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

TIPQC Annual Meeting
March 5, 2018

Zsakeba Henderson, MD, FACOG
Medical Officer, Maternal and Infant Health Branch
Division of Reproductive Health
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention
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

By 2015 IMR reached 5.9

Racial Gaps in Infant Mortality Rates Persist

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

IMR per 1,000 live births

Source: https://www.cdc.gov/nchs/products/databriefs/db279.htm
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.
"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 PQC

2011-2017

CMQCC
 CALIFORNIA MATERNAL QUALITY CARE COLLABORATIVE

IL PQC
 Illinois Perinatal Quality Collaborative

NYspQc
 Perinatal Quality Collaborative

OPQC
 Ohio Perinatal Quality Collaborative

2014-2017

PN QIN
 Perinatal-Neonatal Quality Improvement Network

PQCNC
CDC-Supported PQC's

- PNQIN Perinatal-Neonatal Quality Improvement Network
- DE Thrives
- MSPQC Healthcare Perinatal Quality Collaborative
- New York State nysPQC Perinatal Quality Collaborative
- Georgia Department of Public Health
- Wisconsin Perinatal Quality Collaborative
- Illinois PQC Perinatal Quality Collaborative
- FPQC Florida Perinatal Quality Collaborative
- MINNESOTA MDH Department of Health
- OREGON PERINATAL COLLABORATIVE
- LOUISIANA Department of Health and Hospitals
Perinatal Quality Collaborative States - 2017

PQC Status Per State
- PQC Available
- State with PQC and CDC DRH Funding
- Unknown PQC Status
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.
Which states have a PQC?
## PQC Characteristics

<table>
<thead>
<tr>
<th>Number of years established</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>( \leq 2 )</td>
<td>6 (18.8)</td>
</tr>
<tr>
<td>3-6</td>
<td>10 (31.2)</td>
</tr>
<tr>
<td>7-10</td>
<td>11 (34.4)</td>
</tr>
<tr>
<td>11-20</td>
<td>3 (9.4)</td>
</tr>
<tr>
<td>( \geq 20 )</td>
<td>2 (6.2)</td>
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**Focus of PQC**

<table>
<thead>
<tr>
<th>Focus of PQC</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>Maternal only</td>
<td>2 (6.2)</td>
</tr>
<tr>
<td>Neonatal only</td>
<td>1 (3.1)</td>
</tr>
<tr>
<td>Maternal and neonatal</td>
<td>29 (90.6)</td>
</tr>
<tr>
<td>PQC with active projects (including ongoing data collection and feedback to member facilities)</td>
<td>22 (69)</td>
</tr>
</tbody>
</table>
PQC Characteristics

Where PQC is housed

- Academic Institution: 28%
- State Health Department: 12%
- Independent (PQC stands alone): 19%
- Nonprofit Organization: 19%
- Other (Hospital Association, Hospital System, etc.): 22%
Top Challenges Reported by PQCs

- Funding
- Competing priorities
- Engaging physician providers
- Data systems
- Personnel and staffing
- Collaboration of stakeholders and non-clinical partners
- Organizational structure/infrastructure
- Communication
- “QI fatigue”
- Geographic separation/reaching rural areas
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
Project Aim
All 13 state-based PQC grantee teams will have minimal structural and process elements in place to have launched their first population-level perinatal improvement project including:
1. Identification of project AIM
2. Development of a measurement strategy including identification of specific outcome goal(s).
3. Stated demonstrated improvement in 1 or more process measures, by the end of the first year of their project.

Essential Elements include:
- Multidisciplinary advisory committee
- Clinical leaders
- Public health leaders
- Organizational/communication structure and roles
- Data management leader
- QI methods leader
- Family representatives
- One statewide meeting with key stakeholders

Specific Ideas to Test or Change Concepts
- Identify and Engage Key Players including leaders/champions, hospitals, support staff, stakeholders (including payers, and malpractice insurers), Clinical Experts, Patient and family partners
- Leaders develop plans and design including focus (neonatal or maternal) and goals
- Clarify roles and responsibilities (develop job descriptions)
- Seek and secure funding

- 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
- Third party expertise
- Document variation in outcomes and success elsewhere
- Recruit expert panel/advisory group
- Engage partner organizations to expand reach of initiative
- Recruitment packages, info calls, invitations from opinion leaders
- Identify learning model (8Ts or other) including plans for shared learning and accountability
- Plan evaluation, dissemination, and sustainability plans early on
- Use PQC Website/Branding for resource sharing and recognition

Identification of measures and strategy for collection and analysis to maximize learning and minimize burden
- Plan how teams will access data e.g. partnership with VS
- Implement data sharing 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

- Identify common model (MPI, LEAN, 6 Sigma)
- QI model education and implementation throughout initiative
- Communication of action plan to results
- Design from overview, dissemination goals, target audience, messages, channels
- Design based on funding (levels: minimal, limited, moderate, and substantial)
- Plan supports for sustainability (stakeholders, partners, successes, marketing)
Perinatal Quality Collaboratives

About Perinatal Quality Collaboratives

Perinatal quality collaboratives (PQC)s 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 healthcare-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:

https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pqc.htm
CDC recognizes the value that PQC can bring to improving health for mothers and babies and worked with experts to develop a resource guide to help develop and advance the work of state PQC. Topics in the guide include starting a statewide collaborative, launching initiatives, data and measurement, sustainability, and more. This guide is an online resource that includes links to other useful resources for perinatal quality improvement work.
Welcome to the NNPQC CoLab!
Announced by Ariel 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.
Success in Improving Perinatal Health: Multiple Partners

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

Multiple Leverage Points are much more effective than one or two alone
Acknowledgements

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- Emily Johnston
- Jane Mezoff
Thank You!

zhenderson@cdc.gov

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.