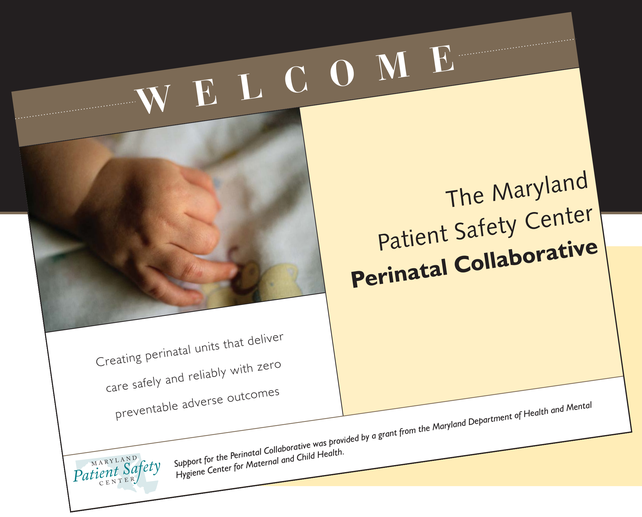
Supporting Culture and Teamwork: **Perinatal Collaborative**



The aim of the Perinatal Collaborative is to reduce infant harm through the implementation and integration of systems improvements and team behaviors into maternal-fetal care

When we think of labor and delivery today, we think of healthy women giving birth to a beautiful baby and everyone being happy, but when a bad outcome occurs it's devastating to both the parents and the care team. When the Joint Commission on Accreditation of Healthcare Organizations analyzed 42 sentinel events involving infant death from 1999-2004, it revealed that communication was the leading root cause and culture as a barrier to communication and teamwork was an underlying cause. The Maryland Patient Safety Center Perinatal Collaborative seeks to address this fundamental process and by doing so reduce the risk of a poor outcome.

Mission

The **mission** of the Perinatal Collaborative is to create perinatal units that deliver care safely and reliably with zero preventable adverse events. The specific **aim** is to reduce infant harm as measured by Adverse Outcome Index (AOI) and improvement in the culture of safety by the AHRQ Hospital Patient Safety Survey.

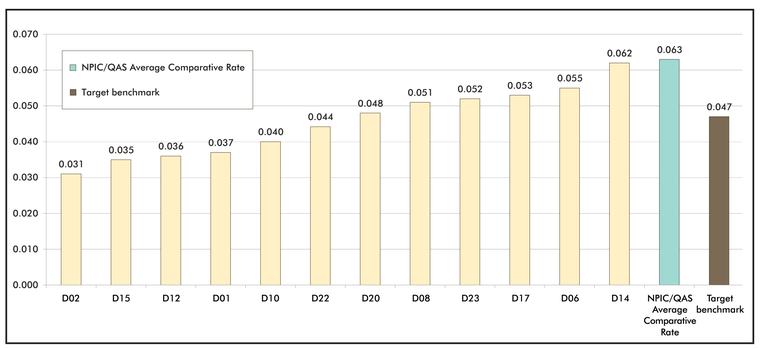
Adverse Outcome Index

The AOI is a weighted performance measure of quality care in labor and delivery units recently developed by an expert consensus panel and tested at Beth Israel Deaconess Medical Center. Index measures are as follows:

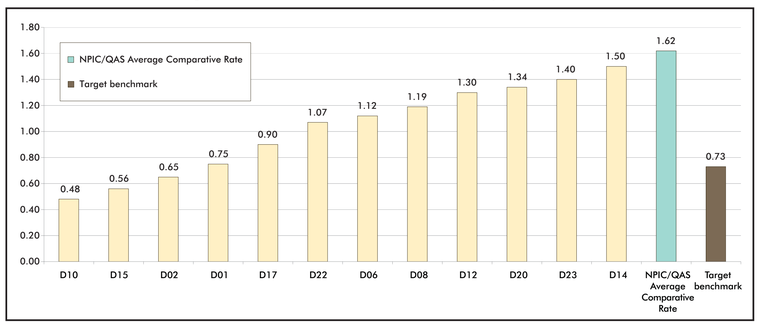
Index Measures	Weighted Score
Maternal death	750
Intrapartum and neonatal death > 2500 g	400
Uterine rupture	100
Maternal admission to the ICU	65
Birth trauma	60
Return to operating room/labor and delivery	40
Admission to NICU > 2500 g and for > 24 hours	35
Apgar < 7 at 5 minutes	25
Blood transfusion	20
Three or 4° perineal tear	5

The AOI is the percentage of patients with 1 or more of these 10 adverse events. To distinguish high from low severity events, a weighted score was developed for each outcome. The Weighted Adverse Outcome Score (WAOS) is the average score for each patient who delivers on the obstetrics unit. The Severity Index (SI) is the average score for each patient who suffers one or more adverse events. The National Perinatal Information Center (NPIC) analyzes hospital discharge data quarterly. All hospitals participating in the Perinatal Collaborative are required to submit data to the NPIC for the calendar year 2006, the fourth quarter of 2007 and first quarter of 2008.

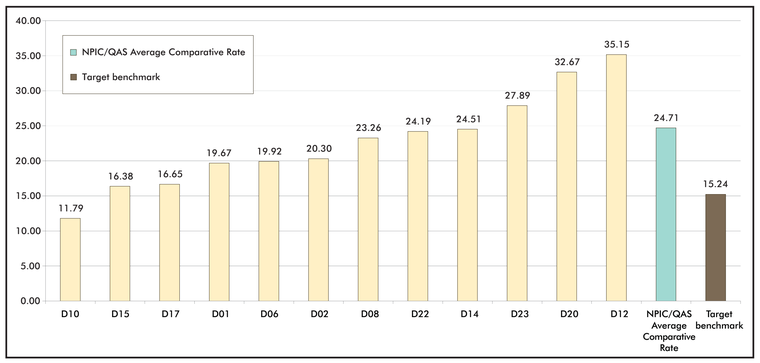
Adverse Outcome Index (AOI) Report: Baseline Data (2006) from a Sample of Maryland Hospitals (Number of patients with one or more adverse outcomes divided by the total number of deliveries) AOI Version 2.0



Weighted Adverse Outcome Score (WAOS): Baseline Data (2006) from a Sample of Maryland Hospitals (All adverse events times severity weight divided by the total number of deliveries) AOI Version 2.0



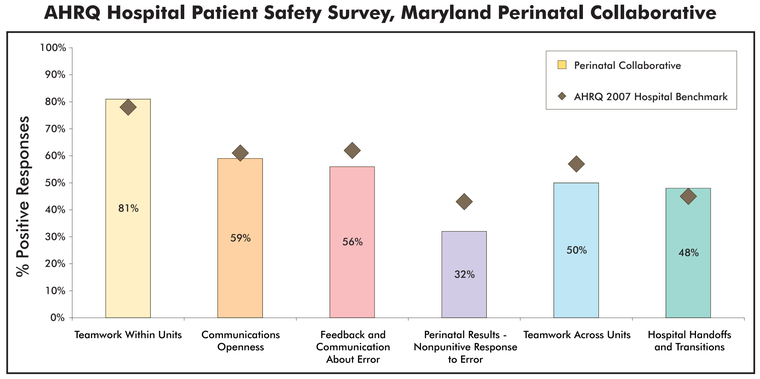
Severity Index (SI Report): Baseline Data (2006) from a Sample of Maryland Hospitals (total weights divided by number of patients with an adverse event) AOI Version 2.0



Assessment of Safety Culture

The Perinatal Collaborative uses the AHRQ Hospital Survey on Patient Safety Culture to measure the culture component of improving perinatal care. The AHRQ survey was distributed before the start of the collaborative and will be repeated one year later. Baseline results on our areas of focus are included below.

Dimensions of Communication and Teamwork
AHRQ Hospital Patient Safety Survey, Maryland Perinatal Collaborative



Changes Being Tested and Implemented

- Standardized electronic fetal heart rate (FHR) monitoring terminology with the adoption of terms from the National Institute of Child Health and Development (NICHD) for all professional communication about FHR patterns
- Applied the concepts of crew resource management/team training to labor & delivery
  - Implemented multidisciplinary team meetings (Board Rounds) on each shift.
  - Improved effectiveness of SBAR communications
  - Improved assertion for patient safety via TeamSTEPPS™ Two-Challenge Rule and CUS Techniques
  - Created contingency teams to respond to emergency situations
  - Improved situation monitoring through creation of shared mental models (e.g. call out and huddles)
  - Improved situation monitoring through cross monitoring of team members
- Implemented routine emergency drills or critical events training with debriefings to evaluate team performance and identify opportunities for improvement
- Reviewed technique for vacuum-assisted deliveries
- Measured and provided feedback on the Institute for Healthcare Improvement's Perinatal Bundles (Elective Induction and Augmentation)

Summary of Results / Lessons Learned

In most cases, perinatal units in the region reported similar perceptions of patient safety culture to those facilities in AHRQ's comparison group. Perceptions of Teamwork Within Units is high, while Teamwork Across Units remains an area with opportunities for improvement. Although teamwork within labor and delivery units was strong, it declined when the unit got busy. There were opportunities for improvement in all aspects of communication measured by the survey.

Since this project is in an early stage, improvement results are still being analyzed. However, we have already learned several lessons:

- Create an early and strong kick-off for the project to initiate momentum.
- Do what you can do to forward progress no matter what the circumstances.
- Assess the team's progress in light of the circumstances to recognize efforts.
- Keep the senior leaders informed and excited about the project.

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