

Can We Change the Outcome?

The Importance of Including the Patient and Community Partners in the Implementation of the AIM Hypertension Bundle

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Central Jersey Family Health Consortium, CEO

NJ Perinatal Quality Collaborative, Co-chair

NJ AWHONN, Section chair

Preeclampsia Foundation, Chair





I come to you from NJ where you might think of this...



But this is home

Reduction of Maternal Mortality is one of the Greatest Public Health Success Stories of the Last Century

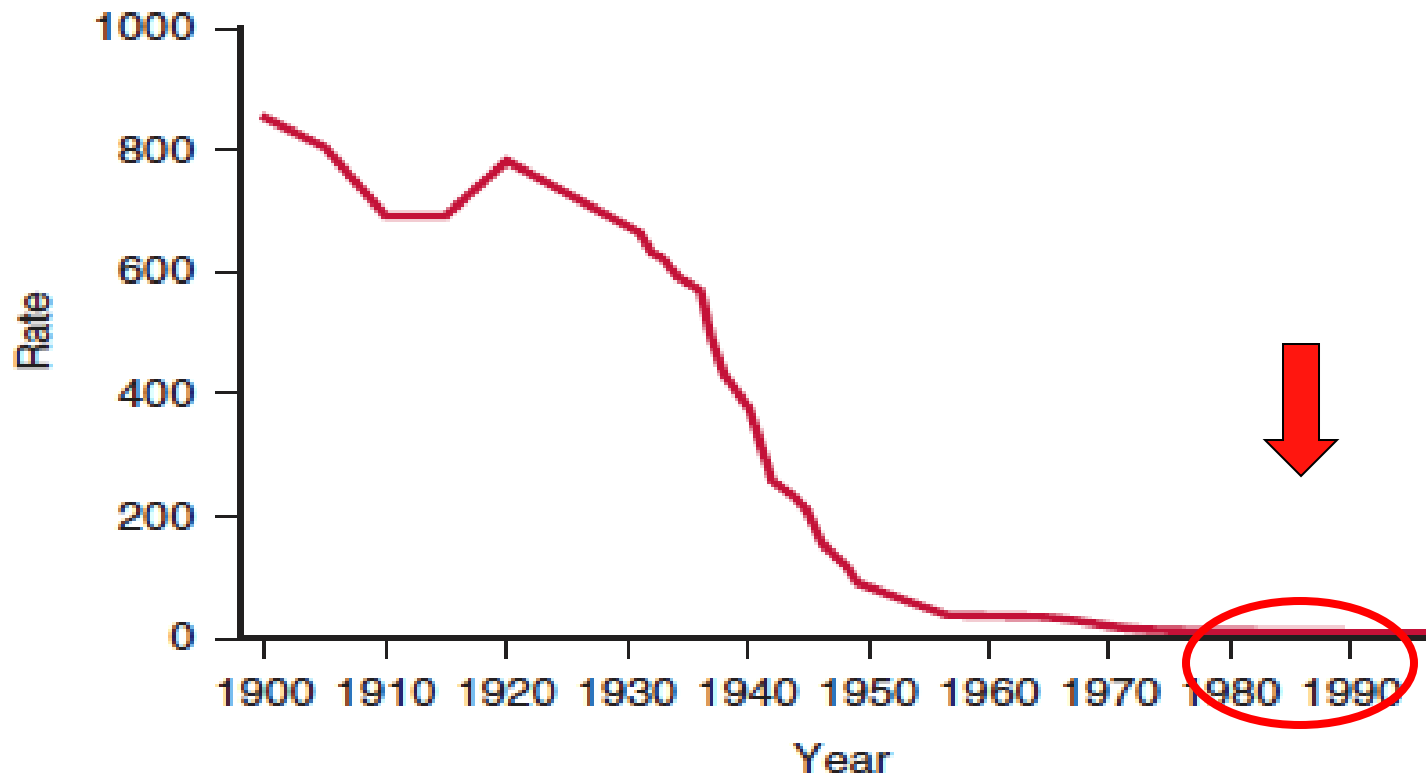
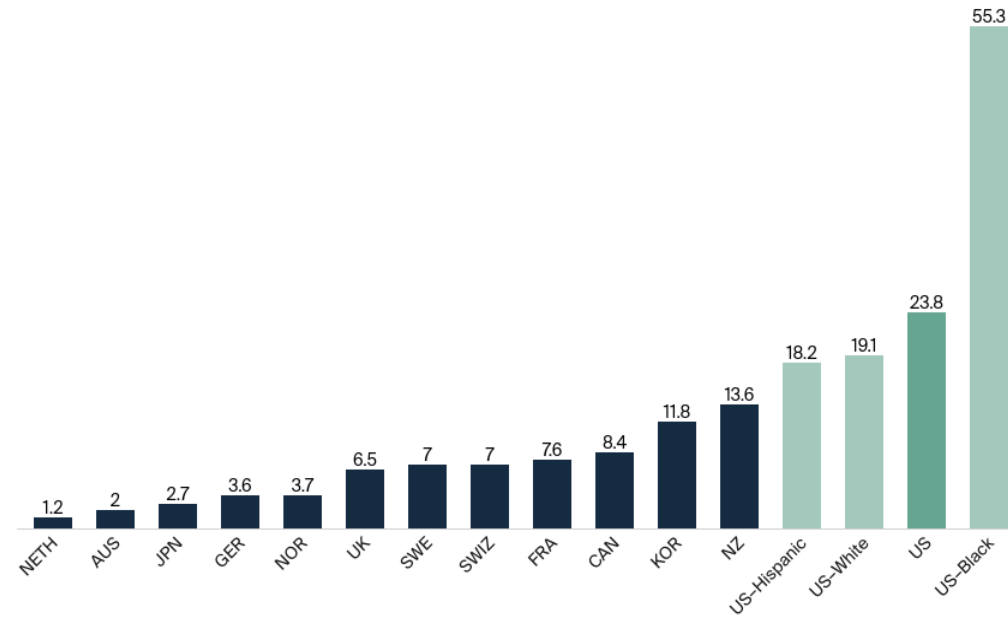


Figure 50-1 U.S. maternal mortality rate, 1900 to 1997. Rate is the number of deaths per 100,000 live births. (From Centers for Disease Control and Prevention: *Healthier mothers and babies*, MMWR Morb Mortal Wkly Rep 48:849–857, 1999.)

New Data Shows U.S. Maternal Mortality Rate Exceeds That in Other High-Income Countries

Deaths per 100,000 live births



[Download data](#)

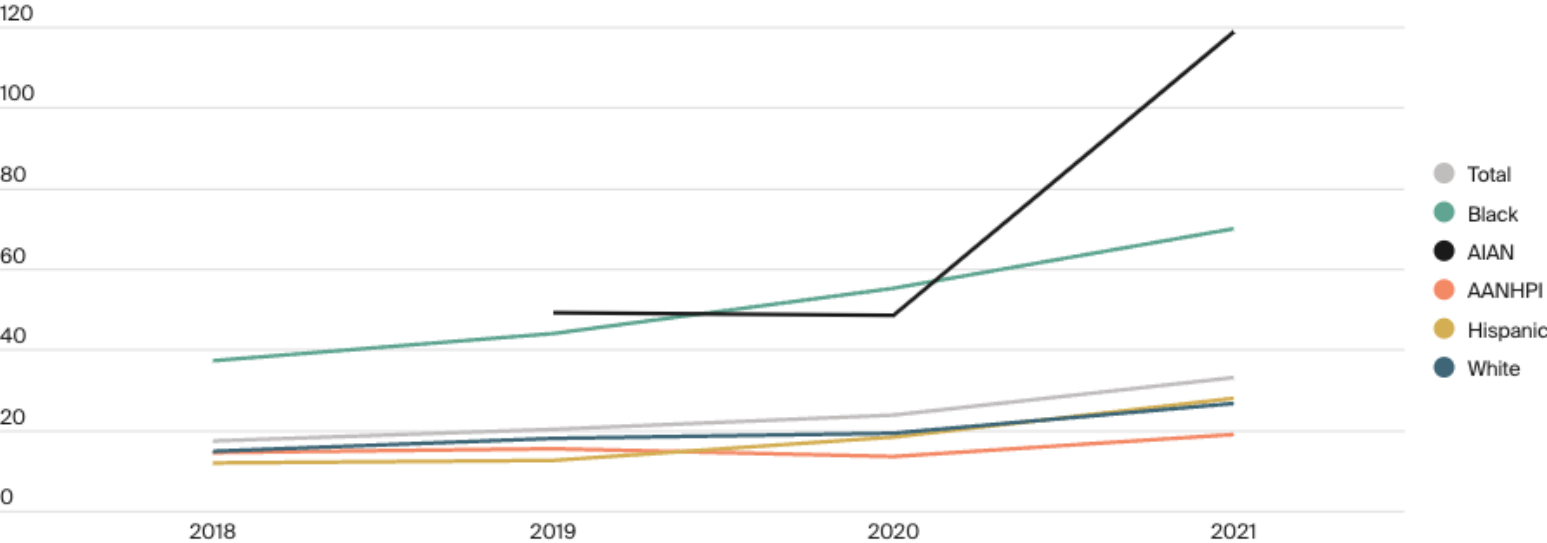
Notes: The maternal mortality ratio is defined by the World Health Organization as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. 2015 data for FRA; 2017 data for UK; 2018 data for NZ; 2019 data for SWIZ; 2020 data for AUS, CAN, GER, JAP, KOR, NETH, NOR, SWE, and US.

Data: Data for all countries except US from [OECD Health Statistics 2022](#). Data for US from Donna L. Hoyert, [Maternal Mortality Rates in the United States, 2020](#) (National Center for Health Statistics, Feb. 2022).

Source: Munira Z. Gunja, Evan D. Gumas, and Reginald D. Williams II, "The U.S. Maternal Mortality Crisis Continues to Worsen: An International Comparison," To the Point (blog), Commonwealth Fund, Dec. 1, 2022. <https://doi.org/10.26099/8vem-fc65>

The U.S. maternal mortality rate nearly doubled between 2018 and 2021, and rates for American Indian/Alaska Native and Black women increased the most during the COVID-19 pandemic.

Maternal mortality rate per 100,000 live births, United States (2018-2021)



[Download data](#)

Note: Maternal deaths include those assigned to ICD-10 codes A34, O00–O95, and O98–O99 and occur while pregnant or within 42 days of being pregnant. Rates shown are for American Indian/Alaska Native (AIAN; non-Hispanic); Asian American, Native Hawaiian and Pacific Islander (AANHPI; non-Hispanic); Black (non-Hispanic); white (non-Hispanic); and Hispanic (any race) people, based on information from decedent’s death certificate. 2018 AIAN rate is not available because of CDC data suppression standards for small numbers of deaths.

Data: 2018–2021 National Vital Statistics System (NVSS), Natality and Mortality; and Donna L. Hoyert, [Maternal Mortality Rates in the United States, 2021](#) (National Center for Health Statistics, March 2023).

Source: David C. Radley et al., *The Commonwealth Fund 2023 Scorecard on State Health System Performance: Americans’ Health Declines and Access to Reproductive Care Shrinks, But States Have Options* (Commonwealth Fund, June 2023). <https://doi.org/10.26099/fcas-cd24>

The U.S. has the worst rate of maternal deaths in the developed world, and most are preventable

ProPublica
May 12, 2017

[“The Last Person You’d Expect to Die in Childbirth”](#)

Lauren Bloomstein, a neonatal nurse, died from preeclampsia in the hospital where she worked, and illustrates the need for focus.



[Why are more American women dying after childbirth?](#)

PBS NewsHour
August 18, 2017

NJ Spotlight
January 22, 2018

KEEPING THE FOCUS ON NJ'S HIGH MATERNAL-MORTALITY RATES

LILO H. STANTON | JANUARY 22, 2018

Precedent-setting Maternal Health Awareness Day seeks to educate patients, providers in reducing avoidable deaths



Ryan and Tara Hansen, with their first son. Tara died six days after the baby was born.

A growing array of healthcare providers have teamed up to focus attention on what they say are unnecessarily high maternal-mortality rates in New Jersey and are now looking to work with patients, families, policymakers and others to reduce avoidable deaths.

The campaign includes what could be the nation's first **Maternal Health Awareness Day** - set for Tuesday - an effort to underscore the importance of healthy

The New York Times

The New York Times

Reducing Maternal Mortality

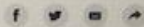
A new law to help states investigate deaths from childbirth complications is a start, but experts say what is really needed is reducing C-section rates.



15Stock

By Emily Kumler Kaplan

March 5, 2019



Women in the United States face a far greater risk of dying from

NY Times
March 5, 2019

LOST MOTHERS

The New U.S. Maternal Mortality Rate Fails to Capture Many Deaths

Since 2007, the government had held off on releasing an official estimate of expectant and new mothers who died from causes related to pregnancy and childbirth. It waited for the data to get better. But the new, long-anticipated number falls short.

by Nina Martin, Feb. 13, 12:40 p.m. EST

ProPublica is a nonprofit newsroom that investigates abuses of power. Sign up to receive our biggest stories as soon as they're published.

Late last month, maternal health experts from around Illinois were videoconferencing in Chicago and Springfield, poring over the files of expectant and new mothers who'd died in the state in 2017. Many of the deaths could have been prevented if only medical and other providers had understood the special risks that women face during this critically vulnerable time.

Then, someone's phone buzzed: The Centers for Disease Control and Prevention had just released its new, long-awaited U.S. maternal mortality rate, a number that had not been updated since 2007, when the federal government decided states weren't doing a good enough job of capturing all of the deaths related to pregnancy and childbirth. It had taken more than a decade for states to implement new procedures, like adding a checkbox to death certificates, to flag pregnant women and new mothers who had died.

ProPublica
Lost Mothers Series
February 13, 2020

 **PROPUBLICA**

New York Times
February 23, 2022

Maternal Deaths Rose During the First Year of the Pandemic

Deaths during pregnancy and the first six weeks after childbirth increased, especially for Black and Hispanic women, according to a new report.



Charles Johnson testified before a House committee last May about losing his wife, Kira Johnson, during a routine C-section. Credit...Leah Millis/Reuters



File photo provided by Getty Images

COVID-19 linked to increase in U.S. pregnancy-related deaths

By — Amanda Seitz, Associated Press

Health Oct 19, 2022 9:00 PM EDT

WASHINGTON (AP) — COVID-19 drove a dramatic increase in the number of women who died from pregnancy or childbirth complications in the U.S. last

PBS News Hour
October 19, 2022



Covid Worsened a Health Crisis Among Pregnant Women

In 2021, deaths of pregnant women soared by 40 percent in the United States, according to new government figures. Here's how one family coped after the virus threatened a pregnant mother.

NY Times
March 16, 2023

NY Times
February 12, 2023

TheUpshot

Childbirth Is Deadlier for Black Families Even When They're Rich, Expansive Study Finds

By Claire Cain Miller, Sarah Kliff and Larry Buchanan
Produced by Larry Buchanan and Shannon Lin
Feb. 12, 2023

 Give this article    862

In the United States, the richest mothers and their newborns are the most likely to survive the year after childbirth — except when the family is Black, according to a groundbreaking new study of two million California births. The richest Black mothers and their babies are twice as likely to die as the richest white mothers and their babies.

Research has [repeatedly shown](#) that Black mothers and babies have the [worst childbirth outcomes](#) in the United States. But this study is novel because it's the first of its size to show how the risks of childbirth vary by both race and parental income, and how Black families, regardless of their socioeconomic status, are disproportionately affected.

[HEALTH](#)

Health Disparities

[Add Topic +](#)

It's not safe to be pregnant and Black in America: 'People aren't receiving the care they deserve'

Amid Black Maternal Health Week, experts are raising the alarm on the urgent need for equity. Black women and birthing people are more likely than any other racial or ethnic group in the US to die of pregnancy-related causes.



[Nada Hassanein](#)

USA TODAY

Published 4:25 p.m. ET April 11, 2023 | Updated 8:12 a.m. ET April 13, 2023



USA Today

April 11, 2023

PUBLIC HEALTH

How bad is maternal mortality in the U.S.? A new study says it's been overestimated

UPDATED MARCH 15, 2024 · 4:27 PM ET

HEARD ON [ALL THINGS CONSIDERED](#)



[Selena Simmons-Duffin](#)

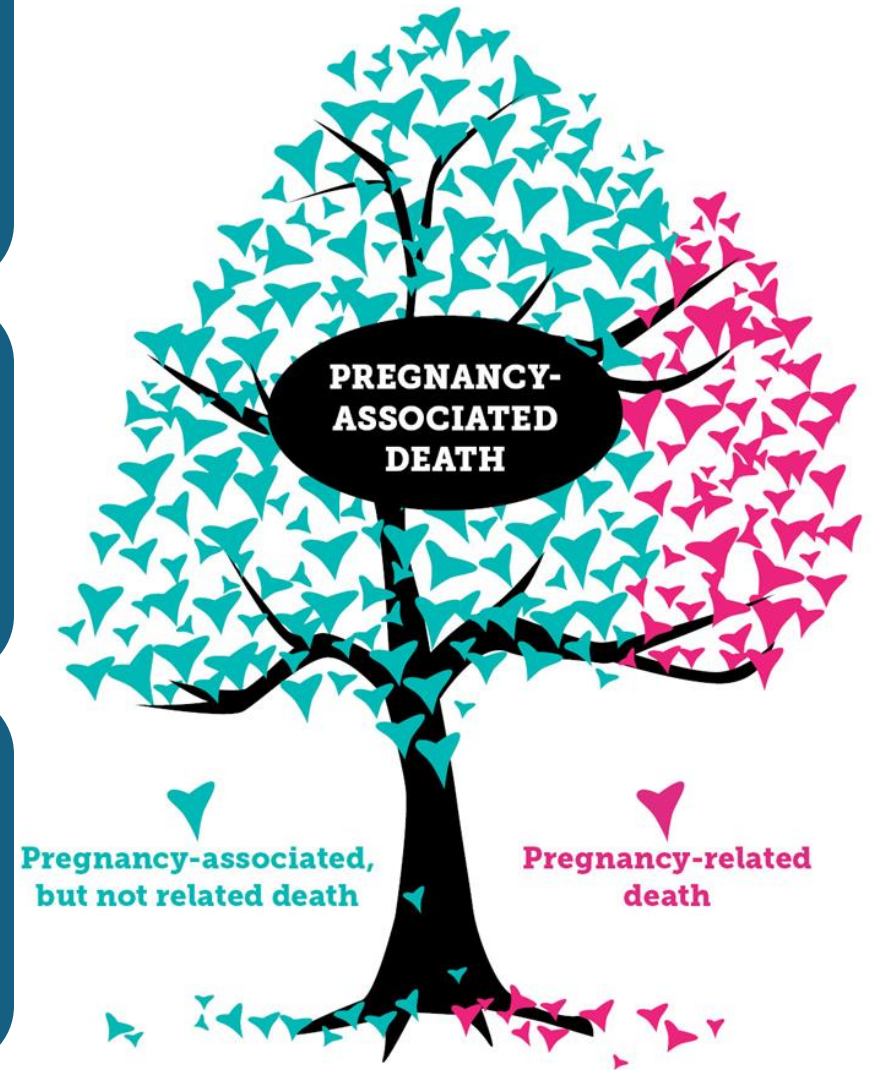
NPR

March 15, 2024

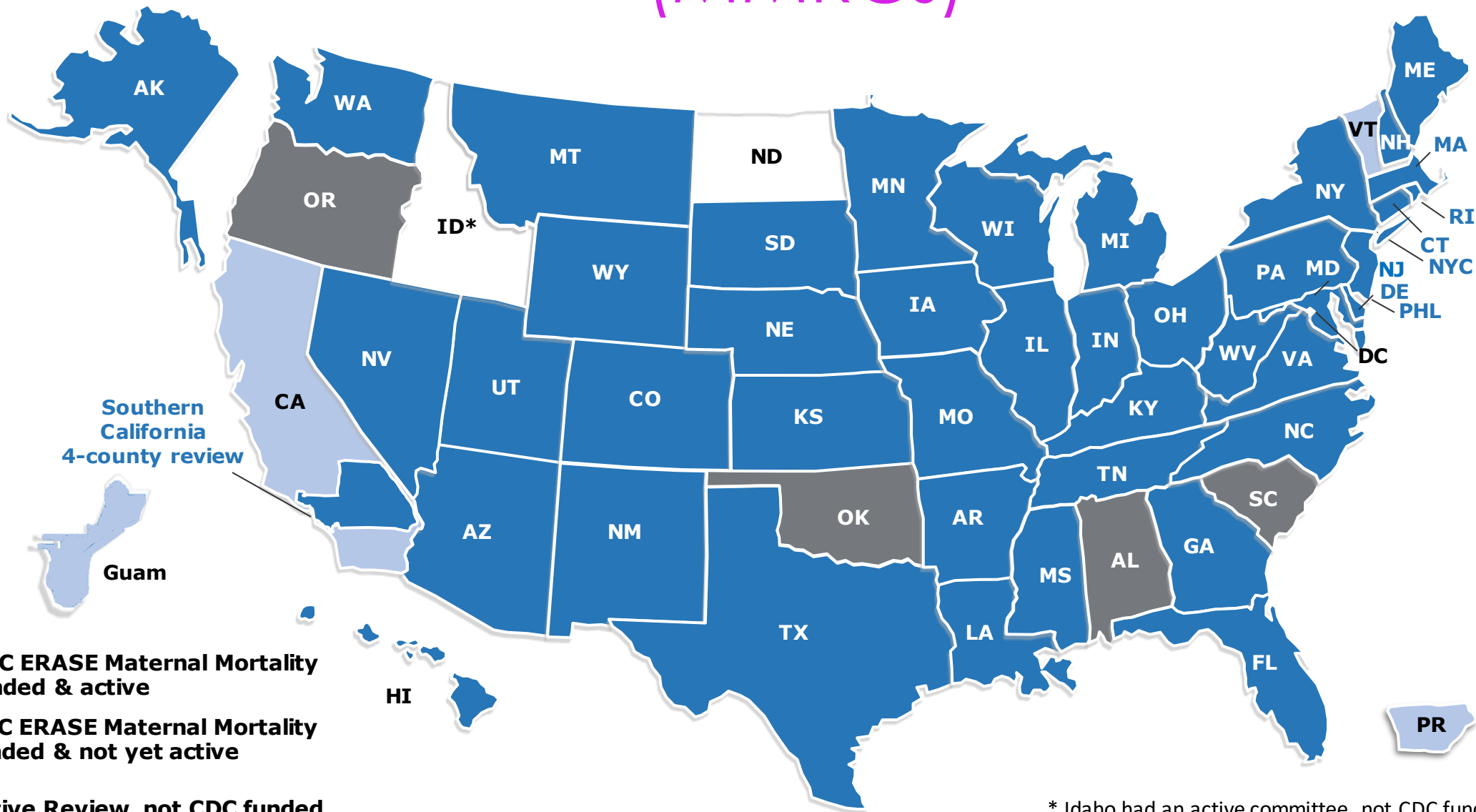
Pregnancy-associated death: the death of a person while pregnant or within one year of pregnancy, regardless of cause (may be related or unrelated to pregnancy)

Pregnancy-associated, but not related, death: the death of a person while pregnant, or within one year of pregnancy, from a cause that is unrelated to pregnancy

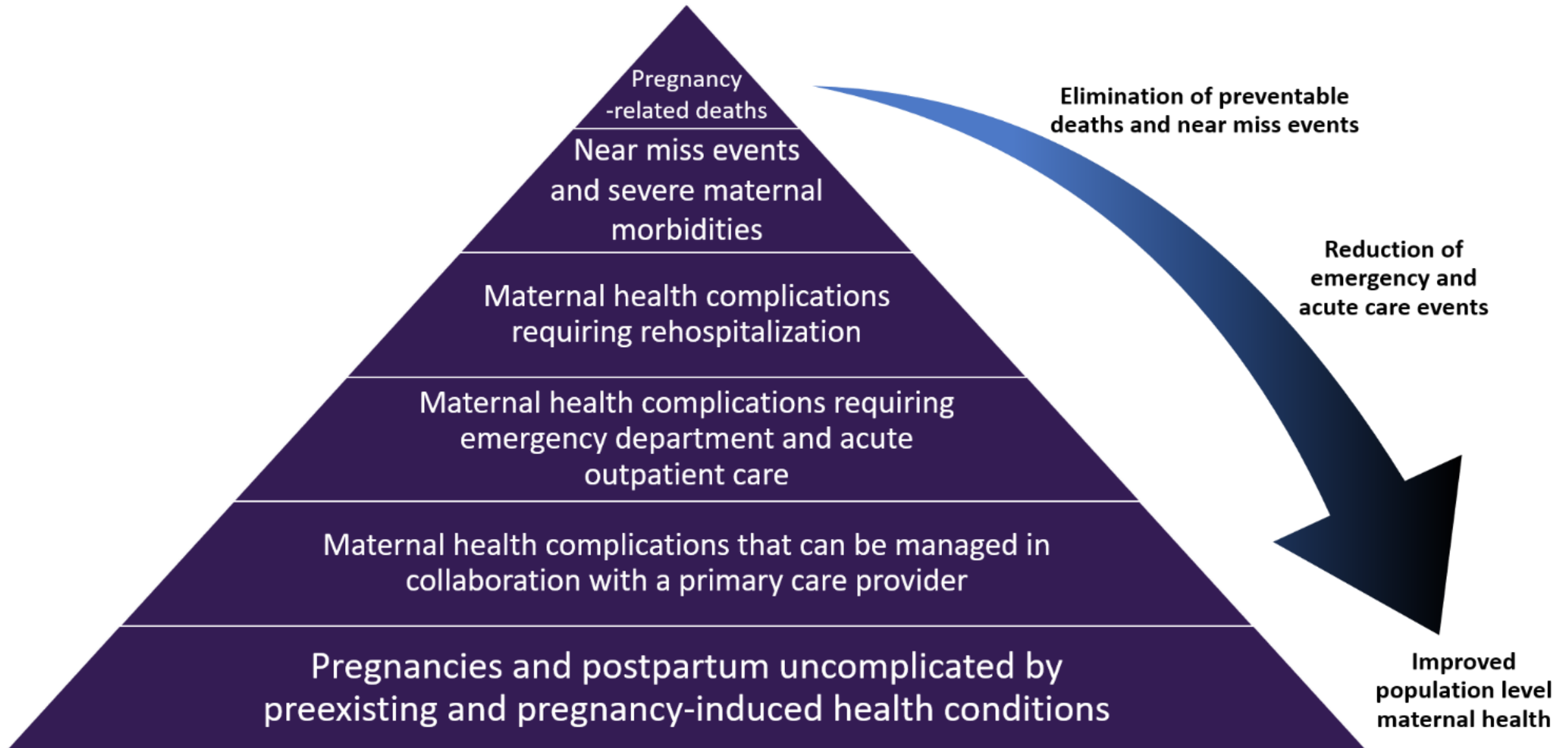
Pregnancy-related death: the death of a person while pregnant or within one year of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy



Active Maternal Mortality Review Committees (MMRCs)



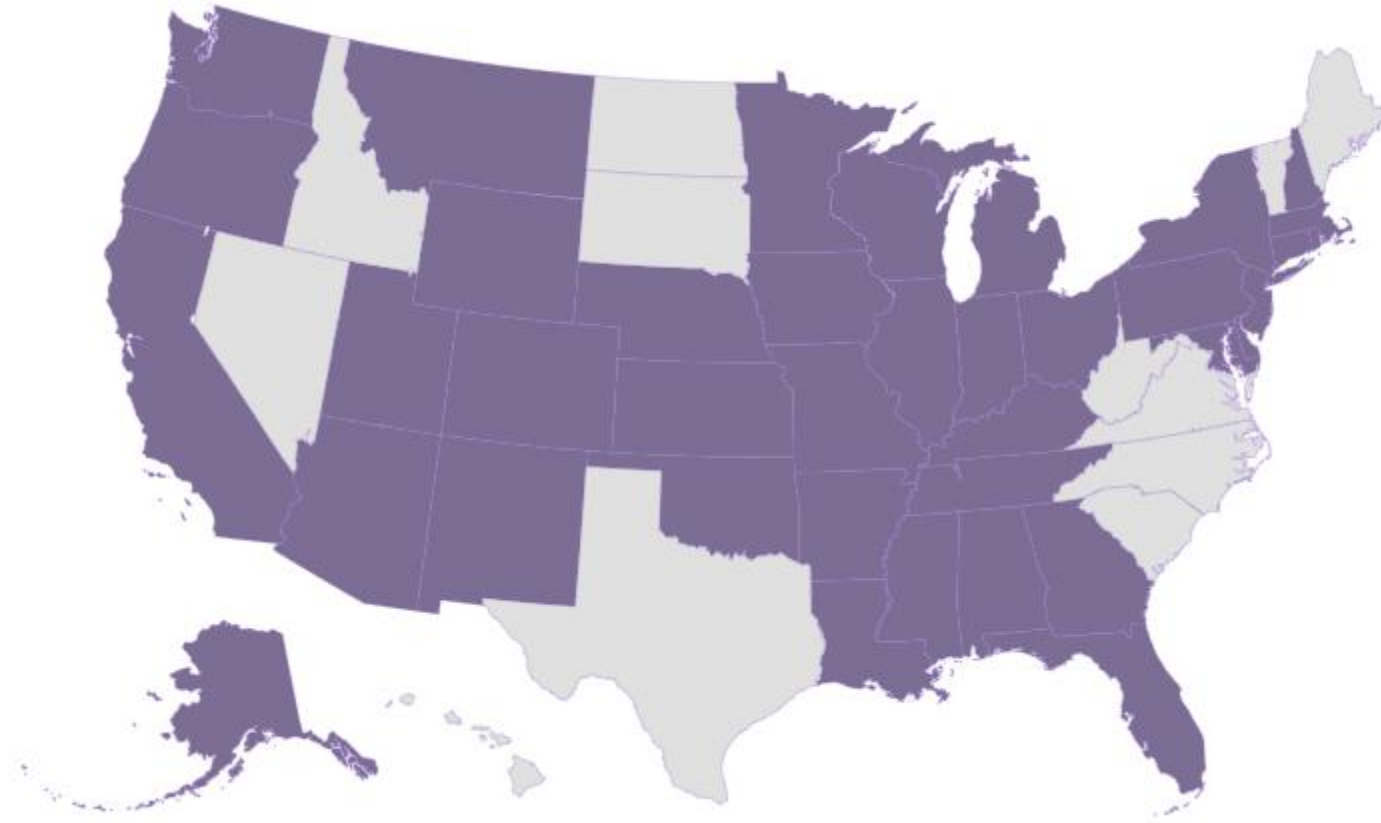
MMRCs Collect Data that Fuels Action





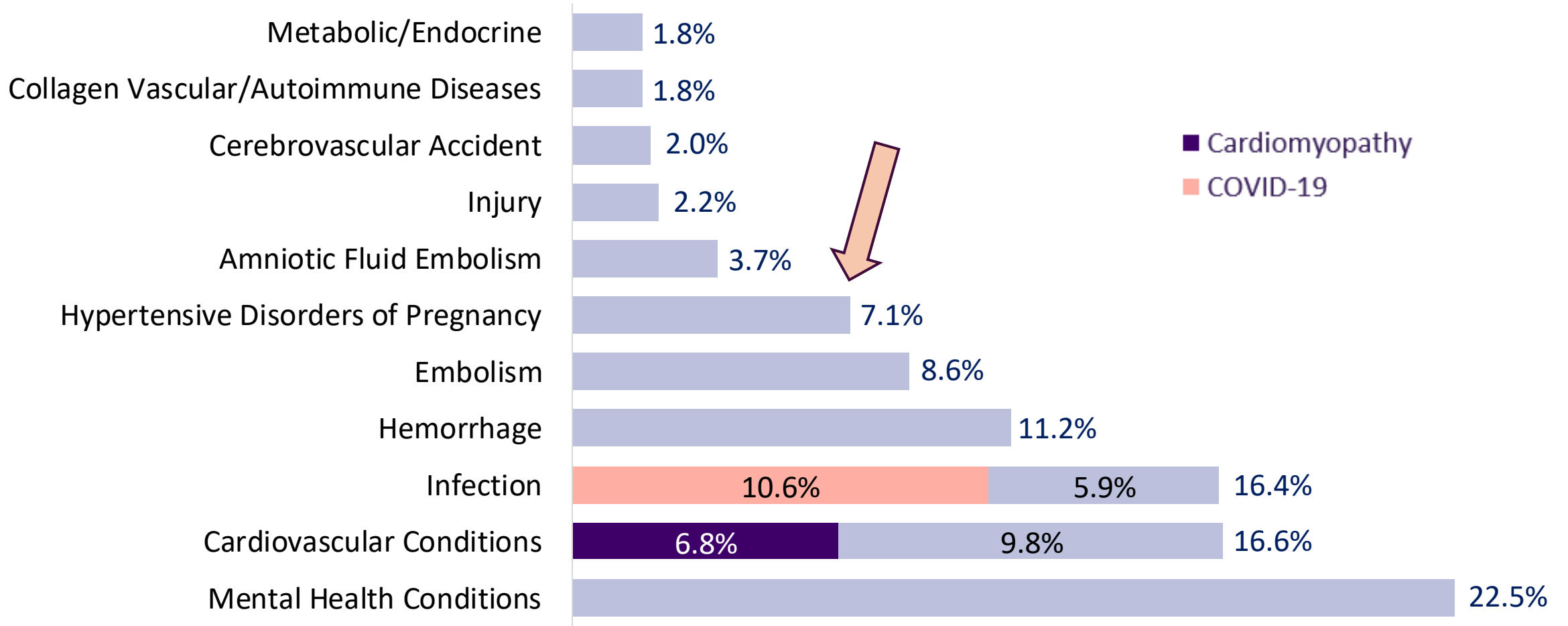
MATERNAL MORTALITY REVIEW
INFORMATION APP

MMRCs in 38 states contributed data on 525 pregnancy-related deaths that occurred in 2020 among their residents



PRELIMINARY DATA

Maternal Mortality Review Committees in 38 U.S. States, 2020: Most frequent underlying causes of pregnancy-related deaths (N=511)*



PRELIMINARY DATA

*Underlying cause of death was missing (n=3) or unknown (n=11) for 14 (2.7%) pregnancy-related deaths

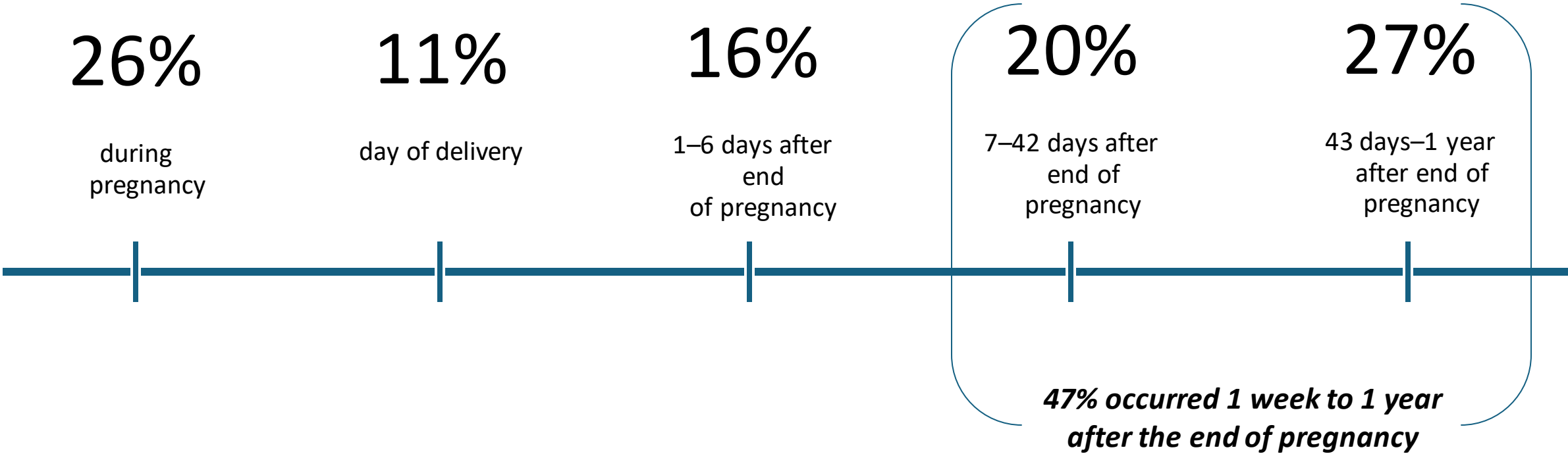
MMRCs seek to answer the following question regarding pregnancy-related deaths:

What were the circumstances surrounding the death and how can we prevent deaths like this in the future?



84% of pregnancy-related deaths with an MMRC preventability determination were determined to be **preventable**

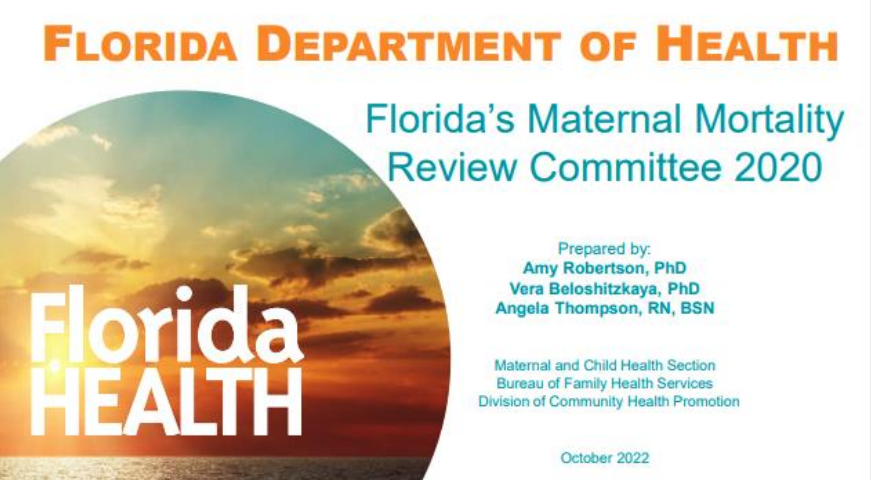
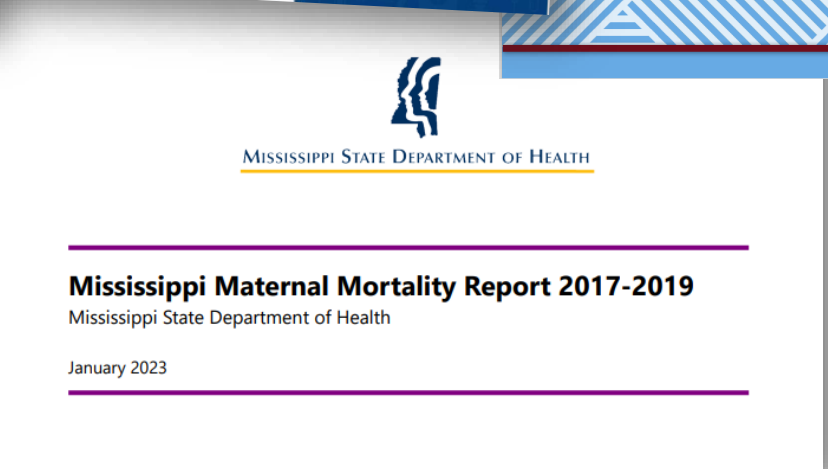
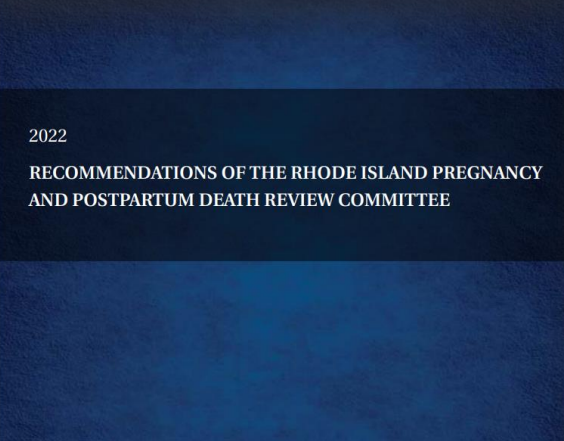
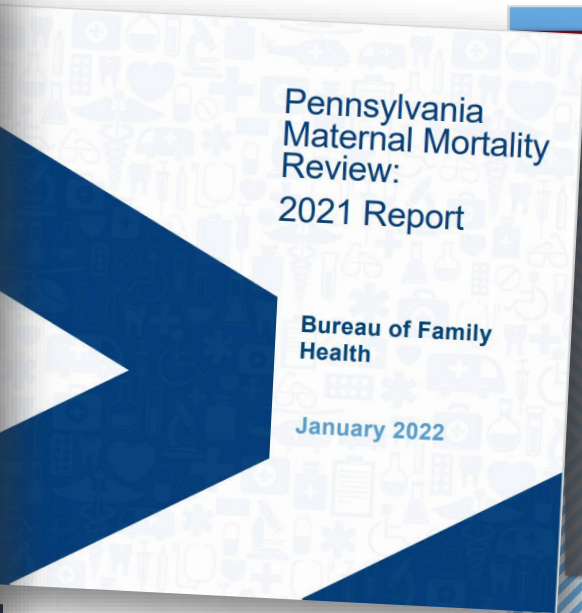
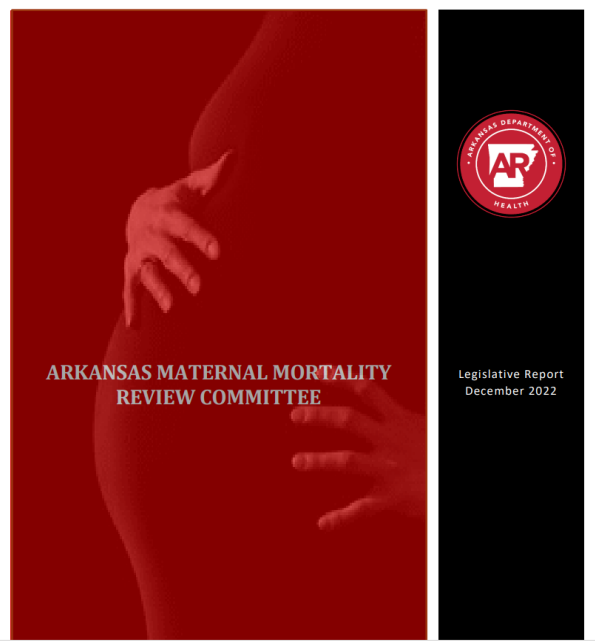
Maternal Mortality Review Committees in 38 U.S. States, 2020: Timing of pregnancy-related deaths



PRELIMINARY DATA

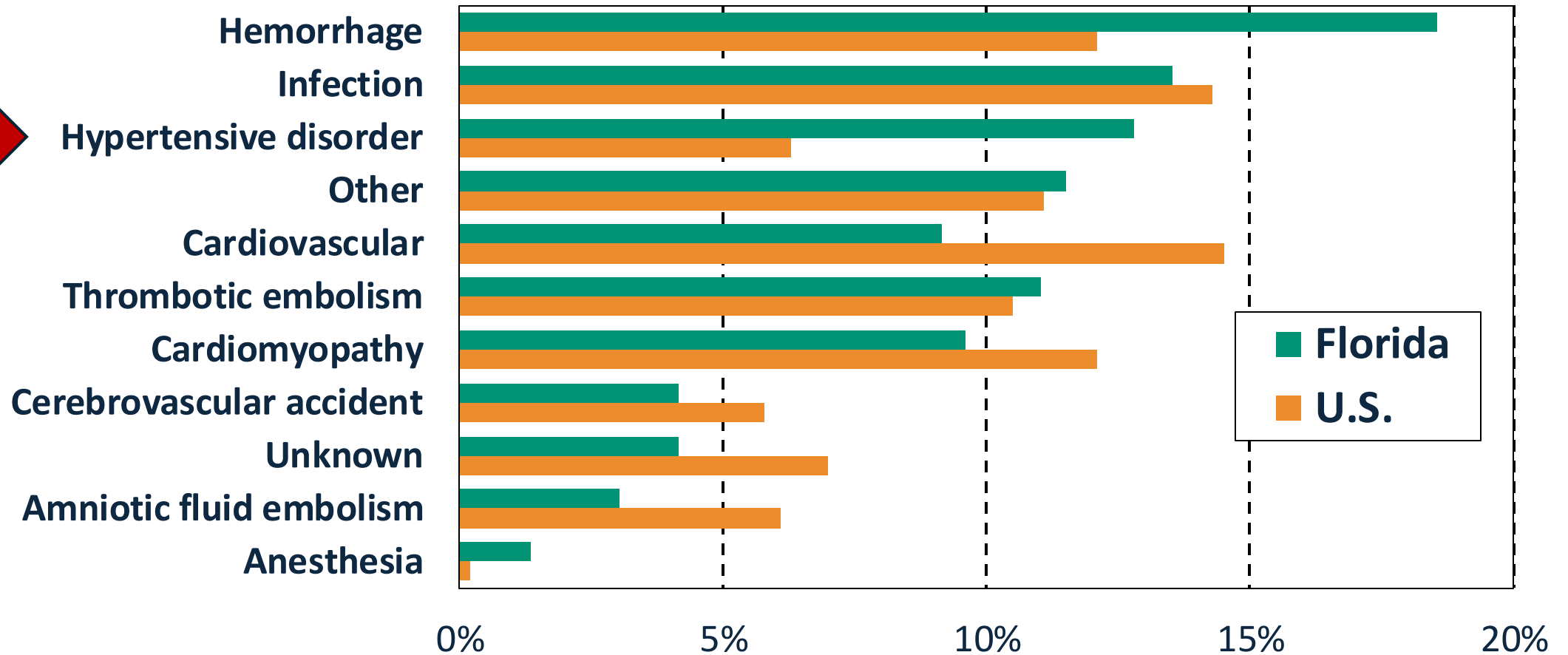
Specific timing was missing or unknown for 0 (0.0%) pregnancy-related deaths

Use your State's MMRC Report



Pregnancy-Related Causes of Death

U.S. (2017-19) & Florida (2010-20)



Source: CDC website and MMRC report

Percentage of Deaths



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ON MATERNAL HEALTH



**Severe Hypertension in Pregnancy
Patient Safety Bundle (2022)**

Implementation Resources



Severe Hypertension in Pregnancy Patient Safety Bundle

Readiness — Every Care Setting

Develop processes for management of pregnant and postpartum patients with severe hypertension, including:

- ▶ A standard protocol for maternal early warning signs, diagnostic criteria, monitoring and treatment of severe preeclampsia/eclampsia (including order sets and algorithms)
- ▶ A process for the timely triage and evaluation of pregnant and postpartum patients with severe hypertension or related symptoms
- ▶ A system plan for escalation, obtaining appropriate consultation, and maternal transfer as needed

Ensure rapid access to medications used for severe hypertension/eclampsia with a brief guide for administration and dosage in all areas where patients may be treated.

Conduct interprofessional and interdepartmental team-based drills with timely debriefs that include the use of simulated patients.

Develop and maintain a set of referral resources and communication pathways between obstetric providers, community-based organizations, and state and public health agencies to enhance services and supports for pregnant and postpartum families.

Develop trauma-informed protocols and provider education to address health care team member biases to enhance equitable care.



Recognition & Prevention — Every Patient

Assess and document if a patient presenting is pregnant or has been pregnant within the past year in all care settings.

Ensure accurate measurement and assessment of blood pressure for every pregnant and postpartum patient.

Screen for structural and social drivers of health that might impact clinical recommendations or treatment plans and provide linkage to resources that align with the pregnant or postpartum person's health literacy, cultural needs and language proficiency.

Provide ongoing education to all patients on the signs and symptoms of hypertension and preeclampsia and empower them to seek care.

Provide ongoing education to all health care team members on the recognition of signs, symptoms, and treatment of hypertension.

Reporting and Systems Learning — Every Unit

Establish a culture of multidisciplinary planning, huddles, and post-event debriefs for every case of severe hypertension, which identifies successes, opportunities for improvement, and action planning for future events.

Perform multidisciplinary reviews of all severe hypertension/eclampsia cases per established facility criteria to identify systems issues.

Monitor outcomes and process data related to severe hypertension, with disaggregation by race and ethnicity due to known disparities in rates of severe hypertension.

Respectful, Equitable, and Supportive Care — Every Unit/Provider/Team Member

Engage in open, transparent, and empathetic communication with pregnant and postpartum people and their identified support network to understand diagnoses, options, and treatment plans.

Include pregnant and postpartum persons as part of the multidisciplinary care team to establish trust and ensure informed, shared decision-making that incorporates the pregnant and postpartum person's values and goals.

Pearls Related to Education

Recognition & Prevention - Provide ongoing education **to all patients** on s/s of hypertension and preeclampsia and empower them to seek care.

Response - include a standard response.....**listening and investigating** patient-reported and observed symptoms....**Initiate postpartum follow-up visit to occur within 3 days** of birth hospitalization discharge date for individuals whose pregnancy was complicated by hypertensive disorders.

Respectful, Equitable & Supportive Care - Engage in open, transparent, and empathetic **communication with pregnant and postpartum people and their identified support network** to understand diagnosis, options, and treatment plans. Include postpartum people as part of the multidisciplinary care team to establish trust and ensure informed, shared decision-making that incorporates the postpartum person's values and goals.


The top corners of the slide feature decorative geometric shapes. On the left, there are overlapping squares in shades of light blue and medium blue. On the right, there are overlapping triangles and squares in shades of light blue and medium blue.

Pearls Related to Community Engagement and Resources

- Referral resources and communication pathways
 - resource mapping
 - referral pathways
- Consider providing blood pressure equipment, education materials prior to discharge (with instruction and return demo)
- Screen for community support specific to individual needs such as:
 - mental/behavioral health
 - medical follow up
 - structural/social drivers of health



Additional *Pearls* Related to Community Engagement and Resources

- Specific directions on postpartum follow-up
 - B/P check
 - discuss signs and symptoms
 - what to do/who to contact if questions or concerns
 - where to go
 - **NEED TO WRITE DOWN** instructions, provide materials with this information
 - Inclusion of the patient as part of the multidisciplinary team
- 

And Remember...

- ✓ Take the time to assess client's knowledge
- ✓ Educate on key concepts, potential s/s of complications
- ✓ Teach how to assess & what to do with the information
- ✓ Review who to call & when

Remind every pregnant/postpartum person

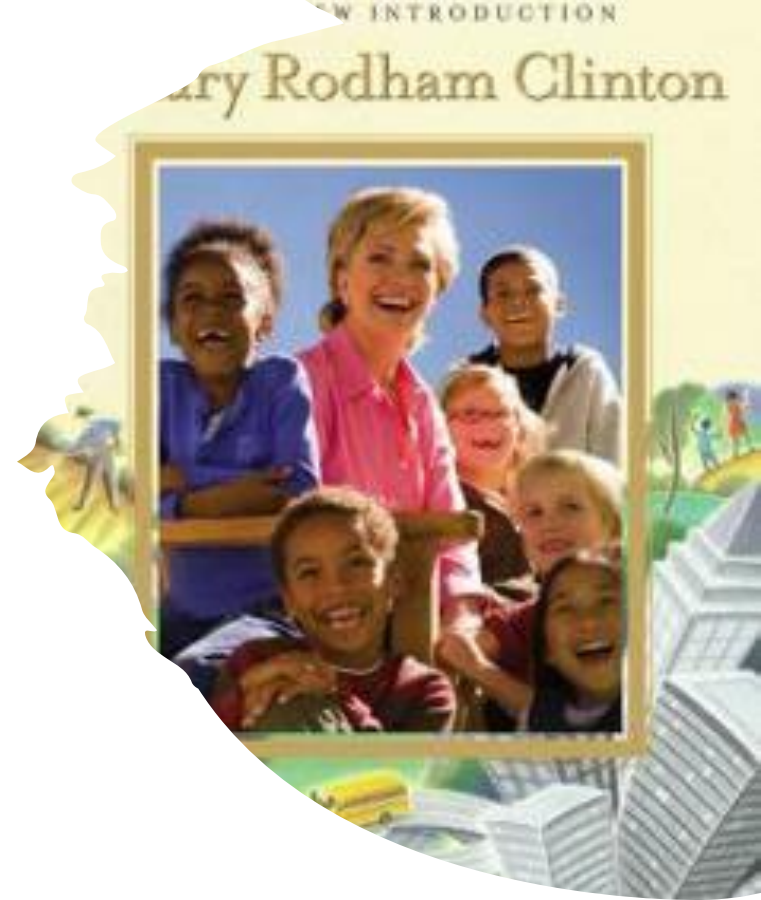
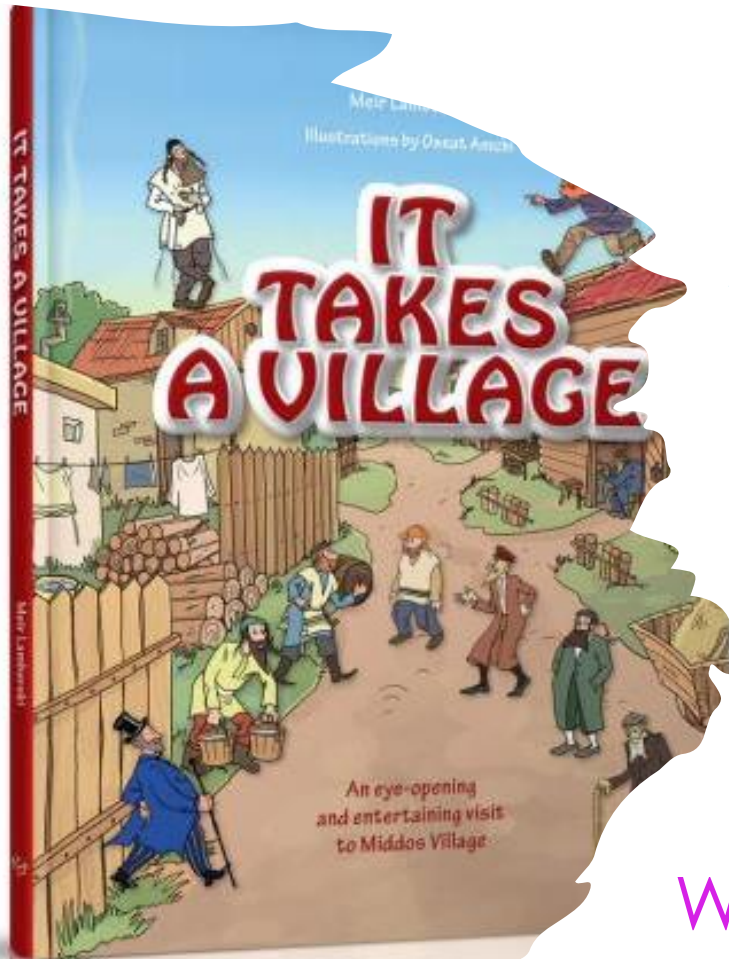
YOU deserve to be heard!
If you feel you were not heard

Say:

"I am concerned that you are not listening to what I am saying."

Then:

Repeat what you want to report



Why are these changes important?

Because it takes a village

Case study

- PP visit in OB office 6+ weeks post delivery
 - Upon arrival and examination – increased blood pressure
 - Baby had not seen pediatrician for any follow up
 - No support system, father of baby, grandparents, etc. except daughter who was in 5th grade
 - No history of any concerns, medical or otherwise on the patient record
-
- Connection by office to local postpartum hotline who suggested referrals to a number of possible resources
 - Referrals made and they then followed up with the patient/family and reported back to the medical provider
 - Referral to at home BP monitoring program offered by hospital system
-
- Further coordination with other medical offices made (within group practice)



Community-engaged implementation of a safety bundle for pregnancy-related severe hypertension in the outpatient setting: protocol for a type 3 hybrid study with a multiple baseline design

Jennifer Leeman^{1*}, Catherine L. Rohweder², Feng-Chang Lin³, Alexandra E. Lightfoot⁴, Jennifer Medearis Costello⁵, Narges Farahi⁶, Kimberly Harper⁷, Johanna Quist-Nelson⁸, E. Nicole Teal⁹, Maihan B. Vu¹⁰, Sarahn Wheeler¹¹ and M. Kathryn Menard⁸

Abstract

Background Hypertensive disorders of pregnancy are among the leading causes of maternal mortality and morbidity in the U.S., with rates highest among birthing people who are Black, rural residents, and/or have low-income. Severe hypertension, in particular, increases risk of stroke and other serious pregnancy complications. To promote early detection and treatment of severe hypertension, the Alliance for Innovation on Maternal Health

BMC Health
Services Research,
2024

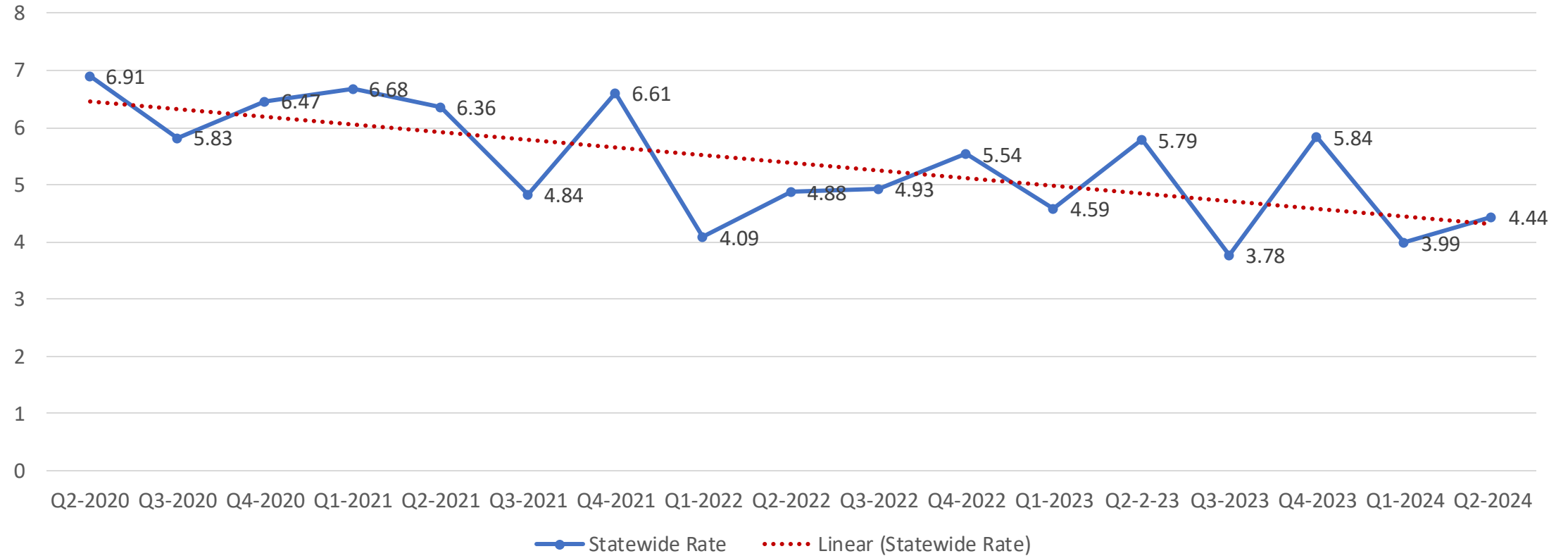
We need to address need for equitable and timely treatment of hypertension

The slide features a white background with decorative teal geometric shapes in the corners. In the top right, there is a large teal triangle pointing down and to the left, with a smaller teal square overlapping its bottom edge. In the bottom left, there is a teal triangle pointing up and to the right, with a smaller teal square overlapping its top edge.

Does this approach and focus on
community engagement work?

Rate of non-blood transfusion Severe Maternal Morbidity (SMM) among people with HTN/Preeclampsia

Statewide Rate



NJ's Challenges and Opportunities

- In 2022, 42 hospitals reported implementing the HTN bundle. Four additional hospitals shared that they stopped implementation due to workforce issues and other priorities.
- Not unlike hospitals nationally, workforce issues continue to present opportunities for creative engagement.
- Emphasis today is meeting hospitals “where they are” and one:one technical assistance continues.
- N.J. has an extensive number of initiatives aimed at expanding Medicaid coverage for new mothers, strengthening and diversifying the maternal health workforce and elevating the voices of those giving birth. The NJPQC has a seat at the table for most, if not all, of these discussions.
 - Strengthen and expand relationships with Federally Qualified Health Centers, community provider agencies, and other partners
 - Accelerate Patient/Family Advisory Council (PFAC) learning opportunities and engagement





What Can I Use to Help Implement
These Changes to the Bundle?



ALLIANCE FOR INNOVATION
ON MATERNAL HEALTH



**Severe Hypertension in Pregnancy
Patient Safety Bundle**

*Core Data Collection Plan
Version 2.0 January 2024*



ALLIANCE FOR INNOVATION
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**Severe Hypertension in Pregnancy
Patient Safety Bundle (2022)**

Implementation Resources



ALLIANCE FOR INNOVATION
ON MATERNAL HEALTH



**Severe Hypertension in Pregnancy
Patient Safety Bundle (2022)**

Element Implementation Details

Revised Severe Hypertension in Pregnancy Bundle

Implementation Webinar

Thursday, June 16th
10 - 11 AM, EST



Severe Hypertension in Pregnancy

SAVE YOUR LIFE:

Get Care for These POST-BIRTH Warning Signs

Most women who give birth recover without problems. But any woman can have complications after giving birth. Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life.

Call 911 if you have:	<input type="checkbox"/> Pain in chest <input type="checkbox"/> Obstructed breathing or shortness of breath <input type="checkbox"/> Seizures <input type="checkbox"/> Thoughts of hurting yourself or someone else
Call your healthcare provider if you have: <small>(If you can't reach your healthcare provider, call 911 or go to an emergency room)</small>	<input type="checkbox"/> Bleeding, soaking through one pad/hour, the size of an egg or bigger <input type="checkbox"/> Incision that is not healing <input type="checkbox"/> Red or swollen leg, that is painful or warm <input type="checkbox"/> Temperature of 100.4°F or higher <input type="checkbox"/> Headache that does not get better, even with medicine, or bad headache with vision changes

Trust your instincts.
 ALWAYS get medical care if you are not feeling well or have questions or concerns.

Tell 911 or your healthcare provider:

"I gave birth on _____ (Date)

I am having _____ (Specific warning sign)

- These post-birth warning signs can become life-threatening if you don't receive medical care right away.**
- Pain in chest, obstructed breathing or shortness of breath (trouble catching your breath) may mean you have a blood clot in your lung or a heart problem
 - Seizures may mean you have a condition called eclampsia
 - Thoughts or feelings of wanting to hurt yourself or someone else may mean you have postpartum depression
 - Bleeding (heavy), soaking more than one pad in an hour or passing an egg-sized clot or bigger may mean you have an obstetric hemorrhage
 - Incision that is not healing, increased redness, swelling, or pain at the site may mean you have an infection
 - Redness, swelling, warmth, or pain in the calf area may mean you have a blood clot
 - Temperature of 100.4°F or higher, bad smelling vaginal blood or discharge may mean you have an infection
 - Headache (very painful), vision changes, or pain in the upper right area of your belly may mean you have high blood pressure or post-birth preeclampsia

GET HELP My Healthcare Provider/Clinic: _____ Phone Number: _____
 Hospital Closest To Me: _____

AWHONN This program is supported by funding from Merck, through Merck for Mothers, the company's 10-year, \$300 million initiative to help create a world where no woman dies giving life. Merck for Mothers is known as ©2018 Association of Women's Health, Obstetric, and Neonatal Nurses. All rights reserved. Unlimited print copies permitted for patient education only. For all other uses, contact Merck for Mothers at www.merckforothers.com

AWHONN (n.d.) POST-BIRTH Warning Signs. Retrieved from awhonn.org

Suplee, P.D., Kleppel, L., Santa-Donato, A., & Bingham, D. (2016). Improving postpartum education about warning signs of maternal morbidity and mortality. *Nursing for Women's Health*, 20(6), 552-567.






Severe Hypertension in Pregnancy Change Package


https://www.ihl.org/sites/default/files/2024-04/AIM-Patient-Safety-Bundles_Change-Package_Hypertension.pdf


Pregnant now or within the last year?


Get medical care right away if you experience any of the following symptoms:



Dizziness or fainting



Changes in your vision



Fever of 100.4 °F or higher



Thoughts of harming yourself or your baby



Trouble breathing



Chest pain or fast beating heart



Severe belly pain that doesn't go away


Baby's movement stopping or slowing during pregnancy


Severe swelling, redness or pain of your leg or arm






Vaginal bleeding or fluid leaking during pregnancy


Heavy vaginal bleeding or discharge after pregnancy


Overwhelming tiredness

These could be signs of very serious complications. If you can't reach a healthcare provider, go to the emergency room. Be sure to tell them you are pregnant or were pregnant within the last year.

Learn more at www.cdc.gov/HearHer/AIAN

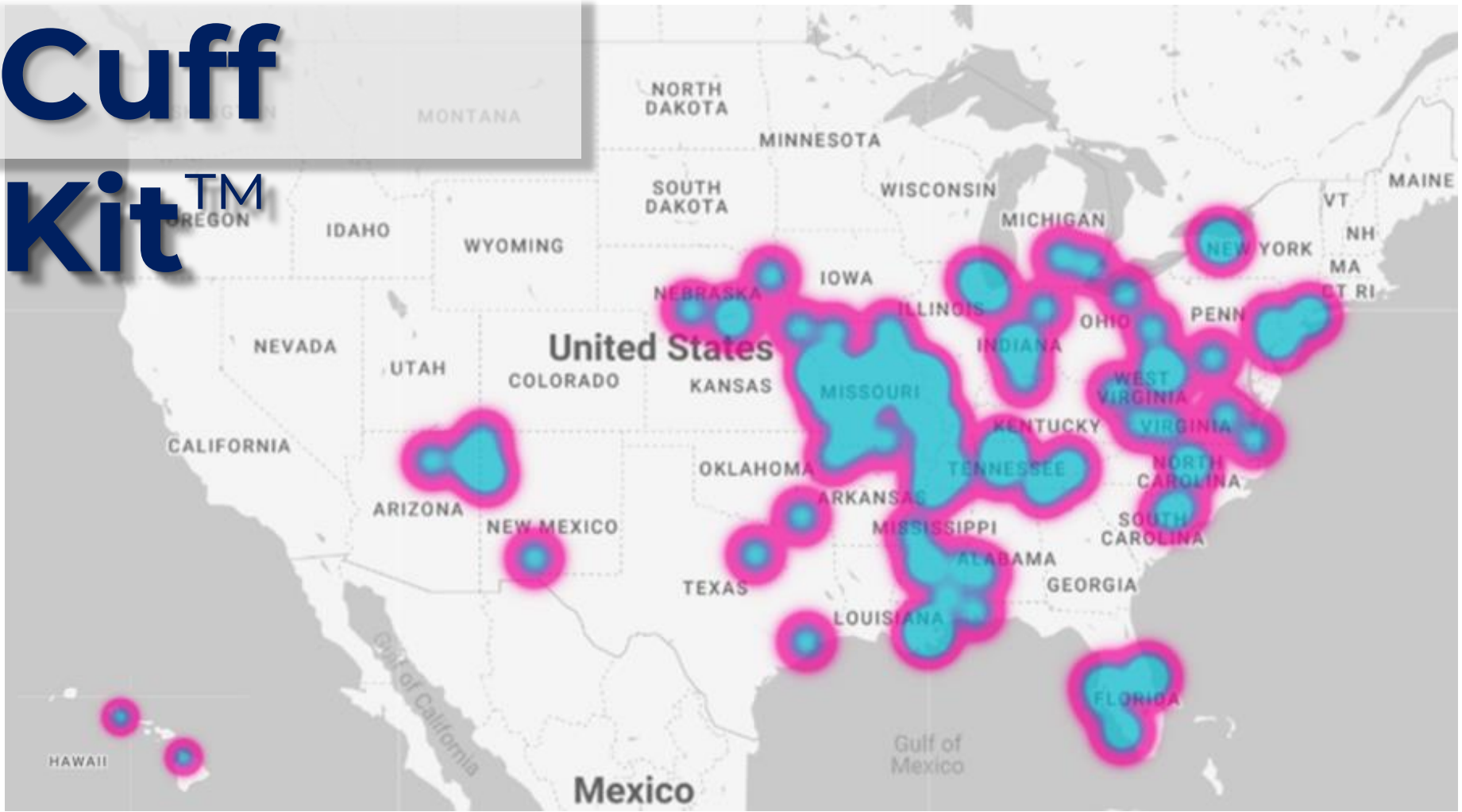





This list of urgent maternal warning signs was developed by the Council on Patient Safety in Women's Health Care

Find Out Who's in Your Community

- Work with your hospital social services department or other related
- Local non profit agencies who work with pregnant families
 - Doula services
 - Community health worker programs
- Home visiting programs in your area that serve this population
- Check with your state departments who provide health and human services programming
 - Are there statewide referral networks such as Unite Us
- Faith based organizations
- Professional associations
 - AWHONN
 - ACOG
 - ACNM

Cuff Kit™



Scan here for website info about Cuff Kit program



30,953
Total cuffs shipped



300
Providers



27
States

*Data collected thru 3/31/24

Local and National Partners

The Cuff Kit



ALLIANCE FOR INNOVATION ON MATERNAL HEALTH



Research Analysis Partners



HARVARD UNIVERSITY



Cuff Kit™ Contents

- Pregnancy-validated blood pressure cuff (available in large or XL with batteries)
- Instructions, including link to online video, iHealth app, and Preeclampsia Foundation website
- BP tracking log
- Illustrated signs & symptoms sheets & postpartum)
- Signs and symptoms magnet
- “Still at Risk” rubber wristband
- Participants’ feedback postcard



Welcome Letter



Congratulations on taking charge of your health!

We are so happy to help you by providing the Cuff Kit™ for home blood pressure monitoring.

Your blood pressure is an important health measure during and after pregnancy. Preeclampsia is a serious problem related to high blood pressure that can occur any time after 20 weeks in pregnancy or up to six weeks after you deliver.

Here is what you will find in your kit:

- An automated blood pressure monitor
- Information on how to properly take your blood pressure and a log for recording readings
- Signs and Symptoms of Preeclampsia
- After birth (postpartum) Signs and Symptoms of Preeclampsia
- Still-At-Risk Bracelet - even after you deliver, you may have high blood pressure or be at risk for preeclampsia. Wear the bracelet to remind healthcare providers and yourself that you should be alert to signs and symptoms for 6 weeks.
- Participant postcard - help us improve healthcare for moms like you by mailing this back to us about 6 weeks after you have your baby. We paid the postage already.

Please visit www.preeclampsia.org/blood-pressure or scan for a video tutorial, to download additional logs, and learn more about blood pressure and pregnancy. You are starting habits that will set you on a life-long path of good health practices.

We are happy to be on this journey with you. Please consider us a resource now and for your future.

Preeclampsia Foundation
www.preeclampsia.org
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Automated blood pressure monitor/cuff

- Validated for use in pregnancy and the postpartum period
- Comes with batteries
- Red/yellow/green indicator screen



Blood Pressure Log & Instructions

Your Blood Pressure: Check • Know • Share


A mother's blood pressure is an important measurement in pregnancy and after the baby is born. Blood pressure during pregnancy determines how your pregnancy is managed, informs timing of delivery, and signals potential risks and complications to mother and baby, such as preeclampsia and HELLP syndrome during pregnancy and right afterwards.


CHECK Your Blood Pressure At Home


Take at least 2 readings a day: one in the morning and one in the evening. Record all results.

Before You Take Your Blood Pressure

Use the bathroom. Sit quietly for 3-5 minutes. Within 30 minutes before, DO NOT

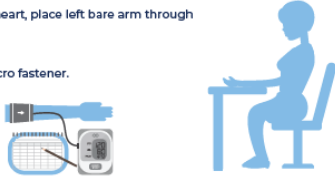






Take Your Blood Pressure

- Sit with your arm propped at the same level as your heart, place left bare arm through the cuff, above your elbow.
- Keep legs uncrossed and feet flat on the floor.
- Tighten the cuff around your arm and secure the Velcro fastener.
- Press START. Cuff will inflate, squeezing your arm, then deflate. Breathe normally. Don't talk. Sit still and relax.
- Record your numbers twice a day.




KNOW your blood pressure.

Systolic BP (top number)	and/or	Diastolic BP (bottom number)	
Less than 140	and	Less than 90	Normal (but keep checking)
140 to 159	or	90 to 109	Call your healthcare provider.
160 or higher	or	110 or higher	Seek immediate medical attention.

SHARE Your Blood Pressure.

- Discuss your blood pressure log at all prenatal and postpartum appointments.
- Act upon yellow or red zone numbers right away. Don't wait for a scheduled appointment.



The Cuff Kit

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Blood Pressure Instructions and Log

Your Name: _____


Take 2 readings a day: one in the morning and one in the evening, or as advised by your healthcare provider. Record all results below.

Date	Time	Blood Pressure systolic/diastolic	Heart Rate (pulse)	Date	Time	Blood Pressure systolic/diastolic	Heart Rate (pulse)
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How to Get Help (record local contact information here)

Blank forms, an instructional video, and additional resources are available at www.preeclampsia.org/blood-pressure.





HEALTH CARE DISCLAIMER: This program, related materials and services do not constitute the practice of medical advice, diagnosis or treatment. The quality of an at home reading is dependent on both the method and equipment. Always talk to your health care provider for diagnosis and treatment, including your specific medical needs. If you have or suspect that you have a medical problem or condition, please contact a qualified healthcare professional immediately. If you are in the United States and experiencing a medical emergency, call 911 or call for emergency medical help immediately.

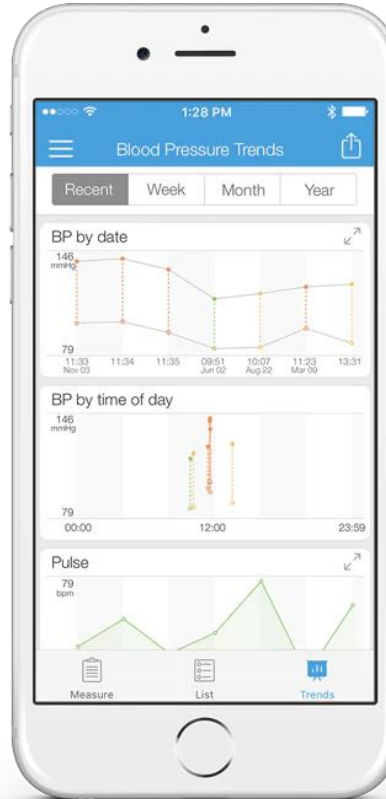
 www.preeclampsia.org

Free iHealth App






Everything You Need in One App

-  View results instantly and learn more about each measurement.
-  Check if your blood pressure is in the normal BP range based on JNC standards.
-  Take notes and record your mood or activity with each measurement.
-  Store results in a digital logbook.



Stay Up-to-Date on Your Health

-  Real-time results and trends.
-  Set reminders to measure your blood pressure.
-  Export your data as CSV, XLS, or PDF to share with your doctor.

Prenatal & Postpartum Preeclampsia Signs & Symptoms

Ask Your Doctor or Midwife

Preeclampsia

What Is It?

Preeclampsia is a serious disease related to high blood pressure. It can happen to anyone during the second half of pregnancy, or up to 6 weeks after delivery.

Risks to You

- Seizures
- Stroke
- Organ damage
- Death

Risks to Your Baby

- Premature birth
- Low birth weight
- Death

Signs of Preeclampsia



Stomach pain



Headaches



Feeling nauseous; throwing up



Seeing spots



Swelling in your hands and face



Gaining more than 5 pounds (2.3 kg) in a week

What Should You Do?

Call your doctor or midwife right away. Finding preeclampsia early is important for you and your baby.



You are **STILL AT RISK** after your baby is born!

Postpartum Preeclampsia

What is it?

Postpartum preeclampsia is a serious disease related to high blood pressure. It can happen to anyone who has just had a baby up to 6 weeks after the baby is born.

Risks to You

- Seizures
- Stroke
- Organ damage
- Death

Warning Signs



Stomach pain



Severe headaches



Feeling nauseous or throwing up



Seeing spots (or other vision changes)



Swelling in your hands and face



Shortness of breath

What can you do?

- Ask if you should follow up with your doctor within one week of discharge.
- Keep all follow-up appointments.
- Trust your instincts.

- Watch for warning signs. If you notice any, call your doctor. If you can't reach your doctor, call 911 or go directly to an emergency room and report you have been pregnant.



For more information, go to www.stillatrisk.org



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Signs of Preeclampsia

Sintomas de la preeclampsia



Stomach pain
Dolor de estómago



Headaches
Dolores de cabeza



Feeling nauseous;
throwing up
Náuseas, vómitos



Seeing spots
Ver manchas



Gaining more
than 5 pounds
(2.3 kg) in a week
Subir más de 5 libras
(2,3 kg) de peso en
una semana



Swelling in your
hands and face
Hinchazón en las
manos y en la cara



www.preeclampsia.org

Preeclampsia Signs & Symptoms Magnet



Preeclampsia “Still at Risk” Wristband

- Facilitates postpartum provider & patient awareness.

Contact Information

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Maternal Mortality &
Morbidity Advocates

- Patient Family Partner (PFP) certification training program for those with lived experiences
- Lived Experience Integration® training curriculum for healthcare providers working in quality improvement (QI)
- Matchmaking services for quality improvement leaders to partner them with PFPs



www.mommasvoices.org

CALL TO ACTION

We want to know why women of color and their babies are at greater risk of serious illness or death from Preeclampsia.

Share your experiences so we can better document the experiences and equip future mothers to save lives.

Take 10 minutes to join the Preeclampsia Registry to support research for causes, prevention and a cure.



Two promotional cards for the Preeclampsia Registry. The top card is purple and white, with the headline "DID YOU HAVE HIGH BLOOD PRESSURE DURING PREGNANCY? You are not alone." and a QR code. The bottom card is purple and white, with the headline "YOUR STORY CAN CHANGE HERS." and a QR code. Both cards include the "Take 10" logo and the Preeclampsia Registry logo. The bottom card also lists three benefits: "TAKE 10 MINUTES TO JOIN THE PREECLAMPSIA REGISTRY", "SHARE YOUR PREGNANCY EXPERIENCE", and "CONTRIBUTE TO RESEARCH".

MY HEALTH BEYOND PREGNANCY – A patient-centric long-term impact worksheet

MAKE A PLAN My Health Beyond Pregnancy

DID YOU KNOW?

A hypertensive disorder of pregnancy, including preeclampsia, eclampsia, or HELLP syndrome, can be a life-changing experience that goes beyond pregnancy.

Your pregnancy journey and birth experience may have been difficult to process because of medical complications from preeclampsia. What was supposed to be beautiful experience filled with joy was instead full of medical interventions, discomfort, and fear. This may have included more time in the hospital for you or your baby. You may have experienced complications from a premature delivery, such as a stillbirth or loss.

You are not alone. You deserve physical and emotional support around you to process your experience and to understand what happens next. This sheet was developed to help you organize your care beyond pregnancy.

My Information:

Name: _____

My Date of Birth: _____

Age: _____

With which race/ethnicity do you identify?

White/Caucasian Asian

Native/Indigenous Mixed

Black/African Other: _____

My Baby/Babies Information:

Name(s): _____

Date of Birth/Delivery: _____

Gestational Age (weeks): _____

Birthweight (lbs or grams): _____

Sex: Male Female

Length (in or cm): _____

Head Size (in or cm): _____

Presented by

MAKE A PLAN My Health Beyond Pregnancy

DID YOU KNOW?

Women who have preeclampsia are at 2x the risk of heart disease and stroke and 4x the risk of high blood pressure later in life.

A history of high blood pressure in pregnancy does not mean you will definitely develop cardiovascular problems, but that you should document your pregnancy experience and ask your current health care provider to monitor your current and future heart health!

My pregnancy was affected by:

Preeclampsia (___ prenatal ___ postpartum)

Gestational Hypertension

HELLP syndrome

Eclampsia

Gestational Diabetes

Placental Abruption

Preterm Birth (<37 weeks)

Twins, Triplets or other multiples

My baby/babies experienced:

Premature delivery

Stillbirth

Infant loss after delivery

Small for gestational age (SGA)

Intrauterine growth restriction (IUGR)

Neonatal Intensive Care Unit (NICU) stay

Unsure

The Importance of Rest and Support

Recently delivered women, especially those who have experienced high blood pressure, may have a lot of physical and emotional recovery to do. Make sure you get enough sleep so your body can recover and rest, be in a place where you can feel safe and supported by those around you, and reach out for help for any food or housing concerns.

Presented by

MAKE A PLAN My Health Beyond Pregnancy

High blood pressure and weight can help your provider make a plan to manage your health risk after pregnancy.

Write down numbers on this sheet. Take them to discuss at your annual checkup.

Keep Track of Important Health Signs				
TIME SINCE DELIVERY	BLOOD PRESSURE (mmHg)	WEIGHT	BODY MASS INDEX	WAIST CIRCUMFERENCE
WEEKS Date: _____				
MONTHS Date: _____				
MONTHS Date: _____				

12 Month Goal

Weight: _____

BMI: _____

Presented by

MAKE A PLAN My Health Beyond Pregnancy

Long-term health plan starts by understanding your risk factors, then modifying what you can.

So how can you lower your risk?

Get moving for 20+ minutes per day

See your primary care provider for regular check-ups

Eat healthy - Lower your salt, fat, and sugar intake

Live smoke-free - including a smoke-free environment

Speak to your provider before your next pregnancy

Presented by

MAKE A PLAN My Health Beyond Pregnancy

Postpartum blood work can show how your heart, blood vessels, and kidneys are functioning after your pregnancy. Track your numbers and discuss with your provider.

Test Name	My numbers	
	Date: _____	Date: _____
Cholesterol (mg/dL)		
Triglycerides (mg/dL)		
Blood Sugar (mg/dL)		
Blood Pressure (mmHg)		
Hemoglobin (g/dL)		
Hemoglobin A1c (%)		
Creatinine (mg/dL)		
Uric Acid (mg/dL)		

Presented by



- INCLUDES:**
- Pregnancy history
 - Co-morbidities (dyad)
 - BP tracking
 - Weight (BMI) tracking
 - Serum labs tracking
 - Ways to lower CVD risk

Final Thoughts

- Know your community
 - Find organizations that can assist your families – nothing is too trivial
(You can't always rely on social work or other support services in your hospital)
 - Diapers
 - Safe sleep environment/cribs, pack n plays
 - Housing
 - Food
 - Lactation support
 - WIC
 - Home visiting programs
 - Domestic violence shelters

Final Thoughts

- Travel assistance such as vouchers
- Immigration assistance
- Listen to what they have to say and trust them
- Include patients on your individual teams, they know their needs, their community, who to trust, where to go

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