State-based Perinatal Quality Collaboratives: A Growing Movement to Improve Perinatal Health

COLORADO PERINATAL CARE QUALITY COLLABORATIVE
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The seeds of success in every nation on Earth are best planted in women and children

-- Joyce Banda
Infant Mortality Rates for Selected OECD Countries, 2014

Overall U.S. Infant Mortality Rate (IMR) Has Declined

Racial Gaps in Infant Mortality Rates Persist

In 2015, Black IMR > 2x’s the White IMR

11.3

4.9


Note: Data are presented here by race only; data on Hispanic origin of mothers were not routinely collected until 1989
Trends in Pregnancy–Related Mortality
United States, 1987–2013


*Number of pregnancy-related deaths per 100,000 live births.
Trends in Severe Maternal Morbidity
United States 1993-2014
"Quality is not an act, it is a habit." ~Aristotle
Perinatal Quality Collaboratives (PQCs)

- Multidisciplinary networks working together to improve maternal and infant outcomes
- Evidence-informed clinical practices and processes through continuous quality improvement
  - Identify care processes that require improvement
  - Use the best available methods to effect change and improve outcomes
  - Work with clinical teams, experts, stakeholders to spread best practices
- PQCs include key leaders in private, public, and academic health care settings
Perinatal Quality Collaboratives (PQCs)

- Strategies include:
  - Collaborative learning model
  - Use of rapid-response data for quality improvement
  - Provision of QI science support and assistance to clinical teams

- Ultimate goal = improvements in population-level outcomes in maternal and infant health
Role of Regional Perinatal Quality Collaboratives (PQCs)

- Regional PQCs encourage
  - Taking on the responsibility of improving outcomes for the entire population of the region’s mothers and infants
  - Understanding of one’s regional network of perinatal care
  - Collaborating among teams from both the hospital and the community
  - Comparison of performance to hospitals that are operating within similar demographic, economic, and health services context

- Members of a regional quality improvement initiative represent a “community of change”
PQC Successes

- Reductions in elective deliveries without a medical indication prior to 39 weeks gestation
- Reductions in health care–associated bloodstream infections in newborns
- Reductions in severe maternal morbidity
- Increases in appropriate use of antenatal corticosteroids to improve fetal lung maturity
- Improvements in use of progestogen therapy for prevention of preterm births
Improving Perinatal Outcomes
By Supporting PQCs

- CDC provides support for states to expand current efforts to improve perinatal outcomes
  - Enhance PQC ability to collect timely data
  - Increase hospital participation
  - Expand the range of issues addressed

- Transfer experiences and knowledge to help additional states:
  - Webinar Series
  - Resource guide for how state-based PQCs function
  - The National Network of Perinatal Quality Collaboratives
CDC-Supported PQCs

2011-2017

CMQCC
California Maternal Quality Care Collaborative

IL PQC
Illinois Perinatal Quality Collaborative

New York State nyspQc
Perinatal Quality Collaborative

OPQC
Ohio Perinatal Quality Collaborative

2014-2017

PNQIN
Perinatal-Neonatal Quality Improvement Network

PQCNC

CDC-Supported PQC Ts
Perinatal Quality Collaborative States

Hover over a state in the map below to see their status or click on a state to visit their website.
Building National Perinatal QI Capacity

- **Purpose:** To increase capacity in states to improve maternal and infant health

- **Goals:**
  - Strengthen PQC leadership
  - Identify and disseminate best practices
  - Identify and develop tools, training, and resources
  - Reduce maternal and infant morbidity and mortality
National Network of Perinatal Quality Collaboratives
Mission Statement

To support the development and enhance the ability of state perinatal quality collaboratives to make measurable improvements in statewide maternal and infant health care and health outcomes.
PQC Initiatives

- Obstetric/Maternal
  - Reduction of non-medically indicated deliveries <39 weeks gestation
  - Progesterone for prevention of preterm birth
  - Appropriate use of antenatal steroids
  - Improve response to and management of obstetric hemorrhage
  - Improve response to and management of hypertensive disorders of pregnancy
  - Maternal substance abuse
  - Reduction of unnecessary cesarean deliveries
  - Postpartum long-acting reversible contraception (LARC)
PQC Initiatives

- **Neonatal**
  - Promotion of human milk in NICU
  - Breastfeeding initiation
  - Optimization of early enteral nutrition in newborns
  - Reduction of central line-associated blood stream infections
  - Antibiotic stewardship
  - Neonatal Abstinence Syndrome (NAS)
  - Golden Hour
  - Safe Sleep

- **Data quality improvement**
  - Birth certificate accuracy
CDC-Supported PQC Initiatives

- Maternal opioid abuse/Neonatal abstinence syndrome
- Obstetric hemorrhage
- Reduction of unnecessary C-sections
- Maternal hypertension
- Neonatal nosocomial blood stream infection
- Postpartum LARC
- Breastmilk in NICU
- Preterm birth/progesterone
- Antibiotic Stewardship
Opportunities to Reduce Disparities and Increase Health Equity

- Education campaigns to inform patients of preventive health choices
- Improving access to care
- Provision of equitable quality care
  - Development of composite and outcome measures
- Community partnerships
- Patient/family engagement
  - Patient voice/experience of care
  - Input for quality improvement initiatives
Sources of Care Disparities

Health system factors
- Health services organization, financing, delivery
- Health care organizational culture, QI

Patient-level factors
- Beliefs and preferences
- Race/ethnicity, culture, family
- Education and resources
- Biology

Clinical encounter
- Provider communication
- Cultural competence

Provider factors
- Knowledge and attitudes
- Competing demands
- Implicit/explicit biases

Kilbourne et al, AJPH 2006
Improving Care in Hospitals to Reduce Maternal Morbidity and Mortality

- Hospital quality may be a critical lever for improving outcomes
- Nearly half of maternal mortality and severe events are preventable
- Data have demonstrated that both within-hospital and between-hospital disparities exist for severe maternal morbidity.
  - Black women deliver in different and lower quality hospitals than whites
  - Quality of care received by women during childbirth may differ by race and ethnicity within individual hospitals

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- Implicit/explicit biases

Structural factors
- Poverty/wealth
- Unemployment
- Stability of housing
- Food security
- Racism

Adapted from Kilbourne et al, AJPH 2006
Perinatal Quality Collaboratives

About Perinatal Quality Collaboratives

Perinatal quality collaboratives (PQCs) are state or multi-state networks of teams working to improve the quality of care for mothers and babies. PQC members identify health care processes that need to be improved and use the best available methods to make changes as quickly as possible.

PQCs have contributed to important improvements in health care and outcomes for mothers and babies, including:
- Reductions in deliveries before 39 weeks of pregnancy without a medical reason.
- Reductions in health care-associated bloodstream infections in newborns.
- Reductions in severe pregnancy complications.

State-based PQCs

Many states currently have active collaboratives, and others are in development. Visit State Perinatal Quality Collaboratives to view a list of state-based PQCs.

CDC is currently providing support for state-based PQCs in Colorado, Delaware, Florida, Georgia, Illinois, Louisiana, Massachusetts, Minnesota, Mississippi, New Jersey, New York, Oregon, and Wisconsin. Funding supports the capabilities of PQCs to improve the quality of perinatal care in their states, including efforts to:
Developing and Sustaining Perinatal Quality Collaboratives: A Resource Guide for States

- Starting a statewide collaborative
- Launching initiatives
- Data and measurement
- Quality improvement methods
- Dissemination
- Sustainability

The Guide can be accessed at: http://go.usa.gov/cur8j
Project Aim
By September 2018, all 13 state-based PQC grantee teams will be fully engaged with a statewide population-level perinatal improvement project. At a minimum, the project will include:
• Identification of project AIM;
• Development of a measurement strategy including identification of appropriate outcome and process measures;
• At least one statewide meeting with key stakeholders and participating teams; and
• Demonstrated progress with planning for use of data for improvement including ongoing monthly data collection of outcome and process measures.

Essential Elements of a functioning PQC that should be in place by this time include:
• Multidisciplinary advisory committee
• Clinical leaders
• Public health leaders
• Quality Improvement advisors
• Family representatives
• Organizational structure and communication systems Data management plan

Specific Ideas to Test or Change Concepts
• Leadership
  • Identify and engage key players, including leaders/champions, hospitals, support staff, stakeholders and partners (payers, and malpractice insurers), clinical experts, and family partners/advisors
  • Leaders develop plans and design, including focus (neo. maternal or both), mission and goals
  • Clarify roles and responsibilities (develop job descriptions)
  • Use collaborative to develop and build teamwork at participating organizations
• Engagement and buy in
• Demonstrated progress with planning for use of data for improvement including ongoing monthly data collection of outcome and process measures

Primary Drivers
1. Engagement and Buy In
   • Identification of project AIM;
   • Development of a measurement strategy including identification of appropriate outcome and process measures;
   • At least one statewide meeting with key stakeholders and participating teams; and
   • Demonstrated progress with planning for use of data for improvement including ongoing monthly data collection of outcome and process measures

2. Launching Initiatives
   • Identification of measures and strategy for collection and analysis to maximize learning and minimize burden, including outcome, process and balancing measures
   • Plan how teams will access data e.g. partnership with Vital Statistics
   • Implement data sharing approvals and agreements
   • Monthly data collection/reporting by all teams
   • Determine plan for data analysis & feedback
   • Educate teams to implement IRB vs. DSA
   • Test feedback system prior to launch if appropriate

3. Data Collection and Measurement
   • Topics Selection - Choose topic based on impact, interest feasibility, and resources
     • Focus/Vision/Mission/Goals of PQC
     • Initiative topic selection based on public health burden/population, impact of the issue, and interest of the clinical teams/ hospital partners
     • Clinical expert availability
   • Develop Driver Diagram based on evidence based practice recommendations and success of previous like efforts
   • Plan learning methodology – BTS or other
   • Document variation in outcomes and success elsewhere
   • Leadership-Recruit expert panel/advisory group

4. Quality Improvement Methods
   • Identify common Quality Improvement model for hospital use (MFI, LEAN, 6 Sigma)
   • QI model education and implementation throughout initiative - Provide coaching in QI including driver diagrams, Aim statements, measures, change packages
   • Provide tools and resources for teams

5. Dissemination
   • Develop Dissemination Plan
     • including specific publication plan
     • Design from overview, dissemination goals, target audience, messages, channels
   • Develop Communication Plan – Early and frequent communication from plan of action plan to results

6. Sustainability
   • Planning for sustainability- Design based on funding level (minimal, limited, moderate, and substantial)
   • Supports and Resources- Plan supports for sustainability (stakeholders, partners, successes, marketing)
Welcome to the NNPQC CoLab!
Announced by Aviel Peaceman 1 week 4 days ago

Welcome to the NNPQC CoLab!

**Resources:** You can find recordings, slides and other materials distributed for past events under the Resources tab on the community feed.

**Speakers Bureau:** Looking for an expert to provide guidance to your PQC? Check out the Speakers Bureau page for more information.

**Upcoming Events:** Links to upcoming events are under the "Events" page.

**Questions? We are here to help!**

Check out our CoLab Orientation Packet! For help navigating CoLab, start by clicking on the green "Help" button in the lower left corner.

For other questions, please contact us.
The Power of PQCs

- Together is better – PQC “magic”
  - There are many opportunities to consolidate efforts, share more, and not “recreate the wheel” or duplicate efforts
- Patients/families are the reason why we do this, and they should be involved
- Leadership is important
- Need to develop a community of trust
- Data is important, but acting on the data is MORE important
Multiple Leverage Points are much more effective than one or two alone.”

Improvements in perinatal outcomes

- Public Advocacy
- Clinical Leaders (AAP, ACOG, AWHONN, ACNM, etc.)
- QI experts (IHI, VON, NICHQ)
- Academia/Public Health
- Patients/Families
- Other Partners?
- Payers/Purchasers
- Quality Measures (NQF)
- Public Reporting (JC/CMS)

Success in Improving Perinatal Health: Multiple Partners
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www.cdc.gov/reproductivehealth/MaternalInfantHealth/PQC.htm

For more information, contact CDC
1-800-CDC-INFO (232-4636)

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.