

# About OPQC



The Ohio Perinatal Quality Collaborative (OPQC) is a statewide consortium of perinatal clinicians, hospitals, and policy makers and governmental entities that aims, through the use of improvement science, to reduce preterm births and improve birth outcomes across Ohio. OPQC was founded in 2007, and is seen as a national model in statewide perinatal improvement. More information is available at [www.opqc.net](http://www.opqc.net) or [info@opqc.net](mailto:info@opqc.net).

## OUR GOALS

Ohio ranks 44<sup>th</sup> in infant mortality among states and 35<sup>th</sup> in prematurity (2015 national data). Infant mortality and prematurity are conditions that are devastating for families, can have lifelong impact, and incur significant health care costs. Preterm birth is the leading cause of infant mortality in Ohio. OPQC aims to reduce preterm births and achieve measurable improvements in birth outcomes through projects that promote best results for mothers and babies:

- 39 week scheduled deliveries without medical indication
- Antenatal corticosteroid (ANCS) administration
- Late onset infection in 22-29 week infants
- Human milk as medicine in the neonatal intensive care unit
- Progesterone for women at risk of delivering preterm
- Treatment of infants with neonatal abstinence syndrome (NAS)

## OUR APPROACH

OPQC employs a modified version of the Institute for Healthcare Improvement's (IHI) Breakthrough Series Model (BTS). It was designed to accelerate translation of evidence into practice by engaging multiple teams to learn from each other and from recognized experts to make improvements in a specific topic area. This model promotes use of rapid Plan-Do-Study-Act (PDSA) cycles, in which teams are taught to address problems as they arise by testing interventions and subsequent modifications in small steps to achieve desired change.

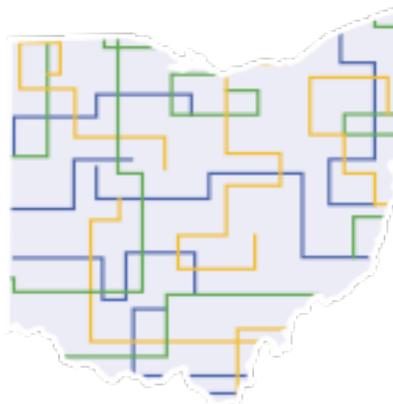
## LEADERSHIP

The OPQC senior leadership team consists of nationally recognized subject matter and quality improvement (QI) experts:

- Carole Lannon, MD, MPH: Quality Improvement Lead, Cincinnati Children's Hospital Medical Center, Cincinnati
- Jay Iams, MD: Obstetrics Lead, The Ohio State University, Columbus
- Michele Walsh, MD, MSE: Neonatal Lead, University Hospitals, Cleveland

## PARTNERS

OPQC is proud to partner with:  
Centers for Disease Control and Prevention (CDC)  
March of Dimes  
Ohio Better Birth Outcomes  
Ohio Children's Hospital Association  
Ohio Collaborative to Prevent Infant Mortality (OCPIM)  
Ohio Colleges of Medicine Government Resource Center  
Ohio Department of Health  
Ohio Department of Medicaid  
Ohio Hospital Association



## OUR MISSION

Through collaborative use of improvement science methods, reduce preterm births & improve perinatal and preterm newborn outcomes in Ohio as quickly as possible.

## OUR SITES

OPQC's current project involve 20 maternity hospitals, 23 outpatient maternity clinics, and 52 Level II and III NICUs. Educational outreach is provided to all 105 maternity hospitals in the state.

## ENGAGEMENT

OPQC strives to create an accessible, collaborative environment in which teams share with one another and learn from experts. OPQC uses monthly action period calls and face-to-face sessions with teams to review individual and aggregate data, learn from teams that have been successful at making changes and achieving improved outcomes, and apply the Model for Improvement to test specific strategies.

## DATA AND SHARING

OPQC uses data for learning and improvement. OPQC analyzes and aggregates data collected by participating teams and birth registry data, and then provides monthly feedback to teams. This rapid-turnaround facilitates data-driven improvement.

OPQC's works with the Ohio Department of Health Vital Statistics Department to provide individual hospital and aggregate birth registry data to teams participating in OPQC Projects. OPQC and ODH support hospitals teams in providing accurate birth registry data that is used for improvement and surveillance.

# About OPQC: Current Projects

## PROGESTERONE PROJECT

Prematurity is the leading cause of neonatal mortality and morbidity. The American College of Obstetricians and Gynecologists supports the use of supplemental progesterone to reduce the risk of preterm birth in women with a prior history of preterm birth and/or short cervix.

**The aim of the OPQC Progesterone Project** is to reduce the rate of births <37 weeks by 10% and births <32 weeks by 10% in Ohio by increasing the screening, identification, and treatment of pregnant women at risk for preterm birth who will benefit from progesterone therapy.

Since January 2014, OPQC has been working with 23 obstetrics outpatient clinics affiliated with the 20 largest maternity hospitals in Ohio to implement evidence-informed strategies to identify and treat women at risk for preterm birth (PTB). In May 2016, OPQC began a pilot with 5 Federally Qualified Health Centers to promote the use of progesterone and identify additional at risk women.

As a result of these efforts, rates of birth < 32 weeks gestation and < 37 weeks gestation to mothers with a history of preterm birth have significantly decreased in participating OPQC hospitals, including to African-American mothers and mothers on Medicaid. Because these 20 maternity hospitals care for the majority of very preterm births, rates for births < 32 weeks gestation to mothers with a history of previous preterm birth, including for African American mothers and mothers on Medicaid, have also decreased across all Ohio hospitals as well.

These successful strategies are being tested in several health systems and a small number of federally qualified health centers, and will be spread to other maternity care practices throughout the state.

## NEONATAL ABSTINENCE SYNDROME PROJECT

Neonatal Abstinence Syndrome (NAS) is a significant and increasing public health issue. In Ohio in 2011, treating infants born with NAS cost more than \$70 million and nearly 19,000 inpatient days. OPQC estimates that up to 50% of neonates with NAS in Ohio were not receiving optimal standardized care.

**The aim of the OPQC NAS Project** is to increase the identification of, and compassionate withdrawal treatment for full-term infants born with NAS, thereby reducing the length of stay for these infants by 20% across participating sites.

The 52 Level II and III Special Care Nurseries and NICUs participating in the OPQC NAS project have implemented evidenced-informed treatment protocols for more than 4000 infants with NAS since January 2014. This has resulted in increased use of compassionate care, reduced length of treatment, and reduced length of stay.

## NICU GRADUATES PROJECT

**The aim of the NICU Graduates Project** is to improve the transition from NICU to home for infants with complex health care needs and/or specific technology dependence. OPQC is working with all 6 Ohio Children's Hospital Association hospitals to begin testing and implementation in July 2016.

## PROJECTS IN SUSTAIN MODE

- 39 Weeks Delivery Project
- Antenatal Corticosteroid Administration
- Late Onset Infection in 22-29 Week Infants/Human Milk as Medicine

## OUR RESULTS

In collaboration with 105 Ohio maternity hospitals, OPQC has helped to achieve:

- A 40% reduction in scheduled (early elective) deliveries before 39 weeks that lack a documented medical indication—as a result, over 58,000 births have shifted to term
- A ~30% decrease in late onset bacterial infections for very premature infants from 12.3% in 2009 to the current rate of 9% in Ohio Level III NICUs

In the graph each point represents a 1-month interval, from January 2006 through January 2016. The success of the OPQC 39-Week project is apparent in the regular and sustained reductions in early elective deliveries across Ohio. The mean has decreased from 16.7% in the baseline period to 4.4% today.

