CMQCC
CALIFORNIA MATERNAL
QUALITY CARE COLLABORATIVE

ALLIANCE FOR INNOVATION
ON MATERNAL HEALTH AIM

Taking Steps to Reduce Maternal Mortality and Severe Morbidity

Elliott K. Main, MD

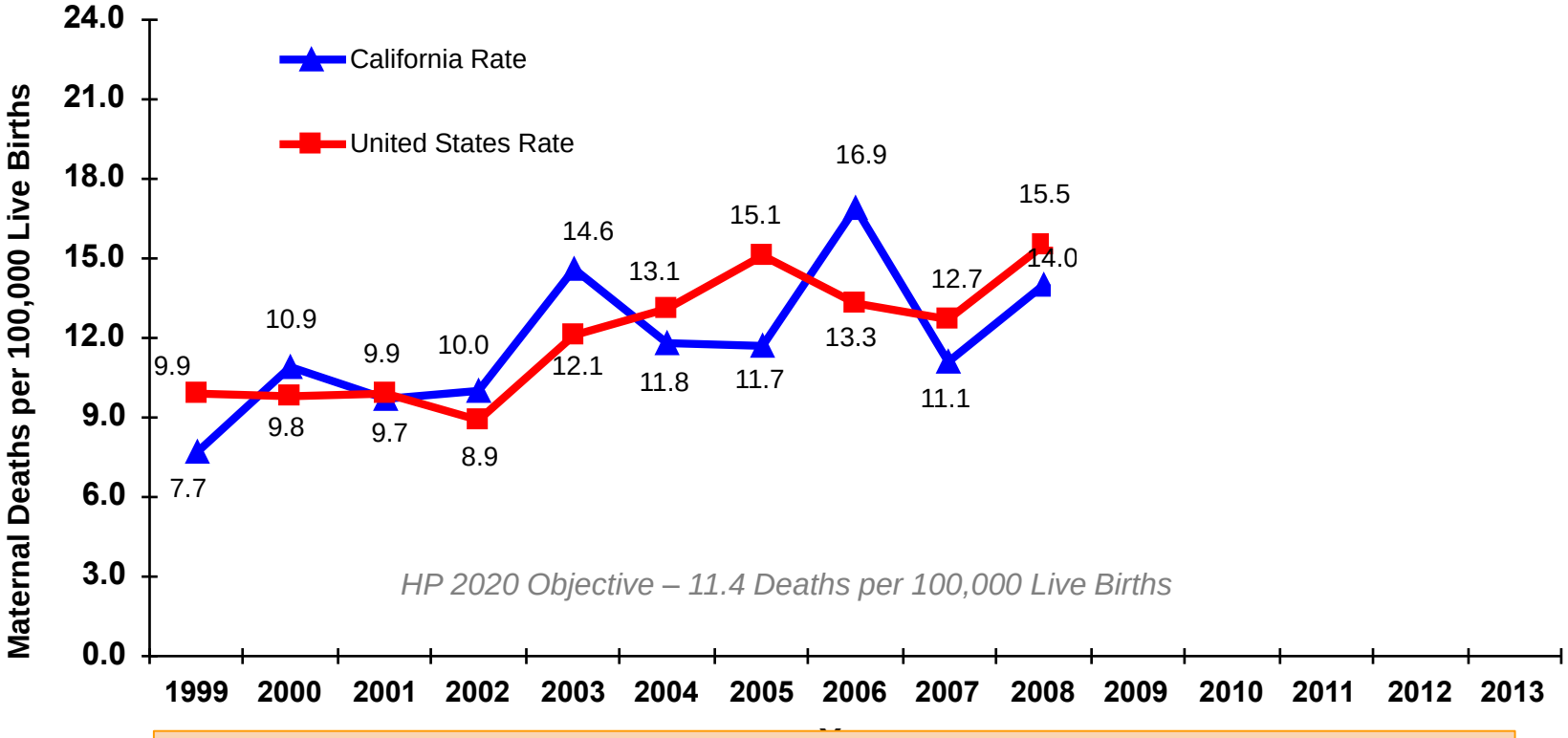
Chair, California Pregnancy Associated Mortality Review Committee

Medical Director, CMQCC

Medical Director, AIM

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

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



Use the Pregnancy-Related Mortality Review Committee to identify opportunities for improvement—to be a driver for change

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Assessments of Preventability

Cause of Death	North Carolina (CDC) "Preventable"	California "Good or strong chance to alter the outcome"	United Kingdom "Substandard care that had a major contribution"
Hemorrhage	93%	70%	44%
Preeclampsia	60%	60%	64%
Sepsis / Infection	43%	50%	46%
DVT / VTE	17%	50%	33%
Cardiomyopathy	22%	29%	25%
Amniotic Fluid Embolism	0%	0%	15%

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%

California Approach to Reduce Maternal Mortality and SMM

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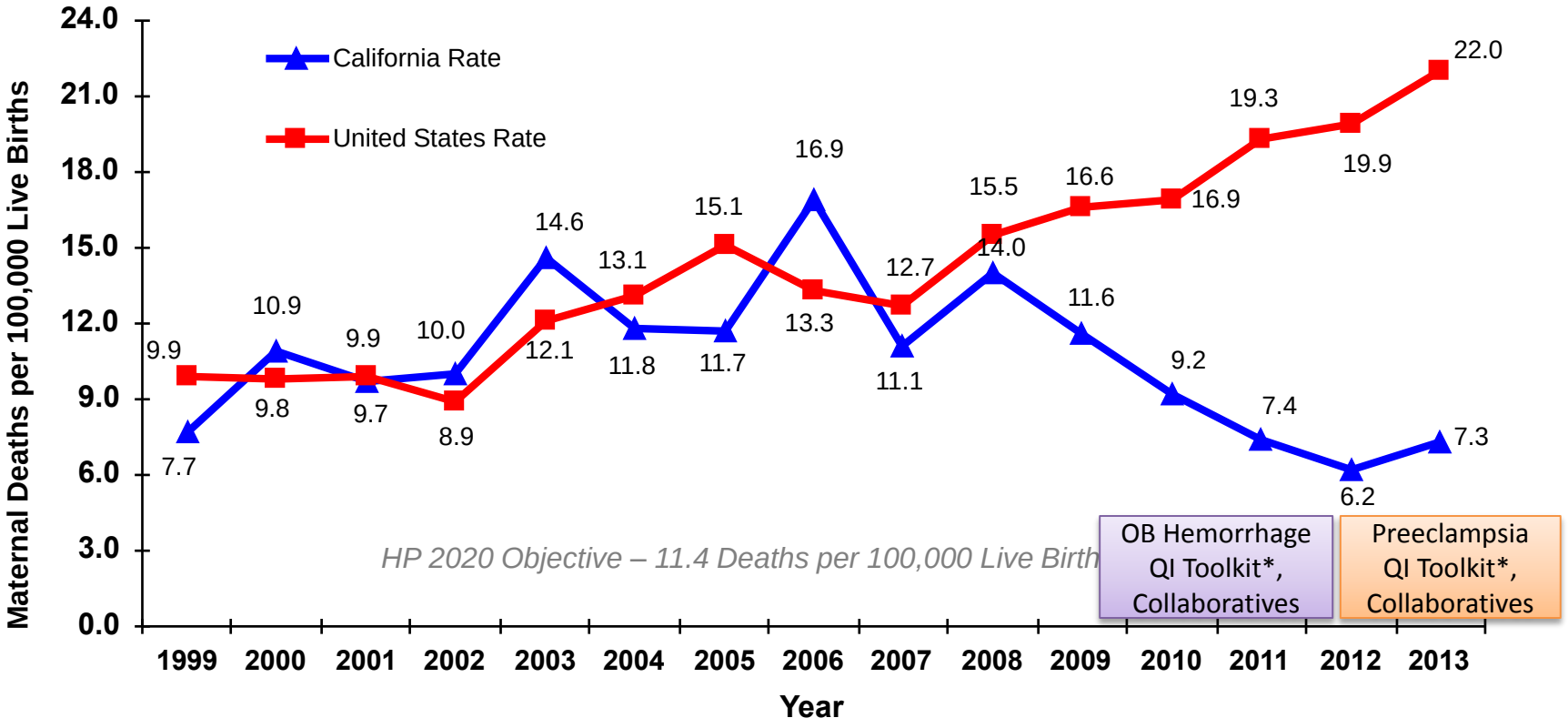
- Hemorrhage Taskforce (2009)
- Hemorrhage QI Toolkit (2010)
- Multi-hospital QI Collaborative(s) (2010-11)
  - Test the “tools” and implementation strategies
- State-wide Implementation (2013-2014)
- Preeclampsia Taskforce (2012)
- Preeclampsia QI Toolkit (2013)
- Multi-hospital QI Collaborative (2013-2014)
- Cardiovascular Detailed Case Analysis (2013)
- Cardiovascular QI Toolkit (2016)

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 ≤ 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.govon March 11, 2015. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, March, 2015.

*CMQCC QI Taskforces and Toolkit supported by CDPH, thru Title V Grant support

ALLIANCE FOR INNOVATION ON MATERNAL HEALTH AIM

AIM

Alliance for Innovation in Maternal Health

Cooperative Agreement between the

Council on Patient Safety in Women's Health Care

and

the Maternal and Child Health Bureau

U.S. Department of Health and Human Services
HRSA
Health Resources and Services Administration
Maternal and Child Health Bureau

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

AMERICAN ACADEMY OF FAMILY PHYSICIANS
STRONG MEDICINE FOR AMERICA

AANA
AMERICAN ASSOCIATION OF NURSE ANESTHETISTS

ABOG
The American Board of Obstetrics & Gynecology

AMERICAN COLLEGE of NURSE-MIDWIVES

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ACOOG
Assistance Through Proper Understanding Intelligent
1934
Women's Healthcare Physicians

American Society of Anesthesiologists

AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE

AUGS
Advancing Female Pelvic Medicine and Reconstructive Surgery

AWHONN
PROMOTING THE HEALTH OF WOMEN AND NEWBORNS

NPWH
NURSE PRACTITIONERS IN WOMEN'S HEALTH
Caring for Women

PULSE of New York

SGO
Society of Gynecologic Oncologists

Society for Maternal-Fetal Medicine

SOAP
Society for Obstetric Anesthesia and Perinatology

SOCIETY FOR REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY

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Key National Partners for AIM: Stitching them all together (in alpha order…)

- American Hospital Association (AHA)
- Association of Maternal Child Health Programs (AMCHP)
- Association of State and Territorial Health Officers (ASTHO)
- Center for Medicaid and CHIP Services (CMCS-CMS)
  - Focus on postpartum and inter-conception care (improving care for women with chronic disease and improving the health of women prior to conception)
- Center for Medicare and Medicaid Innovation (CMMI-CMS)
  - Partnership for Patients: Hospital Engagement Networks (HENs): focus on Hemorrhage and Preeclampsia
- Centers for Disease Control (CDC)
  - Promoting Perinatal Quality Collaboratives (PQC's)
  - Enhancing state maternal mortality review committees
- The Joint Commission (TJC)
- The March of Dimes

What do We Mean by National Safety Bundles?

bun·dle: /ˈbəndl/

noun: a collection of things, or a quantity of material, tied or wrapped up together

- Collection of 10-13 best practices for improving safety in maternity care that have been vetted in large quality improvement collaboratives
- Goal: Move established guidelines into practice with a standard approach within your institution
- NOT: National protocols, same for every facility
- NOT: New science, new RCTs

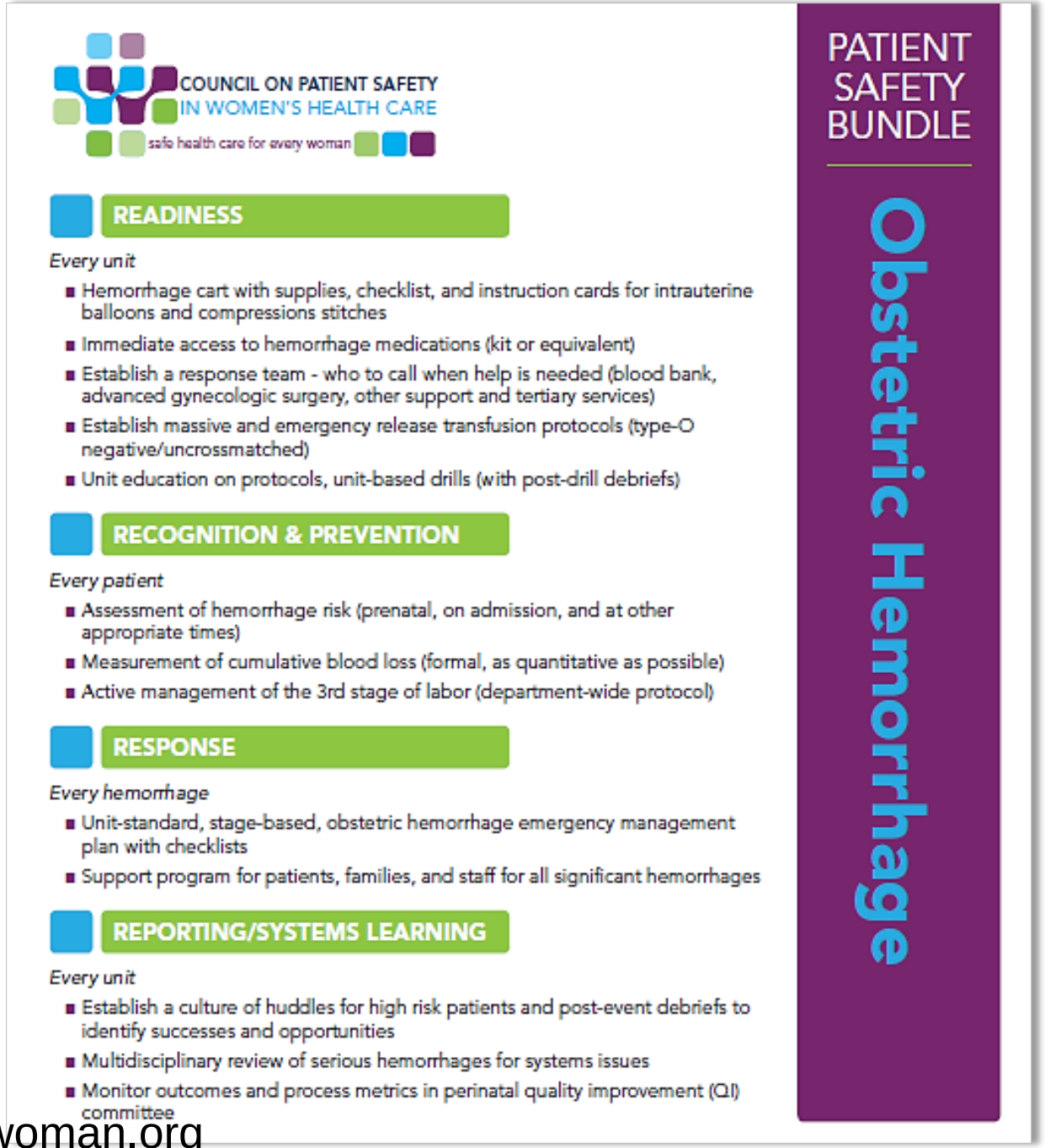
OB HEM Bundle

Approved by Council on Patient Safety and posted on website.

Publication:
July 2015

Can be downloaded from website with resource links

All bundle teams were multidisciplinary



safehealthcareforeverywoman.org

Obstet Gynecol. 2015 Jul;126(1):155-62

OBSTETRICS & GYNECOLOGY

Consensus Statement

National Partnership for Maternal Safety

Consensus Bundle on Obstetric Hemorrhage

Elliott K. Main, MD, Dena Goffman, MD, Barbara M. Scavone, MD, Lisa Kane Low, PhD, CNM, Debra Bingham, DrPH, RN, Patricia L. Fontaine, MD, MS, Jed B. Gorlin, and Barbara S. Levy, MD

Simultaneous publication in 4 leading journals

J Obstet Gynecol Neonatal Nurs. 2015 Jul;44(4):462-70.

JOGNN

EXPERT OPINION

National Partnership for Maternal Safety: Consensus Bundle on Obstetric Hemorrhage

Elliott K. Main, Dena Goffman, Barbara M. Scavone, Lisa Kane Low, Debra Bingham, Patricia L. Fontaine, Jed B. Gorlin, David C. Lagrew, and Barbara S. Levy

Society for Obstetric Anesthesia and Perinatology

Section Editor: Cynthia A. Wong

Anesth Analg 2015;121:142–8

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Journal of Midwifery & Women's Health

www.jmwh.org

American College of Nurse-Midwives

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J Midwifery Womens Health. 2015 Jul;60(4):458-64.

What do We Mean by Quality Improvement Toolkit?

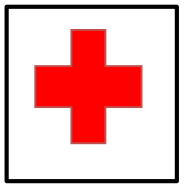
toolkit: /ˈto͞olˌkit/

Noun: (2) a fixed set of procedures, guidelines, criteria, etc, established to ensure a desired result

- Provides details and examples for each of the safety bundle elements, including policies, protocols, pathways, instructions, guidelines and education materials for providers and patients
- Goal: serves as a guide for bundle implementation
- CMQCC and NY ACOG District II have provided full toolkits for the leading bundles and now are being used by other states

AIM Safety/Quality Improvement Bundles

Safety Bundles



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

Safety Tools

- Maternal Early Warning Criteria
- Severe Maternal Morbidity Case Review Forms

Under Develop-ment

- Reducing Disparities in Maternity Care
- Postpartum Visit / Inter-Conception Care

How do We Get a Bundle Implemented? Role of Quality Collaboratives

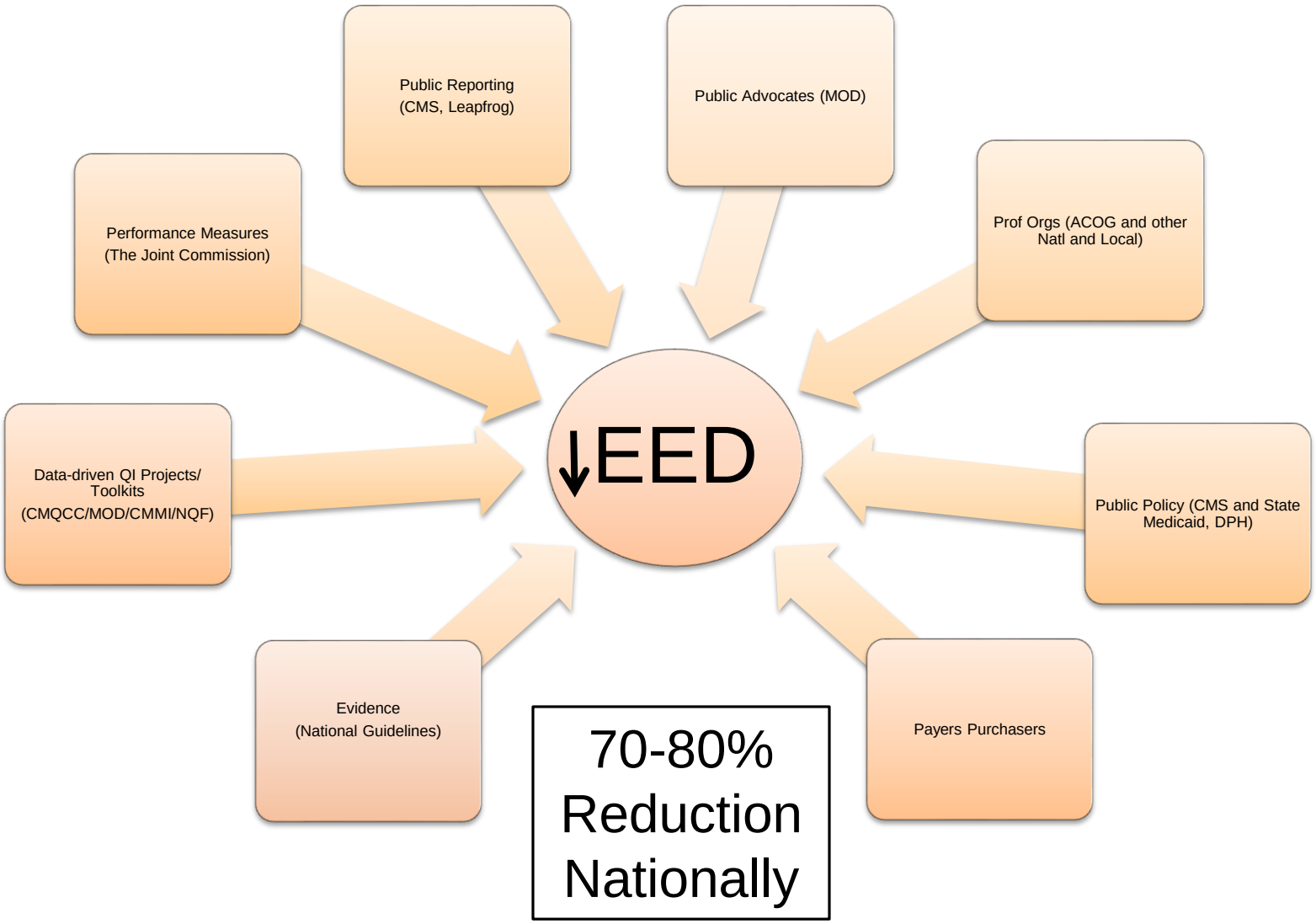
collaborative: /kəˈlab(ə)rədiv/

Noun: (management) An organized group of people or entities who work together towards a particular goal

(1) Group of providers/hospitals working on an improvement project, typically with expert leadership

(2) Group of diverse organizations all working together on a topic typically where one alone would be much less successful

Reducing Early Elective Delivery (EED):
Collaborative Action : Collective Impact



AIM States and Systems (April 2016)

AIM States	AIM Systems	AIM Associate States	Future States
Oklahoma (Hem, Htn)	Premier	California (Htn, Hem, CS)	**New Jersey**
Maryland (CS)	NPIC	New York (Htn, Hem)	**Mississippi**
Louisiana (Hem, CS)	Trinity	North Carolina (Htn)	South Carolina
Florida (Htn)			Interested: Georgia, Texas
Michigan (Htn)			Utah, Hawaii,
Illinois (Htn			

State requirements to participate:

- Active maternal mortality review team
- Champions from ACOG, AWHONN, ACNM, Health Department, Hospital Association
- Ability to receive and transmit quarterly administrative (aggregated not patient level) data hospital data

AIM States and Systems (April 2016)

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These 16 states account for 2.4 million annual births (60% of all US births)

Oklahoma (Hem, Htn)	Premier	**California (Htn, Hem, CS)**	**New Jersey**
Maryland (CS)	NPIC	**New York (Htn, Hem)**	**Mississippi**
Louisiana (Hem, CS)	Trinity	North Carolina (Htn)	South Carolina
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Addressing Maternal Mortality thru:

- Safety Bundles, Toolkits, Collaboratives, and
- Partnership of: Public Health, Clinical Medicine, and Patients

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main@CMQCC.org

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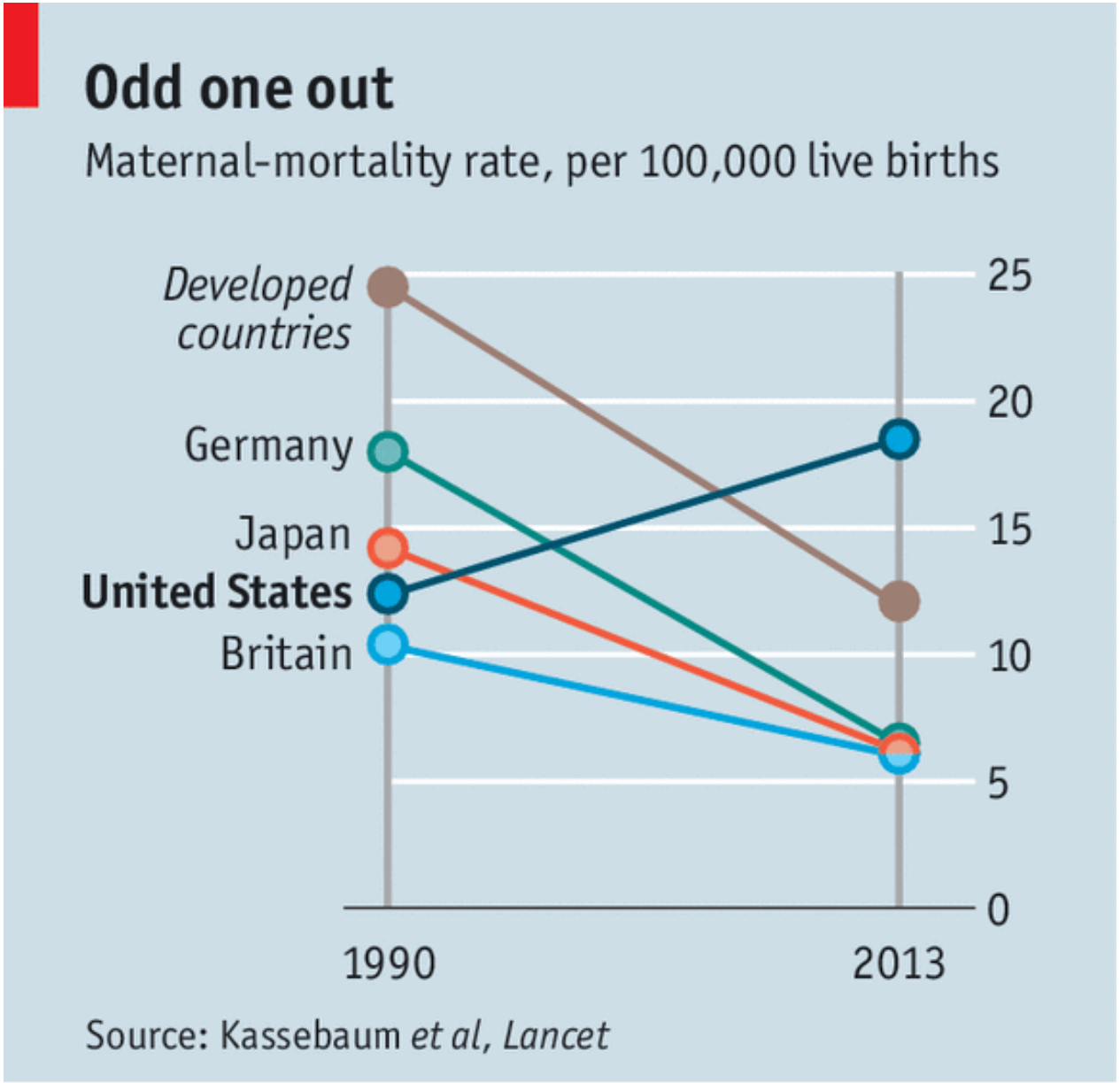
AIM Data Center Principles

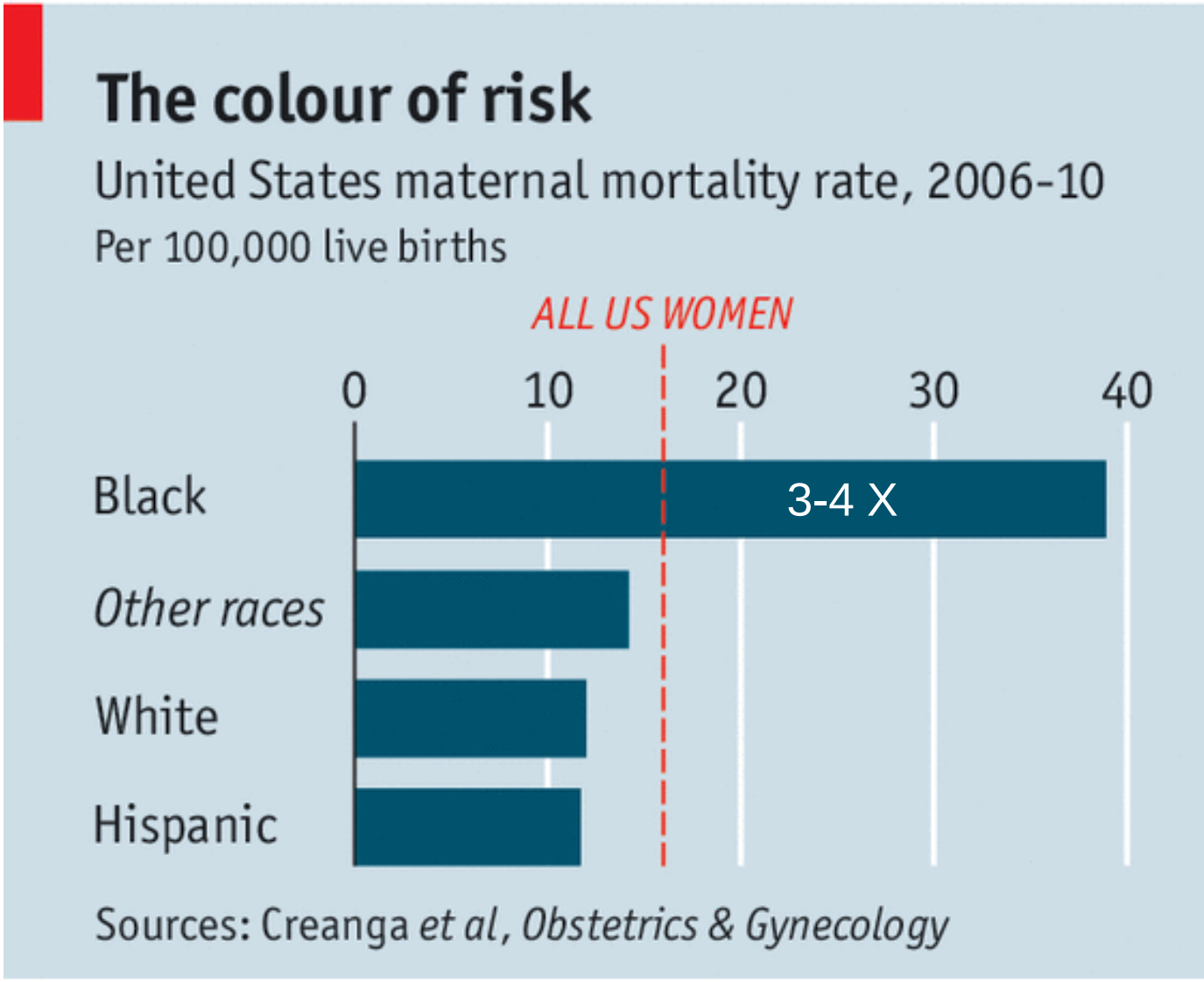
- AIM = Data-driven Maternity Quality Improvement
- Use administrative data when possible: Goal of Secretary's Advisory Committee on Infant Mortality
- Balance: parsimonious, easy to collect BUT still enough to drive QI
- AIM Data Center: ease of data submission combined with tools to visualize and compare your results
- 3-Levels: Hospital/State Collaborative/National Collaborative
- Each State's data systems are different!

The US has the highest Maternal Mortality rate of any high resource country and the only country outside of Afghanistan and Sudan where the rate is rising.



Economist.com July 17, 2015

Significant reductions in maternal mortality and morbidity can not be accomplished without addressing the gaps in maternity care for black women



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