

# RISING TO THE CHALLENGE:



## California Surgeon General Update



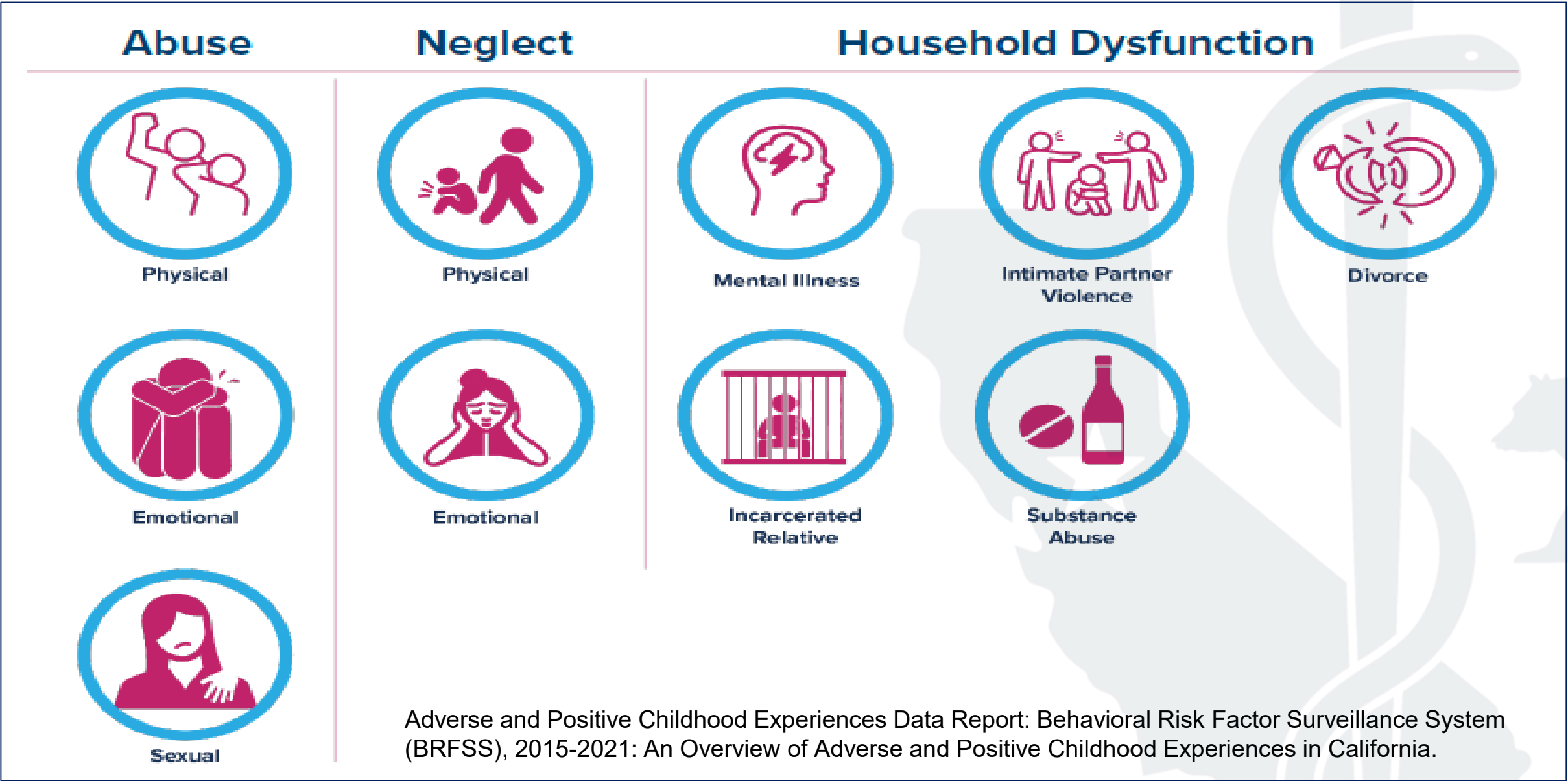
**Diana E. Ramos, MD, MPH, MBA**  
California Surgeon General

California Conference of Local Health Officers  
Meeting  
October 15, 2025



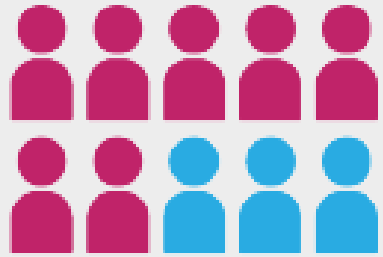
*..”serving as a leading spokesperson on matters of public health and driving solutions to our most pressing public health challenges.”*

# Adverse Childhood Experiences (ACEs) and Long-Term Health



# Prevalence of ACEs among California Adults

## In California Adults<sup>2</sup>:



**7 in 10**  
report at least  
one ACE.

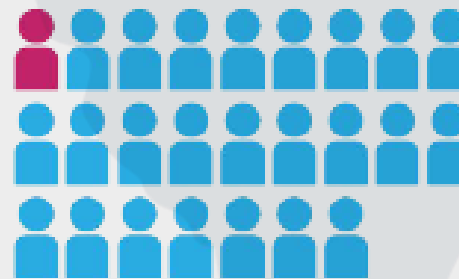


**1 in 5**  
report four or  
more ACEs.

## In California Youth:

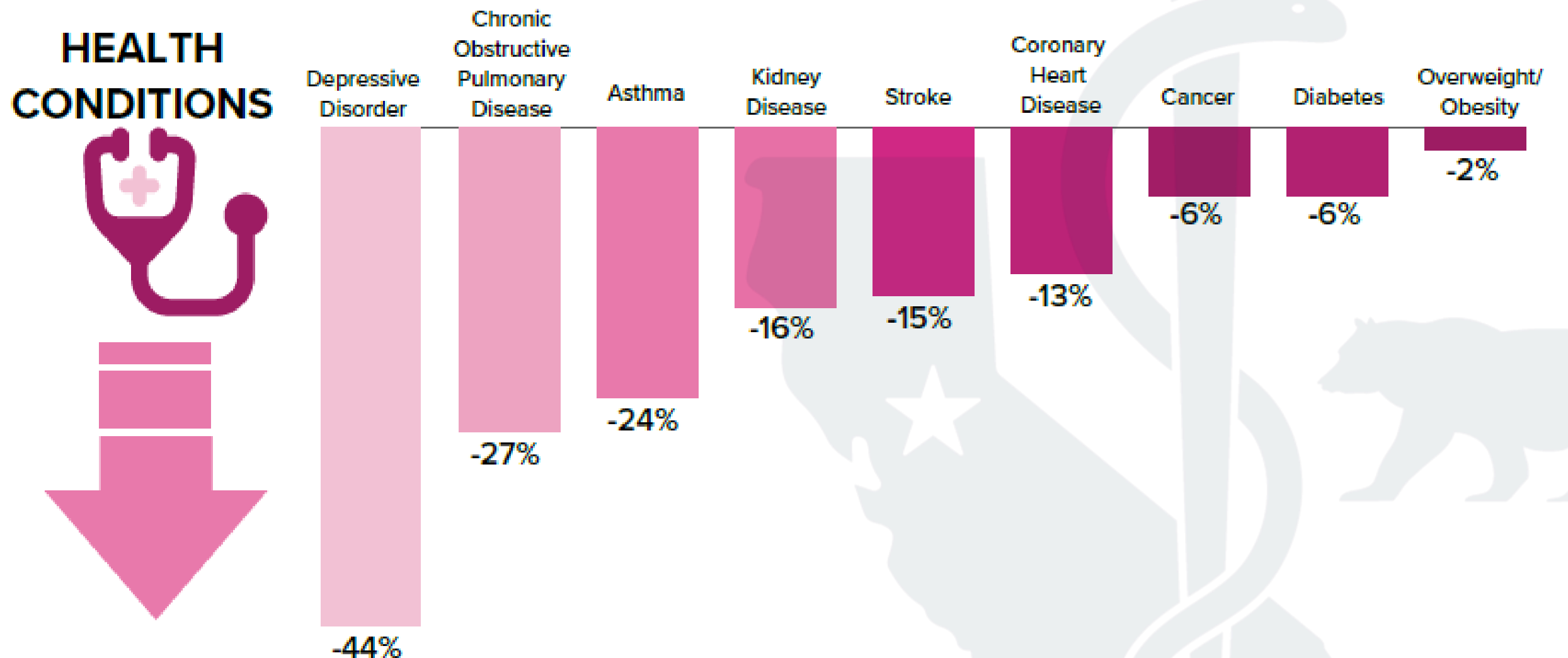


**1 in 3**  
report at least  
one ACE.



**1 in 25**  
report four or  
more ACEs.

# Addressing ACEs in Childhood Can Potentially Decrease



BRFSS 2015-2017, 25 states, CDC Vital Signs, November 2019.

# ACEs and Reproductive Health: A Critical Window for Intervention



**2x**

the risk of hypertensive disorders in pregnancy



**2.6x**

greater risk of teen pregnancy



**4.5x**

greater risk of postpartum depression



**5.9x**

greater risk of contracting a sexually transmitted infection



**6.1x**

increased risk of illicit substance-use during pregnancy



**7.5x**

greater likelihood of experiencing intimate partner violence



## Issue Brief:

# Addressing Adverse Childhood Experiences During Reproductive Years to Improve Lifelong Health

September 2025



## Summary

- Addressing ACEs during reproductive years can disrupt intergenerational cycles of trauma and improve long-term health.
- Reproductive Years are a Critical Window for Intervention, can foster resilience, improve maternal and infant health, and prevent long-term harm.
- Positive Childhood Experiences (PCEs) can strengthen family stability and community health.
- California's Initiatives -ACEs Aware, trauma-informed care promote equitable care in underserved populations.



## CONCLUSION:

***Maternal ACEs were associated with elevated offspring internalizing and externalizing symptoms independently of offspring ACEs.***

These findings support the utility of maternal ACE screening in the prenatal period to inform early interventions, services, and referrals to promote maternal health and to potentially disrupt intergenerational transmission of adversity.

## Association Between Maternal Adverse Childhood Experiences and Offspring Internalizing and Externalizing Behavior

### OBJECTIVE:

To estimate the association between historical maternal adverse childhood experiences (ACEs) and offspring internalizing (ie, depression, anxiety, social withdrawal) and externalizing (ie, aggression, conduct disorders, attention-deficit/hyperactivity disorder) behavior symptoms not explained by offspring ACEs.

### METHODS:

This was a retrospective cohort study using childhood adversity data collected from a nationally representative sample of mothers enrolled in the National Longitudinal Survey of Youth 1979 cohort study and their offspring born between 1970 and 2014 who were enrolled in a separate Child and Young Adult cohort. The exposure of maternal ACEs was categorized to assess dose-dependent associations (zero, one, two, or three or more). The outcomes of offspring internalizing and externalizing behavior were assessed from maternal report between age 4 and 14 years using symptom scores from the Behavior Problem Index derived from the Child Behavior Checklist. We fit marginal structural models with robust SEs to estimate the independent association between maternal ACEs and offspring internalizing and externalizing behavior while adjusting for offspring ACEs and other selected covariates.

### RESULTS:

Among 5,445 offspring born to 2,792 mothers, 60.0% of the offspring were born to mothers who reported no ACEs, 23.2% to mothers who reported one ACE, 10.4% to mothers who reported two ACEs, and 6.5% to mothers who reported three or more ACEs. Mothers with more ACEs more frequently gave birth at younger ages, were less frequently married, and had lower educational attainment. In models adjusted for offspring ACEs, one, two, and three or more maternal ACEs were independently associated with a 1.81- (95% CI, 0.87–2.75), 2.07- (95% CI, 0.71–3.43), and 2.68- (95% CI, 1.00–4.36) point increase in offspring internalizing score and a 1.78- (95% CI, 0.83–2.73), 3.08- (95% CI, 1.74–4.41), and 3.30- (95% CI, 1.47–5.13) point increase in offspring externalizing score, respectively, suggesting a dose-response association.

### CONCLUSION:

Maternal ACEs were associated with elevated offspring internalizing and externalizing symptoms independently of offspring ACEs. These findings support the utility of maternal ACE screening in the prenatal period to inform early interventions, services, and referrals to promote maternal health and to potentially disrupt intergenerational transmission of adversity.



**PRIORITY**



**ADVERSE CHILDHOOD  
EXPERIENCES  
AND  
TOXIC STRESS**

# ***Positive Childhood Experiences (PCE) Can Buffer Adversity***

Ability to talk with  
family about feelings



Sense that family is  
supportive during  
difficult times

Feeling support  
from friends



Feeling of  
belonging in  
high school

**The more  
PCEs a child gets,  
the better their  
adult mental  
health.**

# ***Positive Childhood Experiences (PCE) Can Buffer Adversity***

Enjoyment of participation in community traditions



Having at least two non-parent adults who genuinely cared

Feeling safe and protected by an adult in the home



Just one caring, safe relationship early in life

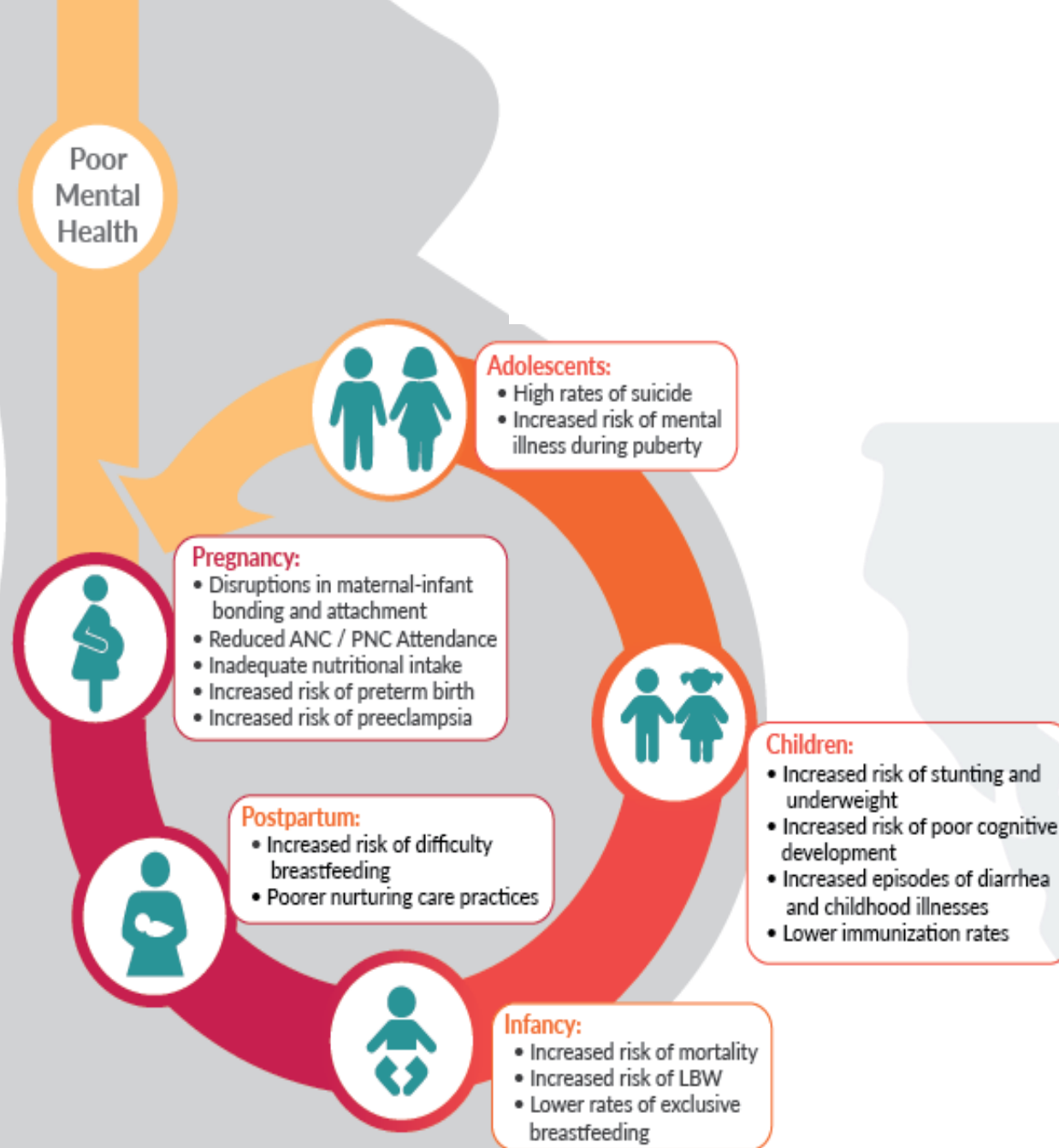
**The more  
PCEs a child gets,  
the better their  
adult mental  
health.**





# MATERNAL MENTAL HEALTH IS AN ACE



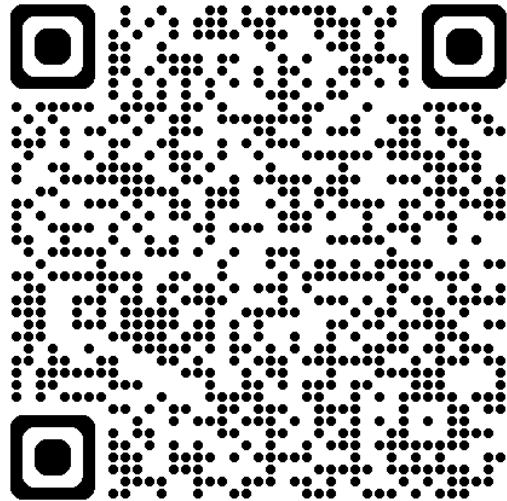


## Impact of Maternal Depression: An Adverse Childhood Experience

**Increased risk in child:**  
Depressive symptoms  
Anxiety  
Aggression  
Hyperactivity  
Temperament issues

McDonald SW, et al Maternal adverse childhood experiences, mental health, and child behavior at age 3: the all our families community cohort study. Prev Med. 2019;118:286–294.

What can be  
done in the  
community  
and at home?



## Support New Mom's Mental Health

**1 IN 5** People in California experience  
depression during & after pregnancy



Look for changes  
in behavior



Listen for harmful  
words



Provide words  
of support



Direct to places  
of support and care

**It's okay to have  
the conversation.**



OFFICE OF THE  
CALIFORNIA  
SURGEON GENERAL

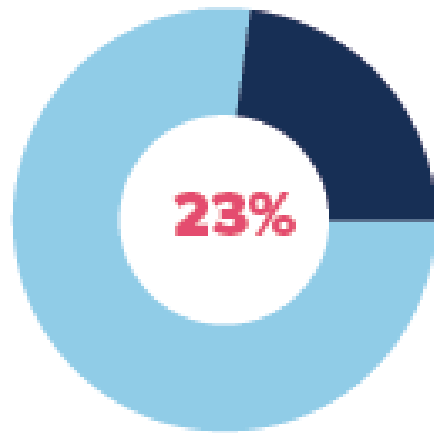
14

For more information

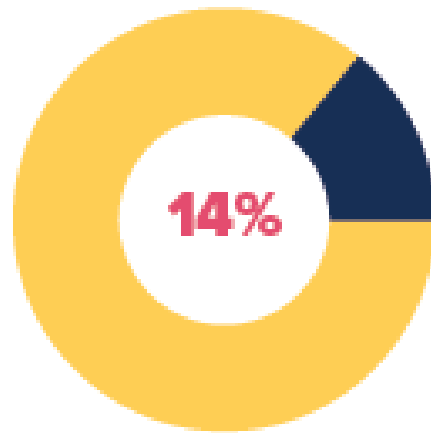




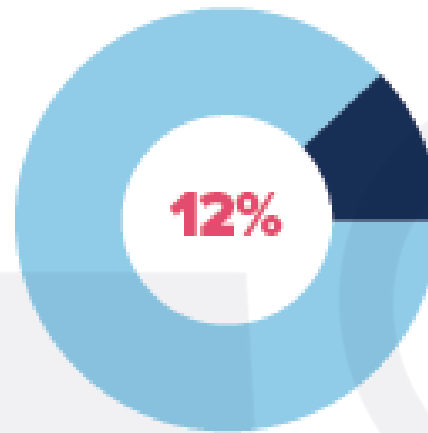
# Pregnancy-Related Causes of Death California 2013-2021



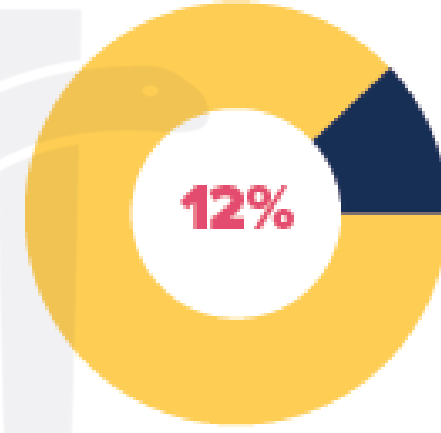
**Heart  
Disease**



**Bleeding**



**Behavioral  
Health**



**Infection**

**Behavioral Health causes, associated with 10-15% of  
pregnancy-related deaths from medical causes**

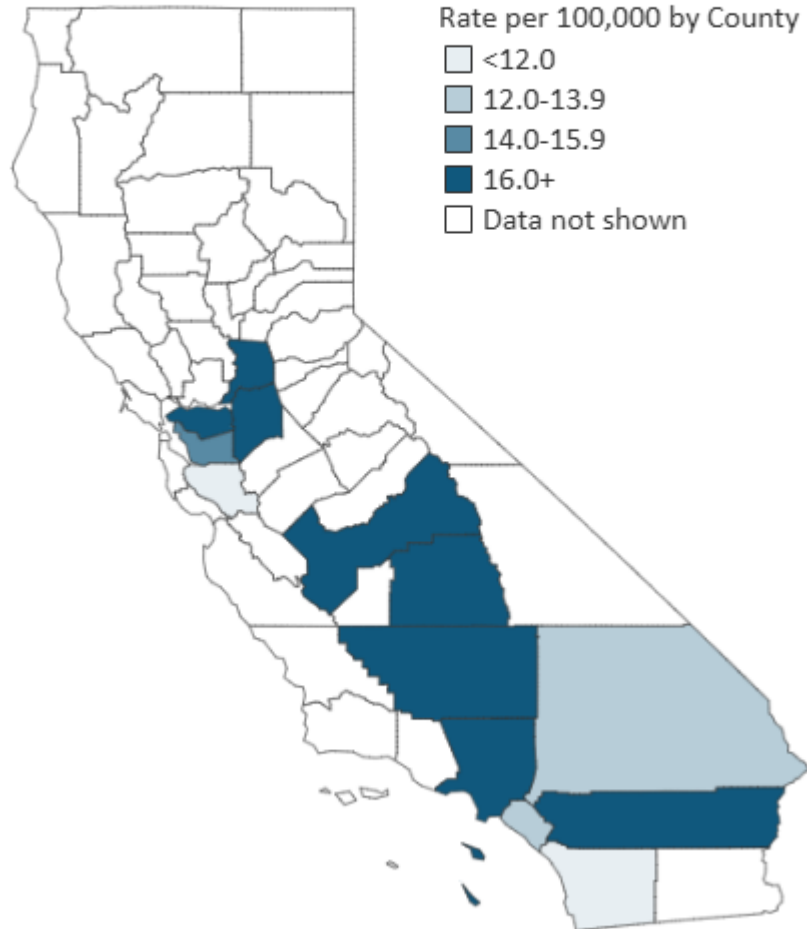
\* Excludes COVID-19 Infection

Pregnancy-related deaths include deaths within a year of pregnancy from causes related to or aggravated by the pregnancy or its management, as determined by expert committee review. Abbreviations: CVD = Cardiovascular disease; Hem = Hemorrhage; Inf = Sepsis or infection; HDP = Hypertensive disorders of pregnancy; AFE = Amniotic fluid embolism; TPE = Thrombotic pulmonary embolism; CVA = Cerebrovascular accident; Anes = Anesthesia complications; Other = Other medical condition(s). Note: Deaths with undetermined cause were excluded from analysis (n=2).

Pregnancy-associated (P-A) deaths include deaths from any cause while pregnant or within one year of the end of pregnancy. P-A deaths were identified by linking the California vital records, patient discharge data, emergency department data, and ambulatory surgery center data (2013-2021). These linked data were supplemented with information from coroner and autopsy reports and medical records to verify the decedent's pregnancy status and grouped cause-of-death classifications from ICD-10 codes in the California death certificate data. Pregnancy-relatedness was determined by expert committee review.

15.0

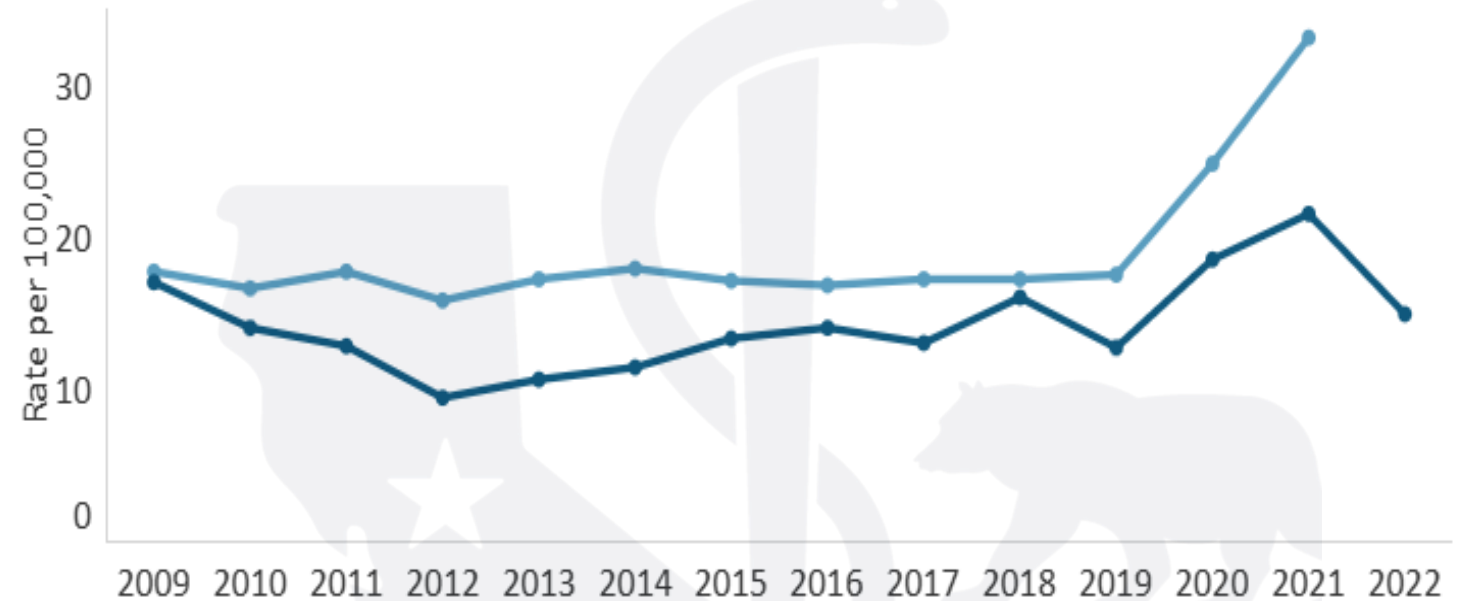
Pregnancy-Related Mortality Ratio 2022



United States

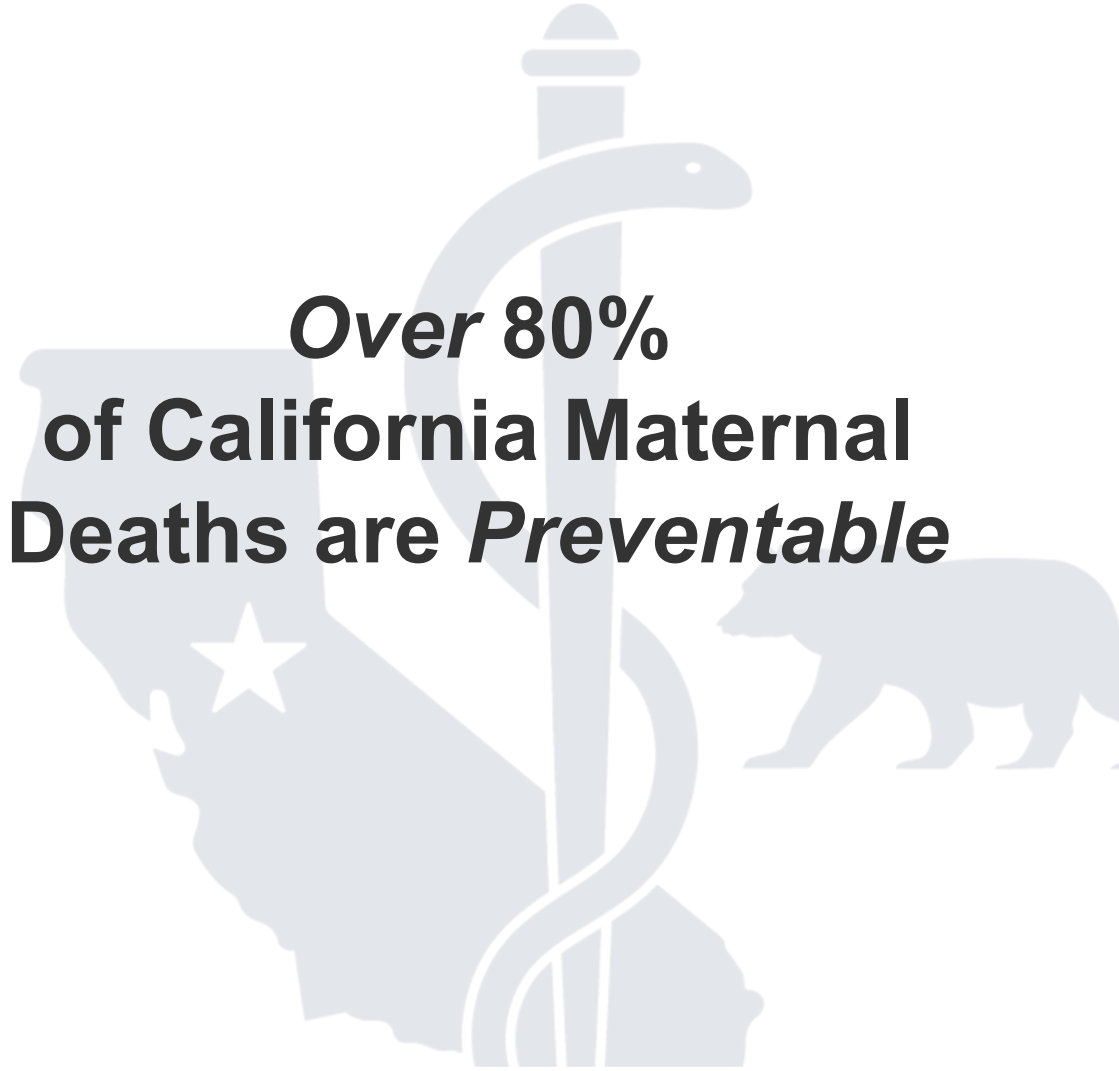
Pregnancy-Related Mortality Ratio 2022

California and United States

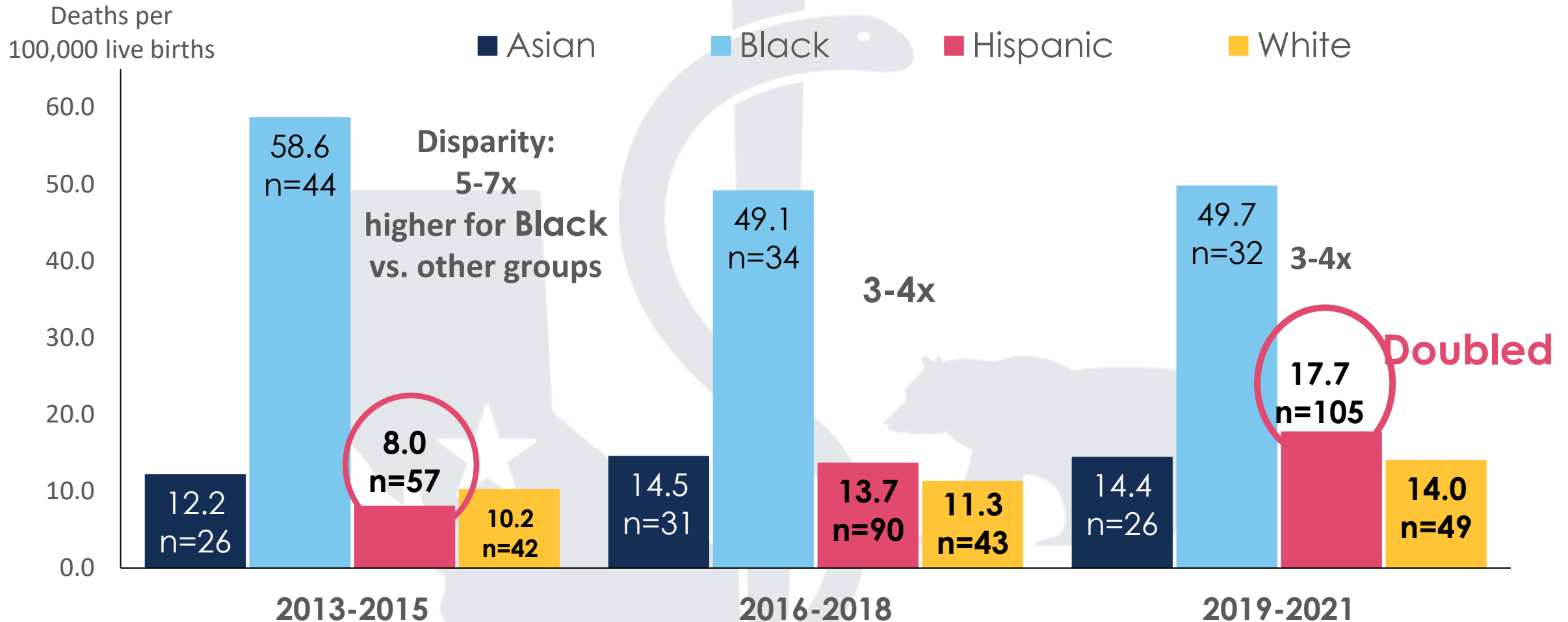




**Over 80%  
of California Maternal  
Deaths are *Preventable***



# Pregnancy-Related Mortality Ratio by Race/Ethnicity California 2013 – 2021



Pregnancy-related mortality ratio (PRMR) = Number of pregnancy-related deaths per 100,000 live births. Pregnancy-related deaths include deaths within a year of pregnancy from causes related to or aggravated by the pregnancy or its management, as determined by expert committee review. PRMRs for American Indian/Alaska Native (n=0,0,1 for 2013-2015, 2016-2018, and 2017-2019, respectively), Native Hawaiian/Pacific Islander (n=0,1,3 for 2013-2015, 2016-2018, and 2017-2019, respectively), Multiple-race (n=8,4,10 for 2013-2015, 2016-2018, and 2017-2019, respectively), and other races (n=0,1,0 for 2013-2015, 2016-2018, and 2017-2019, respectively) are not shown due to small counts.

# Pregnancy-Related Mortality

- Less healthy
- Older age
- Less than high school education
- Coverage by Medi-Cal or other government coverage
- Obese III\*

\*(BMI) of 40 or higher, or a BMI of 35 or higher along with a serious weight-related health condition

# California's Maternal Health Blueprint 2024

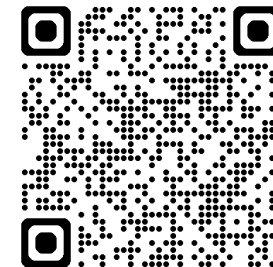


OFFICE OF THE  
**CALIFORNIA**  
**SURGEON GENERAL**

## Strong Start and Beyond Goals

Reduce maternal  
mortality 50% by  
December 2026

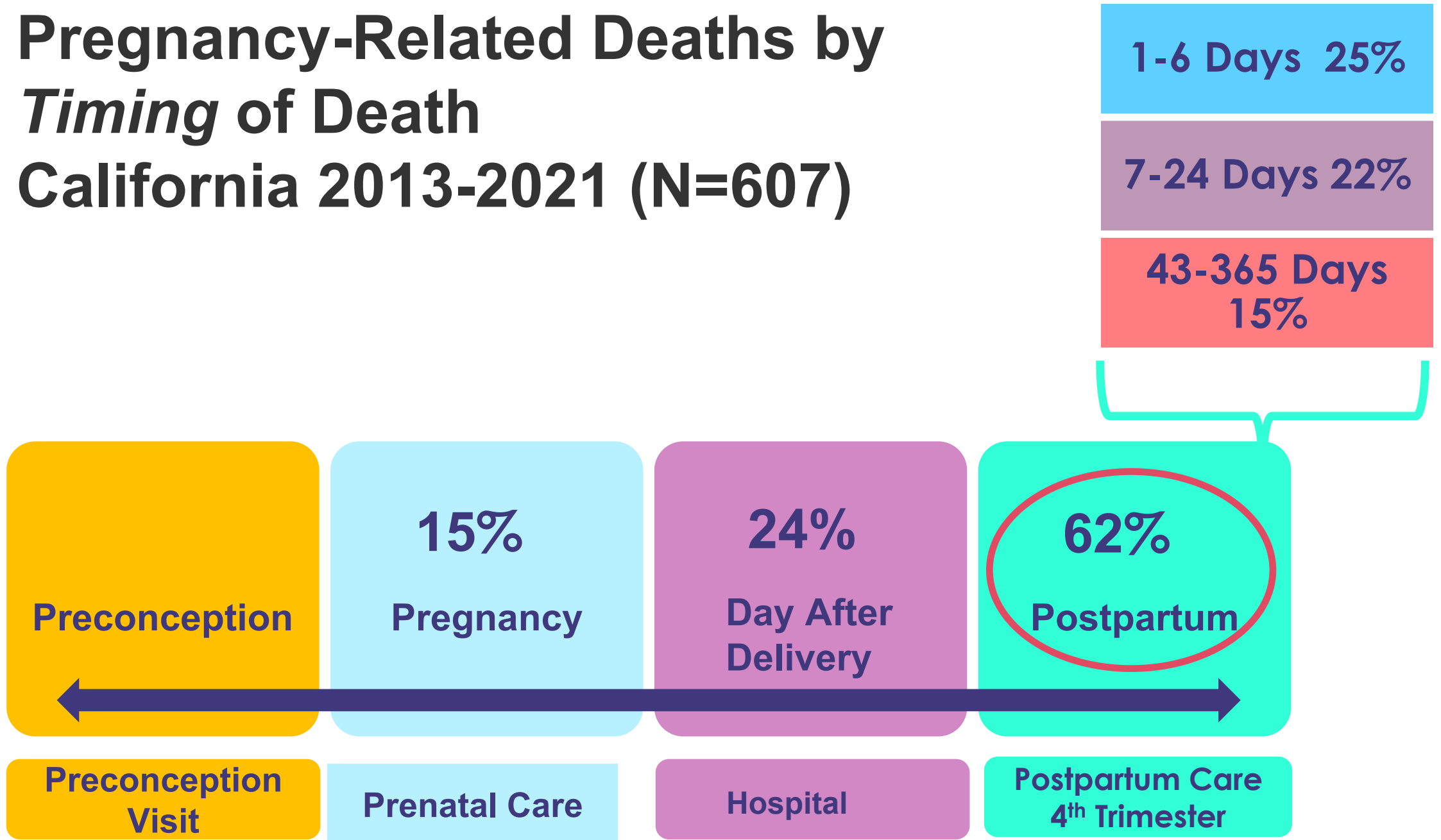
Educate and empower  
individuals on their  
reproductive health

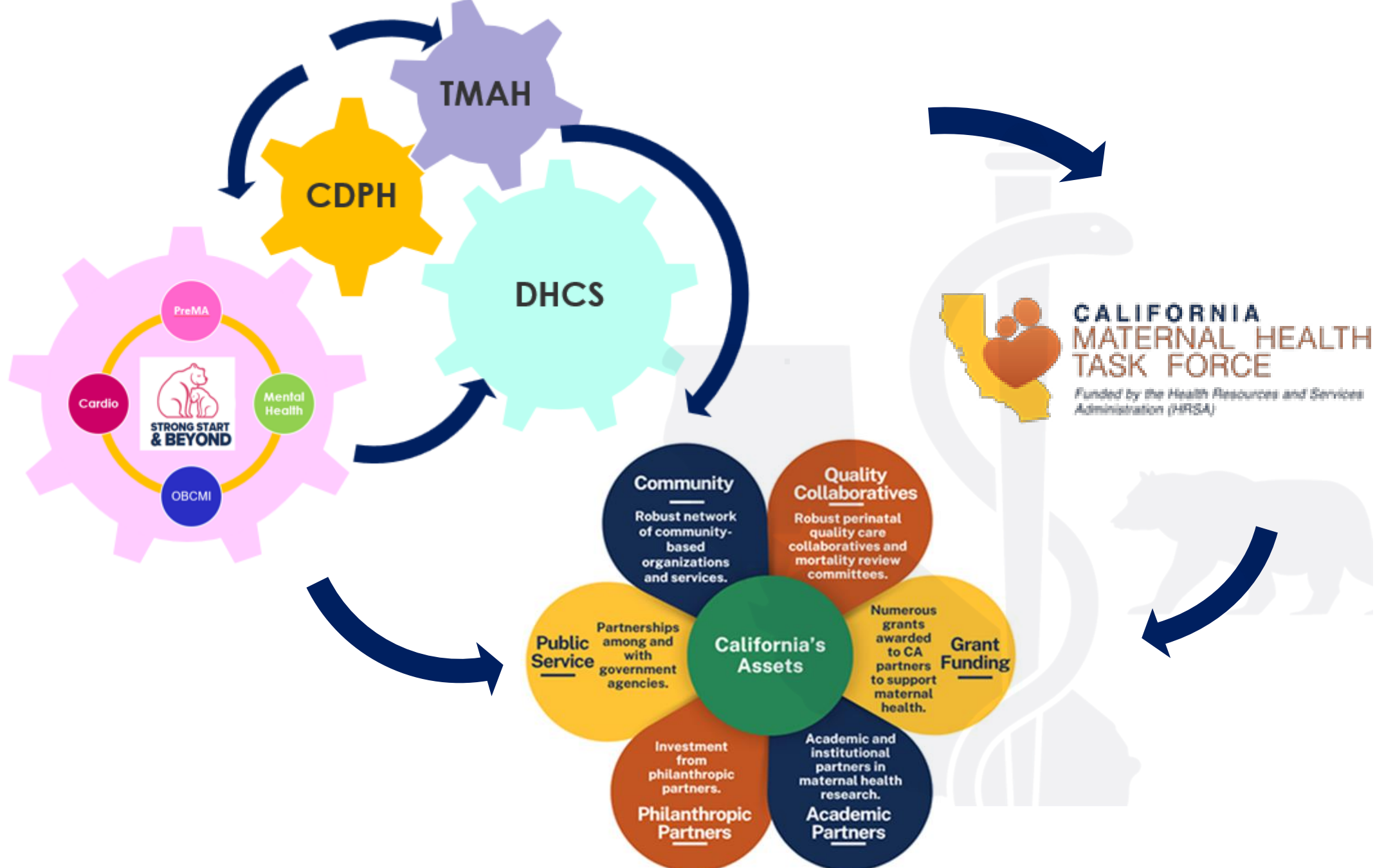




# Pregnancy-Related Deaths by *Timing* of Death

## California 2013-2021 (N=607)





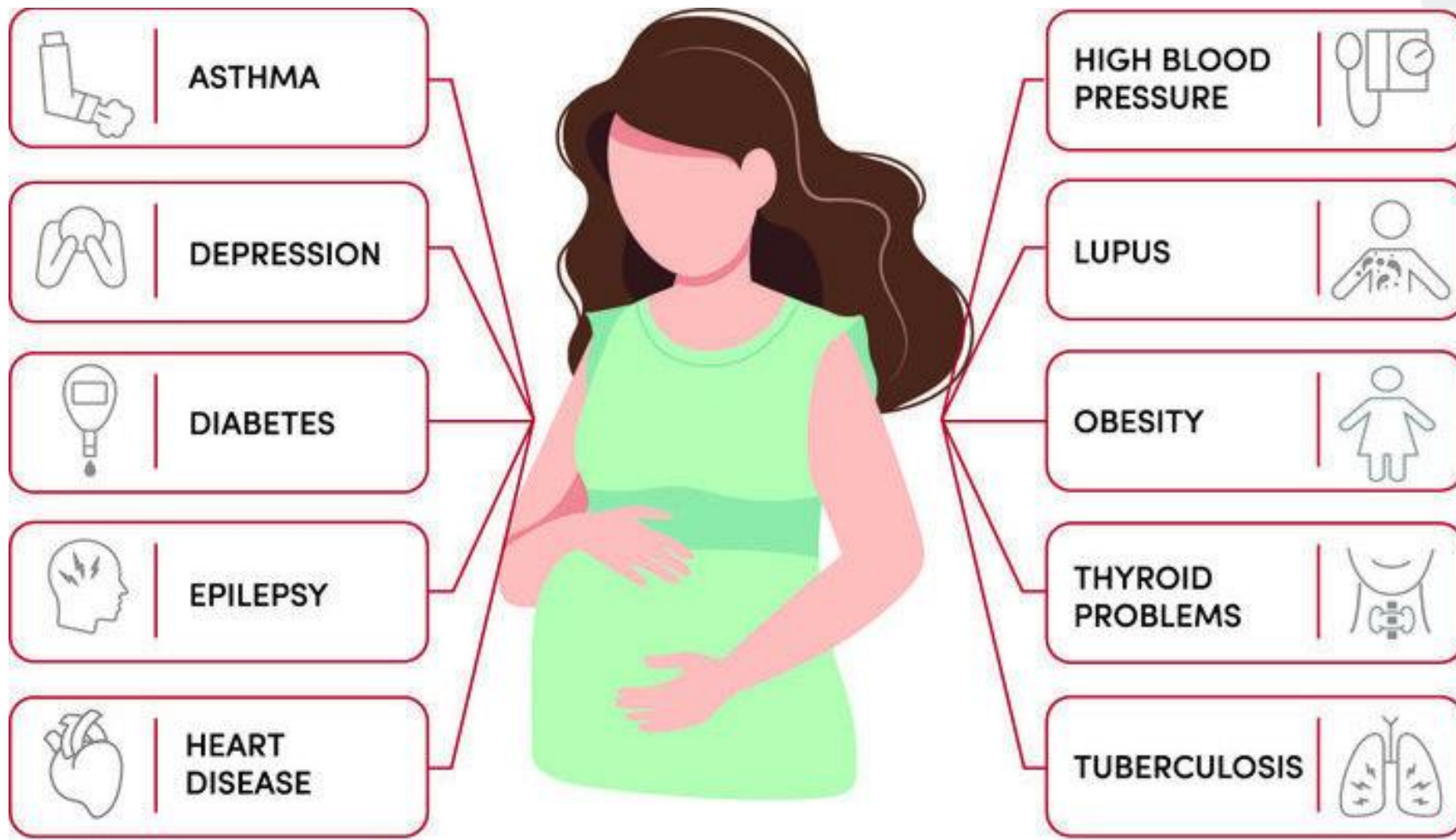
## Medi-Cal Births & Coverage

- » 11 percent of all births in the United States occur in California.
- » 40 percent of all California births per year are covered by Medi-Cal.
- » 72 percent of pregnant and postpartum Medi-Cal members are enrolled in an MCP.

[CA Birthing Care Pathway Report](#)2025



OFFICE OF THE  
**CALIFORNIA  
SURGEON GENERAL**



**1 in 3 women of reproductive age have at least one chronic condition**

# Thinking About Having a Baby?



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

## 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.



# PremaCA.org

Simple  
8 question quiz

One Goal  
decrease  
maternal mortality

Conversation  
starter

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

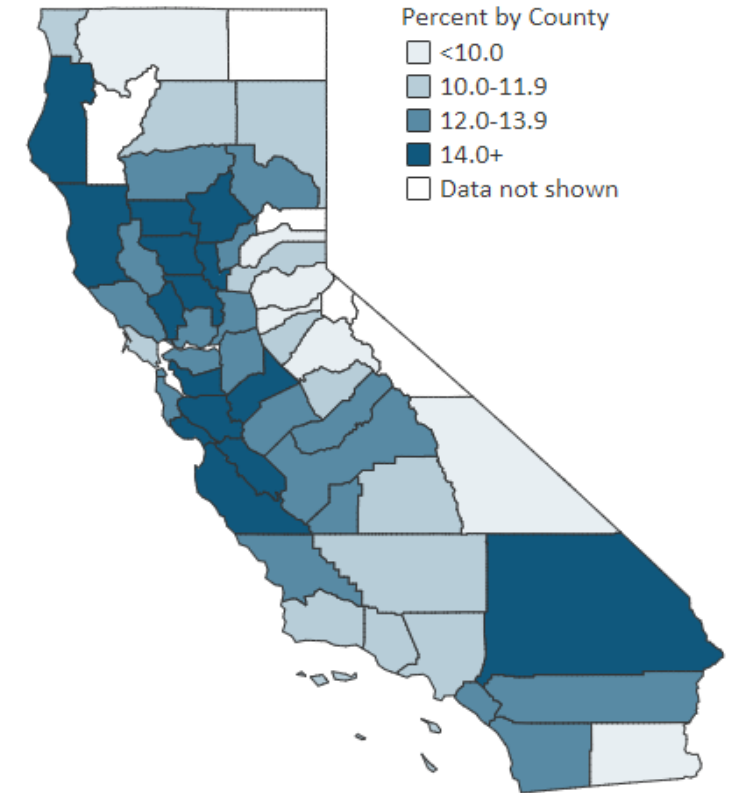
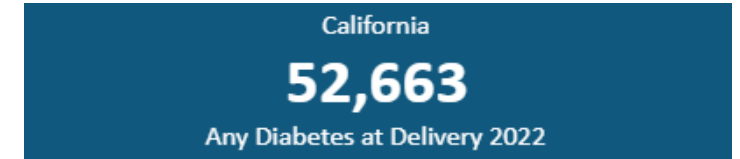
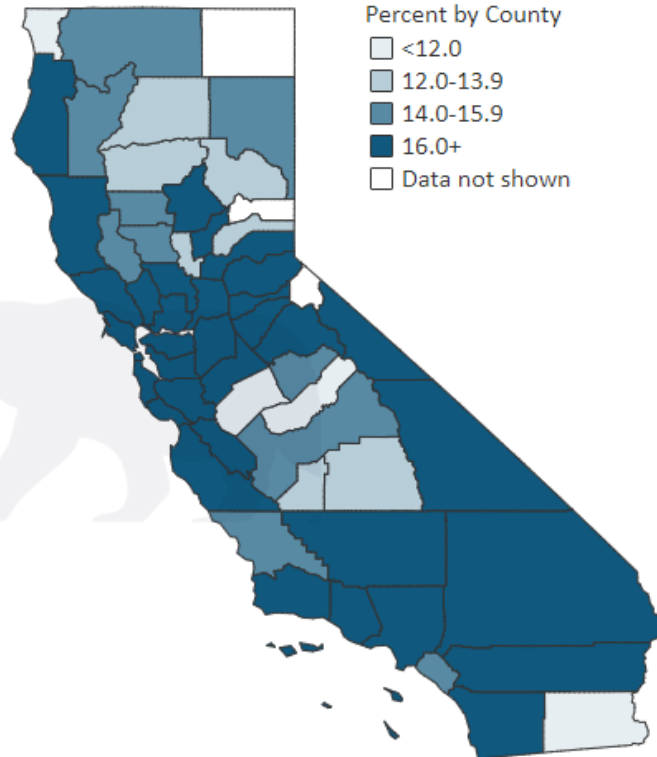
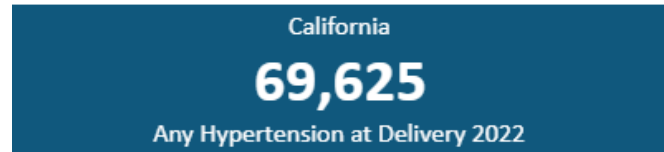


Find resources at **CA.gov**  
or **osg.ca.gov/resources**



# CARDIOVASCULAR RISK FACTORS IN PREGNANCY & POSTPARTUM

- Advanced Maternal Age
- Hypertension
- Diabetes
- Obesity
- Congenital Heart Disease





**Consensus Statement**  
**Alliance for Innovation on**  
**Maternal Health**  
**Consensus Bundle on**  
**Cardiac Conditions in**  
**Obstetric Care**

---

*Afshan B. Hameed, MD, Alison Haddock, MD,  
et.al*

Most people who died from cardiac conditions during pregnancy or postpartum

- not** diagnosed with a cardiovascular disease before death

- had* underlying risk factors

- had* presented with signs and symptoms suggestive of cardiac disease

**More than 80%** of all pregnancy-related cardiovascular deaths, regardless of cause, **were preventable**



# Maternal Health: Improving Cardiovascular Health Issue Brief

April 2025



## Innovative Cardiovascular Improvement Strategies

### **Bridging Grassroots and System-Level Efforts**

Community-driven paired with policy-level support

Shared electronic medical information with EMS (Emergency Medical Service) in the field with local emergency rooms

### **Leveraging Precision Medicine for Equitable Outcomes**

Identify high-risk individuals early and provide targeted support  
i.e.

Cell-free RNA test to predict preeclampsia risk

AI to inform cardiovascular treatment decisions

Apps to bridge health education and community resources

### **Utilizing Trusted Local Resources for Community-Based Care**

Trusted community network in expanding maternal health outreach,  
i.e. Head Start YMCAs, libraries, and faith-based organizations can  
access points for screenings, health education, and resources



# Pregnancy is a Window to Future Health

**High Blood Pressure** 63% increased risk future cardiovascular

**Diabetes** 20%-50% will develop type 2 diabetes later in life

**Depression** increased risk for suicide

Stuart JJ, et al. Cardiovascular Risk Factors Mediate the Long-Term Maternal Risk Associated With Hypertensive Disorders of Pregnancy. J Am Coll Cardiol. 2022 May 17;79(19):1901-1913.

Li L, et. al. Gestational Diabetes, Subsequent Type 2 Diabetes, and Food Security Status: National Health and Nutrition Examination Survey, 2007–2018. Prev Chronic Dis 2022;19:220052

Yu H, Shen et al. Perinatal Depression and Risk of Suicidal Behavior. JAMA Netw Open. 2024;7(1):e2350897.

# Obstetric Comorbidity Index

**Prospectively** identify at risk of severe maternal morbidity in a clinical setting

**Identify** need for increased surveillance or transfer of care in an attempt to prevent adverse maternal outcomes

## Instructions for Use:

- 1) Circle comorbidities present in your patient and tally score at bottom.
- 2) Does this patient have any other high-risk features you think should be added to the list? \_\_\_\_\_
- 3) Notify Responding Clinician for patients with OB-CMI score > 6 or with any other concerns.
- 4) Document the OB-CMI score in the nursing handoff template.
- 5) Place completed sheet in locked bin behind desk.


RN \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Easter, Sarah Rae et al. Prospective clinical validation of the obstetric comorbidity index for maternal risk assessment. American Journal of Obstetrics & Gynecology, Volume 220, Issue 1, S198 - S199

Maternal Condition	Points	Comments
Preeclampsia with Severe Features* or Eclampsia	5	
Preeclampsia / Gestational / Chronic Hypertension	2	
Congestive Heart Failure	5	
Pulmonary Hypertension	4	
Ischemic Heart Disease / Cardiac Arrhythmia	3	
Congenital Heart and/or Valvular Disease	4	
Multiple Gestation	2	
Intrauterine Fetal Demise	2	
Placenta Previa / Suspected Accreta / Abruption	4	
Previous Cesarean Delivery / Myomectomy	1	
Autoimmune Disease / Lupus	2	
HIV/AIDS	2	
Sickle Cell Disease / Bleeding Disorder / Coagulopathy / Anticoagulation	3	
Epilepsy / Cerebrovascular Accident / Neuromuscular Disorder	2	
Chronic Renal Disease	1	
Asthma	1	
Diabetes on Insulin	1	
Maternal Age > 44	3	
Maternal Age 40-44	2	
Maternal Age 35-39	1	
Substance Use Disorder	2	
Alcohol Abuse	1	
BMI > 50	3	
BMI > 40	2	
<b>*Severe Features:</b> Systolic BP $\geq$ 160, diastolic BP $\geq$ 110, creatinine > 1.1, oliguria (<30 cc/hr), elevated AST or ALT, platelets < 100,000, persistent epigastric pain, headache, or scotomata, placental abruption.	<b>Total:</b>	<b>MD Notified:</b>



# Obstetric Comorbidity Index



Calculate  
by QxMD

[All Calculators](#) [Become a Contributor](#) [Support](#) [Login](#) [Sign Up](#)

CalculatorAboutReferences

  **Obstetric Comorbidity Index**  
Determines the risk of severity of maternal morbidity.

### Questions



1. Preeclampsia with severe features or eclam...
2. Preeclampsia, gestational or chronic hypert...
3. Congestive heart failure?
4. Pulmonary hypertension?
5. Ischemic heart disease or cardiac arrhythmia?
6. Congenital heart and/or valvular disease?
7. Multiple gestation?

→ 1. Weeks gestation?


weeks

Next Question →

Download the app for offline access

[Terms Of Use](#) · [Privacy Policy](#) · [Do Not Sell My Personal Information](#) · [Manage Preferences](#)

 0/21 completed



# Coming Soon: Discharge Summary

Postpartum Passport

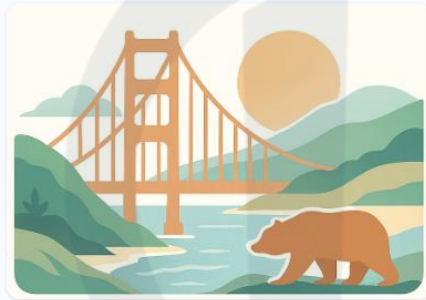
About

Provider Form

FAQ

Practice Resources

Research



## Postpartum Passport

Empowering patients and providers with clear, comprehensive postpartum care summaries.

Start New Patient Record

Iniciar Nuevo Registro

Add to Apple Wallet

+ Save as Image

< Back

## My Postpartum Passport

Created: Oct 10, 2025



### Delivered on

at --

This is a -- year old with -- prior pregnancies, s/p -- pregnancy delivered -- .

(at -- weeks

Baby weighed --g at birth



### Pregnancy was complicated by:

None



### Labor and delivery course notable for:

No difficulties reported



### A doctor diagnosed me/my baby with:

- No specific considerations noted.



# Fourth Trimester: “One Small Thing”



**STRONG START  
& BEYOND**

Partners:

- Community Connections
- Girl Scout Badge
- Social Media Push
- Coupon Book





## **PreMA:**

Community promotion  
**MIHA** question



## **Mental Health/Behavioral Health**

One Small Thing  
Girl Scout Badge  
Calm

## **Cardiovascular**

Personal, Healthcare, Community

## **OB Co-Morbidity Index**

On admission to Labor & Delivery, assess  
for risk for ICU admission or c-section

**MY TIME IS  
ALMOST UP**

**BUT THE  
WORK  
CONTINUES**



**THANK YOU**

**OSGInfo@osg.ca.gov**



**@CASurgeonGeneral**



**@CA\_OSG**

