

# Neonatal Nutrition Initiative



## AIM

Reduce to below 40% the percentage of very low birth weight (VLBW) infants discharged from a neonatal intensive-care unit (NICU) with weight <10th percentile by the end of 2014.

## PROBLEM

Approximately one half of VLBW (birth weight <1500 grams) infants are discharged from the hospital with body weight at <10th percentile, compared to expected intrauterine growth. A high proportion of VLBW infants' growth slows down postnatally – a phenomenon called “extra-uterine growth restriction” (EUGR). Postnatal nutritional deficit in VLBW infants is associated with developmental delay and adult morbidities.

## EVIDENCE-BASED PRACTICES

Evidence-based practices, including early total parenteral nutrition (TPN) and using standardized feeding protocols, have been shown to optimize the growth of VLBW infants, diminish the number of extra-uterine growth restricted infants, and improve the long-term health outcomes for these at-risk infants.

## ILPQC MISSION

Engage perinatal stakeholders across disciplines and at every level, in a collaborative effort to improve the quality of perinatal care and health outcomes for Illinois women and infants using improvement science, education, and evidence-based practice guidelines.

# Neonatal Nutrition Initiative



## Scope

Eighteen Level III & II NICUs are participating in the ILPQC Neonatal Nutrition Initiative and as of March 2015, have reported data on 1,512 infants.

## APPROACH

Starting in November 2013 participating hospitals identified teams and participated in planning calls to develop measures and standardize definitions. An evidence based toolkit was developed and distributed to all centers. A data collection form and the ILPQC web-based data system with real time secure reporting was implemented with input from the Neonatal and Data Advisory Workgroups.

The initiative was kicked off with data collection on every VLBW infant in participating hospitals starting January 1, 2014 through December 31, 2014. Data was reviewed regularly across participating hospitals and bi-monthly collaborative learning calls were held. Each participating hospital has a secure data portal in the ILPQC data system to access their real time data to review measures across time and to compare across participating hospitals.

## RESULTS TO DATE (MARCH 2015)

- Hour of life when TPN started: reduced from 3 hours to <1.5 hours
- Hour of life when lipids started: reduced from 16 hours to less than 6 hours
- Age in days when first enteric feeding started: reduced from 4 days to < 1 day
- Day of life when reaching 120ml/kg/day of enteral feeds: reduced from 18 to 14 days
- Percent of infants receiving >50% of enteral feeds as breast milk at discharge: increased from 43% to 64%

Average Percent Very Low Birth Weight (VLBW) Infants in the Neonatal Intensive Care Unit (NICU) with Weight < 10th Percentile at Discharge, ILPQC Hospitals, January 2014 through December 2014 (incomplete data).

### Percent of Infants who are <10th Percentile at Discharge

