

Introduction to CPQCC and Friends

September 30, 2020

Webinar Logistics

- Attendees are automatically muted upon entry
- The “chat” function has been disabled. **Please utilize the Q&A box if you are having technical difficulties and to submit any questions you have for the presenters. We will answer as many questions as possible during the Q&A portion of the webinar.**
- The slides and webinar recording will be sent out after the webinar and will also be posted on the CPQCC website at <https://www.cpqcc.org/engage/annual-data-training-webinars-2020>

Presenters

- **Jeffrey Gould** – Chief Executive Officer
- **Courtney Breault** – Associate Director of Quality



All About CPQCC

Jeffrey Gould, MD, MPH

A Bold Vision and Big Promise

1997

To create the nation's **first** state-wide perinatal quality improvement collaborative: **CPQCC**.

CPQCC's Mission

To **optimize the health and outcomes** of California's pregnant women and their infants by developing a **collaborative network** of Public and Private, Obstetric and Neonatal Providers, Insurers, Public Health Professionals and Business Groups to support **self assessment, benchmarking, and performance improvement activities** for perinatal care.

Organizational Philosophy

- **Quality improvement is a worthwhile activity**
- **Bottom up approach**
- **Maximize value for members and stakeholders**

Stakeholder Value

CA Association of Neonatologists (CAN)

- Impact of funding restrictions
- Input on inevitable report carding
- Organized CQI as a possibility

State Maternal and Child Health Branch (MCAH)

- Need for morbidity assessment

CA Children's Health Services (CCS)

- Need for NICU medical quality assurance

Pacific Business Group on Health (PBGH)

- Consumer-oriented quality assessment

Packard/Vermont Oxford Network (VON)

- Statewide application of VON

Executive Committee

California Association of
Neonatologists (CAN)

District IX, Perinatal Section, AAP

American College of Obstetricians and
Gynecologists

Maternal and Child Health Branch
(MCH)

California Children's Services (CCS)

Office of Vital Records

Office of Statewide Health Planning and
Development

Pacific Business Group on Health

Health Insurance Plans of California

Hospital Council

Vermont Oxford Network (VON)

David and Lucile Packard Foundation

Quality Improvement: The Challenge

DATA

Development of High-Quality, Reliable Data



INFORMATION

*Development of Risk-adjustment Methods
Reports That Inform and Organize Work*



ACTION

*Support Perinatal Providers in Their Work
Of Improving Perinatal Care and Outcomes*

CPQCC Database Quality

- On site audits
 - Diversity of approaches to data entry - **need frontline expertise**
- Range and logic checks
 - Difficult to repair after data entry - **real time entry assessment**
- Audit for excessive missing data
- **Yearly data training**
- **Data Committee Advisory Group (DCAG)**

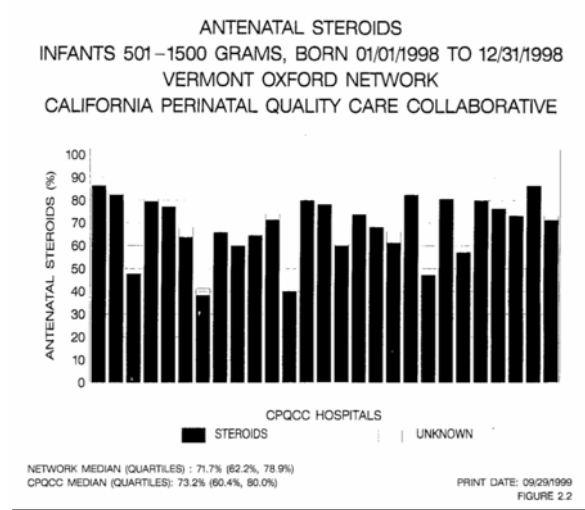
The BIG Three

- **Executive Committee**
- **Data Committee Advisory Group (DCAG)**
- **Perinatal Quality Improvement Panel (PQIP)**

Data Committee Advisory Group

- Provide understanding of data elements and collection challenges
- Give feedback and consultation on new data items
- Participate in development and pilot new systems, e.g., online data entry system
- Provide training and peer support to new members

CPQCC's NICU Database Development



1998 VON < 1500 Grams

2000 High risk > 1500 Grams

2005 Paper to Online Entry +Real Time Reporting

2007 + Neonatal Transport

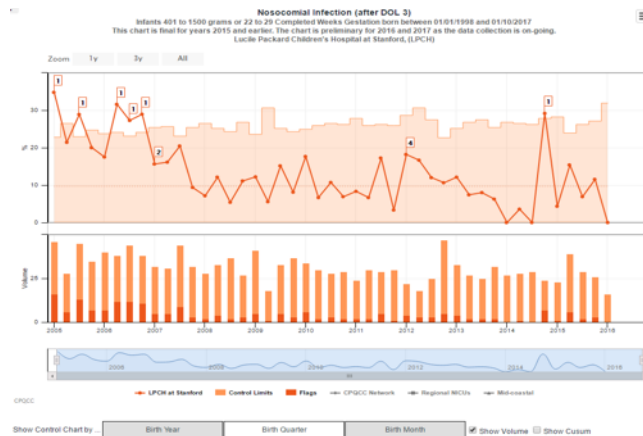
2008 Infants linked across NICUs

2009 Statewide High Risk Follow-up till age 3

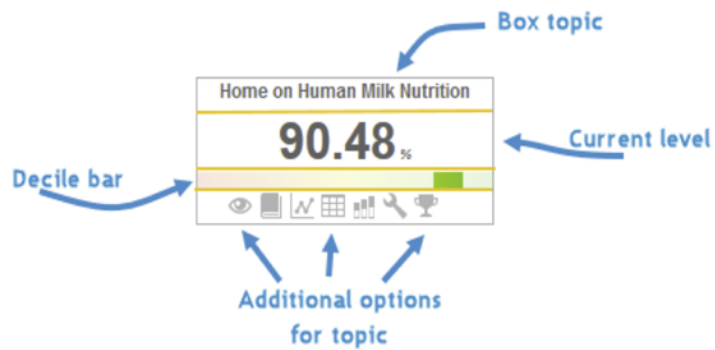
2013 NICU based Follow-up reports

2016 Real-Time Control Charts

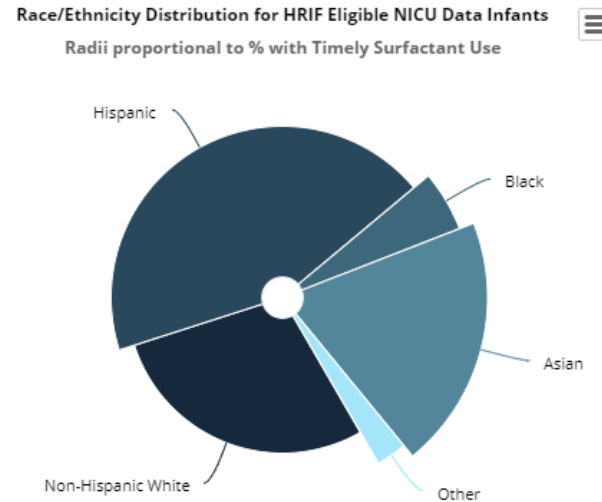
2018 Optional low risk infant database



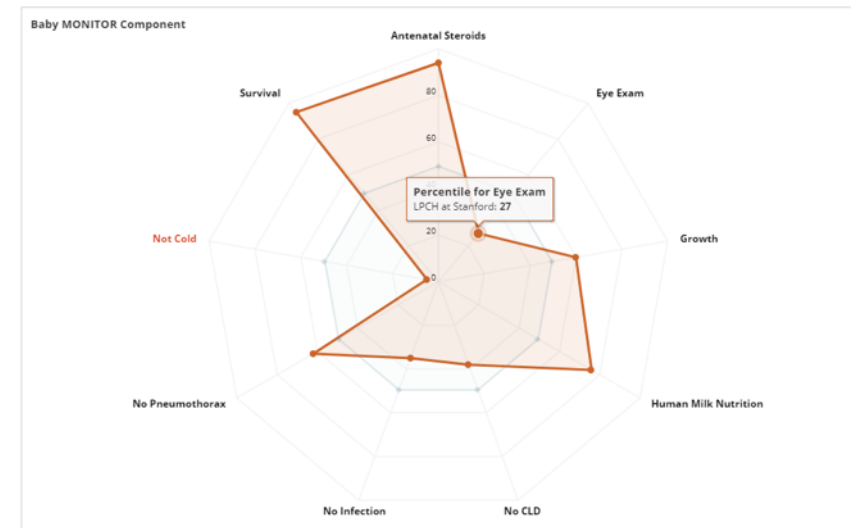
New Resources: 2019-2020



NICU Dashboard



Health Equity Dashboard



Baby-MONITOR Report

Continuum of care structure – unique to California!



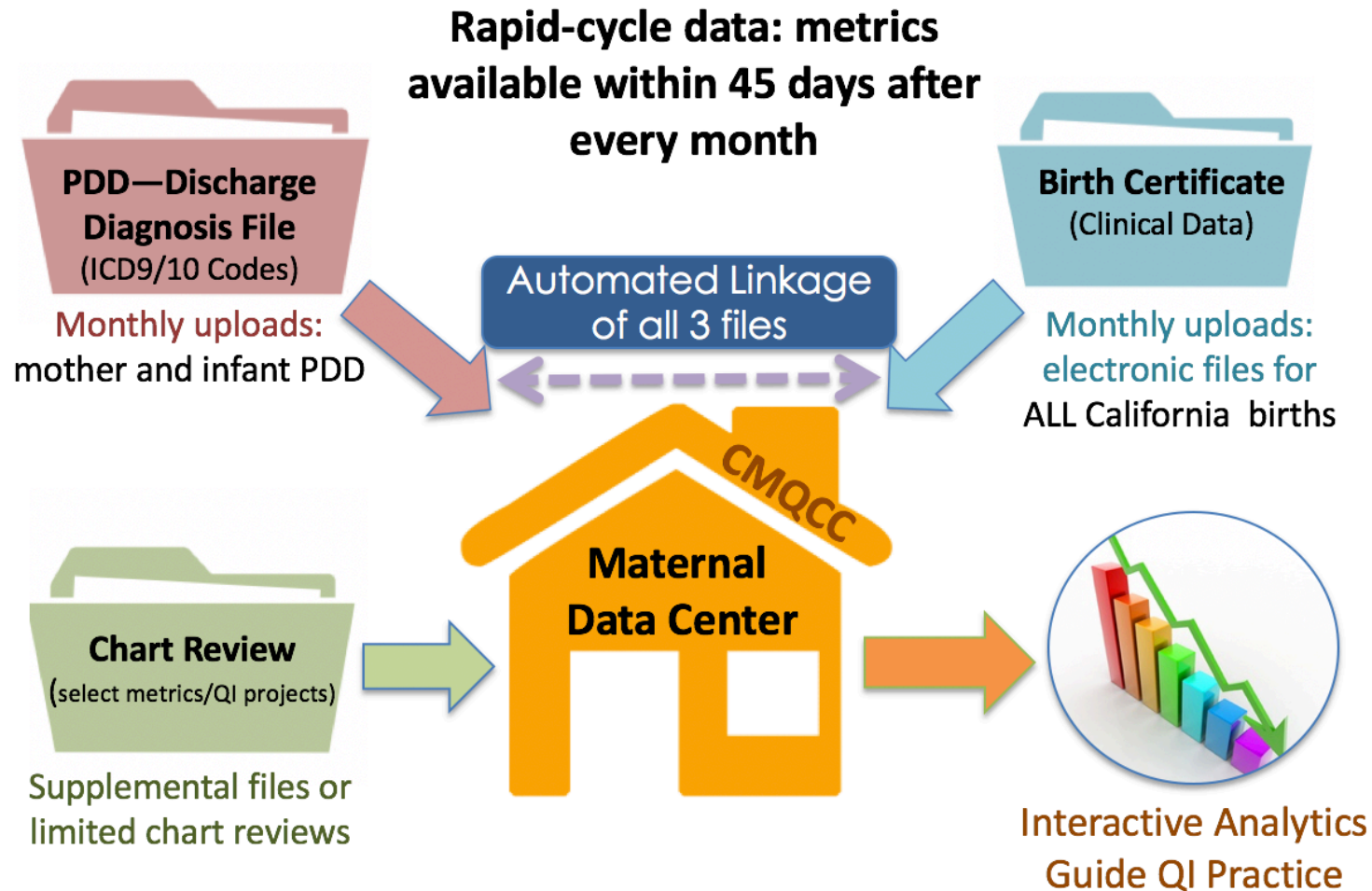
What about the Moms?

California Maternal Quality Care Collaborative (CMQCC)

Mission: Improving care for all California moms and newborns

- Established in 2006
- Real time maternal data analysis to drive quality improvement
- Develop and validate the effectiveness of QI toolkits
- Promote the adaption of maternal QI through education
- Design and conduct large scale QI based on a mentor approach

CMQCC Maternal Data Center



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

CMQCC Quality Improvement Activities

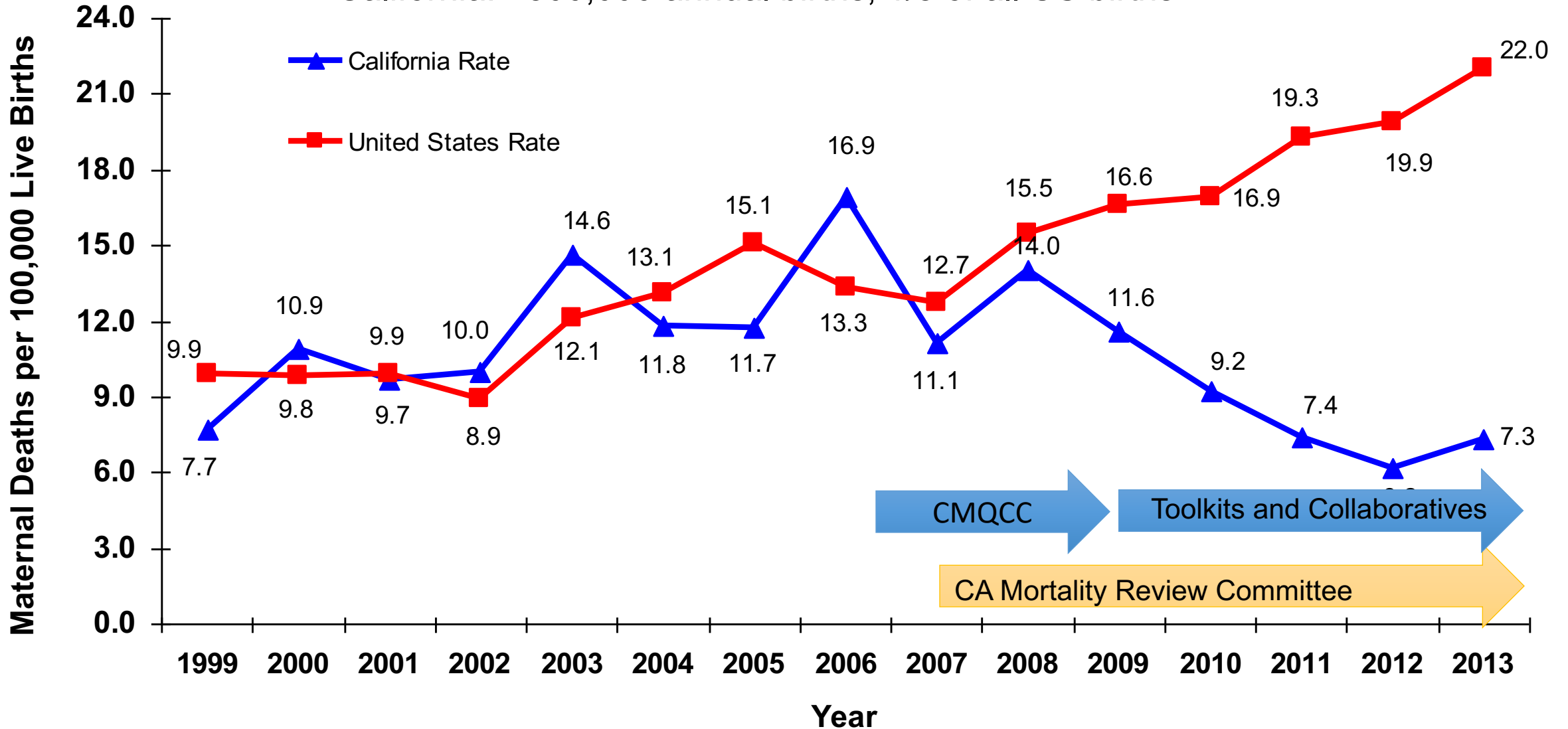
Year	QI Toolkits
2010	Eliminating Early Elective Deliveries
2010	Obstetric Hemorrhage
2014	Preeclampsia
2015	Obstetric Hemorrhage (2 nd Ed)
2016	Reducing Primary Cesarean Birth (CHCF funded)
2017	Cardiovascular Disease
2018	Venous Thromboembolism
2019	Maternal Sepsis (CMQCC funded)
2020	Mother-Baby Substance Use (CA DHCS funded) – <i>joint with CPQCC</i>
2020	Birth Equity (CHCF funded)

Years	QI Collaboratives
2009-10	CMQCC Hemorrhage QI collaboratives I and II
2010-11	CMQCC/CDPH Preeclampsia Task Force and QI collaborative
2011-14	HEN/CMQCC/CHA-HQI QI collaborative focused on hemorrhage and preeclampsia
2015-16	CMQCC/Merck for Mothers QI collaborative for hemorrhage and hypertension severe morbidity
2016-19	CMQCC QI collaboratives (3 cohorts) for Supporting Vaginal Birth and Reducing Primary Cesarean Delivery
2018--	CMQCC QI Academies (new multi-hospital cohort every 6 months: QI science “work-study”)
2019--	CMQCC/CPQCC/HMA QI collaboratives (3 cohorts) for Mothers and Babies with Substance Use Disorder (focus on Opioids)
2019--	CMQCC Birth Equity QI collaborative (Pilot)



Maternal Mortality Rate California and United States; 1999-2013

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



Assessing the care given our 7000 high risk neonatal transports



2007

CORE CPETS ACUTE INTER-FACILITY- NEONATAL TRANSPORT FORM

TIME SEQUENCE			Date	Time	
REFERRAL					
C.1 Transport type <input type="checkbox"/> Requested Delivery Attendance <input type="checkbox"/> Emergent <input type="checkbox"/> Urgent <input type="checkbox"/> Scheduled <input type="checkbox"/> Other					
C.2 Indication <input type="checkbox"/> Medical Services <input type="checkbox"/> Surgery <input type="checkbox"/> Insurance <input type="checkbox"/> Bed Availability					
PATIENT IDENTIFICATION/HISTORY:					
C.3 Birth weight ___ ___ ___ ___ grams					
C.4 Gestational Age ___ ___ weeks ___ days					
C.5 <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown					
C.6 Prenatally Diagnosed Congenital Anomalies <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Describe:					
C.7 Maternal Gravida					
C.8 Steroids <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown					
C.9 Surfactant Given <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Delivery Room <input type="checkbox"/> Nursery					
C.10 Maternal Admission to Perinatal Unit or Labor & Delivery					at
C.11 Last Antenatal Steroid Administration (last dose)					at
C.12 Infant Birth					at
C.13 Surfactant (first dose)					at
C.14 Referral (and Referring Hospital Evaluation)					at
C.15 Acceptance					at
C.16 Transport Team Departure from Transport Team Office/NICU for Referring Hospital					at
C.17 Arrival of Team at Referring Hospital/Patient Bedside and Initial Transport Evaluation					at
C.18 Initial Transport Team Evaluation					at
C.19 Arrival at Receiving NICU and Initial Evaluation					at

Acute Infant Transport Database (7K/yr)

2005 Focus Groups & Key Informants: Major Issues/ Examples of 2007 Indicators

- Underutilization of maternal transport
 - Percentage of births that were transferred
- Delayed decision to transport infant
 - Birth to initiation of transport interval
- Difficult to obtain transport
 - Initiation of transport to acceptance interval
- Too long a wait for the team to arrive
 - Acceptance to out the door time
- Team competency not always optimal
 - Arrival to completion change in clinical status

Continuum of care structure – unique to California!



What about our NICU graduates?

HRIF: Redesign / Database 2009

Visits: Number and Timing



- Provides for 3 “standard” or core visits
 - #1 – 4 - 8 months
 - #2 – 12 - 16 months
 - #3 – 18 - 36 months
 - Additional visits covered by CCS as determined to be needed by HRIF team
- There is **no financial eligibility requirement** for HRIF services if the patient is medically-eligible.

New Resources

Cardiac Pending Cases

Cardiac Clinic:

[View Pending Cases](#)

[Cardiac Patients Registered By Another Unit/Center](#)

Cardiac Patients Registered By Another Unit/Center - 3

HRIF ID#	Infant's Name	DOB	Referred On/By	Referred From	Accept/Deny
1 02271	last first	08-14-20	09-10-2019 at 12:38 PM by	Lucile Packard Children's Hospital At Stanford	✓ ✗
2 01101	last first	07-10-20	07-29-2019 at 11:44 AM by	Mercy San Juan Medical Center	✓ ✗
3 7969	last first	03-08-20	04-02-2019 at 09:31 AM by	Children's Hospital Los Angeles	✓ ✗

Showing 1 to 3 of 3 entries

Registration Electronic Data Submission [Load Files](#)

File Name: No file selected.

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WHAT IS THE HRIF CLINIC?

Children cared for in a Neonatal Intensive Care Unit (NICU) can have challenges with their development. The High-Risk Infant Follow-up (HRIF) clinics are here to teach parents about these challenges, and give advice on what you can do to help your child. The HRIF clinics support children from when they leave the hospital to age three.

It is recommended that families visit the HRIF Clinic, and their regular pediatrician. Your child should come to the HRIF Clinic at least three times. The care team recommends visits at ages:

- 4 to 8 months
- 12 to 16 months
- 18 to 36 months

It is possible your child might need more than three appointments. This is decided by the needs and goals of each family. At every visit, your child will meet with a team of specialists. Some of the providers who work in the clinic include: nurses, developmental/ pediatric specialists, therapists, and social workers.

During your visit, the HRIF team will do some tests to check on your child and talk to you about the results. You will get a copy of each test to share with your pediatrician or primary care provider. If needed we can connect you with agencies in the community, and other programs for support.

We look forward to working with you and your family to support your child's development!

WHAT WE DO FOR YOUR CHILD

- Look at medical history
- Do a physical exam
- Give nutrition advice
- Measure social and emotional development
- Help build speech and language skills
- Test muscle strength and movement
- Check hearing and vision
- Measure skills for thinking and learning
- Review family needs and goals
- Teach families how to support child development

WHAT WE DO FOR YOUR CHILD, THEY WILL GAIN SKILLS IN

- PROBLEMS: playing, feeling safe and happy
- EMOTIONS: eating, dressing on their own
- INDEPENDENCE: playing, feeling safe and happy

DOCTOR

Signs that could mean there is a delay in your care provider, if you are worried. Let them know if you notice:

- Not meeting milestones
- Not talking or babbling
- Not playing with toys
- Not interacting with others
- Not following simple instructions
- Not walking steadily
- Not remembering skills they learn

MONTHS

AGE: 24 MONTHS

- Use 2-word phrases like "drink milk"
- Know what to do with common things, like a brush, phone, fork, spoon
- Copy actions and words
- Follow simple instructions
- Walk steadily
- Remember the skills they learn

HRIF CPQCC

Milestones matter! Track your child's milestones at key developmental stages from 2 months to 5 years with CDC Milestones Tracker: cdc.gov/hcbddd/actearly/milestones-app.html

Developmental milestones adapted from Centers for Disease Control and Prevention (jobs.gov/hcbddd/actearly/index.html)

30738 Current Registrations [View Details](#)

1876 Pending Cases [View Details](#)

2759 Error Cases [View Details](#)

17 Priority Cases [View Details](#)

Expected Cases By Adjusted Age

Total Expected Cases: 29298

Activity By Month

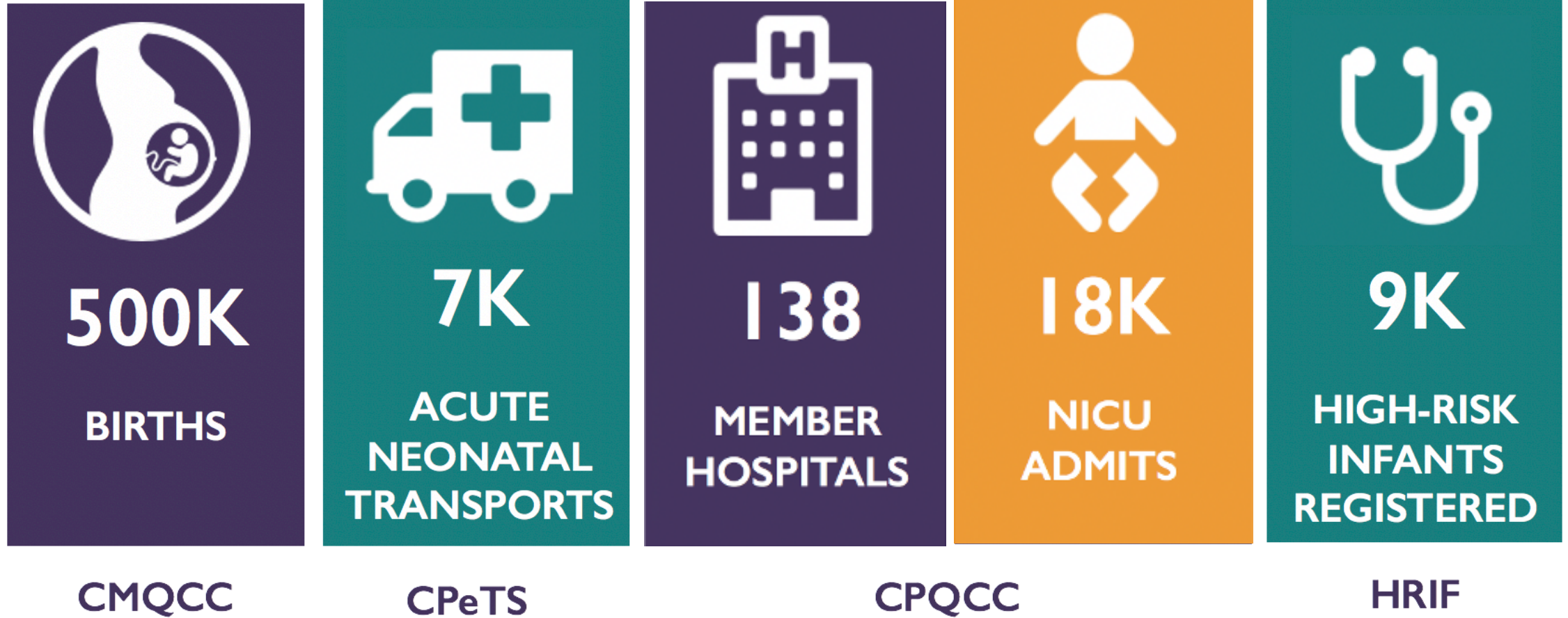
Visits [By Month](#) [By Year](#)

Cardiac User & EDS Cardiac Referral Build

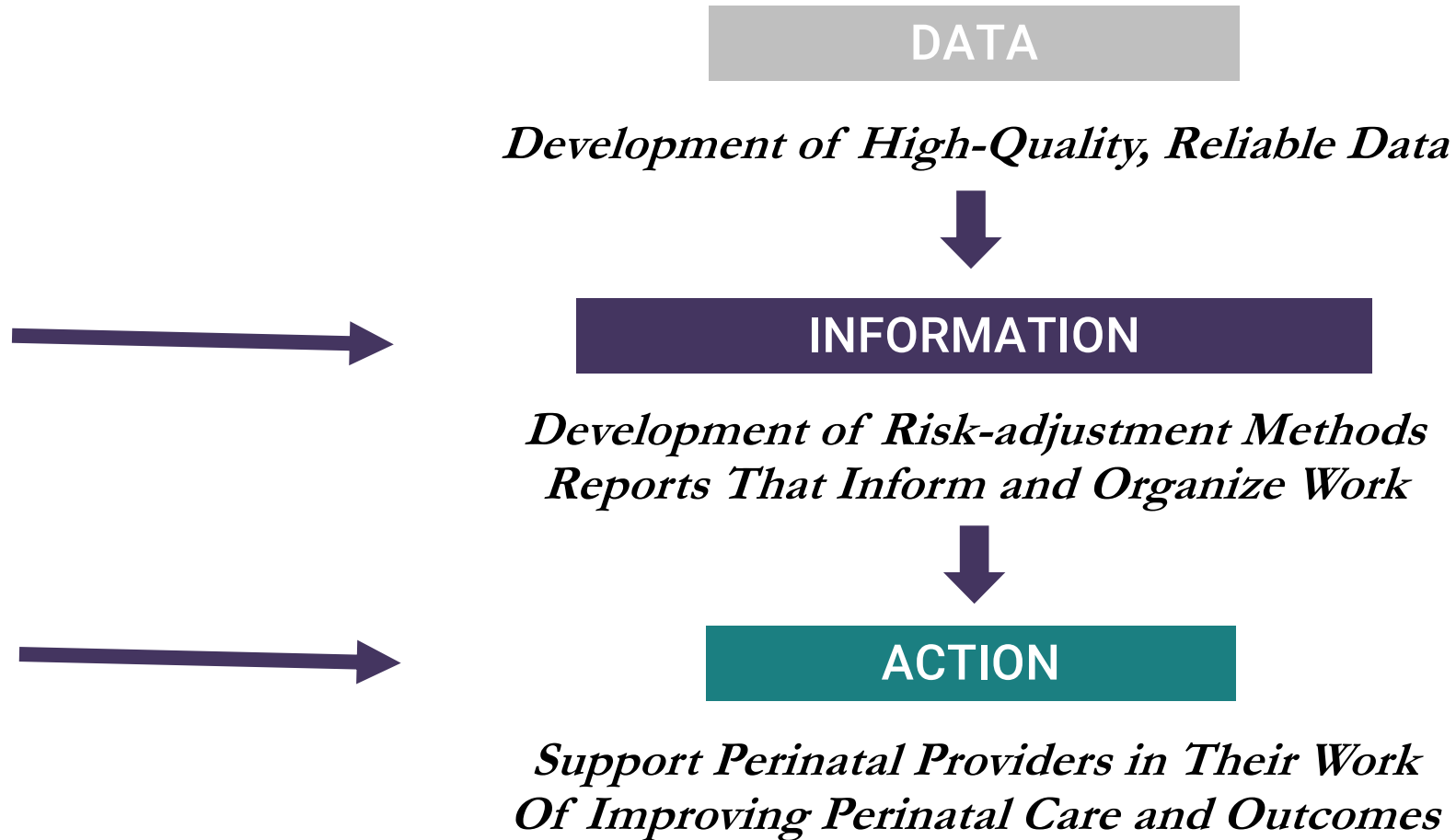
HRIF Family Handout

HRIF Clinic Dashboard

Annual Activity



Quality Improvement: The Challenge



Toolkits

- Antenatal Steroids(ANS)
- Care and Management of the Late Preterm Infant
- Delivery Room Management
- Early Screening and Identification of Candidates for Neonatal Therapeutic Hypothermia
- Hospital Acquired Infection
- Improving Initial Lung Function: Early CPAP, Surfactant and Other Means
- Nutritional Support of the VLBW Infant
- Postnatal Steroid Administration
- Prevention of Perinatal HIV Toolkit
- Severe Hyperbilirubinemia Prevention
- Neonatal Therapeutic Hypothermia
- Neonatal Disaster Preparedness
- **NEW** Mother and Baby Substance Exposure
- **NEW** Primary Care for Preterm Infants and Children

Collaboratives

- CLABSI Reduction
- Breastmilk Nutrition
- Delivery Room Management
- Optimizing LOS
- Antibiotic Stewardship
- Grow, Babies, Grow (Growth and Nutrition)
- Simulating Success (Simulation/Neonatal Resuscitation)

New Resources

Videos on CPQCC.ORG

- Baby Monitor
- NICU Data Finalization, First Quarter

Maternal Substance Exposure (MatEx) Database

- Data collection tool for babies of substance-exposed mothers seen anywhere in your hospital

Member Led Initiatives

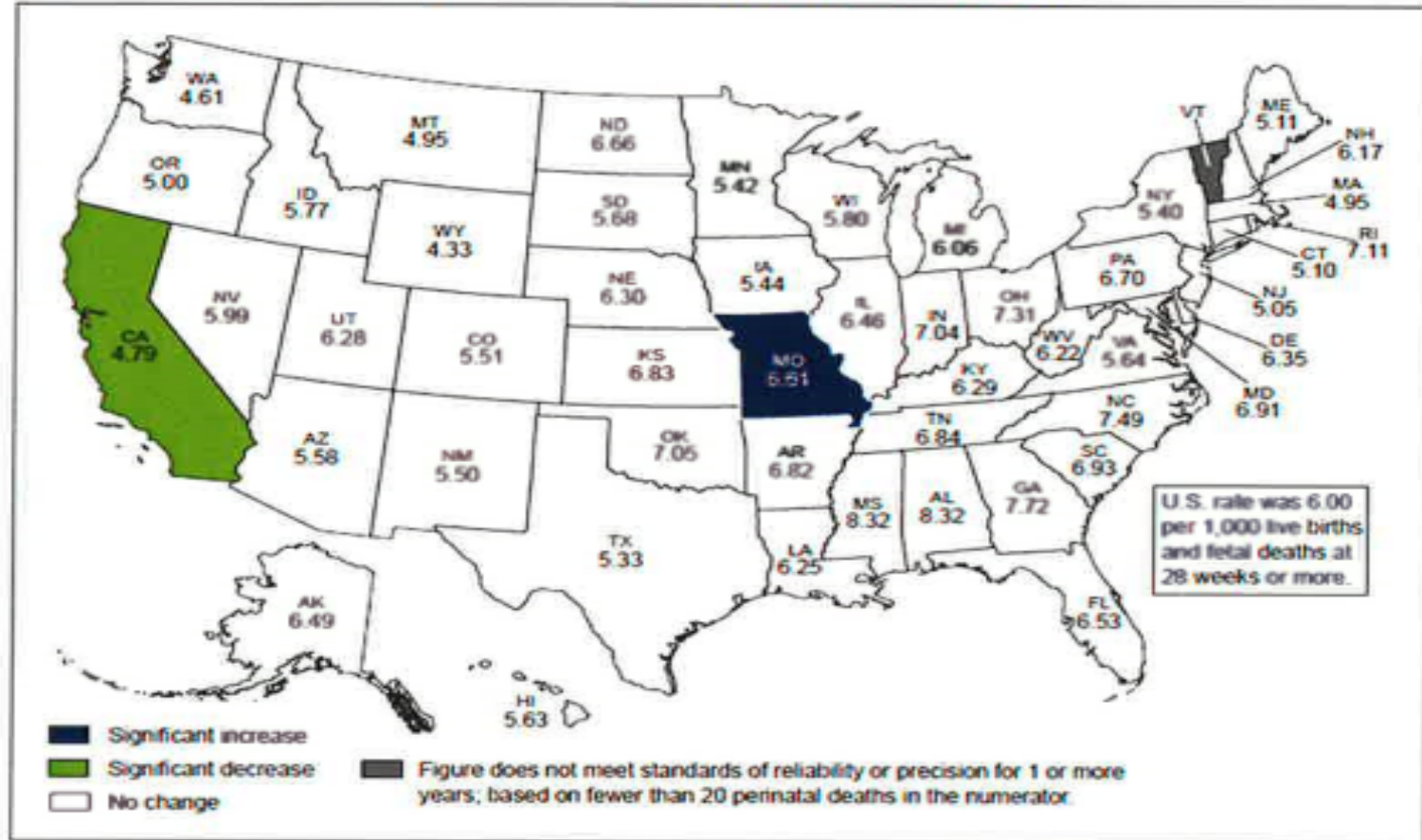
- **Health Equity Taskforce**
 - Subgroups on disparities: within NICUs, between NICUs, during transition to home
- **Maternal Substance Exposure Workgroup**
 - Collecting data on babies exposed to substance in-utero
- **HRIF-CVICU Expansion Project**
 - Locating HRIF-eligible cardiac patients and referring to follow-up care
- **Children's Hospitals Workgroup**
 - Recently released new reports on surgical patients available on NICU Reports
- **Ten Point Nine Workgroup**
 - Workgroup for NICUs with average daily census ≤ 10.9 . Launched in March 2020.

**Lots of activity but has it made a
difference?**

Our Impact

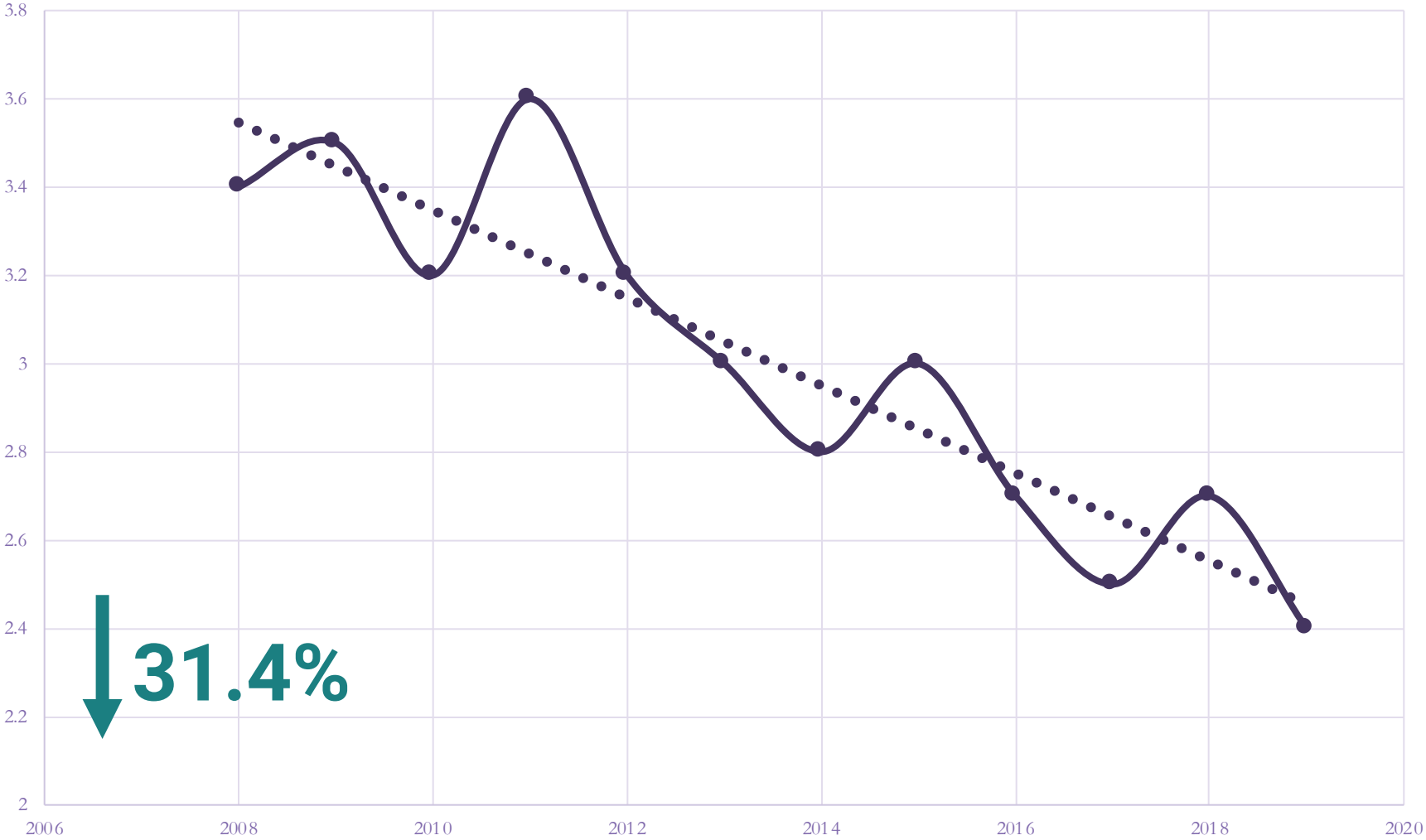
CDC report shows California as the *only state to significantly decrease perinatal mortality* between 2014 to 2016.

Figure 4. Perinatal mortality rates by state for 2016 and change in 2016 compared with 2014



NOTES: Rate per 1,000 live births and fetal deaths at 28 weeks or more. Significant increase or decrease at $p < 0.05$. Access data table for Figure 4 at https://www.cdc.gov/nchs/data/databriefs/db316_table.pdf#4. SOURCE: NCHS, National Vital Statistics System.

Mortality (>1500 G)



% Improvement

GA 22-29 weeks, 2008-2017

• NEC	5.9%	→	3.2%
• Nosocomial infection	15.4%	→	8.5%
• Severe ROP	10.3%	→	6.6%
• sIVH	9.4 %	→	7.5%
• Infant death	9.8%	→	8.3%
• Cystic PVL	2.5%		Stable
• Chronic lung disease	20.6%		Stable

Our Mission : Optimize the Health and Outcomes of California's pregnant women and their infants



Thanks for all of your hard work in making it happen!



Elliott Main



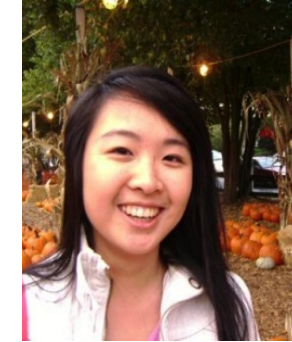
Jochen Profit

Jeff Gould

Susan Hintz

Henry Lee

CPQCC Team



CMQCC Team





2021 Quality Improvement Collaboratives

Courtney Breault, RN, MS

2021 Quality Improvement Opportunities


Optimizing Antibiotic Stewardship in California NICUs (OASCN)
COLLABORATIVE GOAL



SAFELY REDUCE ANTIBIOTIC USE RATES in participating NICUs for infants of all gestational ages.

January 2021


Growth Advancement in the NICU (GAIN): Surgical Patients
COLLABORATIVE GOAL



IMPROVE GROWTH AND NUTRITION for infants who have had intestinal surgeries in participating NICUs.

July 2021


Growth Advancement in the NICU (GAIN): Ten Point Nine
COLLABORATIVE GOAL



IMPROVE GROWTH AND NUTRITION for infants > 1500 grams in participating NICUs with an average daily census of ≤ 10.9 .

July 2021

NICUs Enabling Optimal Brain Health (NEOBrain)
COLLABORATIVE GOAL



PROMOTE NEUROPROTECTIVE CARE for VLBWs in participating NICUs.

Fall 2021


Optimizing Antibiotic Stewardship in California NICUs (OASCN)



- **Launch:** January 2021
- **Recruitment:** Underway, 27/30 spots filled
- **Goal:** Safely reduce antibiotic use rate (AUR) for infants of all gestational ages in participating NICUs
- **Target population:** All gestational ages
- **Eligible NICUs:** All CPQCC NICUs
- **Fee:** Free (\$500/site if seeking ABP MOC credit)
- **For more info:** Email Janine Bergin at janine@cpqcc.org

Growth Advancement in the NICU (GAIN): Ten Point Nine

Growth Advancement in the NICU (GAIN): *Ten Point Nine*
COLLABORATIVE GOAL



IMPROVE GROWTH AND NUTRITION
for infants > 1500 grams in participating
NICUs with an average daily census of
≤ 10.9.

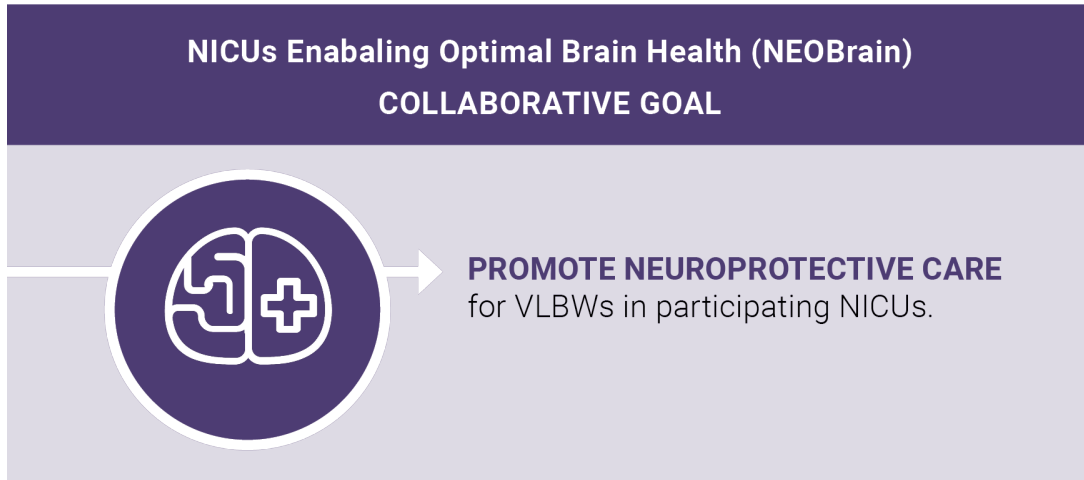
- **Launch:** July 2021
- **Registration:** January – March 2021
- **Goal:** Improve growth and nutrition for infants > 1500 grams in participating NICUs
- **Target population:** Infants > 1500 grams
- **Eligible NICUs:** CPQCC NICUs with ADC ≤ 10.9
- **Fee:** \$5,000
- **For more info:** Email Anjali Chowfla at anjali@cpqcc.org

Growth Advancement in the NICU (GAIN): Surgical Patients



- **Launch:** July 2021
- **Registration:** January – March 2021
- **Goal:** Improve growth and nutrition for infants who have had intestinal surgeries
- **Target population:** Infants with intestinal surgeries
- **Eligible NICUs:** CPQCC NICUs that take care of surgical patients
- **Fee:** \$6,800
- **For more info:** Email Caroline Toney-Noland at ctn@stanford.edu

NICUs Enabling Optimal Brain Health (NEOBrain)



- **Launch:** Fall 2021
- **Recruitment:** TBD
- **Goal:** Promote neuroprotective care for VLBWs in participating NICUs
- **Target population:** VLBWs
- **Eligible NICUs:** All CPQCC NICUs
- **Fee:** \$8,500
- **For more info:** Email Courtney Breault at courtney@cpqcc.org

Q&A Session

Panelists

- **Jeffrey Gould** – Chief Executive Officer
- **Courtney Breault** – Associate Director of Quality
- **Fulani Davis** – Program Manager, NICU Data Center
- **Janella Parucha** – Program Manager, NICU Data Center
- **Erika Gray** – Program Manager, HRIF

Closing

Recording and Webinar Evaluation

- An email will be sent out after the webinar with a link to:
 - The slides and webinar recording
 - An evaluation survey
- The webinar recording and slides will also be posted at:
<https://www.cpqcc.org/engage/annual-data-training-webinars-2020>

Upcoming Data Training Webinars

ANNUAL CPQCC DATA TRAINING WEBINARS

SECOND WEBINAR IN THE SERIES

Your Successes: QI Research & Implementation

Wednesday, October 7th
12:00 - 1:00 PM PDT



ANNUAL CPQCC DATA TRAINING WEBINARS

THIRD WEBINAR IN THE SERIES

What's New with CPeTs

Wednesday, October 14th
12:00 - 1:00 PM PDT



ANNUAL CPQCC DATA TRAINING WEBINARS

FOURTH WEBINAR IN THE SERIES

What's New with the NICU

Wednesday, October 21st
12:00 - 1:15 PM PDT



ANNUAL CPQCC DATA TRAINING WEBINARS

FIFTH WEBINAR IN THE SERIES

What's New with HRIF

Wednesday, October 28th
12:00 - 1:30 PM PDT



<https://www.cpqcc.org/engage/annual-data-training-webinars-2020>

CPQC