of Obstetric Hemorrhage Deaths

California, 2009-2024 (N=158)

Percentages shown in 4-year intervals



Placenta accreta spectrum is a group of placental disorders caused by the placenta attaching abnormally to the uterus (womb) which can lead to serious pregnancy complications such as severe hemorrhage.

Intra-abdominal bleeding/laceration is bleeding in the space between abdominal muscles and internal organs as a result of a pregnancy complication or complications of surgery.

Uterine atony refers to uterus muscles failing to contract (tighten) after childbirth, which is needed to close off blood vessels.

Ruptured ectopic pregnancy is when the fertilized egg attaches and grows outside the uterus and bursts causing life-threatening bleeding.

*Includes surgical lacerations

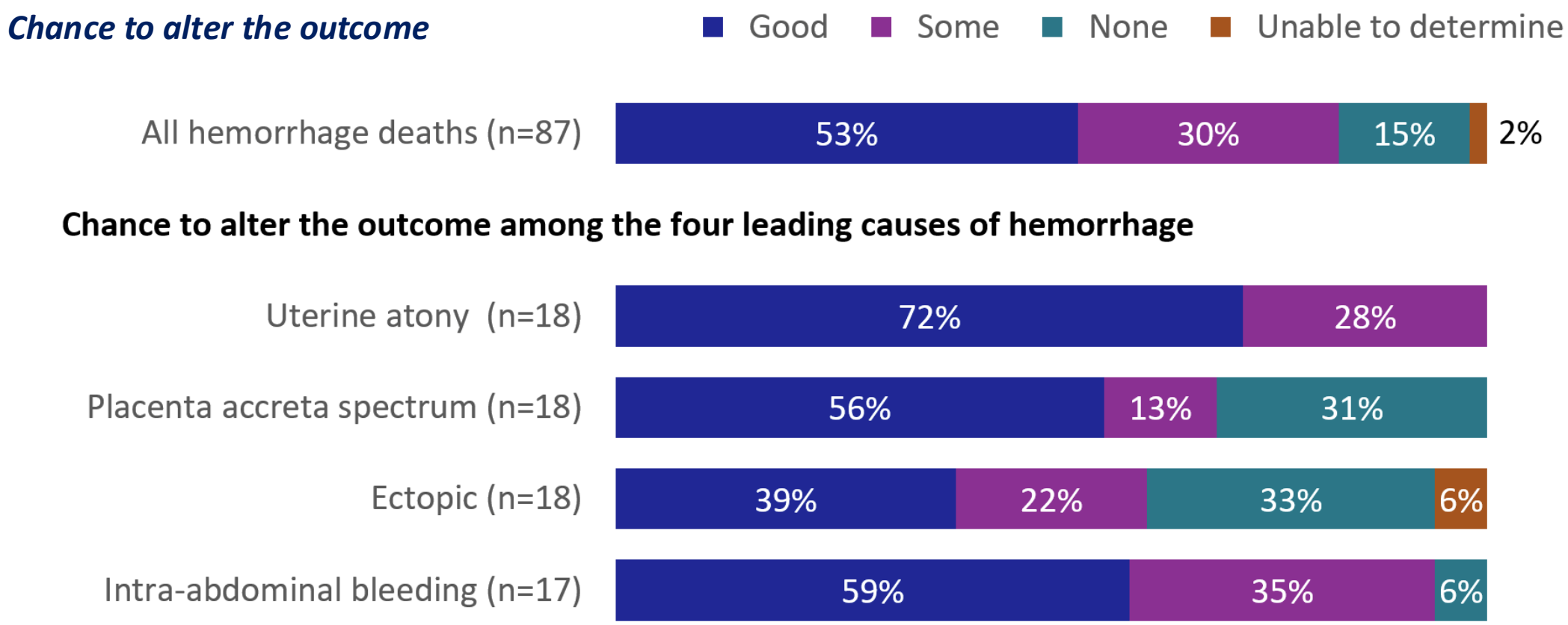
**Includes placenta previa and retained products of conception

*** Significantly higher than 2021-2024 (p<.05)

Causes of pregnancy-related hemorrhage deaths were determined through case review by the CA-PMSS committee (2009-2013, 2019-2024), and in-depth CA-PAMR review committees (2014-2024).

Preventability of Obstetric Hemorrhage Deaths

California, 2014-2024 (N=87*)



*Includes data from in-depth CA-PAMR reviews only (2014-2024)



PATIENT STORIES

ECTOPIC PREGNANCY

ATONY

ECTOPIC PREGNANCIES, and DEATHS are on the RISE

U.S. has seen a rise in ectopic pregnancy deaths

Ectopic Pregnancy is when a pregnancy fails to properly implant in the uterus and begins to develop elsewhere, most commonly inside a fallopian tube. The embryo grows until it causes the tube to rupture, triggering catastrophic bleeding.



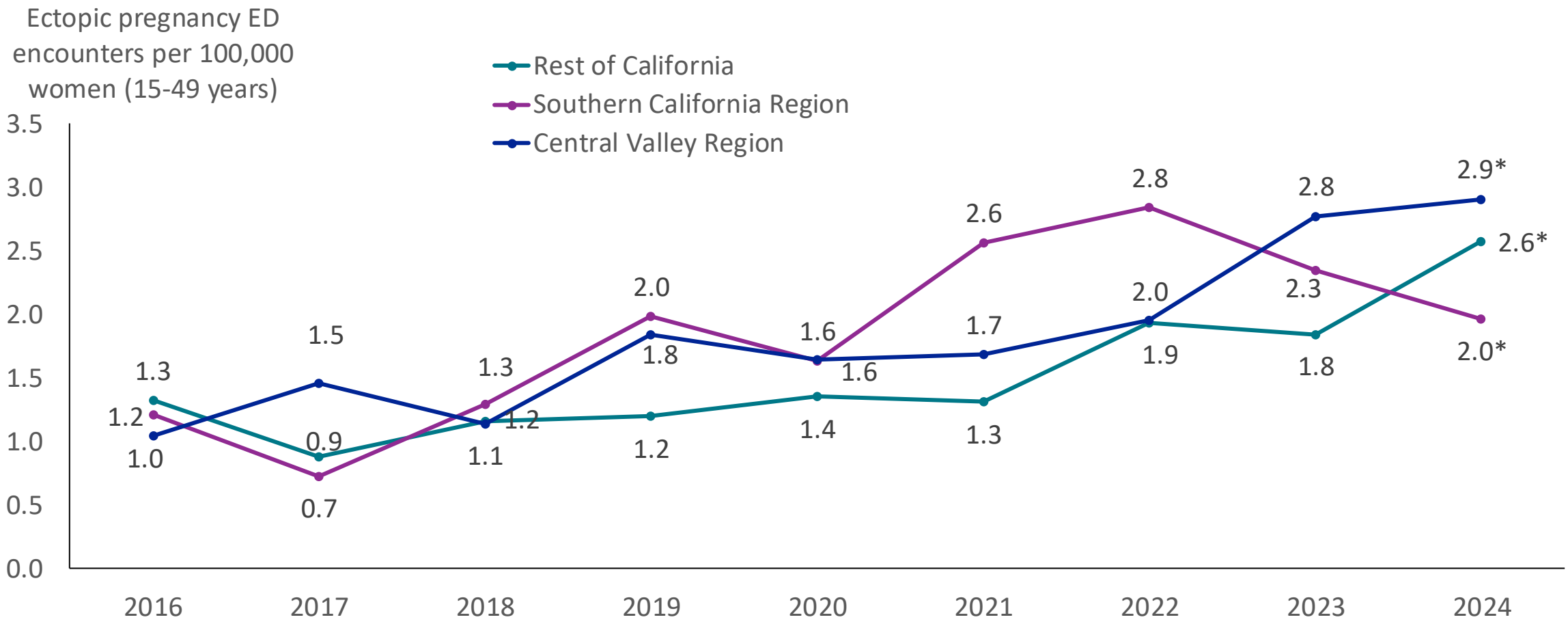
ProPublica's reporting in September 2026 found that almost 200 women died after an ectopic pregnancy from 2000 to 2025, compared with about 100 in the previous six years.

> "A death related to ectopic pregnancy should really be a never event," said Dr. Alice Abernathy, an OB-GYN in Philadelphia.

https://www.propublica.org/article/ectopic-pregnancy-deaths-doubled-analysis

ED Encounter Ratio for Ectopic Pregnancy (per 100,000 women aged 15-49)

California 2016-2024

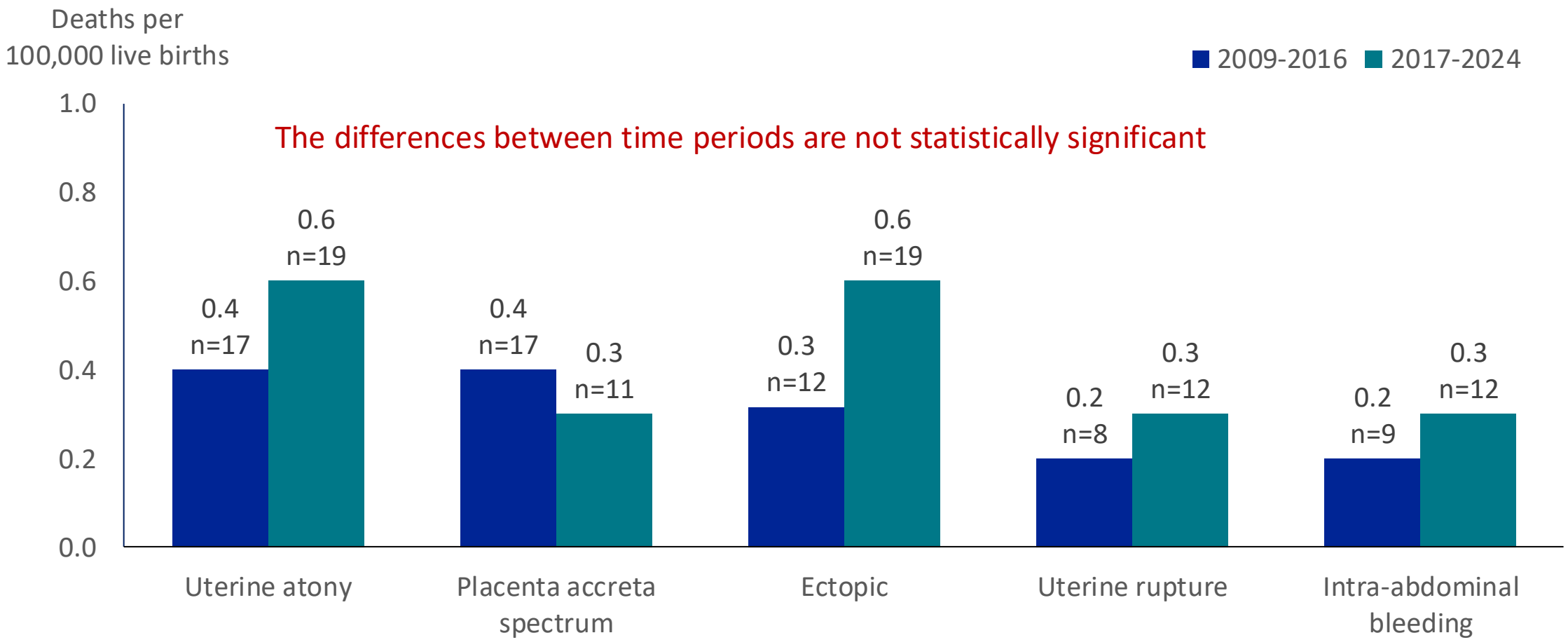


ED encounter ratio for ectopic pregnancy= Number of ectopic pregnancy ED counters per 100,000 women aged 15-49. Ectopic pregnancy were identified using ICD-10 codes O00.0-O00.8. Population data were obtained from https://epicenter.cdph.ca.gov/ReportMenus/PopulationTable.aspx. Assessed September 10, 2026. The Southern California Region includes Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Imperial counties; the Central Valley Region includes Butte, Colusa, Glenn, Fresno, Kern, Kings, Madera, Merced, Placer, San Joaquin, Sacramento, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties; and the rest of California consists of all remaining counties.

* Significant upward trend observed for 2016-2024 ($p<0.05$).

Pregnancy-Related Mortality Ratio (PRMR) for Causes of Obstetric Hemorrhage

California, 2009-2024 (N=158)



Pregnancy-related mortality ratio (PRMR) for hemorrhage = Number of pregnancy-related hemorrhage deaths per 100,000 live births, up to one year after the end of pregnancy. Causes of pregnancy-related hemorrhage deaths were determined through case review by the CA-PMSS committee (2009-2013, 2019-2024), the Hemorrhage committee (2014-2018), the Southern California PAMR committee (2019-2024, Southern California cases only), and the Central Valley PAMR committee (2023-2024, Central Valley cases only).

How Ectopic Pregnancy leads to Death

Patient, Clinician and Facility Factors

- Individual not recognizing pregnancy
- Not understanding risks of severe abdominal pain in early pregnancy and possibility of ectopic
- Not seeking care due to external barriers (financial/lack of insurance; prior negative experiences due to language discordance, racism, discrimination, etc.)
- Emergency Department (ED) misdiagnosis or not sufficiently evaluating for ectopic to rule out when stable (i.e. via formal ultrasound)
- Inappropriate delays in treatment once ectopic suspected (waiting for imaging to confirm diagnosis; bias "uncooperative with care")

Maria's Journey – Two Paths

Composite Case Example:

Path One: Maria tragically dies from ectopic pregnancy.

Path Two: Maria, her family and care providers work together within systems that are designed to support optimal outcomes.

As we share:

Reflect on your role in maternal health and where you may be able to advocate, support and contribute to improved care and outcomes.

CDPH

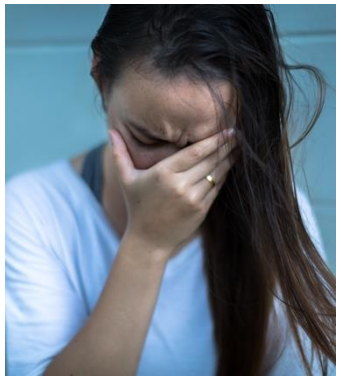


Meet Maria

Maria was a 30-year-old mono-lingual Spanish-speaking woman with no health insurance. She lived in a community designated as "least healthy" by the Healthy Places Index.

Maria lived with her partner and their two children.

Path One:



One evening, Maria began having severe abdominal pain. She did not seek care due to lack of transportation and other financial challenges, including no health insurance.

Maria treated her pain with over-the-counter pain medication.

After 3 days, she collapsed at home and was found by family members who called EMS

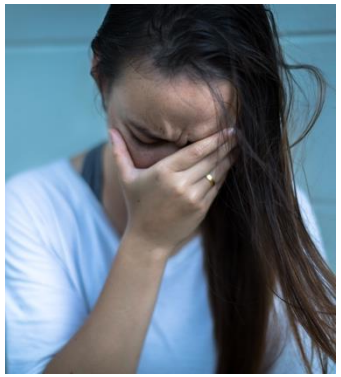
Maria was taken to the Emergency Department of the nearest hospital, but found to be in asystole (no cardiac activity) on arrival with massive hemoperitoneum (blood in abdomen)

Maria died from a ruptured ectopic pregnancy that could have been prevented by earlier detection and treatment





Path Two:



Maria experienced sudden-onset severe abdominal pain but was unsure about seeking care due to her immigration status and lack of insurance.

One evening, Maria began having severe abdominal pain. She did not seek care due to lack of transportation and other financial challenges, including no health insurance.

Maria called the hospital advice nurse, who spoke to her in Spanish and asked whether she might be pregnant. The nurse urged her to go to the nearest ED and told her if she was pregnant, MediCAL would cover her care.

Maria treated her pain with over-the-counter pain medication.

Maria's family member drove her to the ED. A social worker was available to get her Medi-CAL coverage through Presumptive Eligibility

After 3 days, she collapsed at home and was found by family members who called EMS

Maria was promptly assessed by ED staff with ultrasound and pregnancy test. OB was consulted & a surgery was needed to remove the ectopic pregnancy.

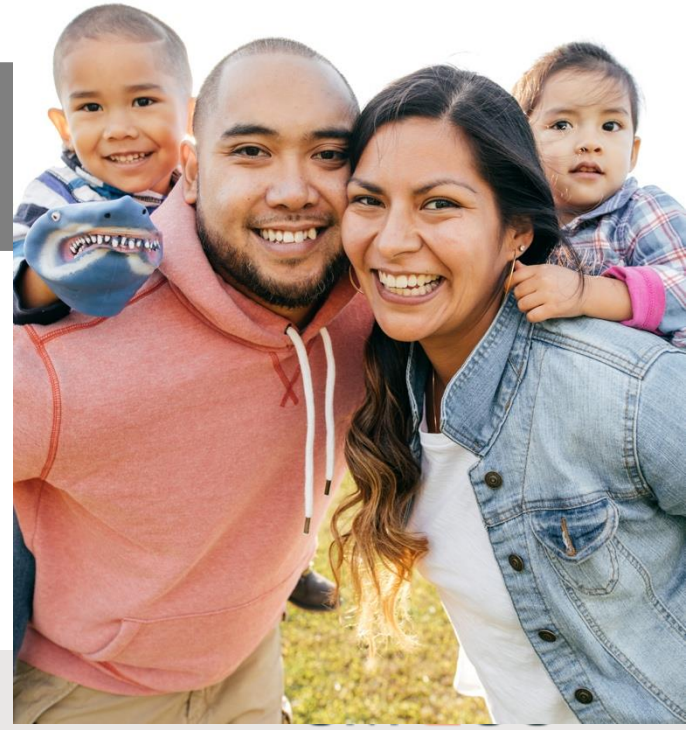
Maria was taken to the Emergency Department of the nearest hospital, but found to be in asystole (no cardiac activity) on arrival with massive hemoperitoneum (blood in abdomen)

Maria died from a ruptured ectopic pregnancy that could have been prevented by earlier detection and treatment



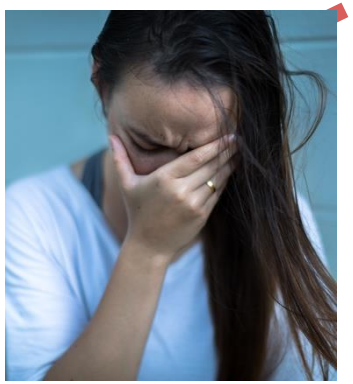
After the surgery, Maria was discharged, and the social worker helped coordinate Medi-CAL enrollment, which ensured transportation for her follow up appointments.

At Maria's follow-up appointments, she was counseled on birth control options and pregnancy warning signs.



Key turning points

Maria took pregnancy test, and read the test packet insert with ectopic warning, and knew she was eligible for MediCAL



ED took symptoms seriously; did pregnancy test and ultrasound & promptly treated Maria

Maria was connected to a social worker, who helped her with MediCAL enrollment and transportation barriers

Facilities had conducted training with ED and OB staff about ectopic pregnancy diagnosis and management

Post-treatment, Maria had comprehensive reproductive education in her preferred language



Common Themes in Ectopic Maternal Deaths



Missed opportunities for early diagnosis and treatment: person unaware of pregnancy and/or doesn't seek early care



Limited knowledge among patient and family about meaning of severe pain in early pregnancy & risk of ectopic pregnancy



Misdiagnosis in the ED: bedside rather than formal ultrasound, incomplete work-up for ectopic; lack of OB consultation early



Not taking seriously patient-reported symptoms: possible biases (weight, SUD, race/ethnicity, pregnancy – wellness bias)



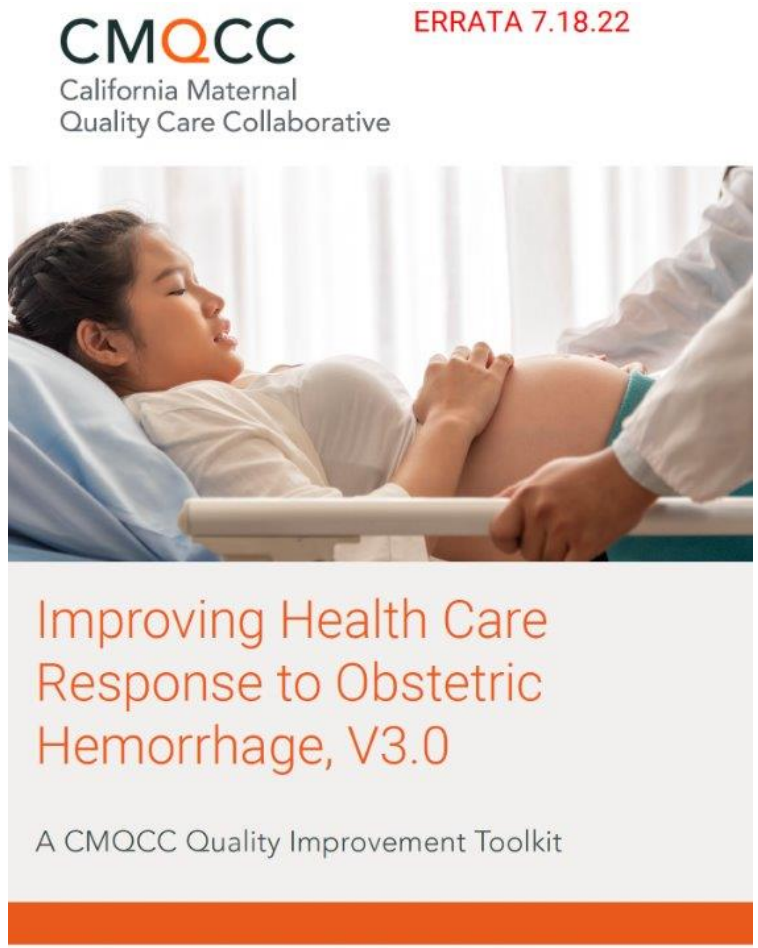
Barriers seeking care due to social determinants: (transportation, insurance gaps, non-English language preference)

Maternal Deaths due to Obstetric Hemorrhage: ATONY

A key focus in the CMQCC OB HEM Toolkit

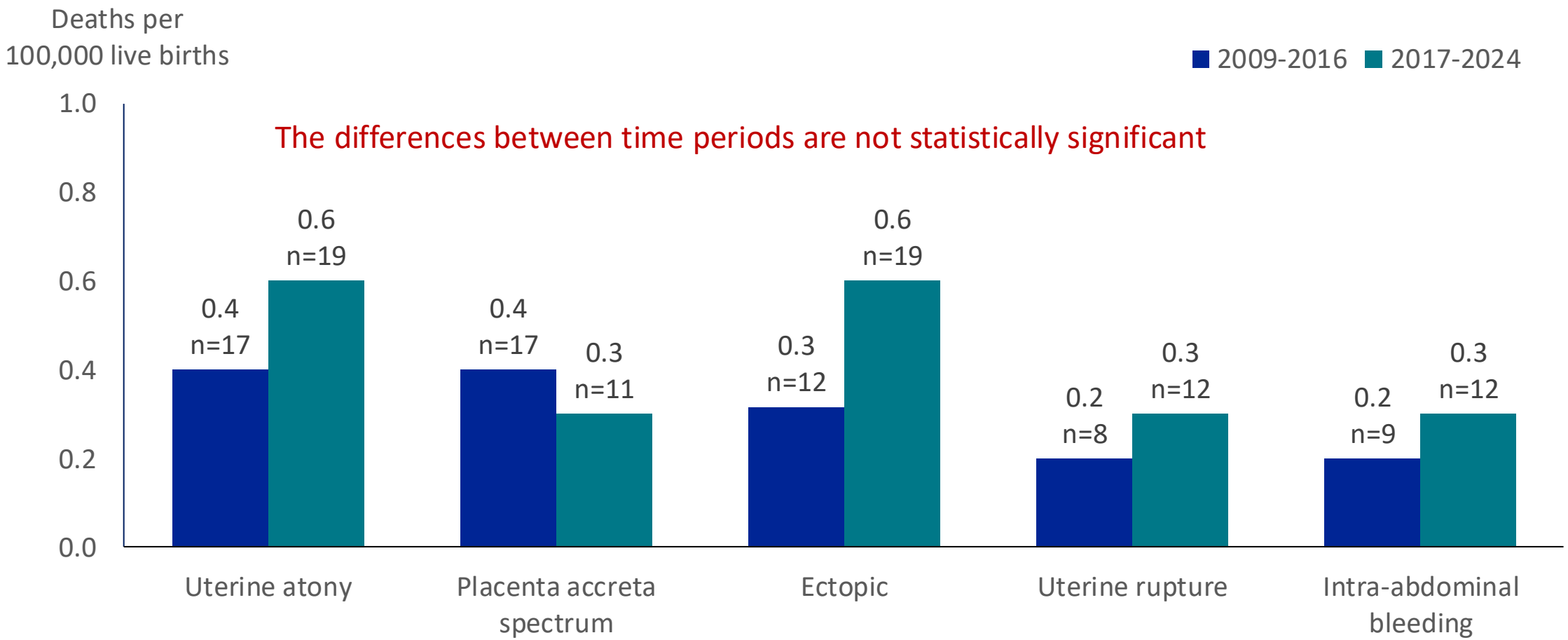
Uterine atony occurs when the myometrium (uterine muscle wall) fails to contract adequately after childbirth. Normal contractions are required to squeeze blood vessels shut; without them, severe bleeding—known as postpartum hemorrhage—can occur.

Atony complicates 1 in 40 births in the US and is responsible for ~22-25% of the obstetric hemorrhage deaths in California



Pregnancy-Related Mortality Ratio (PRMR) for Causes of Obstetric Hemorrhage

California, 2009-2024 (N=158)



Pregnancy-related mortality ratio (PRMR) for hemorrhage = Number of pregnancy-related hemorrhage deaths per 100,000 live births, up to one year after the end of pregnancy. Causes of pregnancy-related hemorrhage deaths were determined through case review by the CA-PMSS committee (2009-2013, 2019-2024), the Hemorrhage committee (2014-2018), the Southern California PAMR committee (2019-2024, Southern California cases only), and the Central Valley PAMR committee (2023-2024, Central Valley cases only).

Gina's Journey – Two Paths

Composite Case Example:

Path One: Gina tragically dies from obstetric hemorrhage due to atony.

Path Two: Gina, her family and care providers work together within systems that are designed to support optimal outcomes.

As we share:

Reflect on your role in maternal health and where you may be able to advocate, support and contribute to improved care and outcomes.

CDPH





Meet “Gina”

Gina was a 35-year-old White woman with a high school education who lives with her partner and their three children, two of whom were born via C-section. She has Medi-CAL insurance, and her community was designated as "least healthy" by the Healthy Places Index.

Gina attended most of her prenatal care and there was a plan for a scheduled repeat cesarean at 39 weeks and 1 day at a hospital with a low delivery volume (<100 births/month).

Path One:

Gina attended prenatal care & her OB recommended repeat C-Section. She was anemic with a hemoglobin of 9.0 but taking iron upset her stomach and she was not retested.



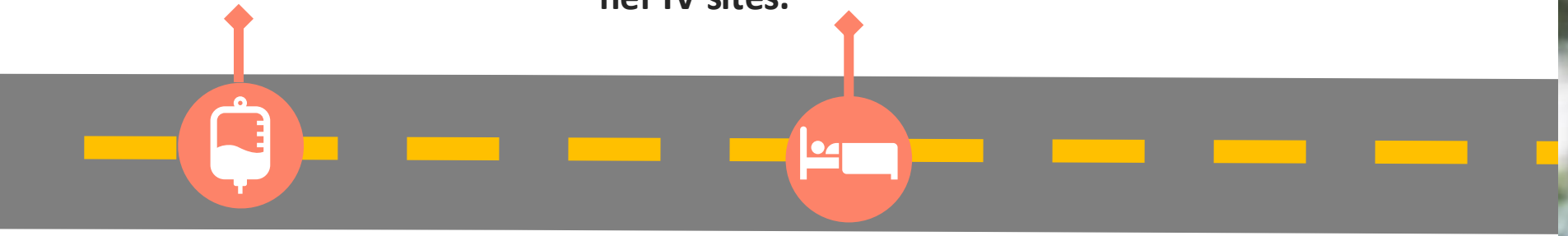
Gina presents to hospital, is prepped for surgery with spinal anesthesia. Her **EBL** is 750ml, vitals are normal and OB orders complete blood count (CBC) for postoperative day 1, and the OB leaves hospital.

In the PACU, she reports increased pain and is tachycardic (HR 120). Nurses notify OB of pain and VS and that bleeding a little more than expected. When OB gets to the bedside, there is blood and clots pooling on the bed.

The team administers uterotonics, IV Fluids, and transfer Gina to ICU for hemodynamic support.

The ICU team draws blood, and notes she is severely anemic, watery blood is coming from her uterus, and she is bleeding from her IV sites.

Despite blood transfusions, Gina goes into cardiac arrest and is unable to be resuscitated.



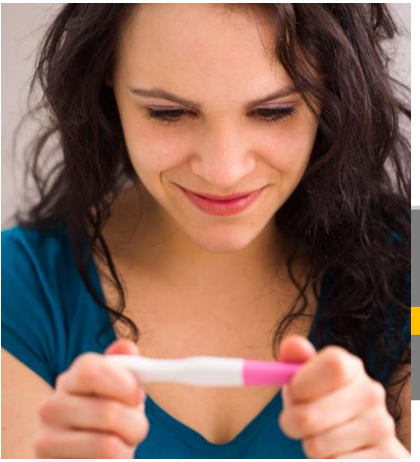


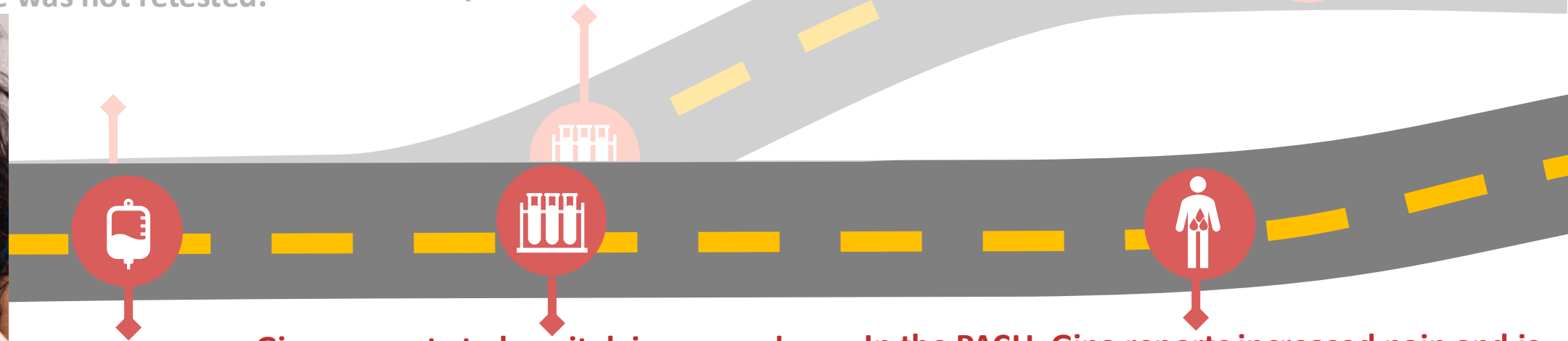
Path Two:

Gina attended prenatal care & her OB recommended repeat C-Section. She was anemic with a hemoglobin of 9.0 but taking iron upset her stomach and she was not retested.

Gina presents to hospital, is prepped for surgery with spinal anesthesia. Her EBL is 750ml, vitals are normal and OB orders complete blood count (CBC) for postoperative day 1, and the OB leaves hospital.

In the PACU, she reports increased pain and is tachycardic (HR 120). Nurses notify OB of pain and VS and that bleeding a little more than expected. When OB gets to the bedside, there is blood and clots pooling on the bed.





Gina receives weekly IV iron due to intolerance of oral iron. Prior to admission, her hemoglobin is 11. She goes to a high resource hospital for her 3rd C-Section.

Gina presents to hospital, is prepped for surgery with spinal anesthesia. Her QBL is 750ml, vitals are normal and OB orders complete blood count (CBC) for postoperative day 1, and the OB leaves hospital.

In the PACU, Gina reports increased pain and is tachycardic (HR 120). Nurses notify OB of QBL 350ml since the OR with ongoing bleeding, her uterus is soft to palpation. OB orders uterotonics, labs, MTP and anesthesia to assist bleeding management and resuscitation in OR.

The team administers uterotonics, IV Fluids, and transfer Gina to ICU for hemodynamic support.

The ICU team draws blood, and notes she is severely anemic, watery blood is coming from her uterus, and she is bleeding from her IV sites.

Despite blood transfusions, Gina goes into cardiac arrest and is unable to be resuscitated.



In the OR, a uterine tamponade device is placed and bleeding slows. Gina is transfused with blood, FFP, and platelets. Her labs show the beginning of DIC which is corrected. The team does not leave the OR until her vitals improve without needing vasopressors, and her coagulation studies are normal.

In the postpartum room, Gina continues to improve. Nurses and lactation consultant support breastfeeding and bonding with her newborn. Social worker assists the family in processing the trauma. Gina goes home with her newborn after 3 days and receives community support to facilitate her physical and emotional recovery.



Key turning points

Gina's OB assessed her risk did blood tests during prenatal care and optimized her blood count before delivery



She was referred to a high-resource hospital for her 3rd C-section.

The team measured her blood loss. After surgery, the team worked to assess Gina and recognize signs that bleeding was problematic.

The team had run simulation drills for how to manage hemorrhage and responded promptly and appropriately

Post-surgery, Gina was monitored closely and the team activated the Massive Transfusion Protocol and reassured Gina & her family that their concerns were heard.

The "village" supported Gina postpartum so she could recover physically and emotionally from this traumatic birth.

Common Themes in ATONY-related Maternal Deaths

- Assessing and improving anemia
- Counseling to prepare high risk patients

- Location of care before or during admission
- Denial/ delayed recognition of bleeding and source

- Uncoordinated team response:
  - QBL
  - Escalation
  - Backup
  - MTP
  - DIC mgmt.
  - Equipment
  - Communication

- Listening for patient-reported symptoms (pain, fear)
- Biases (Wellness): patients look well until too late

- Patient Centered Care consider assumptions around those who accept or decline blood transfusion



CULTURE, TEAMS, STRUCTURES and SYSTEMS

Implementing and Sustaining Quality Improvement

The 4th R of AIM Maternal Safety Bundles

www.saferbirth.org

READINESS

RECOGNITION & PREVENTION

RESPONSE

REPORTING/SYSTEMS LEARNING

RESPECTFUL, EQUITABLE & SUPPORTIVE CARE

Every Unit

•Establish a culture of multidisciplinary planning, huddles, and post-event debriefs for every obstetric hemorrhage, which identify successes, opportunities for improvement, and action planning for future events.
•Perform multidisciplinary reviews of serious complications per established facility criteria to identify system issues.*
•Monitor outcomes and process measures related to obstetric hemorrhage, with disaggregation to facilitate analysis of differences in obstetric hemorrhage outcomes.
•Establish processes for data reporting and the sharing of data with the obstetric rapid response team, care providers, and facility stakeholders to inform care and change care systems, as necessary.

CMQCC
California Maternal
Quality Care Collaborative

Using Data to Sustain Patient Safety Bundle Implementation

Christa Sakowski, MSN, RN, C-ONQS, C-EFM
Jenny Skelton, DHSc, MBA, CPHQ

Hemorrhage Quality Improvement (QI) Tools

Maternal Data Center (MDC)

1. **Data Quality Measures**
   Hemorrhage Validation

2. **Outcome Measures**
   Hemorrhage Frequency, Anemia on Admission, SMM (3 analysis variations), Massive Transfusions

3. **Process Measures**
   Hemorrhage Risk assessment, QBL (Cumulative Value & Cumulative Performed), Patient Support After Hemorrhage, Physician, Midwife & Nurse Education

4. **Structure Measures**

5. **Measure Analysis: Postpartum Hemorrhage**
   CS vs Vaginal, Primary vs Repeat CS, Labor vs No Labor, Induced vs Spontaneous Labor, Chorio vs. Non-Chorio

6. **Severe Maternal Morbidity (SMM) Case Reviews**

Key Takeaways

Train and Sustain!

Health Care Contributing Factors:



89%

of the deaths were linked to clinician, facility, or healthcare system factors that happened during or after labor in hospitals



78%

delays in acting quickly or getting more advanced care



72%

delays in recognizing the signs and symptoms of hemorrhage



53%

not giving enough blood products when it was needed

Data from Hemorrhage Committee in-depth reviews: 2014-2018

Risk Factors for Birthing Individuals

Risk Assessments Needed

57%

Of women had two or more births prior to death compared to 29% of the birthing population

70%

Of women had cesarean delivery at or before death compared to 32% of the birthing population

33%

Gave birth at hospitals with fewer than 1,200 annual births (low birth volume) compared to 13% of the birthing population

20%

Of women died had Anemia (low iron) on admission to L&D



Thinking About Your Health?

Your health and well-being are important. Let's make sure you are strong and ready, so when you decide to get pregnant, you'll feel your best.

Take the PreMA (Preconception Medical Assessment) Quiz

1. Were you born with a heart problem, or do you currently have a heart problem that needs medical attention? yes no
2. Have you ever been told that your heart is not working well, or do you have a heart problem? yes no
3. Has a doctor told you that you have high blood pressure? yes no
4. Has a doctor told you that you have diabetes? yes no
5. Have you ever been diagnosed with a lung disease, or do you have a history of breathing problems? yes no
6. Do you take any medicine that was not prescribed to you by a doctor, like illegal drugs or prescription medicine for reasons other than your health? yes no
7. Have you ever had a surgery on your stomach or intestines, or do you have a problem with your digestive system? yes no
8. Have you ever been in the hospital or needed treatment because you drank too much alcohol? yes no

Scan the QR code and get started by talking to your health care provider today.

Find resources at CA.gov or osg.ca.gov/resources

Tips for Everyone

- Get a preconception visit to review overall health and existing medical conditions.
- Review medications, including over-the counter and herbal supplements.
- Family planning can give you extra time to get healthy before pregnancy.
- Go to all your prenatal and postpartum visits.
- In partnership with your medical provider, create a pregnancy plan for a healthy pregnancy and a healthy baby.

Always remember to trust your body. If you do not feel right, seek care right away.

4+ yes. For the healthiest baby, your health requires closer and more attention before and during pregnancy. You may have chronic health conditions that require extra attention in pregnancy. See a health care provider at least 6 months prior to trying to become pregnant. You may need more tests, new medications or to see a specialist before and during pregnancy. During delivery you may need extra medical attention.

1-3 yes. For the healthiest baby, your health will probably require more attention before pregnancy. See a health care provider at least 3 months before trying to become pregnant and create a pregnancy plan. You may need more tests, new medications or see a specialist before and during pregnancy.

0 yes. For the healthiest baby, follow the Tips for Everyone suggested above.

STRONG START & BEYOND

To access the PreMA Quiz



Respectful, Supportive, Equitable Care

Patient Needs / Follow up Support after Severe Maternal Events

The 5th R of AIM Maternal Safety Bundles

www.saferbirth.org

READINESS

RECOGNITION & PREVENTION

RESPONSE

REPORTING/SYSTEMS LEARNING

RESPECTFUL, EQUITABLE & SUPPORTIVE CARE

Every Unit/Provider/Team Member

•Include each patient that experienced an obstetric hemorrhage and their identified support network as respected members of and contributors to the multidisciplinary care team and as participants in patient-centered huddles and debriefs.

•Engage in open, transparent, and empathetic communication with pregnant and postpartum patients and their identified support network to understand diagnoses, options, and treatment plans, including consent regarding blood products and blood product alternatives.

Challenges Faced by Clinical Teams and Families

Clinical Teams

- Activation of the nervous system
- Executive function impaired
- May not have all clinical data (path, autopsy)
- Documentation is not consistent
- No clearly identified clinical point of contact
- Unsure of autopsy process
- No clear policy for maternal death
- Medicolegal and liability concerns



Family

- Activation of the nervous system
- Executive function impaired
- Witnessed / unwitnessed event
- Many vested parties
- Psychosocial needs are unique
- Limited health literacy and language barriers
- May not be familiar with autopsy
- Competing emotions and focuses

Effective Communication After a Maternal Death

- Acknowledge heightened emotions for all
- Formulate a plan for initial and ongoing communication
- Execute and document
- Use clear, lay language in native language
- Present basic facts while encouraging taking notes
- Explain next steps for viewing their loved one and for autopsy if available
- Gauge their understanding and repeat any key information
- Identify and obtain contact for the primary family/support communicator
- Assess family resources and and if needs exists, identify possible solutions



The Role of Autopsy After a Maternal Death

Challenge

- Autopsies are not uniformly performed
- Lack of reporting of deaths to ME
- County resources vary
- Jurisdictional confusion
- Autopsy results not added to patient chart



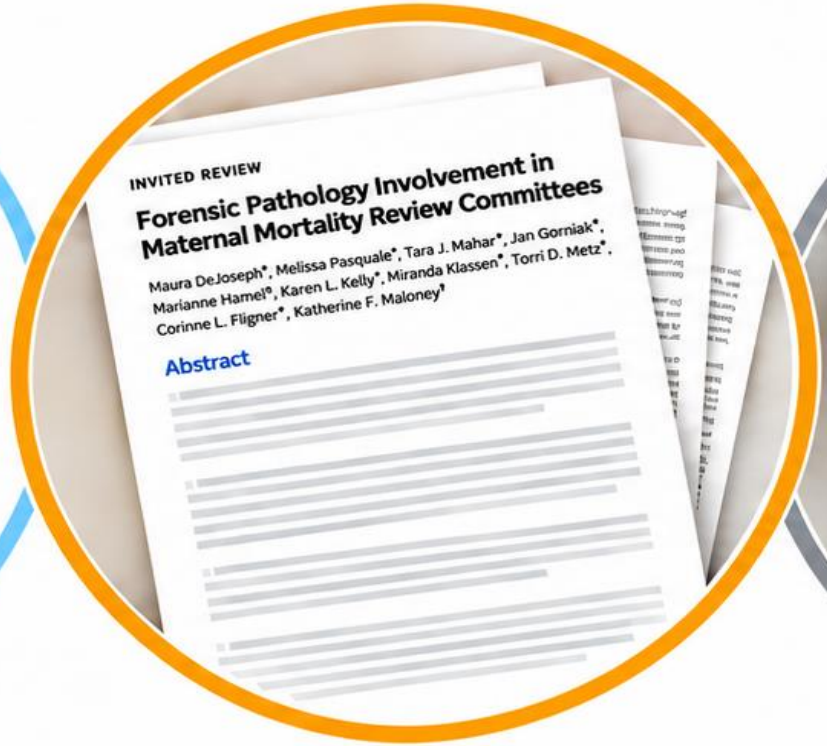
CA-PAMR

CA-PAMR updated reviews to collect data to see if an autopsy would have been helpful in determining a diagnosis.

National Association of Medical Examiners

Involvement of Pathologists in Maternal Mortality







- Guidance and resources for MEs
- Evidence-informed recommendations
- MMRC collaboration and best practices
- A shared goal: more accurate investigation and prevention


Where does the
grief
go when it
isn't yours?

CMQCC Maternal Quality Improvement Resources

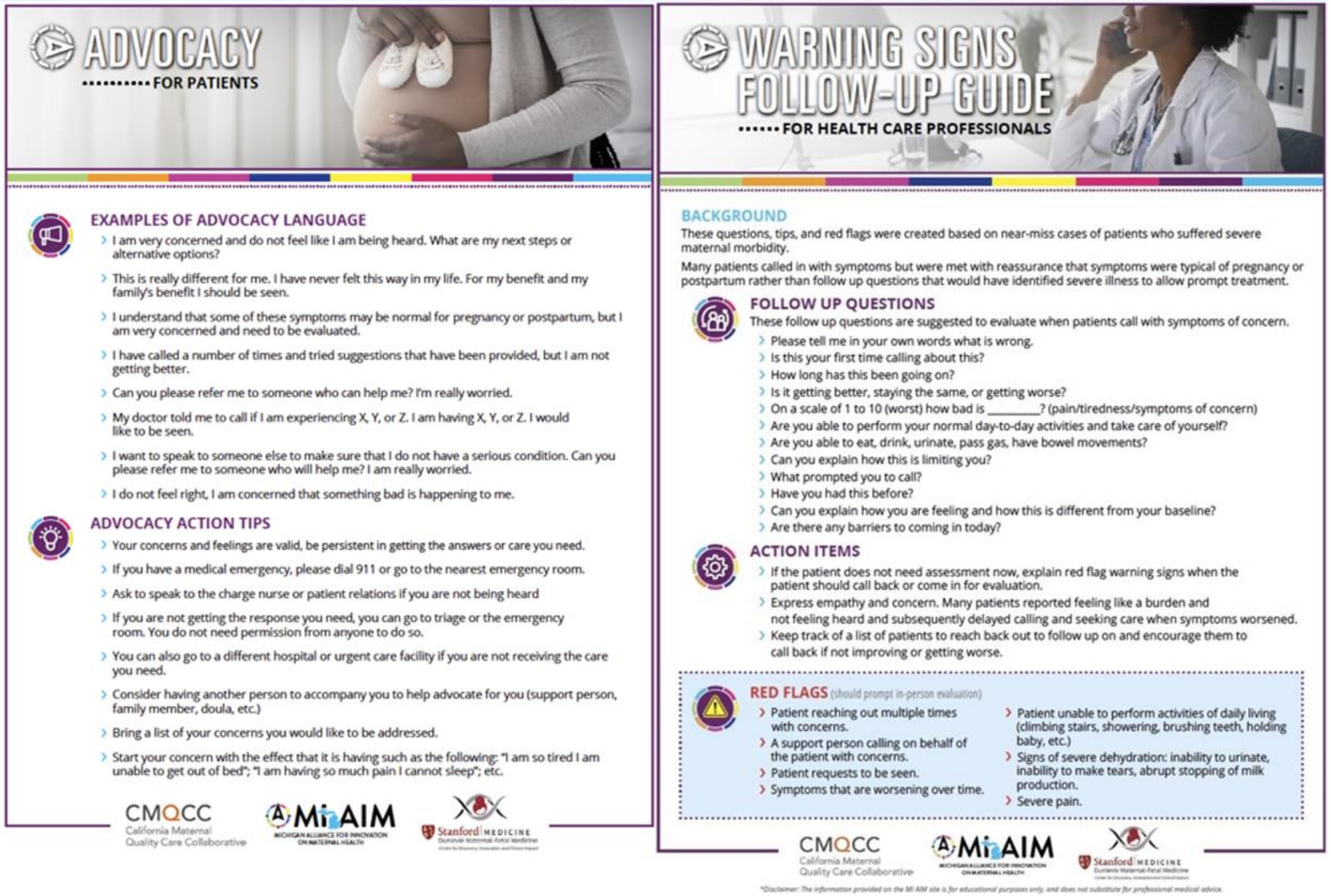


CMQCC Maternal Quality Improvement Toolkits

11 Toolkits

- Community Birth Partnership Initiative *(2026)*
- 
- Postpartum Discharge Landing Pages *(2026)*
- Low-Dose Aspirin Implementation Guide (with March of Dimes *(2026)*
- Support Vaginal Birth and Reduce Primary Cesareans *(2017, rev. 2022)*
- Hypertensive Disorders of Pregnancy *(2014, rev. 2021, 2024)*
- Obstetric Hemorrhage *(2010, rev. 2015, 2022)*
- Venous Thromboembolism *(2018, rev. 2025)*
- Cardiovascular Disease in Pregnancy *(2017)*
- Obstetric Sepsis *(2020, rev. 2025)*
- Early Elective Deliveries *(2010)*
- Mother & Baby Substance Exposure Initiative *(DHCS Leads)*

Maternal Quality Toolkit Resources for Patients and Advocates



ADVOCACY
FOR PATIENTS

EXAMPLES OF ADVOCACY LANGUAGE

- I am very concerned and do not feel like I am being heard. What are my next steps or alternative options?
- This is really different for me. I have never felt this way in my life. For my benefit and my family's benefit I should be seen.
- I understand that some of these symptoms may be normal for pregnancy or postpartum, but I am very concerned and need to be evaluated.
- I have called a number of times and tried suggestions that have been provided, but I am not getting better.
- Can you please refer me to someone who can help me? I'm really worried.
- My doctor told me to call if I am experiencing X, Y, or Z. I am having X, Y, or Z. I would like to be seen.
- I want to speak to someone else to make sure that I do not have a serious condition. Can you please refer me to someone who will help me? I am really worried.
- I do not feel right, I am concerned that something bad is happening to me.

ADVOCACY ACTION TIPS

- Your concerns and feelings are valid, be persistent in getting the answers or care you need.
- If you have a medical emergency, please dial 911 or go to the nearest emergency room.
- Ask to speak to the charge nurse or patient relations if you are not being heard
- If you are not getting the response you need, you can go to triage or the emergency room. You do not need permission from anyone to do so.
- You can also go to a different hospital or urgent care facility if you are not receiving the care you need.
- Consider having another person to accompany you to help advocate for you (support person, family member, doula, etc.)
- Bring a list of your concerns you would like to be addressed.
- Start your concern with the effect that it is having such as the following: "I am so tired I am unable to get out of bed"; "I am having so much pain I cannot sleep"; etc.

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WARNING SIGNS FOLLOW-UP GUIDE
FOR HEALTH CARE PROFESSIONALS

BACKGROUND

These questions, tips, and red flags were created based on near-miss cases of patients who suffered severe maternal morbidity.

Many patients called in with symptoms but were met with reassurance that symptoms were typical of pregnancy or postpartum rather than follow up questions that would have identified severe illness to allow prompt treatment.

FOLLOW UP QUESTIONS

These follow up questions are suggested to evaluate when patients call with symptoms of concern.

- Please tell me in your own words what is wrong.
- Is this your first time calling about this?
- How long has this been going on?
- Is it getting better, staying the same, or getting worse?
- On a scale of 1 to 10 (worst) how bad is _____? (pain/tiredness/symptoms of concern)
- Are you able to perform your normal day-to-day activities and take care of yourself?
- Are you able to eat, drink, urinate, pass gas, have bowel movements?
- Can you explain how this is limiting you?
- What prompted you to call?
- Have you had this before?
- Can you explain how you are feeling and how this is different from your baseline?
- Are there any barriers to coming in today?

ACTION ITEMS

- If the patient does not need assessment now, explain red flag warning signs when the patient should call back or come in for evaluation.
- Express empathy and concern. Many patients reported feeling like a burden and not feeling heard and subsequently delayed calling and seeking care when symptoms worsened.
- Keep track of a list of patients to reach back out to follow up on and encourage them to call back if not improving or getting worse.

RED FLAGS (should prompt in-person evaluation)

- Patient reaching out multiple times with concerns.
- A support person calling on behalf of the patient with concerns.
- Patient requests to be seen.
- Symptoms that are worsening over time.
- Patient unable to perform activities of daily living (climbing stairs, showering, brushing teeth, holding baby, etc.)
- Signs of severe dehydration: inability to urinate, inability to make tears, abrupt stopping of milk production.
- Severe pain.

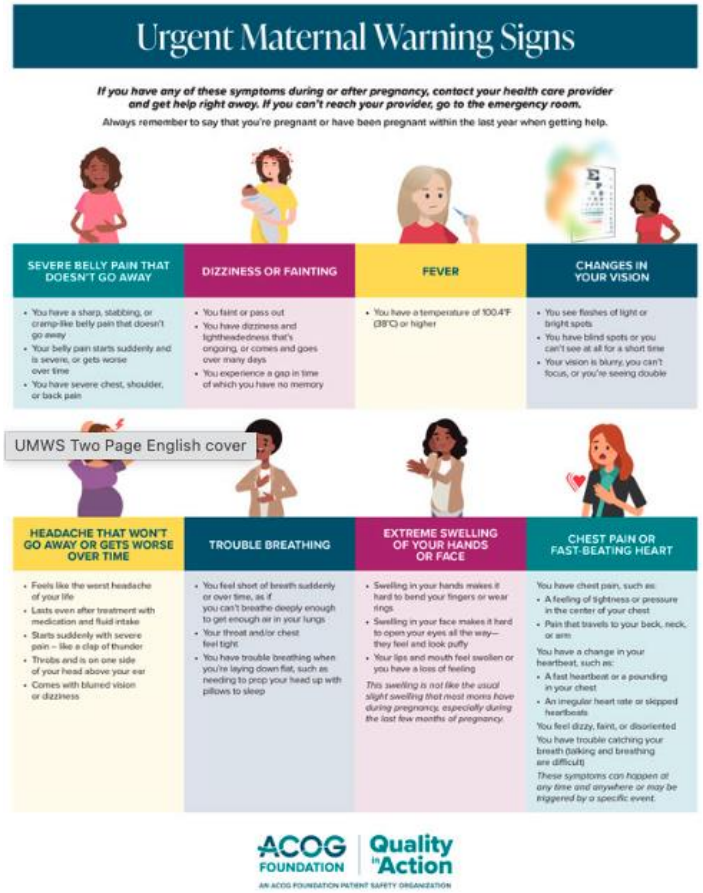
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*Disclaimer: The information provided on the MI AIM site is for educational purposes only, and does not substitute for professional medical advice.

OUR CALL TO ACTION

Clinicians, hospital quality/safety, professional societies

- ✓ Ensure my hospital has implemented the OB HEM Toolkit/Bundle and has trained every clinician in every part of the hospital with drills and simulations
- ✓ Ensure my hospital is sustaining our implementation of the OB HEM Toolkit/Bundle
- ✓ Emphasizing with our patients the importance of addressing prenatal anemia, the risks of multiple cesareans and knowing the urgent maternal warning signs (AWHONN Post-Birth; ACOG)





OUR CALL TO ACTION

OB & Emergency Medicine Clinicians

ACOG FOUNDATION | Quality in Action

An ACOG Foundation Patient Safety Organization

Watch these webinars: obgynsafety.org

Obstetric Hemorrhage Checklist: A Stage-based Approach for Response and Treatment (RECORDING: https://vimeo.com/1240315941)

Management and Care for Patients with Ectopic Pregnancies in the Emergency Department

This series examines the continuum of ectopic pregnancy care, covering diagnosis, emergency response, treatment strategies, and equitable, person-centered support for patients experiencing ectopic pregnancy and early pregnancy loss.

Beyond Diagnosis: Respectful and Equitable Care in the Management of Ectopic Pregnancy

Date: September 10, 2026

Ectopic Pregnancy Presentation and Management

Date: September 3, 2026

Assessing Pregnancy of Unknown Location in the Emergency Department

Date: August 20, 2026

Diagnosis and Management of Ectopic Pregnancy in the Emergency Department

Date: August 6, 2026

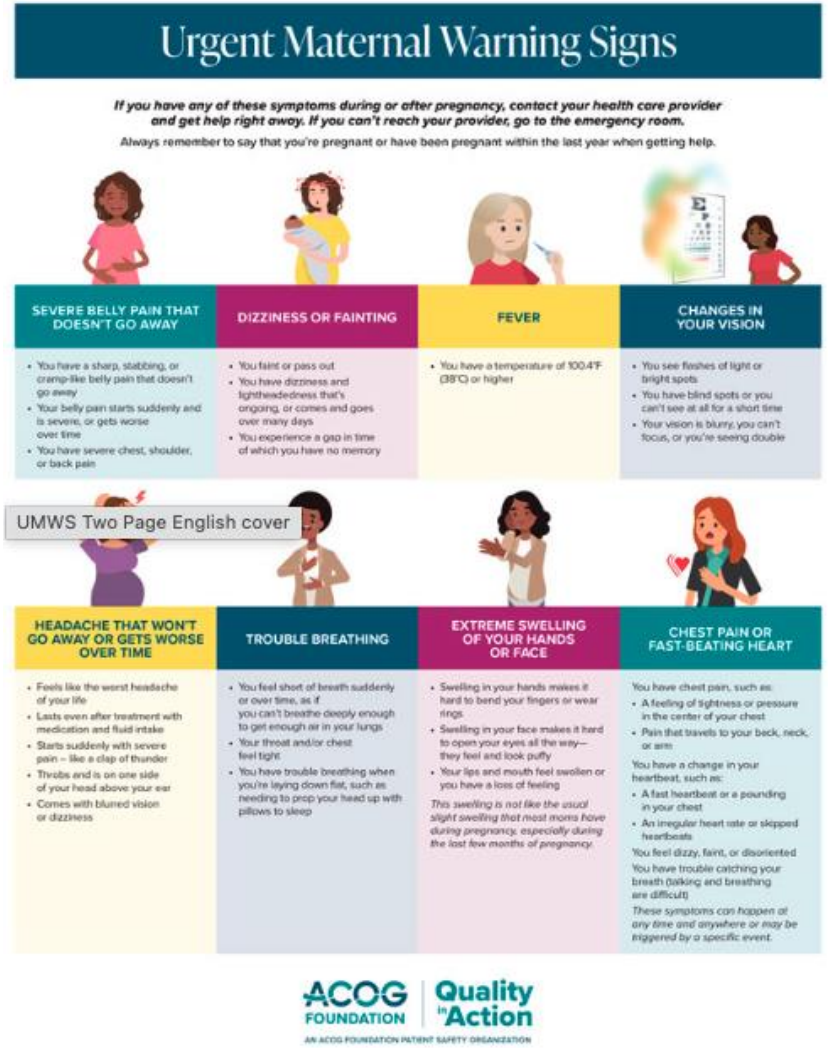
OUR CALL TO ACTION

Patients, their families and support persons, advocates, public health

WHAT IS ONE THING YOU WILL DO BY NEXT TUESDAY TO RAISE AWARENESS ABOUT RESOURCES TO HELP PATIENTS AND FAMILIES BEFORE, DURING AND AFTER A SEVERE MATERNAL EVENT?

- ✓ Ask whether my local hospital has implemented the OB HEM Toolkit/Bundle and have posted the Urgent Maternal Warning Signs in every LDRP room
- ✓ Share Urgent Maternal Warning Signs information with every pregnant family member, client
- ✓ Educate pregnant people about their risks for hemorrhage

https://obgynsafety.org/urgent-maternal-warning-signs/



Advocates for maternal safety and quality

Resources, peer support, and advocacy



Contact Us







Info@CMQCC.org
(or your email/Helpdesk)

www.CMQCC.org

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@CaliforniaPQC

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