Stanford MEDICINE

CMQCC
California Maternal
Quality Care Collaborative

The California Maternal Quality Collaborative: A Public-Private Driver of Change

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California Background

- Population: 40 million
- 450-500k annual births (12% of all US births) all in a single administrative unit
- 5 hospitals with maternity services
- Great diversity: races, ethnicities, urban centers and large rural areas

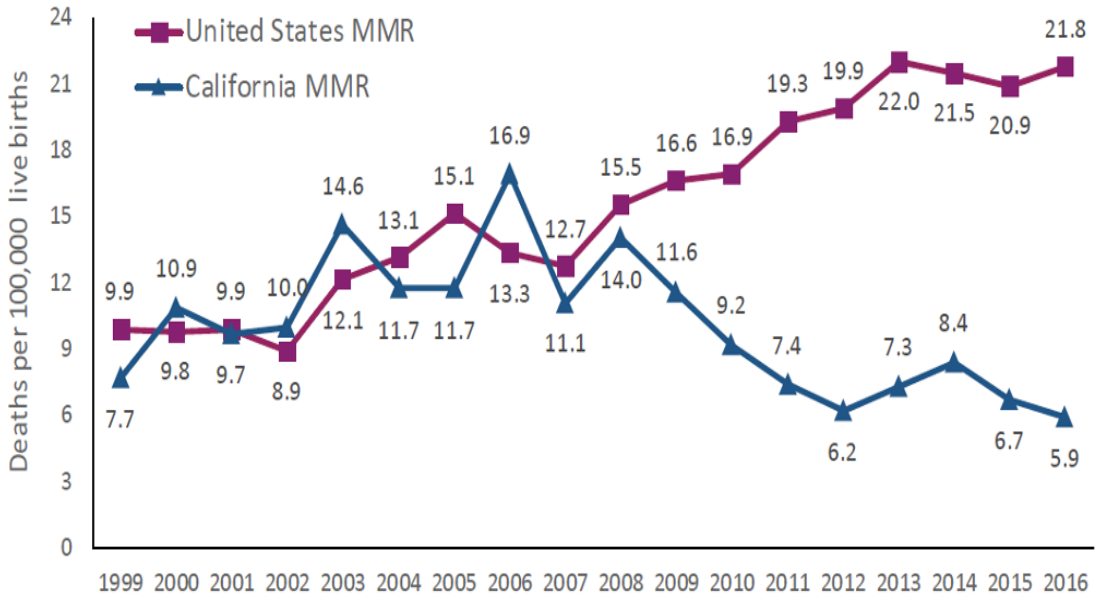
California Maternal Quality Care Collaborative

- Multi-stakeholder collaborative founded in 2006, Celebrating 15 years!
- Launched with funding from California Department of Public Health to address rise in maternal mortality
- Maternal Mortality Reviews to Action:
  - Quality Improvement Toolkits
  - Large-scale QI Change Collaboratives
  - Partner with everyone
  - Maternal Data Center

CMQCC Mission: End preventable morbidity, mortality and racial disparities in maternity care

CMQCC Data Driven Collaboratives to Improve Perinatal Outcomes at the Population Level

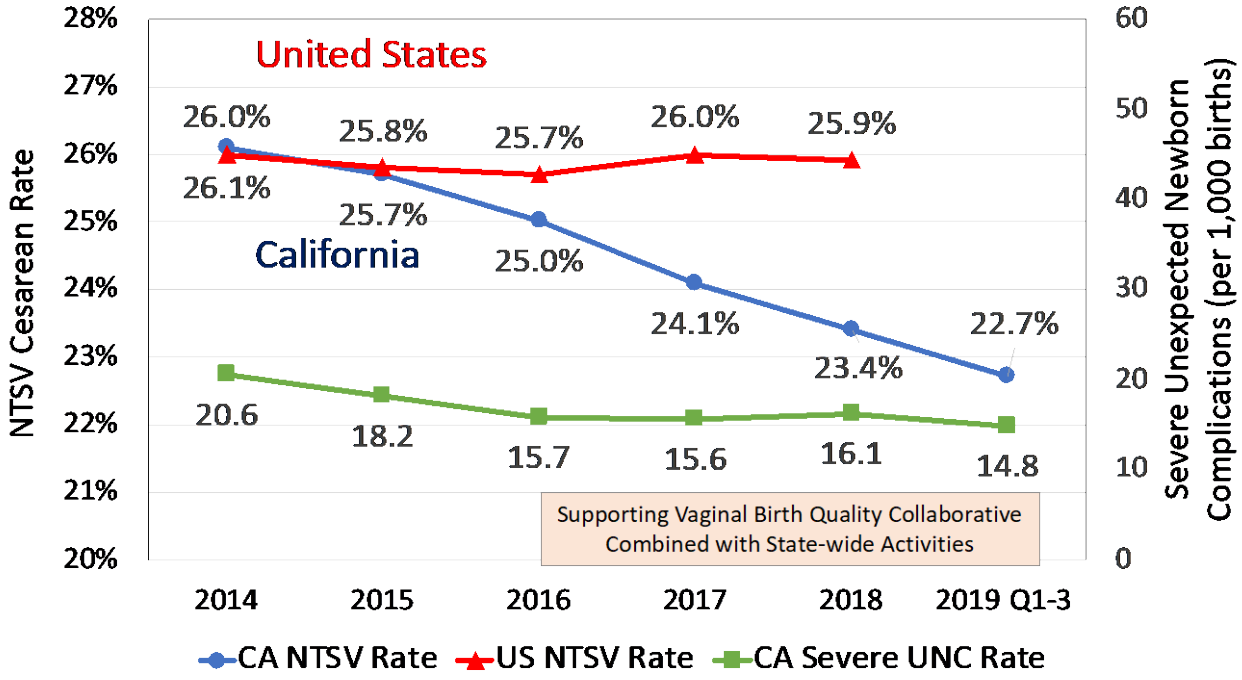
Maternal Mortality



2010-2016: 3 HTN QI Collaboratives; 2 HEM QI Collaboratives; widespread data-driven education

CA-PMSS Surveillance *Report: Pregnancy-Related Deaths in California, 2008-2016.* Sacramento: California Department of Public Health, Maternal, Child and Adolescent Health Division. 2021.

First Birth Low-Risk Cesarean Rate



Rosenstein MG, Chang S-C, Sakowski C, Markow C, Teleki S, Lang L, Logan J, Cape V, Main EK. Hospital Quality Improvement Interventions and Statewide Policy Initiatives and Rates of Nulliparous Term Singleton Vertex Cesarean Deliveries in California. JAMA 2021. Apr 27;325(16):1631-1639.

Steps for Creating Change at Scale

Maternal Mortality Review Committee

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QI Toolkits (Implementation Guides)

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Engage Every Partner Organization

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Hospital Change Collaboratives

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Rapid-cycle Data Center

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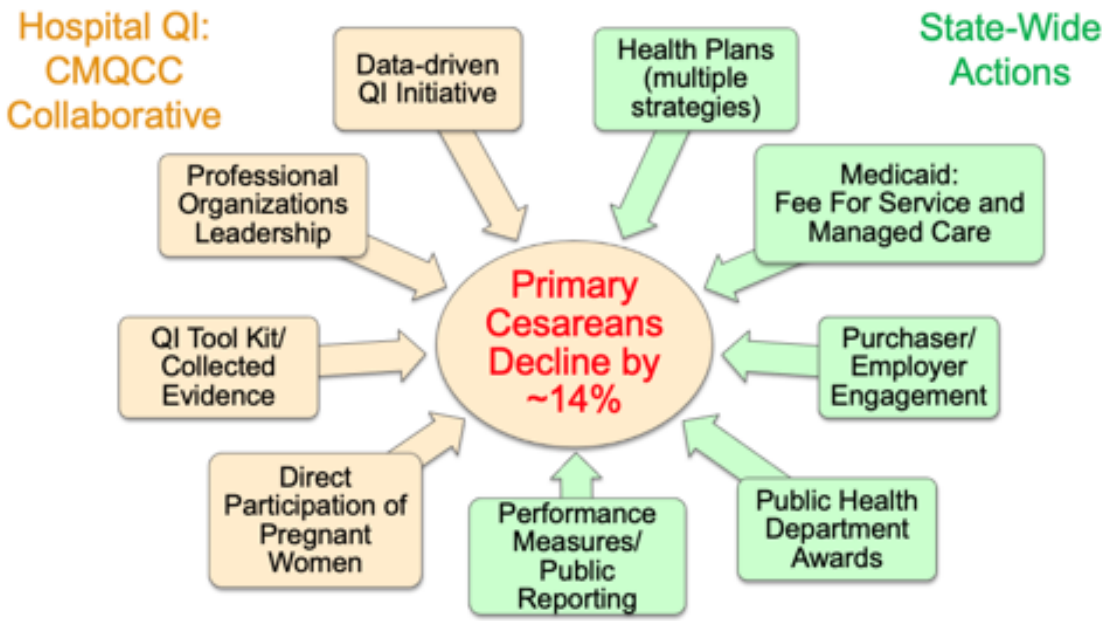
CHANGE AT SCALE

State-wide Initiative Activities



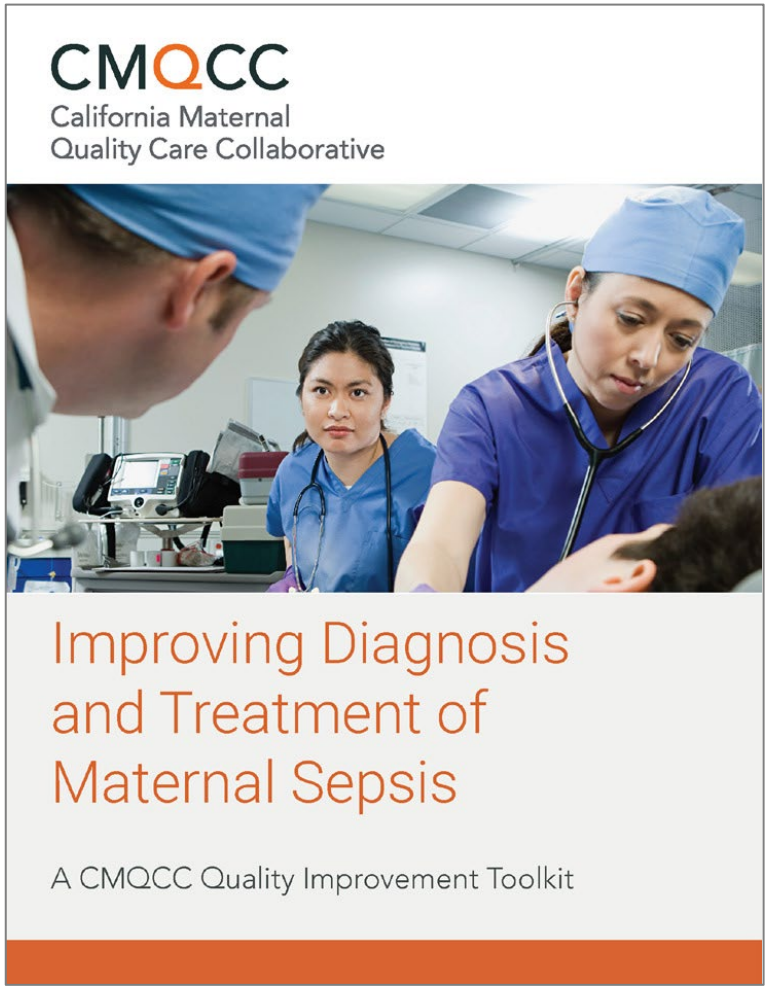
Collaborative Action : Collective Impact

CMQCC Quality Improvement Toolkits

Comprehensive and detailed “how to” guides for improving and redesigning hospital care for specific OB conditions

- Improving Health Care Response to Obstetric Hemorrhage V2.0, *UPDATE V3.0 COMING IN JAN 2022*
- Improving Health Care Response to Preeclampsia *UPDATE V2.0 Released November 2021*
- Supporting Vaginal Birth and Reducing Primary Cesareans
- Improving Health Care Response to Cardiovascular Disease in Pregnancy and Postpartum
- Improving Health Care Response to Maternal Venous Thromboembolism
- The Mother and Baby Substance Exposure Toolkit
- Improving Diagnosis and Treatment of Maternal Sepsis

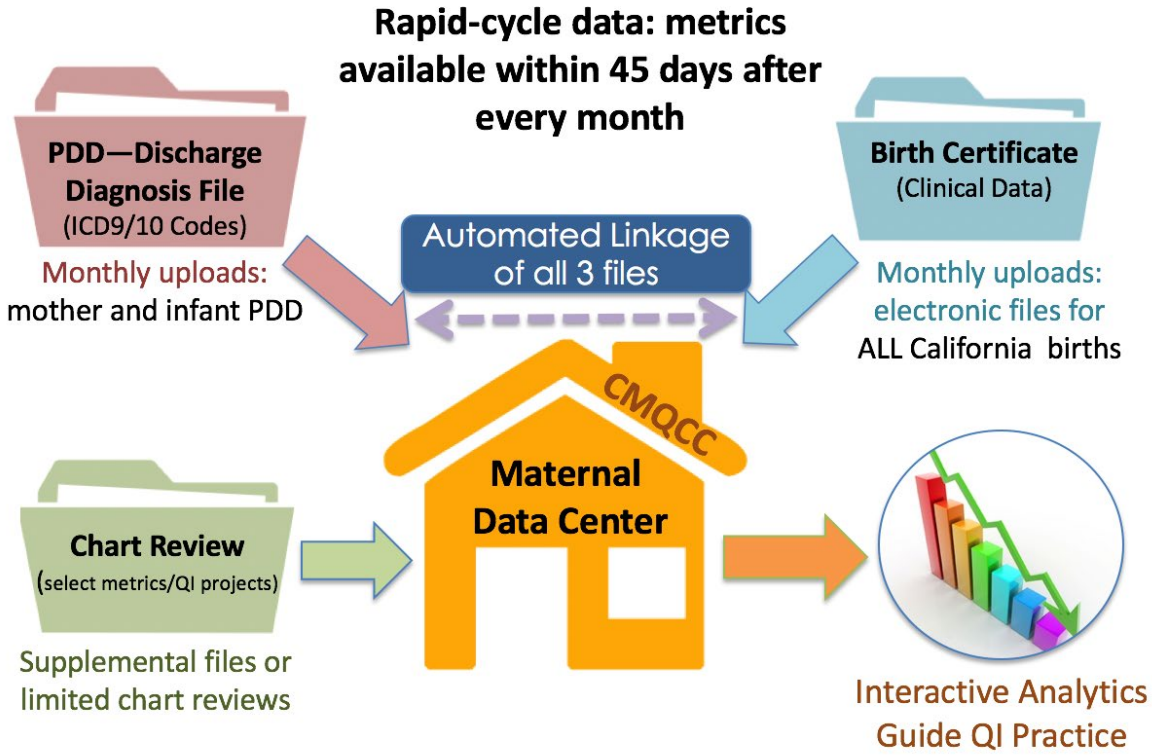
Each downloaded between 7,000 and 14,000 times



California Quality QI Collaboratives

Years	Collaboratives
2009-10	CMQCC/CDPH/MOD: **Reduction of Early Elective Deliveries** (state-wide)
2009-10	CMQCC: **Hemorrhage (**2 cohorts; 42 hospitals)
2010-11	CMQCC/CDPH: **Preeclampsia** (24 hospitals)
2011-14	HEN/CMQCC/CHA-HQI: **Hemorrhage** and **Preeclampsia** (92 hospitals)
2015-16	CMQCC/Merck for Mothers: Reduction of **Hemorrhage** and **Hypertension** severe morbidity (130 hospitals)
2016-19	CMQCC/CHCF: **Supporting Vaginal Birth and Reducing Primary Cesarean Delivery** (3 cohorts-99 hospitals)
2019-20	CMQCC/CPQCC/HMA: **Mother-Baby Substance Use Disorder** (54 hospitals)
2019-20	CMQCC: **Birth Equity Pilot** (5 hospitals)

CMQCC Maternal Data Center



- Initiated in 2012, now with monthly data from >280 hospitals in 5 states including 96% of CA hospitals
- Links over 1,500,000 mother/baby records each year (>120,000 records linked every month)
- Low burden, Low Cost, High Value

MDC Features

- Support QI projects (small and large)
- Calculate/Report/Benchmark quality metrics and stratifies all by race and ethnicity
- Creates enough value for hospitals that the Data Center is fully supported by membership fees
- Emphasis on data quality improvement
- Biggest cost (and burden) for a large-scale QI project is data collection

Our Mantra: "Free the Data"

To Access Comprehensive and Timely Data We Need to Break Silos and Change Rules

Put them together in <u>real time</u>!

- Don’t reinvent the wheel!
- Linkage of BC and HDD files is a proven and effective approach
- Why create a new system???
- It uses EXISITNG DATA, reducing cost and reinforcing efforts to improve data quality
- Changes in regulations and laws are matter of political will

CMQCC's Spectrum of Stakeholders/Active Partners

State Agencies

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

Membership Associations

- Hospital Quality Institute
- California Hospital Association
- Pacific Business Group on Health
- Integrated Healthcare Association

Key Medical and Nursing Leaders

- UC, Kaiser (N&S), Sutter, Sharp, Dignity Health, Scripps, Providence, Public hospitals

Professional Groups (California sections of national organizations)

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

Public, Consumer and Community Groups

- Consumers' Union
- March of Dimes
- California HealthCare Foundation
- Cal Hospital Compare
- Community groups and organizations

Health Plans

- Commercial and Managed Medi-Cal Plans

Key National Partners for Perinatal Quality Improvement

- The Joint Commission
  - Adoption of Hemorrhage and Hypertension Bundles
  - Set of perinatal quality measures
- State Perinatal Quality Collaboratives (PQCs)
  - HRSA—AIM (ACOG) – Creation of National Safety Bundles
  - CDC—NNPQC (NICHQ) – Support of PQCs
- CMS (Medicare)—IQR (Inpatient Quality Report)
  - Adoption of Perinatal Safety bundles, participation in state PQC
- CMS (Medicaid)—1115 Waivers to support OB quality
  - Incentives for quality measure achievement

But….Equity is Not Yet Obtained

- Hemorrhage Collaborative
  - 28% reduction in Severe Maternal Morbidity among Black gravidas and 50% reduction in B:W differences
- Cesarean Collaborative
  - 18% reduction in NTSV CS rates among Black gravidas and a 30% reduction in B:W differences
- Pregnancy-related Mortality (1yr)
  - After initial 30% reduction among Black gravidas, rates have remained static without reducing B:W differences
  - Shift to postpartum deaths away from L&D

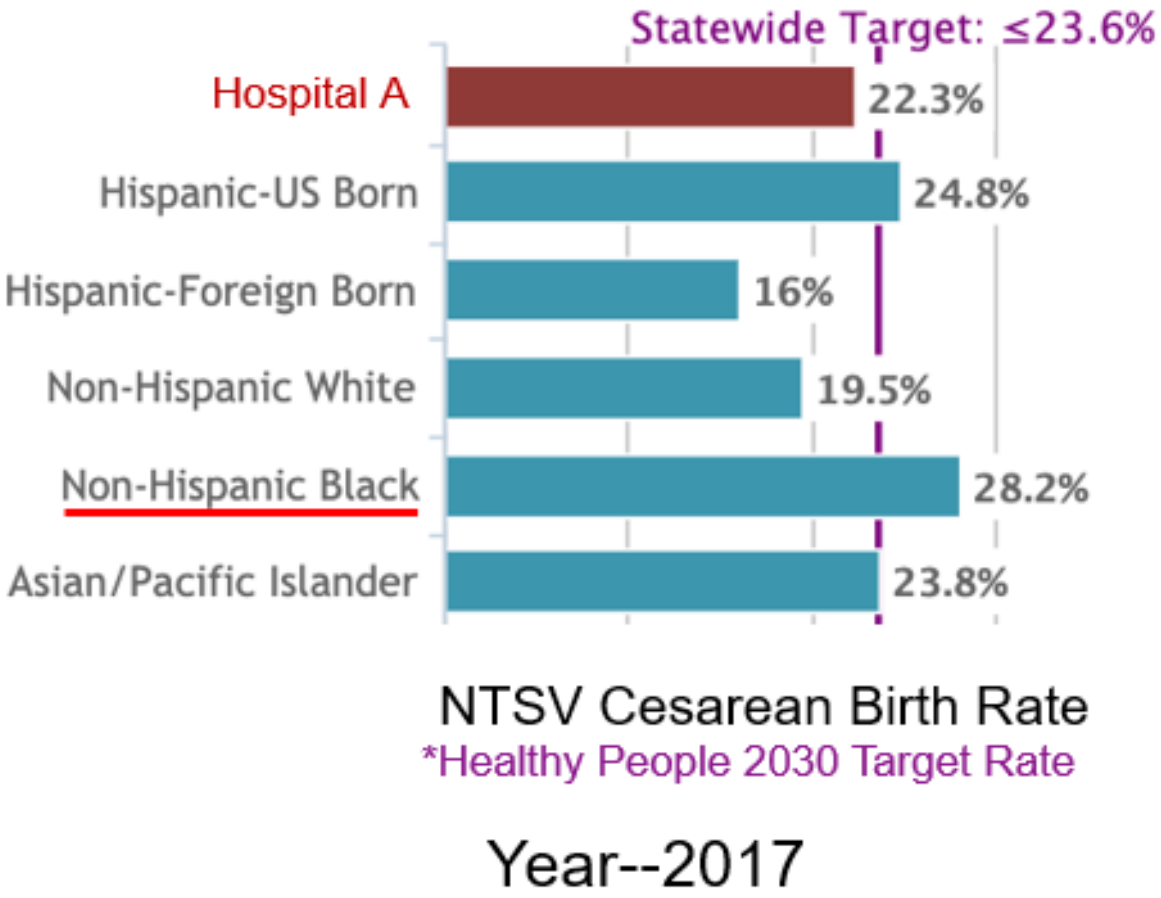
Role of Quality Improvement

- Care can be improved by QI initiatives (and variation reduced), BUT don't fully addressed inequities
- Equity initiatives when combined with clinical QI projects can have the greatest impact on disparities

Key Connections are Lacking

- Connect communities and health systems
- Connect medical model and the public health model
- Connect in-patient with out-patient worlds
  - Equity, prevention of anemia, preeclampsia and cardiac complications all need to start in the office

Importance of Stratification of Outcomes by Race: NTSV CS

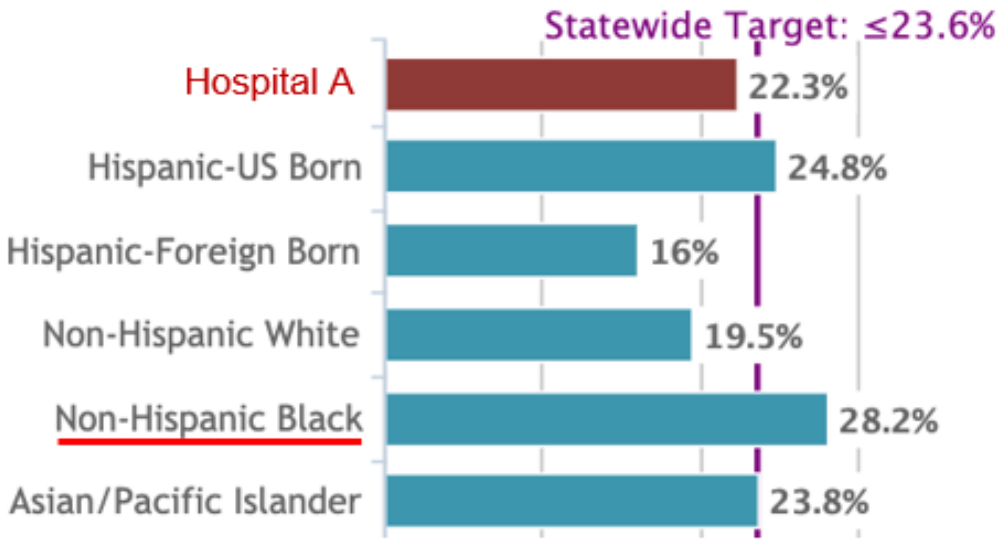


This hospital was doing very well with its NTSV Cesarean rate and was shocked when we presented their data broken down by race and ethnicity.

They literally had no idea that their Black rates were so elevated (6%points higher) compared to all others.

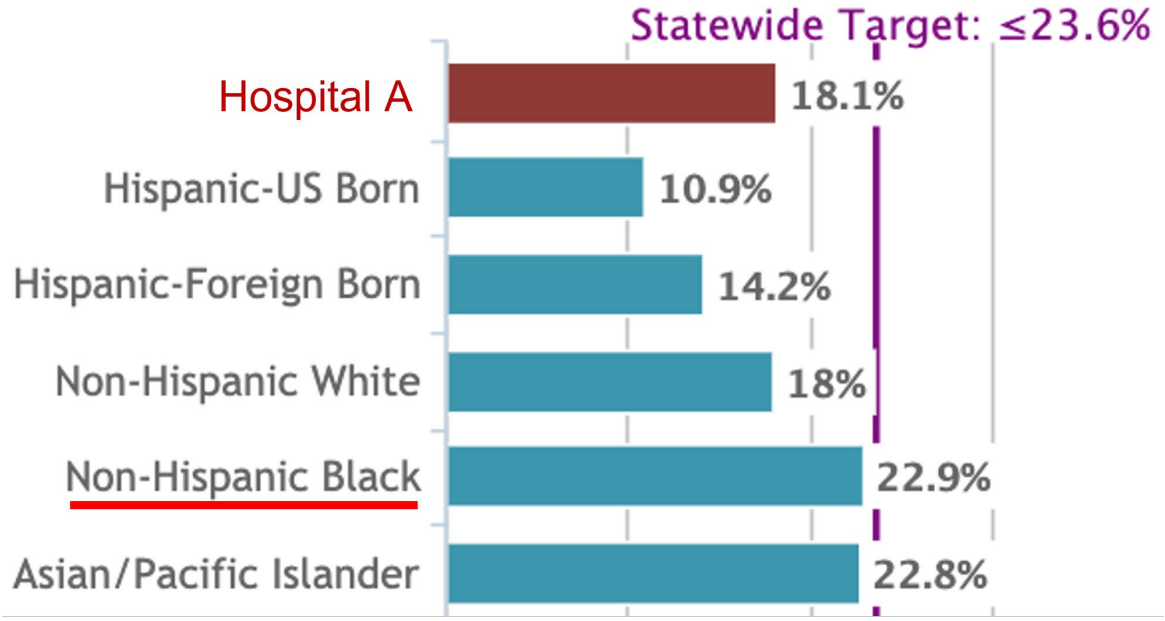
With this knowledge in hand they focused on Equity+QI together

Importance of Stratification of Outcomes by Race: NTSV CS, cont.



NTSV Cesarean Birth Rate
*Healthy People 2030 Target Rate

Year--2017



NTSV Cesarean Birth Rate
*Healthy People 2030 Target Rate

6 Mos--2020

Screen shots from the CMQCC Maternal Data Center

Keys for Improving Care "At Scale"

- Use public health surveillance data and patient stories to create "Burning Platform" for change and drive actions
- Mobilize a broad range of public, private and community partners to drive change together
- Create a system of rapid-cycle maternal-infant data to support and sustain QI projects
- Implement a series of data-driven large-scale quality improvement projects to change culture
- Pull all change levers at once, Hospital and External!
- Address Equity QI simultaneously with Clinical QI

Main EK, Markow C, Gould J. Addressing Maternal Mortality and Morbidity In California Through Public-Private Partnerships. Health Aff (Millwood). 2018 Sep;37(9):1484-1493.