Purpose of the Project

With an estimated four million babies born in the United States annually, pregnancy and childbirth-related procedures account for all five of the most common medical procedures for women of childbearing age. Conditions related to pregnancy, childbirth, and newborns also account for nearly a quarter of hospitalizations each year. Yet studies show that deaths during pregnancy and childbirth have doubled for all U.S. women in the past 20 years, and infant mortality due to maternal complications is responsible for close to six percent of all infant deaths.

Lower quality care during pregnancy, labor and delivery, and the postpartum period can lead to unnecessary complications, extended hospital stays, costly neonatal intensive care unit admissions, and undue suffering for newborns, mothers, and families. Unfortunately, research indicates that significant racial, ethnic, and socioeconomic disparities exist with regard to maternal morbidity and mortality, preterm births, low birth weight infants, and other complications. When looked at together, these factors indicate a strong opportunity for creating safer, higher-quality care environments for mothers and babies. Perinatal measures are essential to achieving this aim.

NQF has previously endorsed measures related to perinatal and reproductive health. As of July 2011, 33 related measures had been endorsed as part of other projects, focused on areas such as ambulatory care, emergency care, and patient outcomes. Since then – at the request of the Department of Health and Human Services – NQF has focused on identifying, endorsing, and updating a broader set of perinatal and reproductive health performance measures. Specifically, this project sought to endorse measures that addressed reproductive health, pregnancy, childbirth and postpartum care, and newborn care.

What Was Endorsed

Summary of Perinatal and Reproductive Health Endorsement Maintenance Measures Project

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Under the perinatal and reproductive health endorsement project, NQF endorsed 14 measures suitable for accountability and quality improvement. Of the 14 measures, 12 were previously endorsed and underwent endorsement maintenance review, and two were newly submitted measures.

Measure stewards included a range of healthcare stakeholders, including the Joint Commission, the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention, and Massachusetts General Hospital, among others. A full list of measures is at the end of this report.

The Need these Measures Fill

This project sought to identify and endorse measures that specifically address perinatal and reproductive health for accountability and quality improvement. The resulting measures focus on a wide range of care concerns, including but not limited to elective vaginal deliveries and cesarean sections before 39 weeks; the percentage of women receiving prophylactic antibiotics before a cesarean...
section; hepatitis B vaccinations rates for newborns; healthcare-associated bloodstream infections in newborns; and exclusive breastfeeding rates during hospitalization.

Research suggests that morbidity and mortality associated with pregnancy and childbirth can be largely prevented when evidence-based care guidelines are followed; therefore, it is critical that providers have the right measurement tools to help ensure mothers and newborns receive safe, high-quality care. These measures will enhance NQF’s perinatal care portfolio and provide significant support for measuring and improving care quality.

Potential Use

These measures are applicable for use in acute care hospitals and neonatal intensive care units.

Project Perspectives

The troubling statistics surrounding pregnancy and childbirth in the United States illustrate the urgent need for quality measures capable of evaluating and ultimately improving perinatal care. With this set of updated and newly endorsed measures, NQF has taken a significant step in that direction.

Specifically, many of the endorsed measures have the potential to dramatically affect the health and well-being of both mothers and newborns. For example, the Joint Commission’s measure focused on elective vaginal deliveries or cesarean sections at ≥ 37 and < 39 weeks of gestation is critical. There is compelling evidence that elective delivery prior to 39 weeks can cause serious harm to infants, so much so that the March of Dimes has launched a campaign to prevent unnecessary premature birth. A measure put forth by Massachusetts General Hospital and Partners Health Care System, focused on women receiving prophylactic antibiotics prior to a cesarean section, is equally important. More than one million cesarean sections are performed in the United States each year and are associated with high surgical site infection rates; there is clear evidence that appropriate antibiotics given in a timely manner before the procedure greatly reduces infection and further complications.

Measurement gaps, however, still exist. NQF identified several areas where further work is needed to more fully address care concerns for these populations. Reproductive health measures – such as preconception health screenings for diabetes, hypertension, and HIV; and assessment of medication use and screening for tobacco, alcohol, or drugs – are still needed. Additionally, measures that evaluate childbirth and postpartum care at the clinician level are essential to improving care quality.

Endorsed Measures

0469: PC-01 Elective Delivery (Joint Commission)

*Description:* This measure assesses patients with elective vaginal deliveries or elective cesarean sections at ≥ 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

0470: Incidence of Episiotomy (Christiana Care Health System)

*Description:* Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.

0471: PC-02 Cesarean Section (Joint Commission)

*Description:* This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean section. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

0472: Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision– Cesarean Section (Massachusetts General Hospital/Partners Health Care System)

*Description:* This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean section. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).
**0473: Appropriate DVT Prophylaxis in Women Undergoing Cesarean Delivery (Hospital Corporation of America)**

*Description:* Measure adherence to current ACOG, SMFM recommendations for use of DVT prophylaxis in women undergoing cesarean delivery. Current ACOG and SMFM recommendations call for the use of pneumatic compression devices in all women undergoing cesarean delivery who are not already receiving medical VTE prophylaxis.

**0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge (Centers for Disease Control and Prevention)**

*Description:* Percent of live newborn infants that receive hepatitis B vaccination before discharge at each single hospital/birthing facility during given time period (one year).

**0476: PC-03 Antenatal Steroids (Joint Commission)**

*Description:* This measure assesses patients at risk of preterm delivery at 24 0/7-32 0/7 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

**1746: Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS) (Massachusetts General Hospital)**

*Description:* Percentage of pregnant women who are eligible for and receive appropriate intrapartum antibiotic prophylaxis (IAP) for Group B Streptococcus (GBS).

**0477: Under 1500g Infant Not Delivered at Appropriate Level of Care (California Maternal Quality Care Collaborative)**

*Description:* The number per 1,000 live births of <1500g infants delivered at hospitals not appropriate for that size infant.

**0478: Neonatal Blood Stream Infection Rate (NQI #3) (Agency for Healthcare Research and Quality)**

*Description:* Percentage of high-risk newborn discharges with an ICD-9-CM diagnosis code of bloodstream infection.

**1731: Health Care-Associated Bloodstream Infections in Newborns (Joint Commission)**

*Description:* This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

**0304: Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted) (Vermont Oxford Network)**

*Description:* Standardized rate and standardized morbidity ratio for nosocomial bacterial infection after day 3 of life for very low birth weight infants, including infants with birth weights between 401 and 1500 grams and infants whose gestational age is between 22 and 29 weeks.

**0480: PC-05 Exclusive Breast Milk Feeding (Joint Commission)**

*Description:* This measure assesses the number of newborns exclusively fed breast milk feeding during the newborn’s entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).

**0483: Proportion of Infants 22 to 29 Weeks Gestation Screened for Retinopathy of Prematurity (Vermont Oxford Network)**

*Description:* Proportion of infants 22 to 29 weeks gestation who were in the reporting hospital at the postnatal age recommended for retinopathy of prematurity (ROP) screening by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.