

Illinois Perinatal Quality Collaborative

Neonatal Nutrition Initiative



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.

AIM

Reduce from 45% to below 30% 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.



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RESULTS

- Hour of life when TPN started: reduced from 5 hours to less than 3 hours
- Hour of life when lipids started: reduced from 23 hours to less than 12 hours
- Age in days when first enteric feeding started: reduced from 3.2 days to less than 2.3 days
- Day of life when reaching 120ml/kg/day of enteral feeds: reduced from 15.2 to 14.4 days

SCOPE

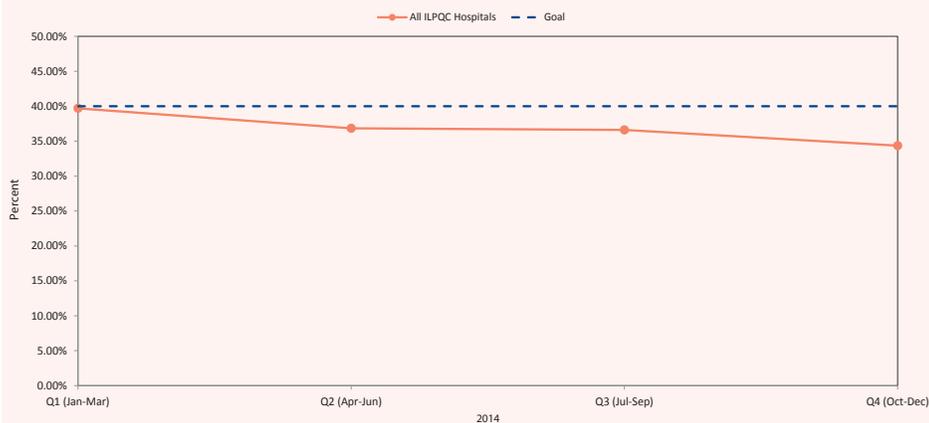
Eighteen Level III & II NICUs participated in the ILPQC Neonatal Nutrition Initiative and reported data on 1,524 infants.

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. 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.

Average Percent Very Low Birth Weight (VLBW) Infants in the Neonatal Intensive Care Unit (NICU) with weight < 10th Percentile at Discharge, All ILPQC Hospitals*, Quarter 1 (baseline) through Quarter 4 2014



*Excludes 2 hospitals not reporting data after June/July 2014