

DataSpeak

Thank you for your interest in today's program,
**Moving the Needle on Maternal Health: Updates on
Federal and State Initiatives.**

The program will begin at approximately 3:00pm ET.

Audio will be available through your computer speakers,
or you may dial in to listen to the event:

Dial: **1-877-407-9036**

*(Note: Your line will be muted upon entry and you will hear hold music
until the program starts.)*



Health Resources and Services Administration
Maternal and Child Health

DataSpeak

**Moving the Needle on Maternal Health:
Updates on Federal and State Initiatives**

December 20, 2016

Today's Presenters

- **William Callaghan, MD, MPH**, Senior Scientist in the Office of Epidemiology and Research at MCHB, who will highlight how to access and use the Federally Available Data (FAD) Resource Document with a document tutorial and several examples of possible uses and data analyses.
- **Elliot Main, MD**, Medical Director of the California Maternal Quality Care Collaborative, will present on how the state of California addressed their maternal mortality rate and achieved a significant reduction in maternal deaths through quality improvement.
- **Kimberly Sherman, MPH**, Maternal and Women's Health Lead for the Division of Healthy Start and Perinatal Services at MCHB, will provide an overview of HRSA's maternal and women's health initiatives, highlighting the Women's Preventive Services Initiative and the Alliance for Innovation on Maternal Health, and discuss how maternal health leaders on the state and community levels can collaborate on these activities.

Previous Events

[Click here to access archives:](#)

2016 Series:

- Utilizing the Title V Information System Data and the Federally Available Data Resource Document
- Disparities in the Health and Well-Being of Children and Youth in Rural Areas of the United States

How To Ask A Question

- **To ask a question on the Web:**
 - Enter your question in the field at the bottom of the “QUESTIONS” box at the bottom of your screen and hit enter. Your question will be sent directly to the moderator.

Accounting for Maternal Mortality and Severe Morbidity in the United States

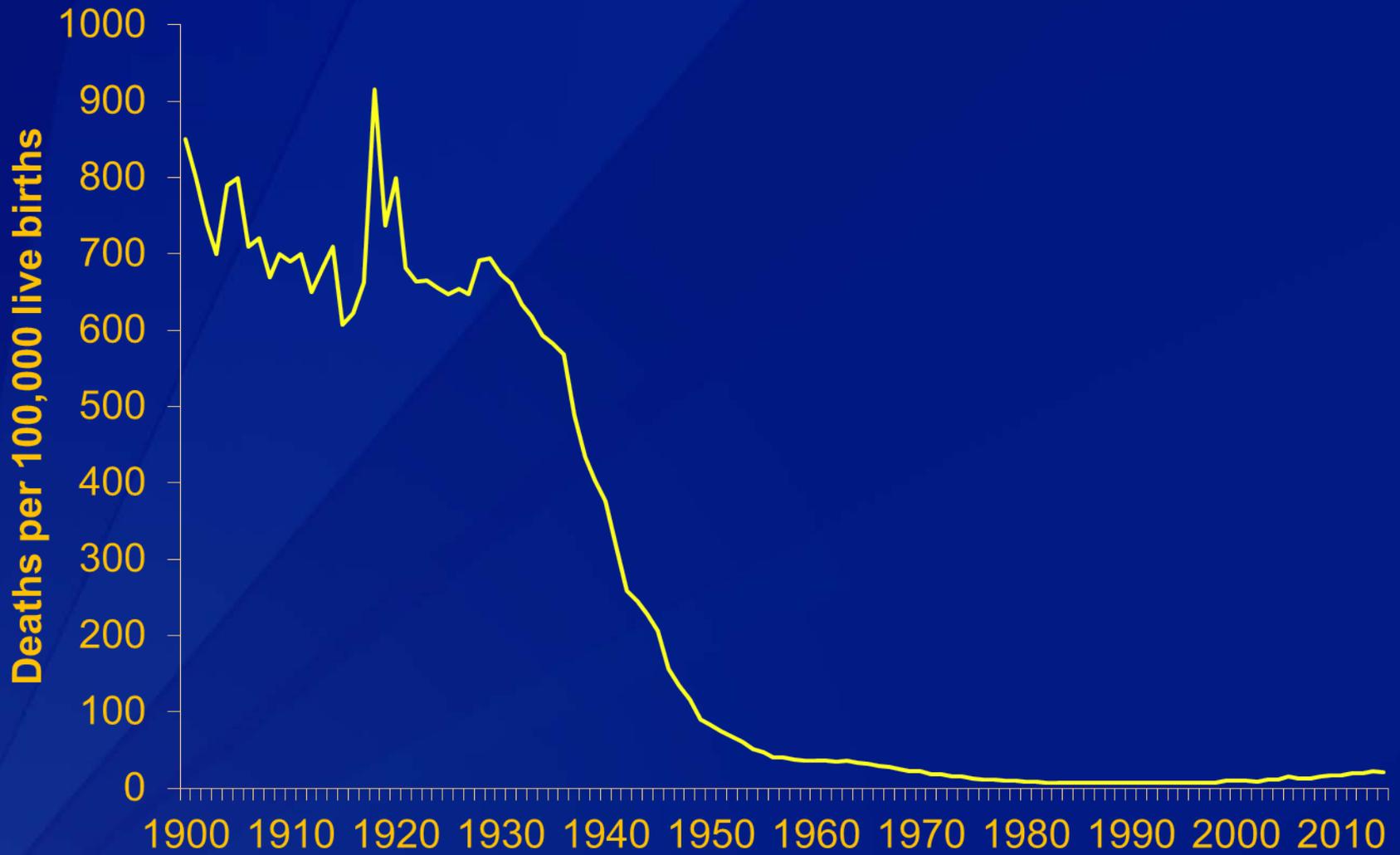


William M. Callaghan, MD, MPH
Chief, Maternal and Infant Health Branch
Division of Reproductive Health
Centers for Disease Control and Prevention

Overview

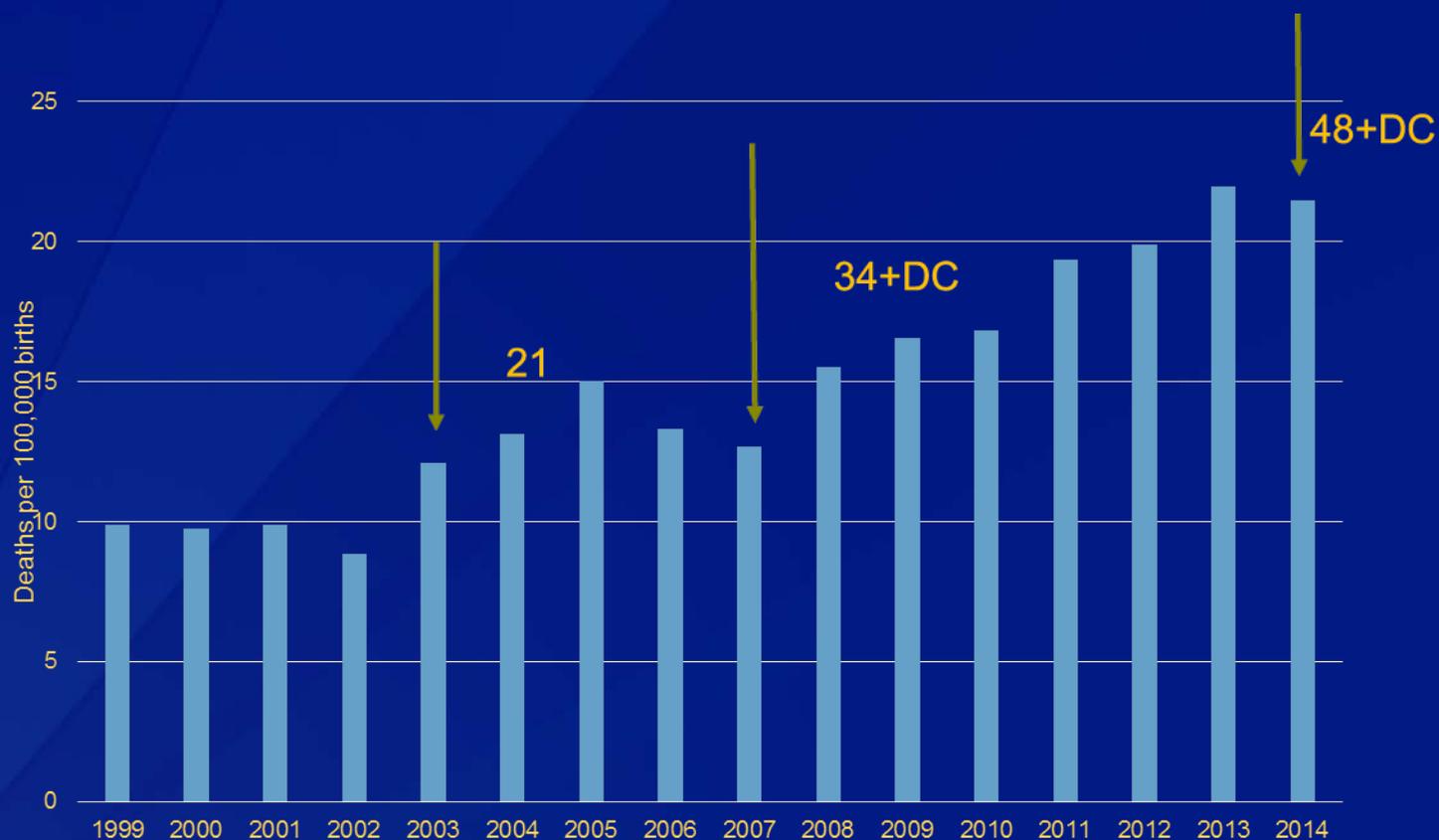
- Burden of maternal mortality
 - Why is this so hard to count?
 - Vital Statistics
 - Pregnancy-related Mortality
- Model for population-based severe maternal morbidity
- Model for hospital-based severe maternal morbidity

Maternal Mortality: 1900-2014



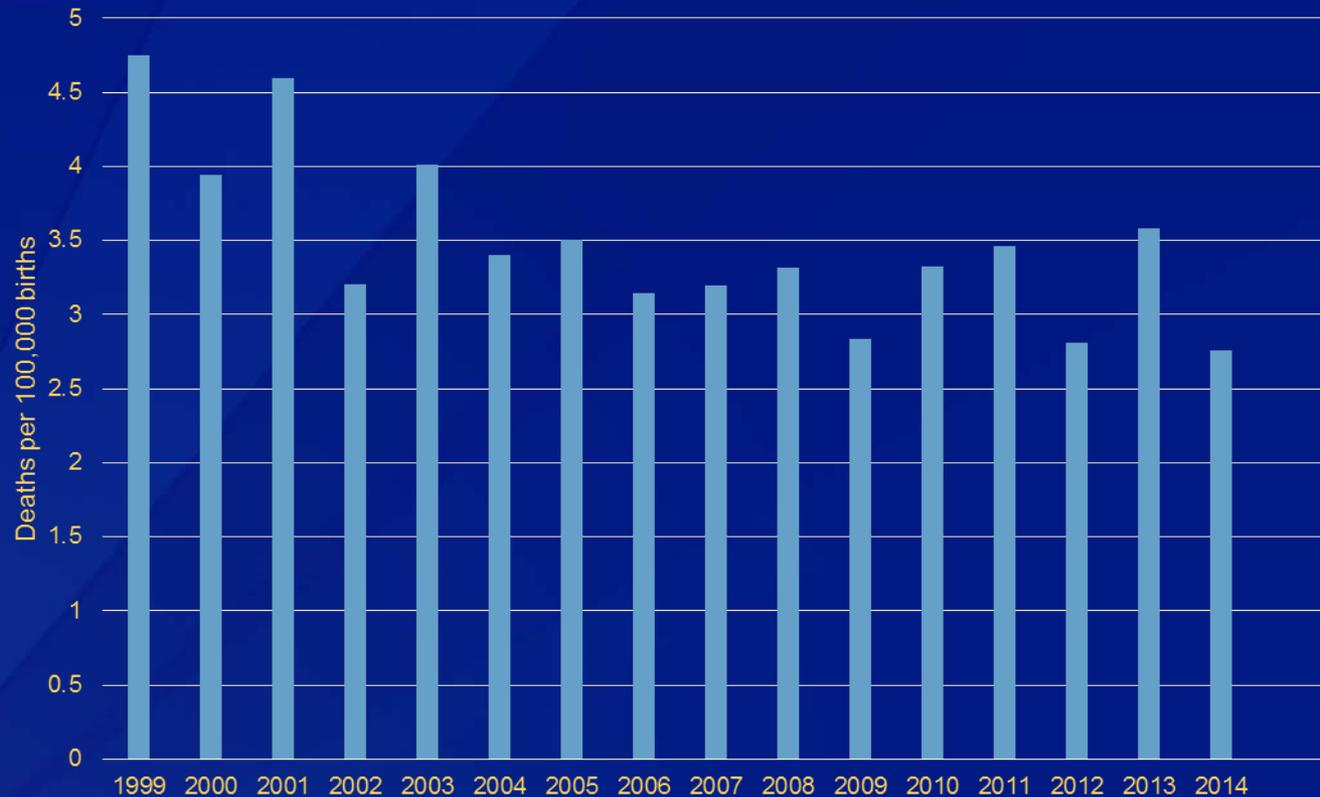
Vital Statistics

Maternal Mortality Rate, 1999-2014



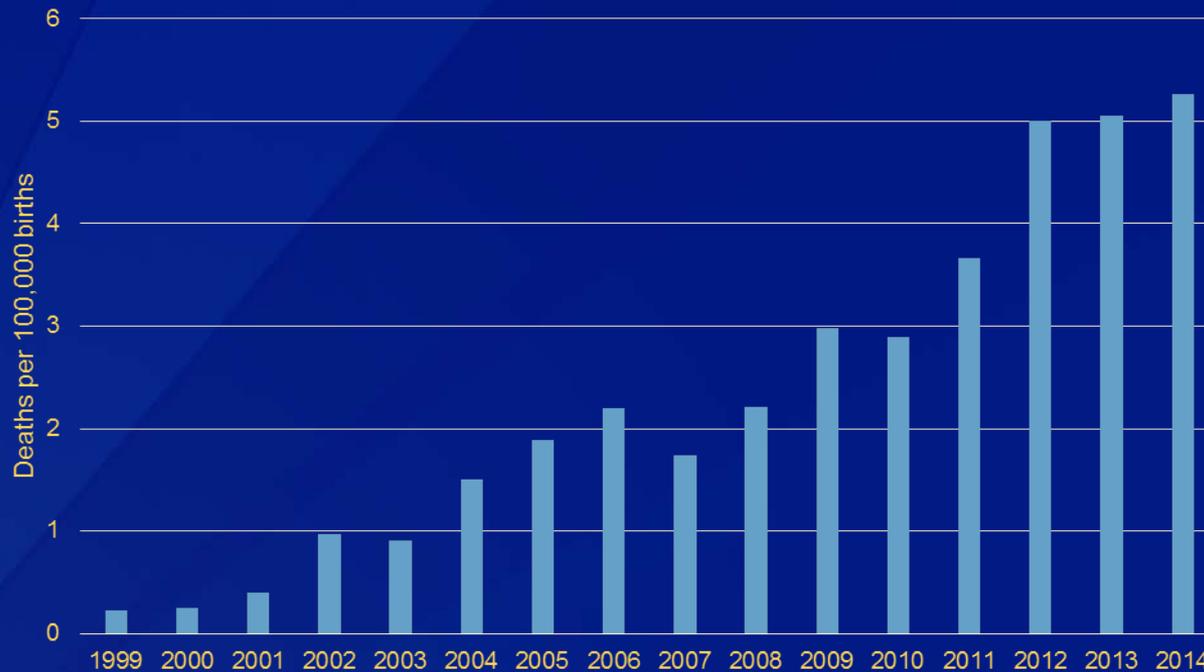
National Vital Statistics System; CDC WONDER

MMR Due to Hemorrhage, Hypertension and Embolisms, 1999-2014



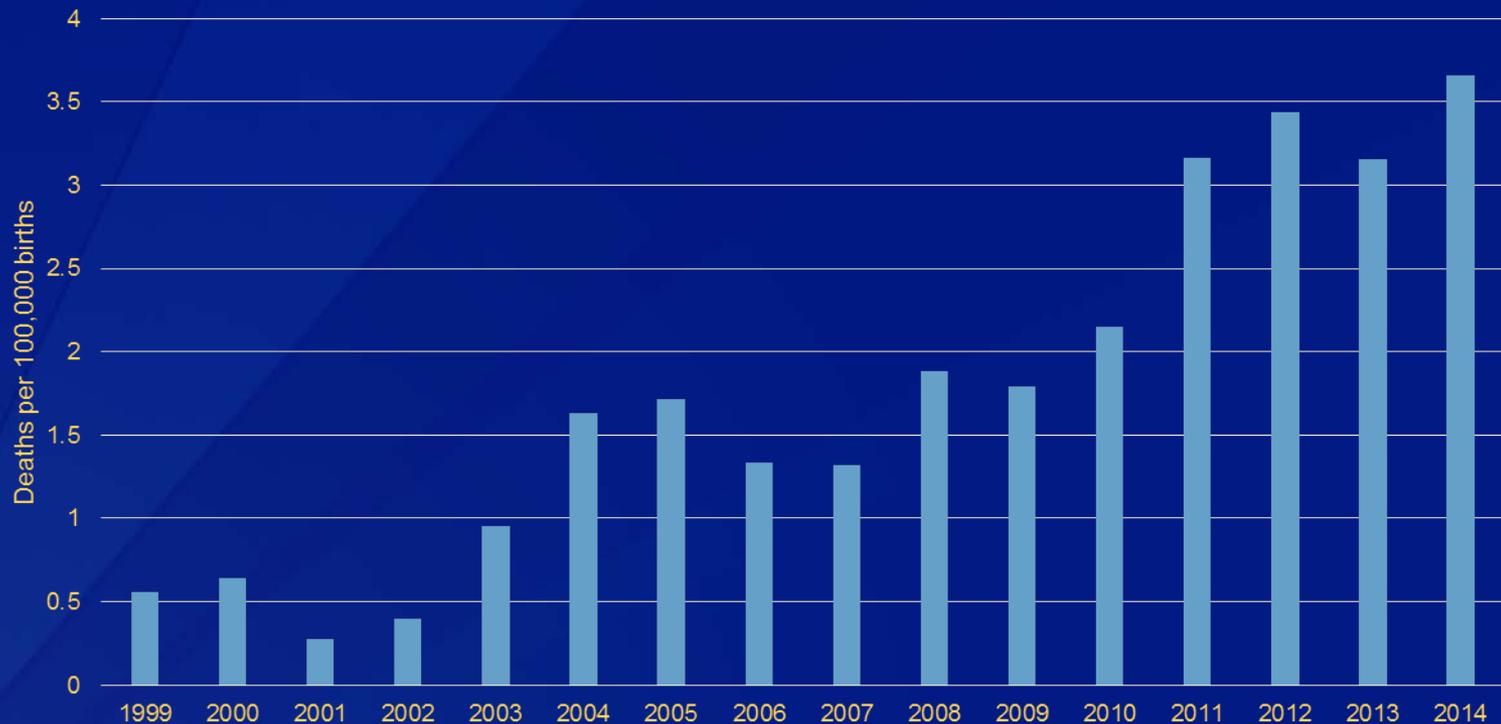
National Vital Statistics System; CDC WONDER

MMR due to other specified pregnancy related conditions (O26.8), 1999-2014



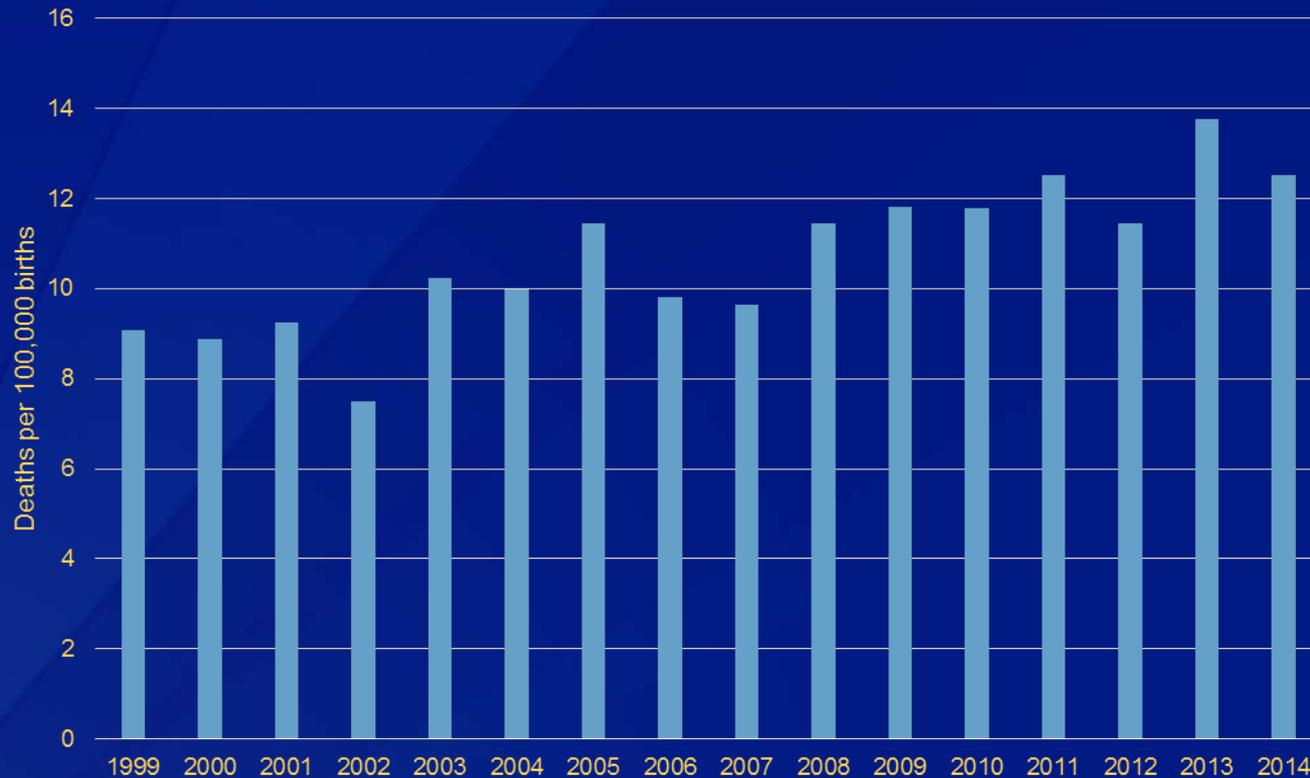
National Vital Statistics System; CDC WONDER

MMR due to other specified diseases and conditions complicating pregnancy, childbirth and the puerperium (O99.8), 1999-2014



National Vital Statistics System; CDC WONDER

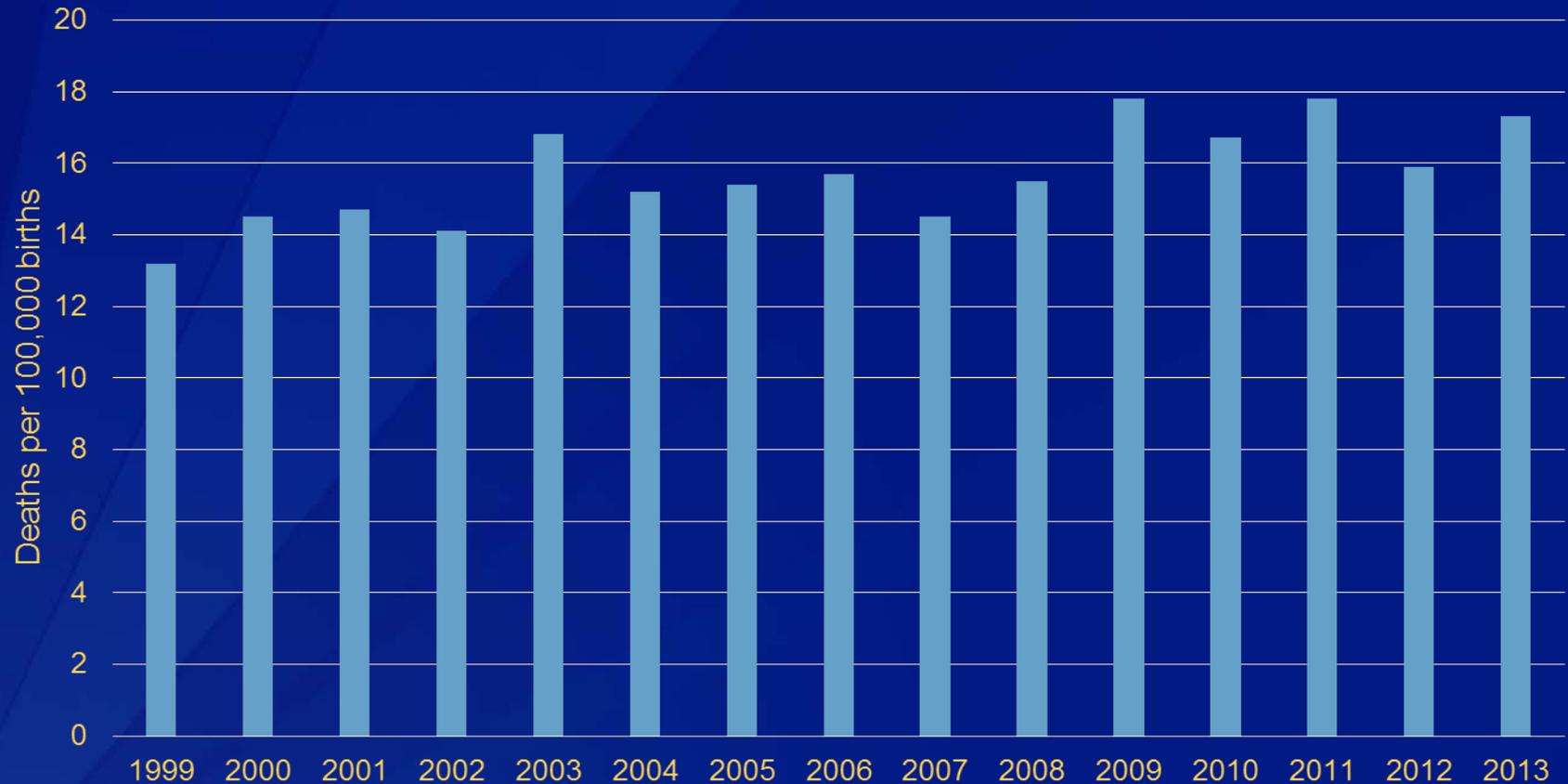
Adjusted MMR after removing O26.8 and O99.8, 1999-2014



National Vital Statistics System; CDC WONDER

Pregnancy-related Mortality (PMSS)

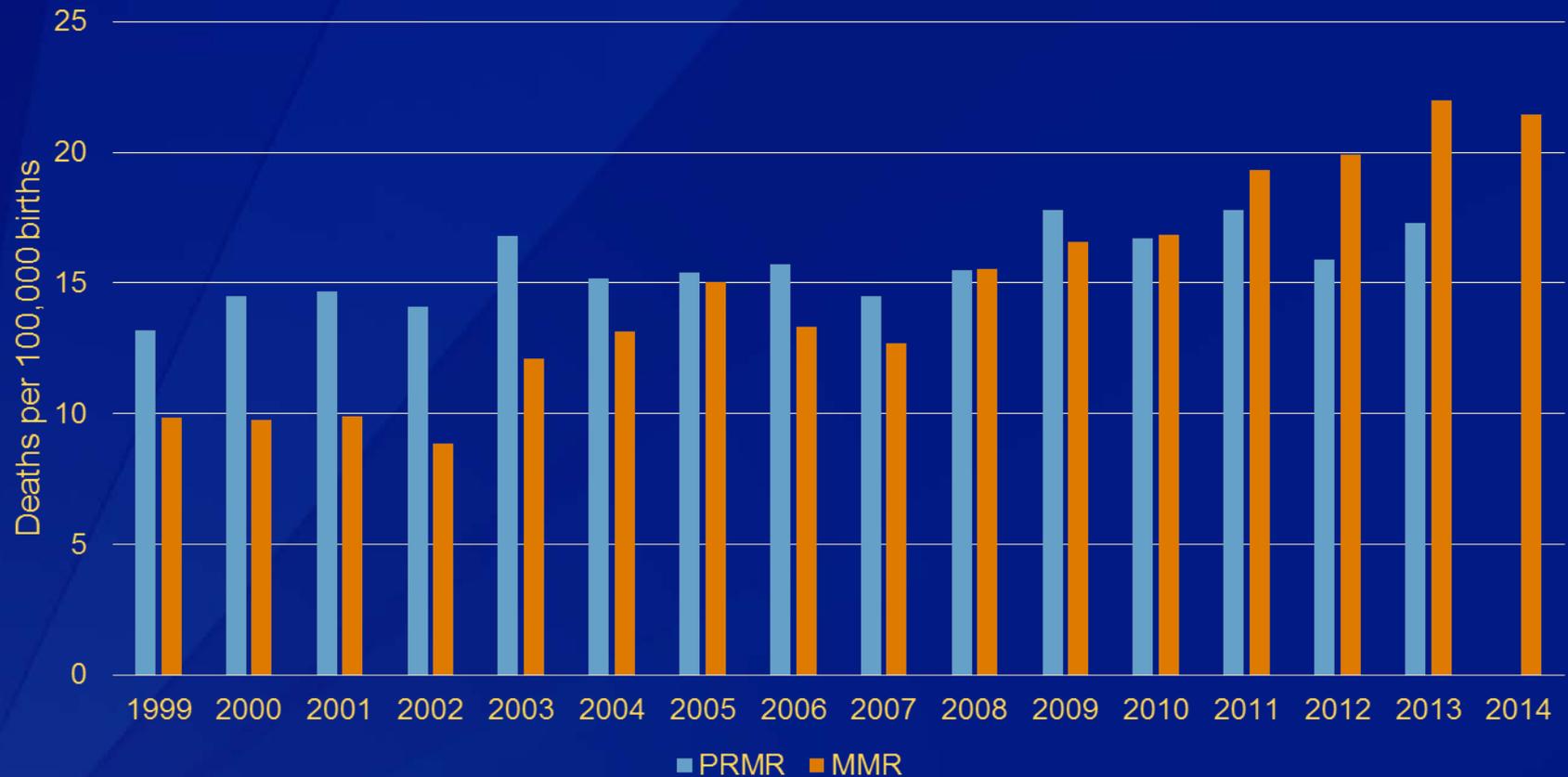
Pregnancy-related Mortality, 1999-2013



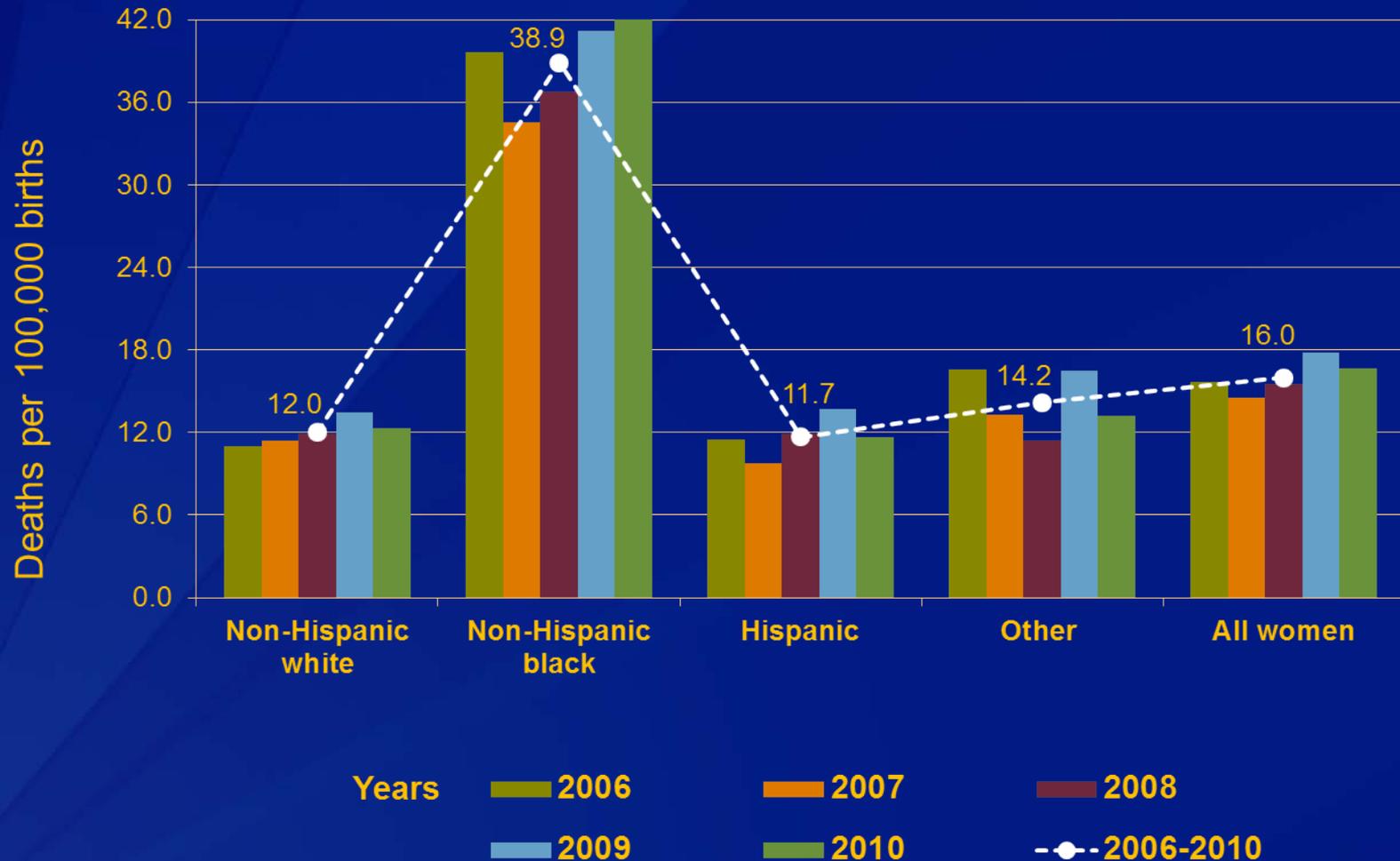
<http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html>

Pregnancy Mortality Surveillance System

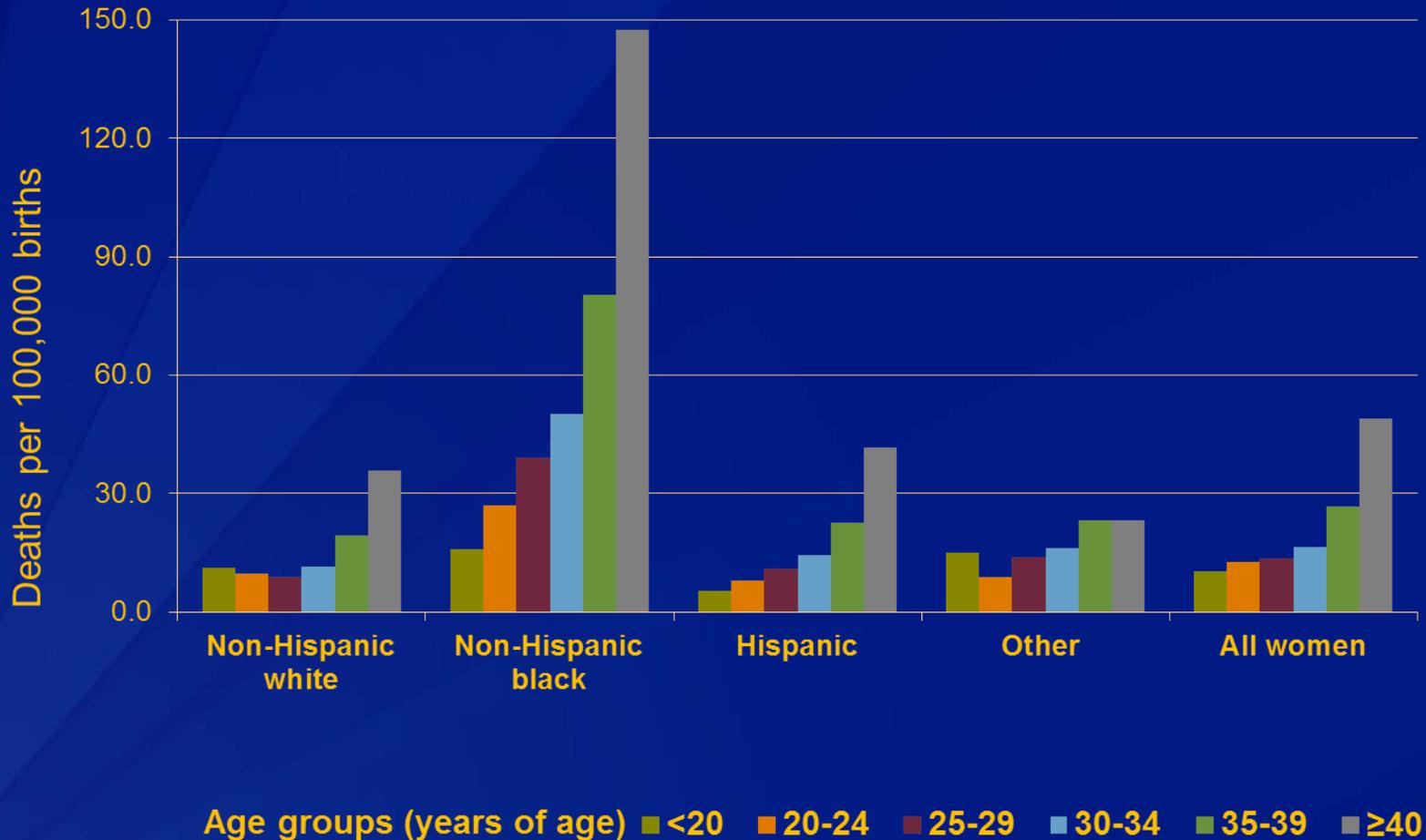
Pregnancy-related Mortality and Maternal Mortality, 1999-2014



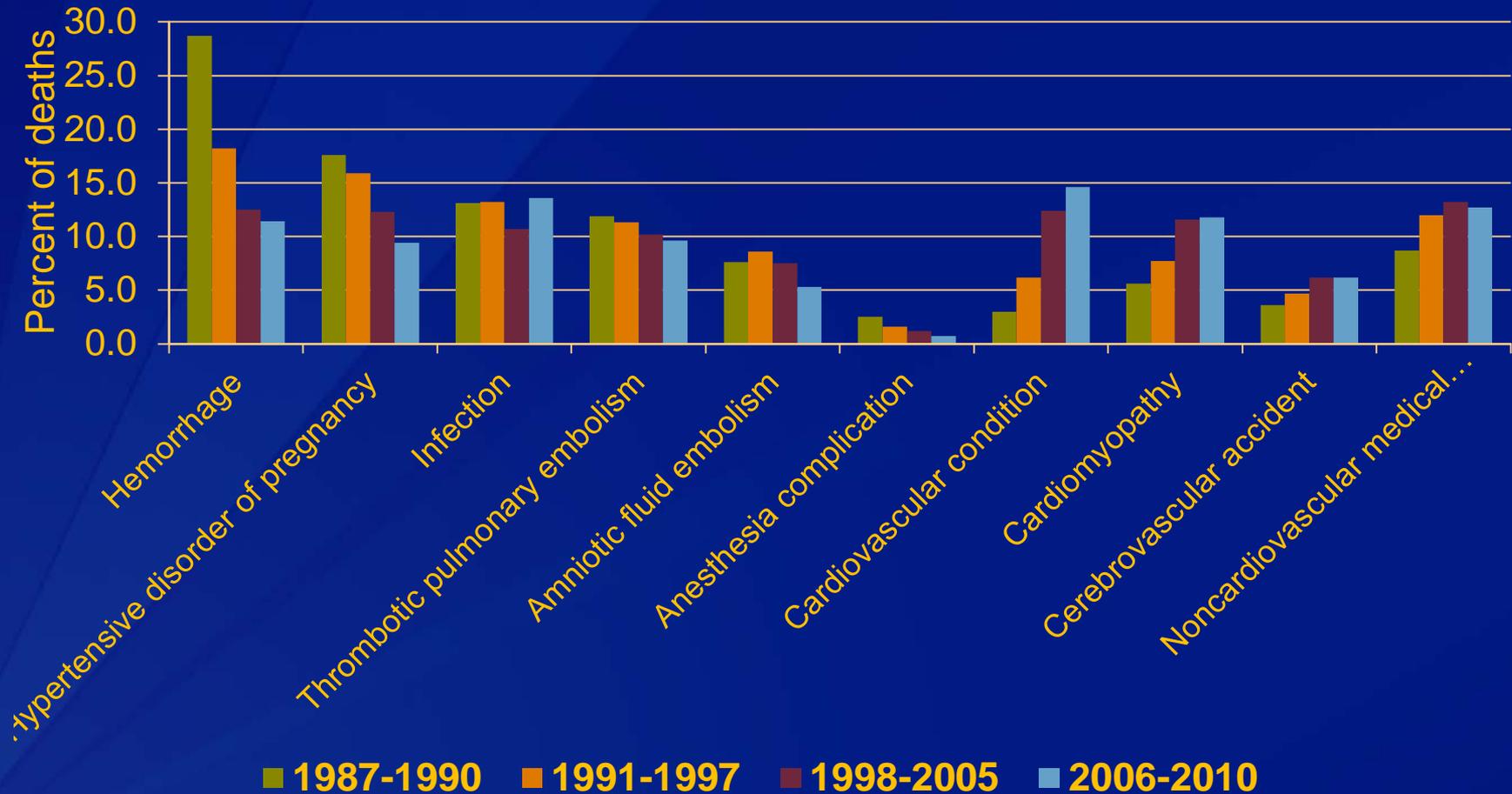
Pregnancy-related mortality by year and race-ethnicity: United States, 2006-2010



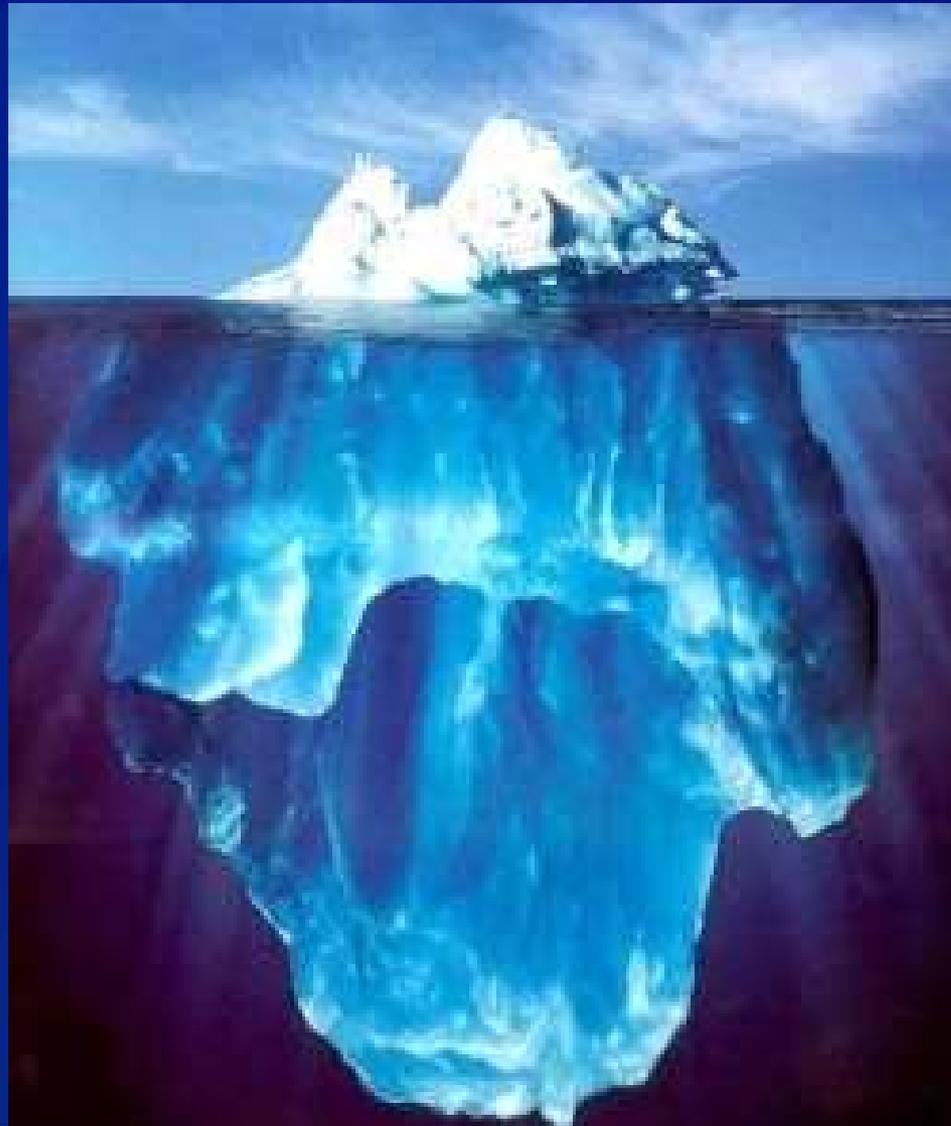
Pregnancy-related mortality ratios by age, race and ethnicity: United States, 2006–2010.



Cause-specific proportionate pregnancy-related mortality: United States, 1987–2010



Maternal Morbidity

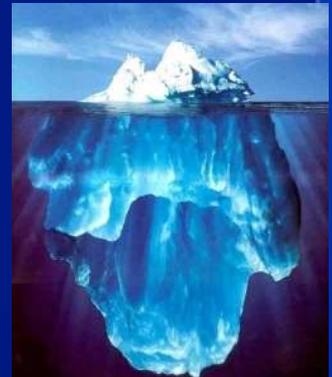


Morbidity: The Problem

- Maternal morbidity is difficult to define
 - Broad range of complications and conditions
 - Broad range of severity

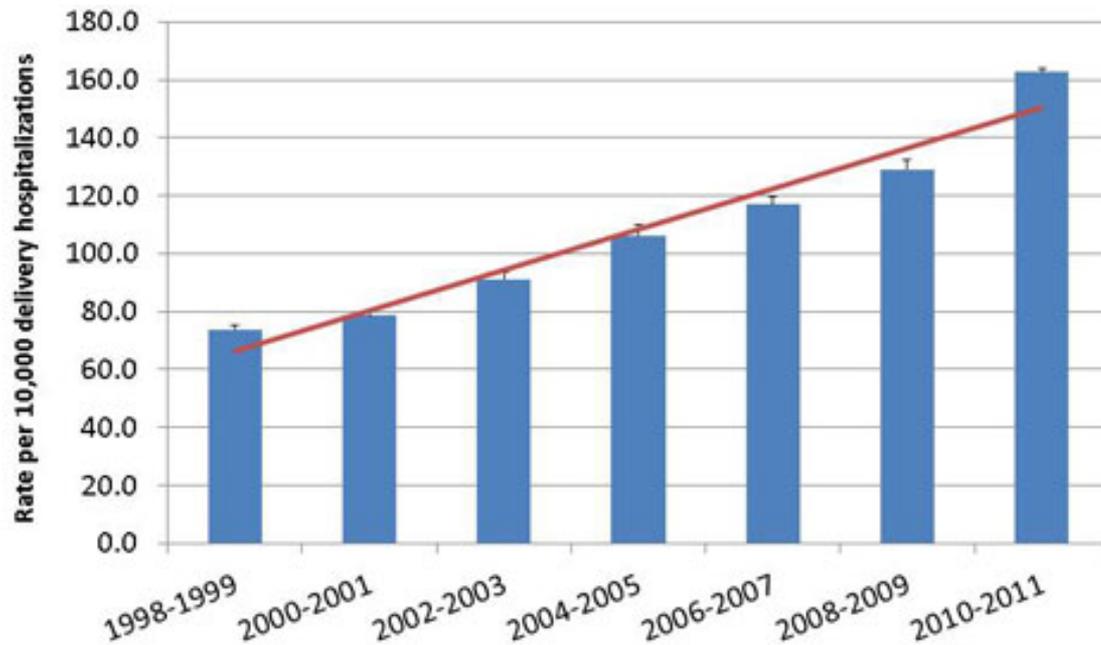


- Maternal morbidity cannot be captured by a defined set of metrics
 - We need to start somewhere



Maternal morbidity	ICD-9-CM		
	Codes	Diagnosis code	Procedure code
Acute renal failure	584, 669.3	x	
Cardiac arrest/ventricular fibrillation	427.41, 427.42, 427.5	x	
Heart failure during procedure or surgery	669.4x, 997.1	x	
Shock	669.1, 785.5x, 995.0, 995.4, 998.0	x	
Sepsis	038.0-038.9, 995.91, 995.92	x	
Disseminated intravascular coagulation	286.6, 286.9, 666.3	x	
Amniotic fluid embolism	673.1	x	
Thrombotic embolism	415.1x, 673.0, 673.2, 673.3, 673.8	x	
Puerperal cerebrovascular disorders	430, 431, 432.x, 433.x, 434.x, 436, 437.x, 671.5, 674.0, 997.2, 999.2	x	
Severe anesthesia complications	668.0, 668.1, 668.2	x	
Pulmonary edema	428.1, 518.4	x	
Adult respiratory distress syndrome	518.5, 518.81, 518.82, 518.84, 799.1	x	
Acute myocardial infarction	410.xx	x	
Eclampsia	642.6x	x	
Blood transfusion	99.00-99.09		x
Hysterectomy	68.3-68.9		x
Ventilation	93.90, 96.01-96.05, 96.7x		x
Sickle cell anemia with crisis	282.62, 282.64, 282.69	x	
Intracranial injuries	800.xx, 801.xx, 803.xx, 804.xx, 851.xx-854.xx	x	
Internal injuries of thorax, abdomen, and pelvis	860.xx—869.xx	x	
Aneurysm	441.x	x	
Operations on heart and pericardium	35.xx, 36.xx, 37.xx, 39.xx		x
Cardio monitoring	89.6x		x
Temporary tracheostomy	31.1		x
Conversion of cardiac rhythm	99.6x		x

Severe Maternal Morbidity During Delivery Hospitalizations: United States, 1998-2011



Challenges for Population-based Surveillance

- **Validation: Do codes really capture what we want?**
 - Transfusion is the predominant indicator
 - Some state inpatient databases capture number of units (e.g. Mhyre et al. *Obstet Gynecol* 2013;122:1288-94)
- **ICD-10: 68,000 codes compares to 13,000 in ICD-9**
 - Very tough to map directly
 - e.g. one code for transfusion in ICD-9 but potentially 160 codes in ICD-10

Current Commentary

Facility-Based Identification of Women With Severe Maternal Morbidity

It Is Time to Start

William M. Callaghan, MD, MPH, William A. Grobman, MD, MBA, Sarah J. Kilpatrick, MD, PhD, Elliott K. Main, MD, and Mary D'Alton, MD

- **Facility surveillance AND REVIEW:**
 - Transfusion ≥ 4 units
 - ICU admission

Obstet Gynecol 2014;123:978-81

Alignment

- The “M” in MFM
- National Partnership to Eliminate Preventable Maternal Mortality
 - CDC
 - AMCHP
 - Support: Merck for Mothers
- Alliance for Innovation in Maternal Health (AIM)

<http://www.safehealthcareforeverywoman.org/maternal-safety.html>



Current Commentary

The National Partnership for Maternal Safety

Mary E. D'Alton, MD, Elliott K. Main, MD, M. Kathryn Menard, MD, and Barbara S. Levy, MD

Thank You

wgc0@cdc.gov



For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Working Together to Improve Women's Health

December 20, 2016
Maternal Health Data Speak

Kimberly Sherman
HRSA/MCHB



MCHB's National Maternal Health Strategy

Our Goal:

To promote coordination and collaboration within HRSA, across HHS agencies, and with professional and private organizations to improve women's and maternal health.

Our Priorities:

- Improving women's health before, during, and after pregnancy
- Improving systems of maternity care, including clinical and public health systems
- Improving the quality and safety of maternity care
- Improving public awareness and education
- Improving research and surveillance



Select MCHB Initiatives

Community Level

- National Healthy Start Program
- Maternal, Infant & Early Childhood Home Visiting Program

State/National Level

- Alliance in Innovation in Maternal health (AIM)
- Women's Preventive Services Guidelines
- Infant Mortality Collaborative Innovation & Improvement Network (IM CoIIN)





AIM Overview

Award Recipient	ACOG Council on Patient Safety in Women's Health
Project Period	2014 – 2018
Goal	Coalition Maternal Health Safety Bundles State Partnerships

AIM

Purpose: To improve the quality and safety of maternity care practices across 8 states with high rates of maternal mortality and severe maternal morbidity.

AIM Objectives

- Develop a partnership of national stakeholders
- Complete the Maternal Health Safety Bundles

Facilitate Widespread Adoption of the Bundles



AIM Strategies

1. Promote consistent message through partner organizations
2. Engage birth facilities through hospital and birth center associations and risk management organizations
3. Engage state public health and perinatal associations
4. Provide tools and technical assistance for self-evaluation and quality improvement planning
5. Provide step by step implementation training
6. Provide real time data to promote quality improvement initiatives.



What's in a safety bundle?

Readiness

Is your team ready for an emergency?

Recognition

How does your team recognize patients at risk?

Response

What is your teams response to an emergency?

Reporting

How does your team improve and learn?

Maternal Health Safety Bundles

Currently Available

- Obstetric Hemorrhage
- Severe Hypertension in Pregnancy
- Maternal VTE Prevention
- Patient, Family, and Staff Support After a Severe Event
- Safe Reduction in Primary Cesarean Births

In Development

- Reducing Disparities in Maternity Care
- Postpartum Visit/Interconception Care
- New --- October 2016
Obstetric Care of Opioid Dependent Women

Bundle Implementation

AIM State Teams

- Focus on states with high MM/SMM
- Teams involve public health, hospitals, providers, payers
- Enrollment process

Hospital Systems

- Organizations engaged with birth hospitals for quality improvement
- Have capacity to collect and transmit hospital data

Current Activities

AIM States

- Oklahoma
- Maryland
- Illinois
- Florida
- Michigan
- Mississippi
- Louisiana
- New Jersey

Project Expansion

- North Carolina
- Utah
- California
- Northern Mariana Islands
- Premier, Inc.
- National Perinatal Information Center
- Trinity Health Care
- AIM Malawi

AIM Implementation: 563 Birthing Facilities



To Learn More...



Login |  AIM Data Center Login | Contact Us

 Follow

About Us	Patient Safety Bundles and Tools	Safety Action Series	National Improvement Challenge	AIM Program
				AIM Enrollment AIM Data AIM Resources & FAQs AIM Support Contact AIM

AIM

<http://www.safehealthcareforeverywoman.org/aim.php>





Women's Preventive Services Initiative

Women's Preventive Services Initiative

To improve adult women's health across the lifespan by engaging a coalition of health professional organizations to recommend updates to the HRSA-supported Women's Preventive Services Guidelines.

<https://www.hrsa.gov/womensguidelines/>

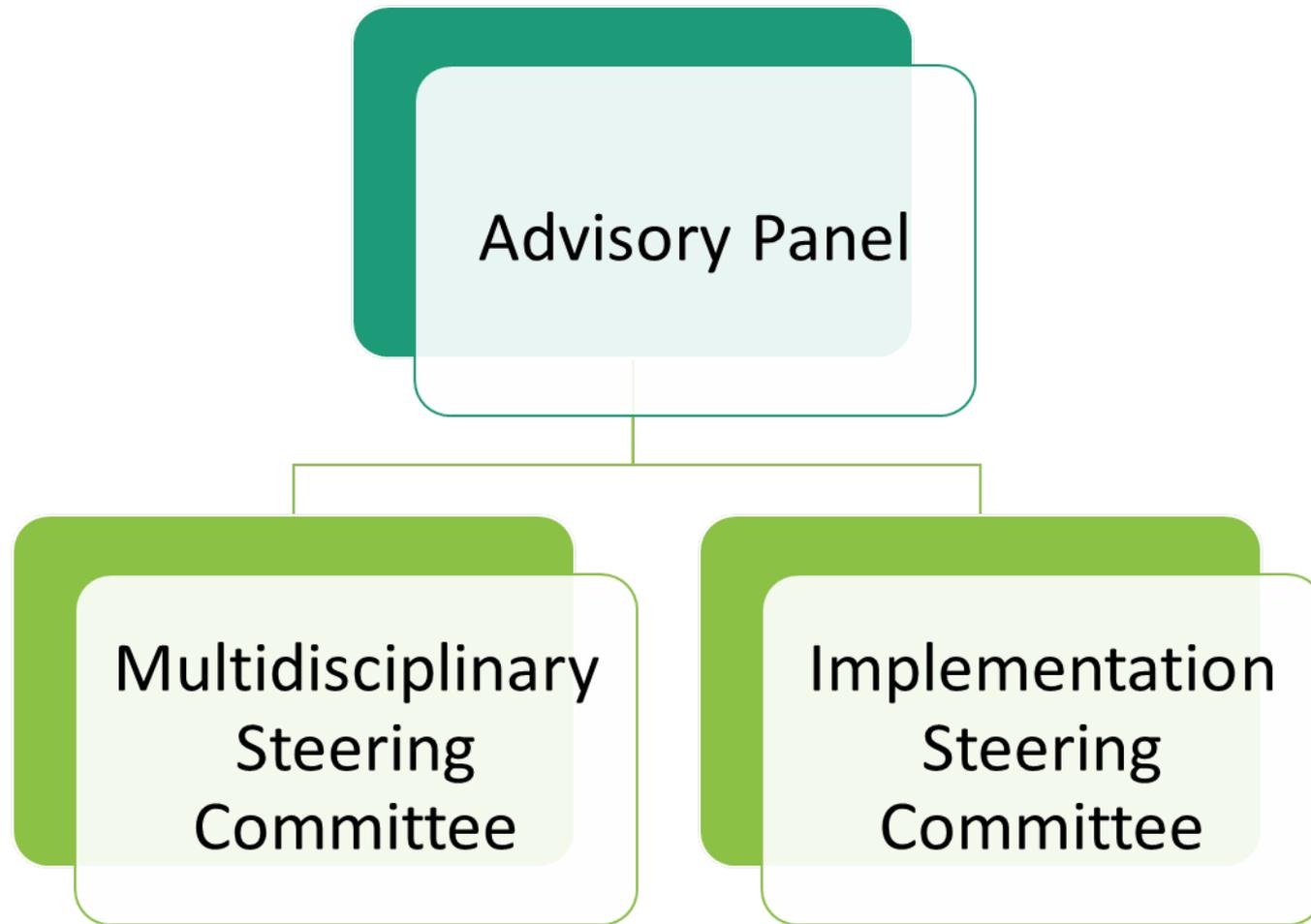
Authority: Title V, § 501(a)(2) of Social Security Act (42 U.S.C. 701(a)(2)), as amended.



WPSI Overview

Award Recipient	American College of Obstetricians & Gynecologists (ACOG)
Project Period	March 2016 – February 2021
Year 1 Deliverable	Updated Recommendations Due December 2016

WPSI Project Framework



Project Aims

Aim 1: Establish a process for developing and regularly recommending updates to the guidelines for women's preventive services;

Aim 2: Obtain participation by health professional organizations on developing recommended guidelines for women's preventive services;

Project Aims

Aim 3: Review and synthesize existing guidelines and new scientific evidence for women's preventive services;

Aim 4: Develop recommended guidelines for women's preventive services;

Aim 5: Disseminate HRSA-supported guidelines for use in clinical practice.

Year 1 Topics for Review

- Screening for Gestational Diabetes
- HPV Testing
- STI Counseling
- HIV Counseling and Testing
- Breastfeeding Support, Supplies, and Counseling

- Screening and Counseling for Interpersonal and Domestic Violence
- Well Woman Visits
- Contraceptive Methods and Counseling
- Breast Cancer Screening for Average Risk Women



<http://www.womenspreventivehealth.org/>

Discussion & Input



- **Gaps**
- **Issues**
- **Resources**

Contact Information

Women's Health Team

Division of Healthy Start & Perinatal Services

Maternal and Child Health Bureau (MCHB)

Health Resources and Services Administration (HRSA)

Email: wellwomancare@hrsa.gov

Phone: 301.443.0543

Web: mchb.hrsa.gov

Twitter: twitter.com/HRSAgov

Facebook: facebook.com/HHS.HRSA



The logo for CMQCC, with 'CM' in dark grey, 'Q' in orange, and 'CC' in dark grey.

California Maternal
Quality Care Collaborative

Turning Data Into Action: Improving Maternal Outcomes at the State Level

Elliott K. Main, MD

Medical Director

California Maternal

Quality Care Collaborative

main@CMQCC.org

No Disclosures or
Conflicts to Report

CMQCC's Key Stakeholders/ Partners

State Agencies

- ✓ CA Department of Public Health, MCAH
- Regional Perinatal Programs of California (RPPC)
- ✓ DHCS: Medi-Cal
- ✓ Office of Vital Records
- ✓ Office of Statewide Health Planning and Development (OSHPD)
- ✓ Covered California

Membership Associations

- ✓ Hospital Quality Institute (HQI)/ California Hospital Association (CHA)
- ✓ Pacific Business Group on Health (PBGH)
- ✓ Integrated Healthcare Association (IHA)

Key Medical and Nursing Leaders

- ✓ UC, Kaisers, Sutter, Sharp, Dignity Health, Scripps, Providence, Public hospitals

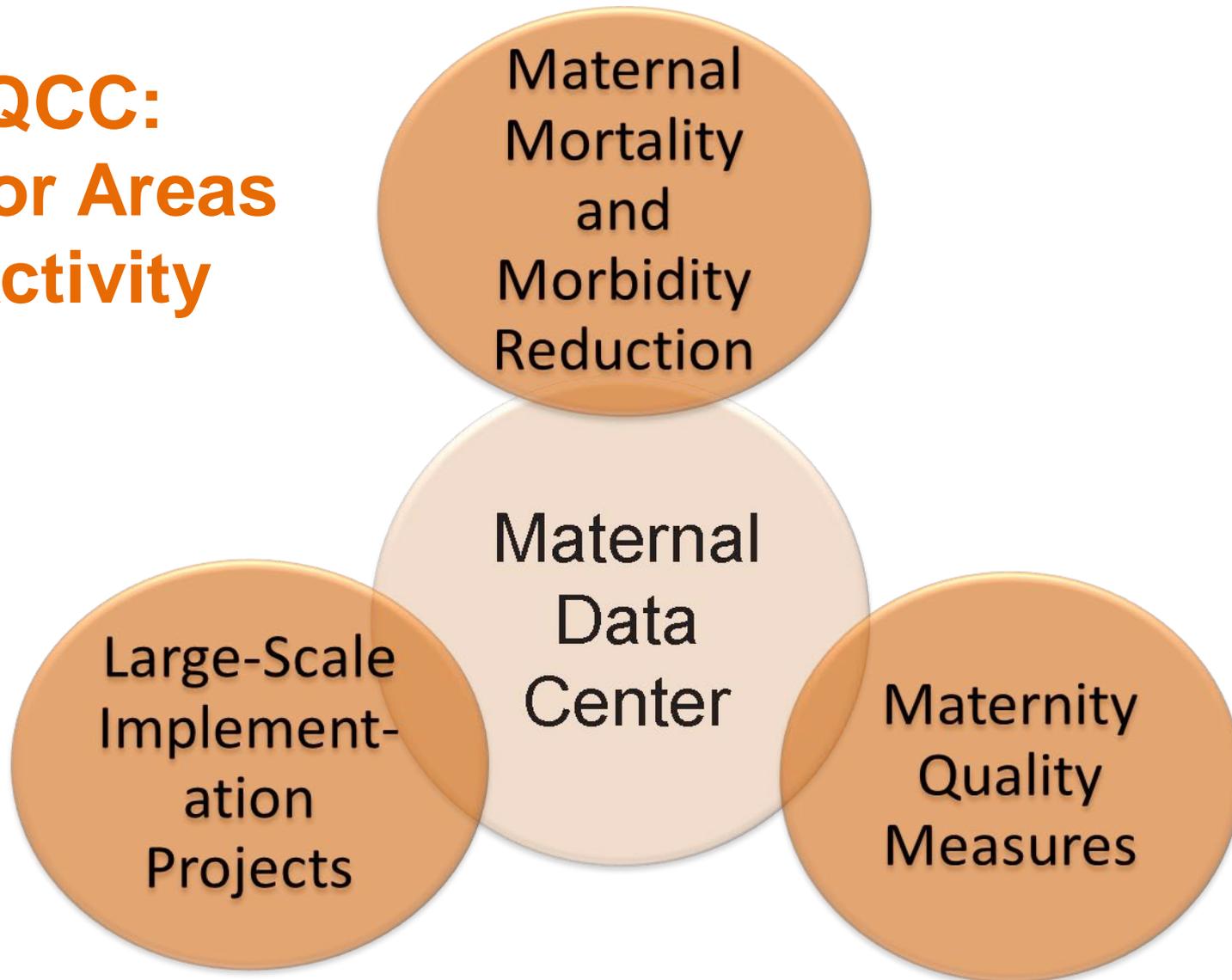
Professional Groups (California sections of national organizations)

- American College of Obstetrics and Gynecology (ACOG)
- Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)
- American College of Nurse Midwives
- American Academy of Family Physicians

Public and Consumer Groups

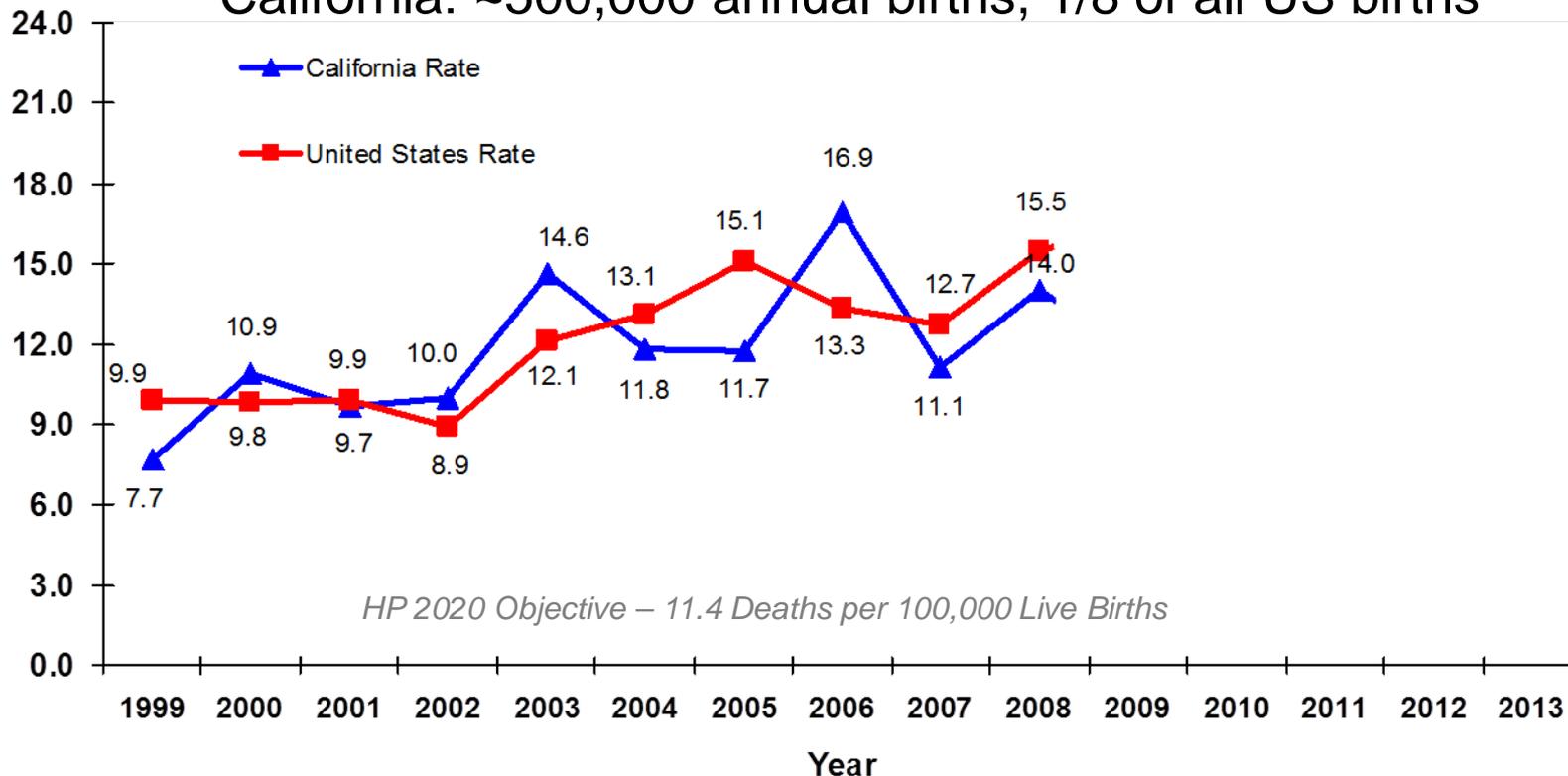
- California HealthCare Foundation (CHCF)
- March of Dimes (MOD)
- California Hospital Accountability and Reporting Taskforce (CHART)

CMQCC: Major Areas of Activity



Maternal Mortality Rate, California and United States; 1999-2008

California: ~500,000 annual births, 1/8 of all US births



SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality for California (deaths \leq 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95, O98-O99). United States data and HP2020 Objective use the same codes. U.S. maternal mortality data is published by the National Center for Health Statistics (NCHS) through 2007 only. U.S. maternal mortality rates from 2008 through 2013 were calculated using CDC Wonder Online Database, accessed at <http://wonder.cdc.gov> March 11, 2015. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, March, 2015.

Pregnancy-Related Mortality in California

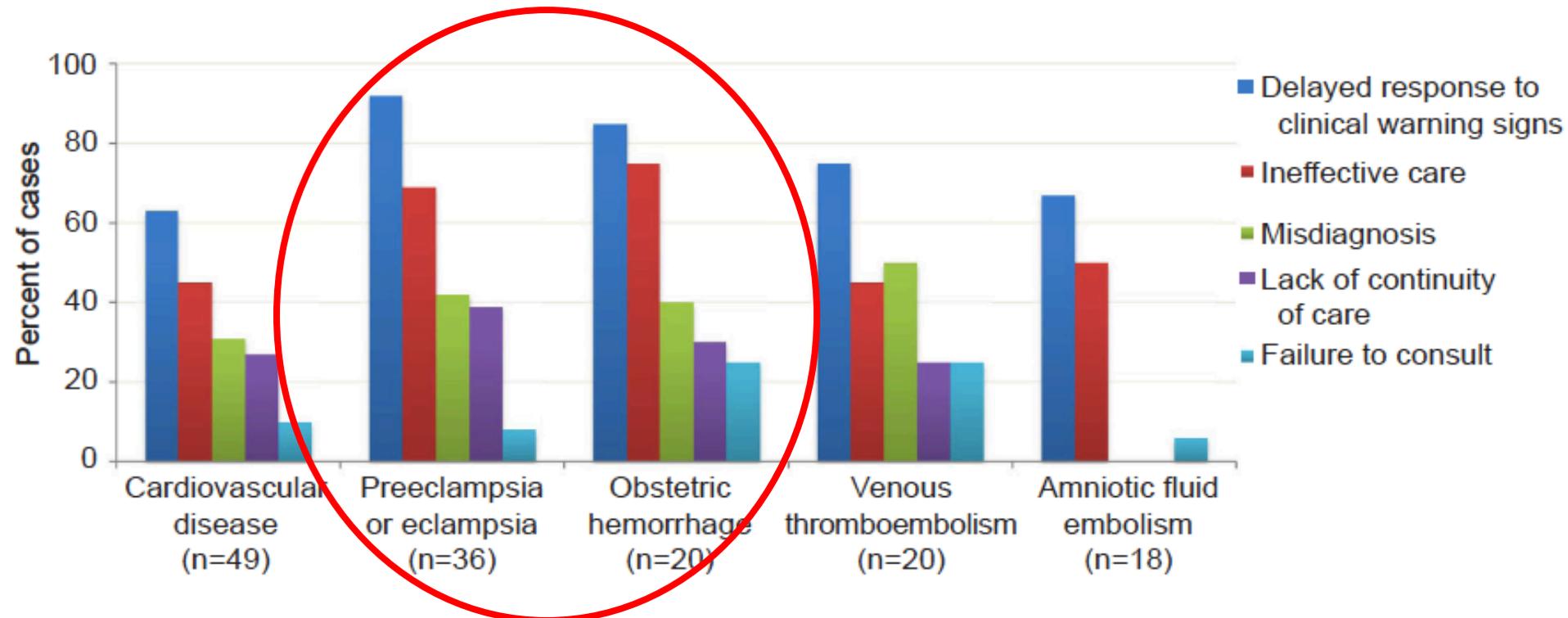
Causes, Characteristics, and Improvement Opportunities

Elliott K. Main, MD, Christy L. McCain, MPH, Christine H. Morton, PhD, Susan Holtby, MPH, and Elizabeth S. Lawton, MHS

- Pregnancy-related mortality should not be considered a single clinical entity.
- The five leading causes exhibit different characteristics, degrees of preventability, and contributing factors, with the greatest improvement opportunities identified for hemorrhage and preeclampsia.



Provider Contributing Factors in Maternal Deaths (California)



From detailed chart reviews of maternal deaths
(CA-Pregnancy Associated Mortality Review Committee;
CDPH-MCAH)

Main EK, McClain CL, Morton CH, Holtby S, Lawton ES. Pregnancy-related mortality in California: Causes, characteristics and improvement opportunities. *Obstet Gynecol* 2015

Maternal Mortality and Severe Morbidity

Underlying causes, compiled from multiple studies

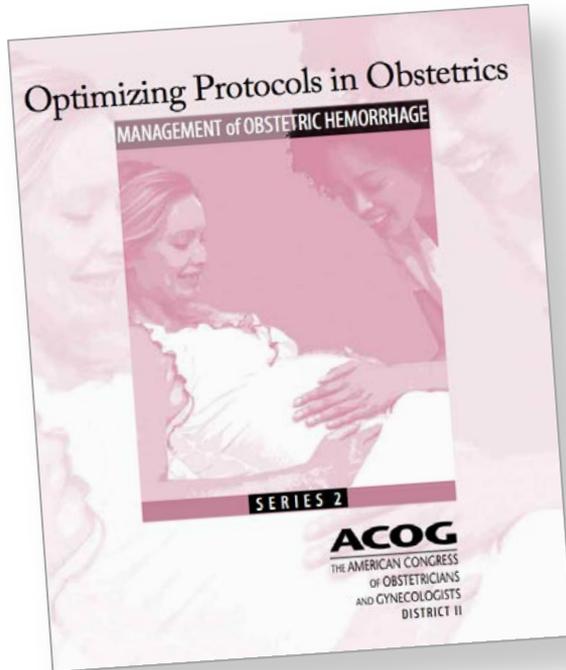
Cause	Mortality (1-2 per 10,000)	ICU Admit (1-2 per 1,000)	Severe Morbid (1-2 per 100)
VTE and AFE	15%	5%	2%
Infection	10%	5%	5%
Hemorrhage	10-15%	35%	55%
Preeclampsia	15%	25%	25%
Cardiac Disease	25%	15%	5%

Obstetric Hemorrhage and Preeclampsia: Summary

- ✓ Most common **preventable** causes of maternal mortality
- ✓ Far and away the most common causes of Severe Maternal Morbidity (>80%)
- ✓ Large drivers of maternity costs (UCLA Study: >\$100M annually for our State Medicaid program, EACH)
- ✓ High rates of provider “quality improvement opportunities”



QI Toolkits: Sharing Among the States






CMQCC OBSTETRIC HEMORRHAGE TOOLKIT
Version 2.0
RESUBMISSION DRAFT FINAL: 11/4/2014

Improving Health Care Response to Obstetric Hemorrhage Version 2.0

Audrey Lyndon, PhD, RNC, [FAAN^a](#); David [Lagrew, MD^b](#); Larry Shields, MD^c; [Elliott Main, MD^{d,e}](#); Valerie [Cape^e](#), Editors.

University of California, San [Francisco^a](#); Memorial Care Health [Systems^b](#); Dignity [Health^c](#); California Pacific Medical [Center^d](#); California Maternal Quality Care [Collaborative^e](#)



READINESS

Every unit

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

RECOGNITION & PREVENTION

Every patient

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

RESPONSE

Every hemorrhage

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

REPORTING/SYSTEMS LEARNING

Every unit

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

PATIENT SAFETY BUNDLE

 Obstetric Hemorrhage

**FLORIDA
OBSTETRIC HEMORRHAGE INITIATIVE (OHI)
TOOL KIT**

A QUALITY IMPROVEMENT INITIATIVE FOR
OBSTETRIC HEMORRHAGE MANAGEMENT

Updated
Version 10/2015

Florida Perinatal Quality Collaborative
AT THE LAWTON AND REISA GILES CENTER FOR HEALTHY MOTHERS AND BABIES
FPQC Partnering to Improve Health Care Quality for Mothers and Babies








Page | 1 v. 10/2015

	Assessments	Meds/Procedures	Blood Bank
Stage 0	Every woman in labor/giving birth		
<i>Stage 0 focuses on risk assessment and active management of the third stage.</i>	<ul style="list-style-type: none"> Assess every woman for risk factors for hemorrhage Ongoing quantitative evaluation of blood loss on every birth 	Active Management 3rd Stage: <ul style="list-style-type: none"> Oxytocin IV infusion or 10u IM Fundal Massage-vigorous, <u>15 seconds min.</u> 	<ul style="list-style-type: none"> If Medium Risk: T&C Scr If High Risk: T&C 2 U If Positive Antibody Screen (prenatal or current, exclude low level anti-D from RhoGam): T&C 2 U
Stage 1	Blood loss: >500 ml vaginal <u>or</u> >1000 ml Cesarean, <u>or</u> VS changes (by >15% <u>or</u> HR ≥110, BP ≤85/45, O2 sat <95%)		
<i>Stage 1 is short: activate hemorrhage protocol, initiate preparations and give Methergine IM.</i>	<ul style="list-style-type: none"> Activate OB Hemorrhage Protocol and Checklist Notify Charge nurse, Anesthesia Provider VS, O2 Sat q5' Calculate cumulative blood loss q5-15' Weigh bloody materials Careful inspection <u>with good exposure</u> of vaginal walls, cervix, uterine cavity, placenta 	<ul style="list-style-type: none"> IV Access: at least 18gauge Increase Oxytocin rate, and repeat fundal massage Methergine 0.2mg IM (if not hypertensive) May repeat if good response to first dose, BUT otherwise move on to 2nd level uterotonic drug (see below) Empty bladder: straight cath or place foley with urimeter 	<ul style="list-style-type: none"> T&C 2 Units PRBCs (if not already done)
Stage 2	Continued bleeding with total blood loss under 1500ml		
<i>Stage 2 is focused on sequentially advancing through medications and procedures, mobilizing help and Blood Bank support, and keeping ahead with volume and blood products.</i>	<p>OB back to bedside (if not already there)</p> <ul style="list-style-type: none"> Extra help: 2nd OB, Rapid Response Team (per hospital), assign roles VS & cumulative blood loss q 5-10 min Weigh bloody materials Complete evaluation of vaginal wall, cervix, placenta, uterine cavity Send additional labs, including DIC panel If in Postpartum: Move to L&D/OR Evaluate for special cases: <ul style="list-style-type: none"> Uterine Inversion Amn. Fluid Embolism 	<p>2nd Level Uterotonic Drugs:</p> <ul style="list-style-type: none"> Hemabate 250 mcg IM <u>or</u> Misoprostol 800-1000 mcg PR <p>2nd IV Access (at least 18gauge)</p> <p>Bimanual massage</p> <p>Vaginal Birth: (typical order)</p> <ul style="list-style-type: none"> Move to OR Repair any tears D&C: r/o retained placenta Place intrauterine balloon Selective Embolization (Interventional Radiology) <p>Cesarean Birth: (still intra-op) (typical order)</p> <ul style="list-style-type: none"> Inspect broad lig, posterior uterus and retained placenta B-Lynch Suture Place intrauterine balloon 	<ul style="list-style-type: none"> Notify Blood Bank of OB Hemorrhage Bring 2 Units PRBCs to bedside, transfuse per clinical signs – do not wait for lab values Use blood warmer for transfusion Consider thawing 2 FFP (takes 35+min), use if transfusing >2u PRBCs Determine availability of additional RBCs and other Coag products
Stage 3	Total blood loss over 1500ml, <u>or</u> >2 units PRBCs given <u>or</u> VS unstable <u>or</u> suspicion of DIC		
<i>Stage 3 is focused on the Massive Transfusion protocol and invasive surgical approaches for control of bleeding.</i>	<ul style="list-style-type: none"> Mobilize team <ul style="list-style-type: none"> Advanced GYN surgeon 2nd Anesthesia Provider OR staff Adult Intensivist Repeat labs including coags and ABG's Central line Social Worker/ family support 	<ul style="list-style-type: none"> Activate Massive Hemorrhage Protocol Laparotomy: B-Lynch Suture Uterine Artery Ligation Hysterectomy Patient support Fluid warmer Upper body warming device Sequential compression stockings 	<p>Transfuse Aggressively Massive Hemorrhage Pack</p> <ul style="list-style-type: none"> Near 1:1 PRBC:FFP 1 PLT pheresis pack per 6units PRBCs <p>Unresponsive Coagulopathy:</p> <p>After 10 units PRBCs and full coagulation factor replacement: may consider rFactor VIIa</p>

OB Hemorrhage Response Plan

www.CMQCC.org



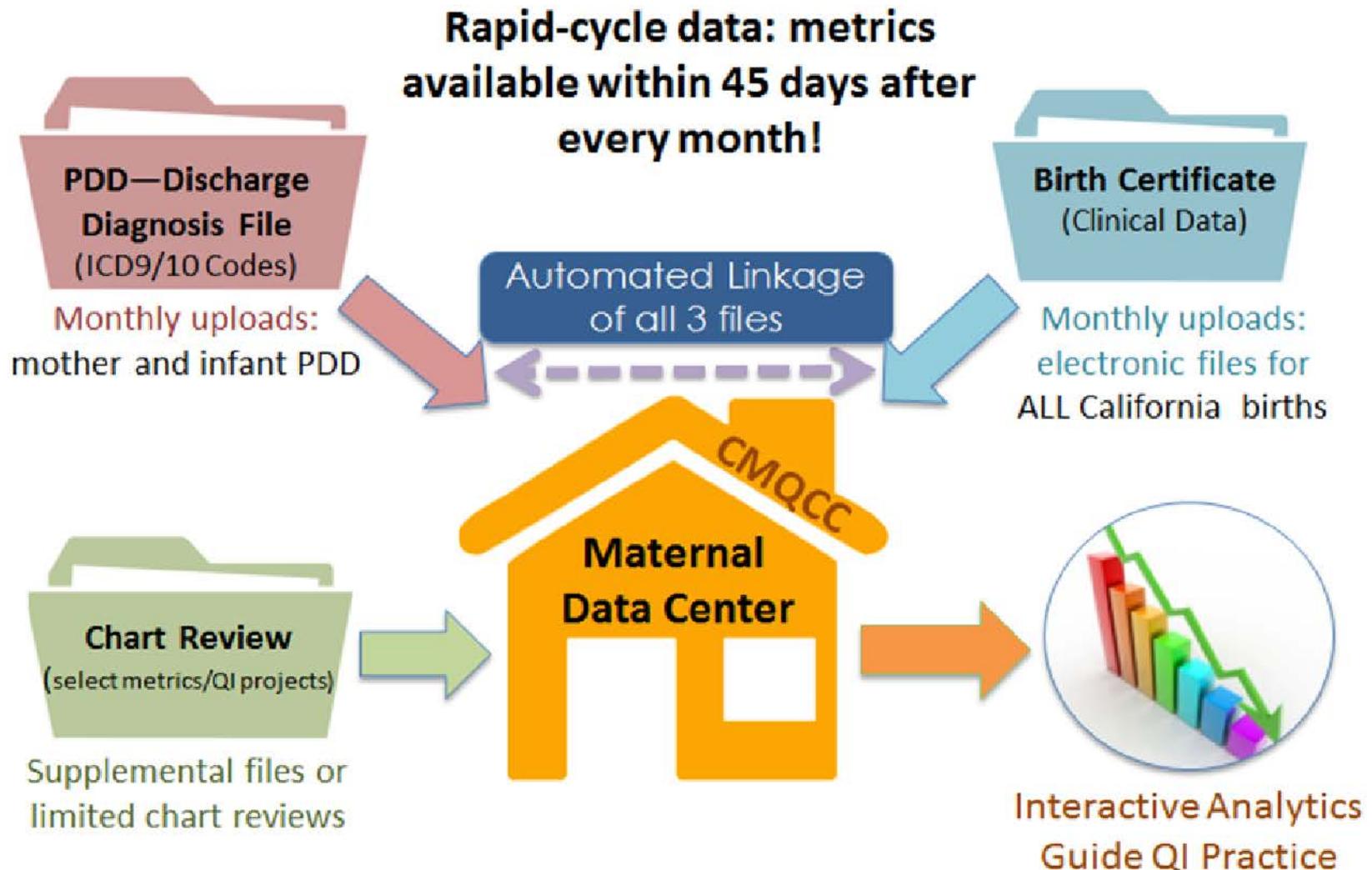
STAGE 1: OB Hemorrhage		
Cumulative Blood Loss >600ml vaginal birth or >1000ml C/S -OR- Vital signs >15% change or HR ≥110, BP ≤85/45, O2 sat <95% -OR- Increased bleeding during recovery or postpartum		
MOBILIZE	ACT	THINK
<p>Primary nurse, Physician or Midwife to</p> <ul style="list-style-type: none"> Activate OB Hemorrhage Protocol and Checklist <p>Primary nurse to:</p> <ul style="list-style-type: none"> Notify obstetrician (in-house and attending) Notify charge nurse Notify anesthesiologist 	<p>Primary nurse:</p> <ul style="list-style-type: none"> Establish IV access if not present, at least 18 gauge Increase IV fluids rates (Lactated Ringers preferred) and increase Oxytocin rate (500 ml/hour of 10-40 units/1000mL solution). Titrated Oxytocin infusion rate to uterine tone Continue vigorous fundal massage Administer Methergine 0.2 mg IM per protocol (if not hypertensive), give once, if no response, move to alternate agent; if good response, may give additional doses q 2 hr Vital Signs, including O2 sat & level of consciousness (LOC) q 5 minutes Weigh materials, calculate and record cumulative blood loss q 5-15 minutes Administer oxygen to maintain O2 sats at >95% Empty bladder: straight cath or place Foley with urimeter Type and Crossmatch for 2 units Red Blood Cells STAT (if not already done) Keep patient warm <p>Physician or midwife:</p> <ul style="list-style-type: none"> Rule out retained Products of Conception, laceration, hematoma Surgeon (if cesarean birth and still open) Inspect for uncontrolled bleeding at all levels, esp. broad ligament, posterior uterus, and retained placenta 	<p>Consider potential etiology:</p> <ul style="list-style-type: none"> Uterine atony Trauma/Laceration Retained placenta Amniotic Fluid Embolism Uterine Inversion Coagulopathy Placenta Accreta Uterine Rupture <p>Once stabilized: Modified Postpartum management with increased surveillance</p>
If Continued bleeding or Continued Vital Sign instability, and <1500 ml cumulative blood loss		

These tools are adapted for each hospital's resources

***Will implementation of a bundle
change outcomes?***

***How can you scale-up a project
to a large state?***

CMQCC Maternal Data Center



Links over 1,000,000 mother/baby records each year!

California Approach to Reduce Maternal Mortality and SMM

- ✓ Hemorrhage Taskforce (2009)
- ✓ Hemorrhage QI Toolkit (2010)
- ✓ Multi-hospital QI Collaborative(s) (2010-11)
 - Test the “tools” and implementation strategies
- ✓ State-wide Implementation (2013-2014)
- ✓ Preeclampsia Taskforce (2012)
- ✓ Preeclampsia QI Toolkit (2013)
- ✓ Multi-hospital QI Collaborative (2013-2014)
- ✓ Cardiovascular Detailed Case Analysis (2013)
- ✓ Cardiovascular QI Toolkit (2015)

The California Partnership for Maternal Safety

Supported by funding from Merck through its Merck for Mothers Program

MD RN



40
Active
Mentor
Leaders

20
Teams of 6-
8 hospitals

126
Participating
Hospitals

13,600
Healthcare
Providers

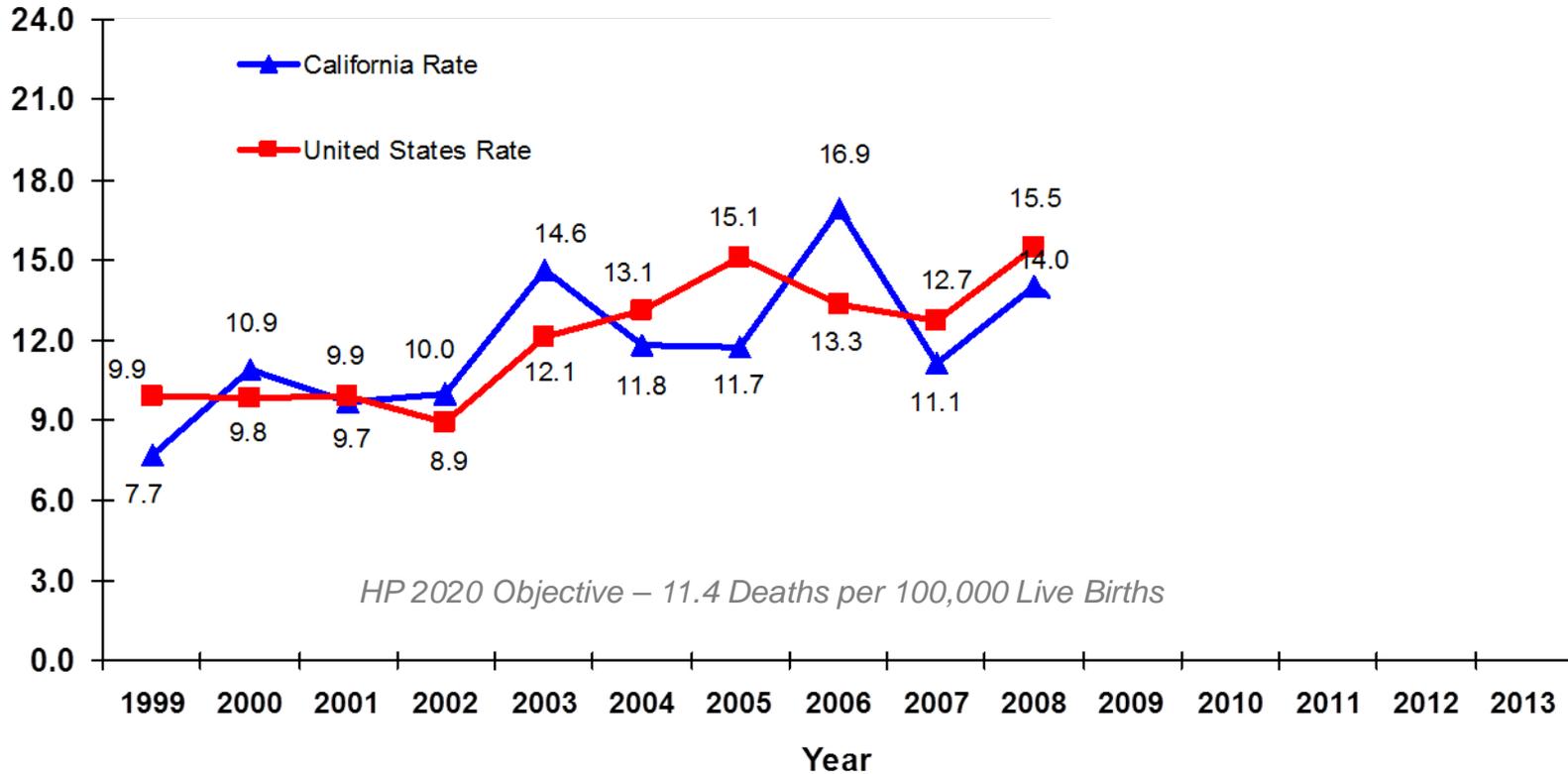
Impacting
264,000
Births

CMQCC

California Maternal
Quality Care Collaborative

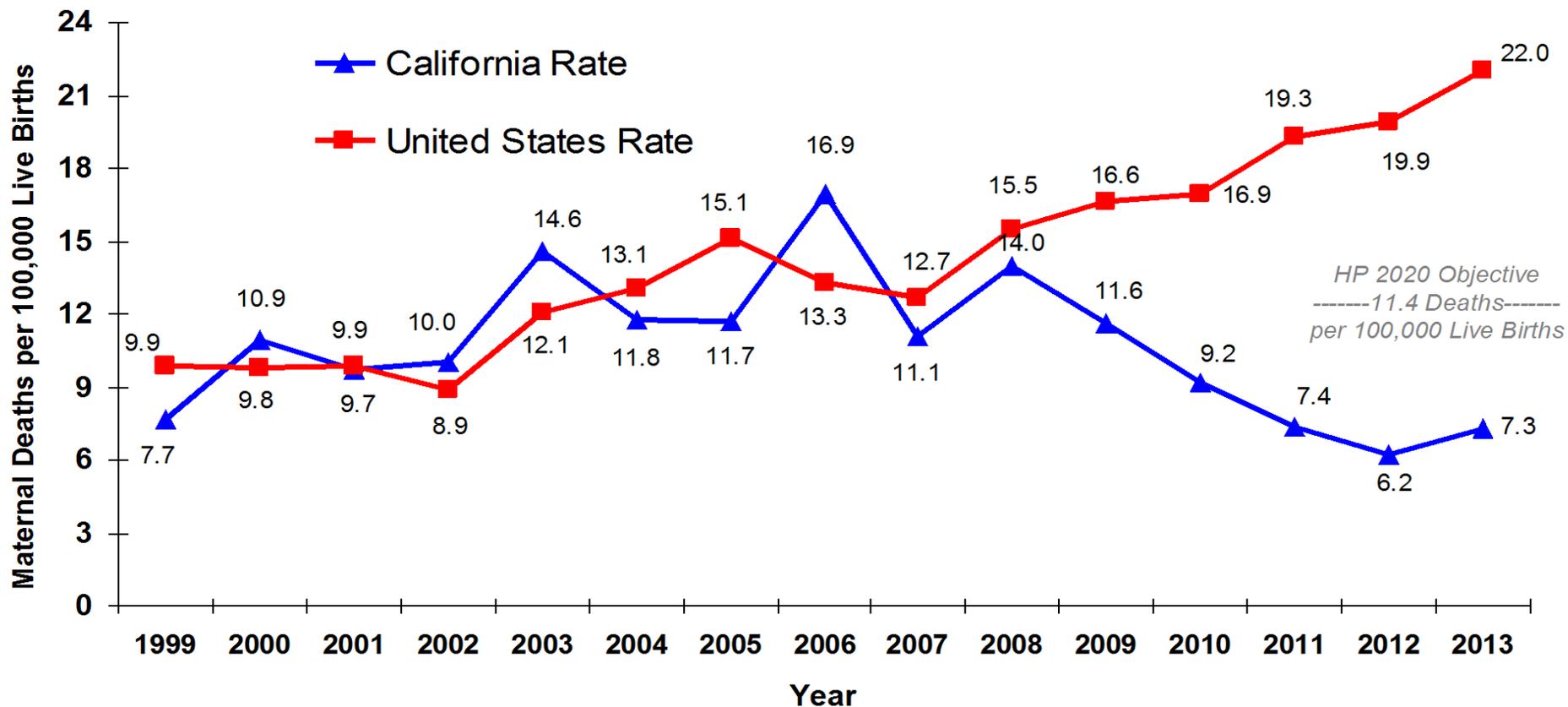
CPMS: Our goal is to ensure that 100% of hospitals with maternity services in California are ready to respond to the two most common obstetric emergencies by implementing patient safety bundles for postpartum hemorrhage and preeclampsia.

Maternal Mortality Rate, California and United States; 1999-2008



SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality for California (deaths \leq 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95, O98-O99). United States data and HP2020 Objective use the same codes. U.S. maternal mortality data is published by the National Center for Health Statistics (NCHS) through 2007 only. U.S. maternal mortality rates from 2008 through 2013 were calculated using CDC Wonder Online Database, accessed at <http://wonder.cdc.gov> March 11, 2015. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, March, 2015.

Maternal Mortality Rate, California and United States; 1999-2013



SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2013. Maternal mortality for California (deaths \leq 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95, O98-O99). United States data and HP2020 Objective use the same codes. U.S. maternal mortality data is published by the National Center for Health Statistics (NCHS) through 2007 only. U.S. maternal mortality rates from 2008 through 2013 were calculated using CDC Wonder Online Database, accessed at <http://wonder.cdc.gov/on> March 11, 2015. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, March, 2015.

Reduced Maternal Morbidity

- ✓ Significant reduction in Severe Maternal Morbidity (SMM) among women with Obstetric Hemorrhage (before/after)
- ✓ No reduction in HEM SMM rates in control hospitals during the same time period

*Full results embargoed until the
Society for Maternal Fetal Medicine (SMFM)
Annual Meeting in Late January 2017*

Lessons for Effective Large-Scale QI Projects:

1. Partner with everyone

- a. Public Health + Clinical Medicine*
- b. National efforts + State efforts*

2. Share the Data!

- a. Maternal Mortality Reviews are important starter*

3. Be in for the long haul

main@CMQCC.org

Question & Answer Period

- **To ask a question on the Web:**
 - Enter your question in the field at the bottom of the “QUESTIONS” box at the bottom of your screen and hit enter. Your question will be sent directly to the moderator.
- **To ask a question via phone:**
 - Press ***1** to indicate that you have a question.

Additional Questions

- If you have any additional questions, you can email them to:

dataspeak@altarum.org

Thank You

Thank you for participating. **Please click on this link to complete feedback on today's program.**

(the link will open in a new window)