



# ILPQC: Welcome

ILPQC Second Annual Conference  
November 10, 2014

# Happy Birthday ILPQC



- Thank you to all who have contributed to building a successful state perinatal quality collaborative for IL
  - Sponsors
  - Stakeholders / Partners
  - Advisory Workgroups
  - Hospital Teams
  - Families

# Conference Agenda

8:00-8:10	<b>Welcome</b>
8:10-8:45	<b>ILPQC: One Year and Counting</b>
8:45-9:45	<b>Keynote: Perinatal Quality Collaboratives: State and National Successes</b> Elliott K. Main, MD, CMQCC
9:45-10:15	<b>Transforming Perinatal Healthcare through Quality Improvement</b> Marty McCaffrey, MD, CAPT USN (Ret), PQCNC
10:15-10:30	<b>Break</b>
10:30-12:00	<b>Panel: Leaders from other Perinatal Quality Collaboratives on Past and Present Initiatives</b> Peter H. Grubb, MD, TIPQC Michael Krew, MD, MS, OPQC Marty McCaffrey, MD, CAPT USN (Ret), PQCNC
12:00-1:30	<b>Networking Lunch and Poster Session</b>
1:30-2:15	<b>Engaging Families in Quality Improvement</b> Tara Bristol, MA, PQCNC

# Conference Agenda



2:15-3:00	<b>Improving Outcomes with Preeclampsia: the Role of a State Collaborative</b> Elliott K. Main, MD, CMQCC
3:00-3:15	<b>Break</b>
3:15-4:45	<b>Hot Topics in Neonatal and OB QI: Discussion of Current and Future Initiatives</b> <b>Neonatal Breakout:</b> Aki Noguchi, MD, ILPQC; Patricia Ittmann, DO, ILPQC; Peter H. Grubb, MD, TIPQC; Marty McCaffrey, MD, CAPT USN (Ret), PQCNC <b>Obstetric Breakout</b> Ann Borders, MD, MSc, MPH, ILPQC; William Grobman, MD, MBA; Michael Krew, MD, MS, OPQC; Elliott K. Main, MD, CMQCC; Cindy Mitchell RN, BSN, MSHL, ILPQC <b>Family Engagement Breakout</b> Tara Bristol, MA, PQCNC
4:45-5:00	<b>Wrap up &amp; Evaluation</b>

# Overall Conference Objectives



1. Describe critical components of a well-functioning statewide perinatal quality collaborative.
2. Explain CQI theory and methods to improve perinatal outcomes.
3. Identify successful past/present initiatives in Illinois to reduce adverse perinatal outcomes.
4. Lead or participate in the planning, implementation and sustenance of a perinatal quality improvement project based on one's expertise.
5. Drive national, state, and local policies aimed to improve perinatal health care.

# Illinois Perinatal Quality Collaborative (ILPQC) Second Annual Conference



Approval for 6.83 contact hours

This continuing nursing education activity was approved by the Ohio Nurses Association (OBN-001-91), an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

Approval valid through 10/31/2016  
ONA # 17672

# Illinois Perinatal Quality Collaborative (ILPQC) Second Annual Conference



The Northwestern University Feinberg School of Medicine designates this live activity for a maximum of 7 AMA PRA Category 1 Credit(s)<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

# CME/CEU's



To receive your CEU contact hours, you must sign in, attend the entire presentation, and complete the evaluation form. CEU certificates will be distributed at the end of the conference after the evaluation is turned in.

To receive your CME credits, you must sign in, complete the Credit Verification Form and the evaluation form. CME certificates will be mailed to you from Northwestern University Feinberg School of Medicine. If you have not already, you must inform staff at registration and pay on-line for CME credits at [www.ILPQC.org](http://www.ILPQC.org) before Wednesday 11/12/14 at 5pm.

The planning committee and the speakers of the conference declare no conflict of interest.



# ILPQC: One Year and Counting

ILPQC Second Annual Conference  
November 10, 2014

# Overview

- ILPQC year one
- Accomplishments
  - Hospital engagement
  - Website
  - REDCap data system
  - Neonatal Initiative
  - OB Initiative
  - CDC Award
- Neonatal Initiative Overview
- OB Initiative Overview
- Next Steps



# Preterm Birth in Illinois

- Of 161,312 births in IL, 12% were born preterm (<37 weeks), 1.4% VLBW (<1500g) *(NCHS, 2011)*
- The cost to care for 21,168 preterm infants in Illinois amounted to over \$1.09 billion in 2009
- Average birth cost of a VLBW infant in the first year is \$300,000 vs. \$7,700 for term infant *(Report to IL General Assembly, Jan 2014 from IL Medicaid data )*

# Prematurity Task Force

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## **IL House JOINT resolution 111**

That the Perinatal Advisory Committee shall, in a written report that is to be delivered to the General Assembly on or before November 1, 2012 make findings and recommendations concerning reducing preterm births in Illinois...

# Task Force Recommendation

- **Provide resources for perinatal quality collaborative to work in tandem with RPS\* to engage in ongoing quality improvement initiatives**

\*Regional Perinatal System

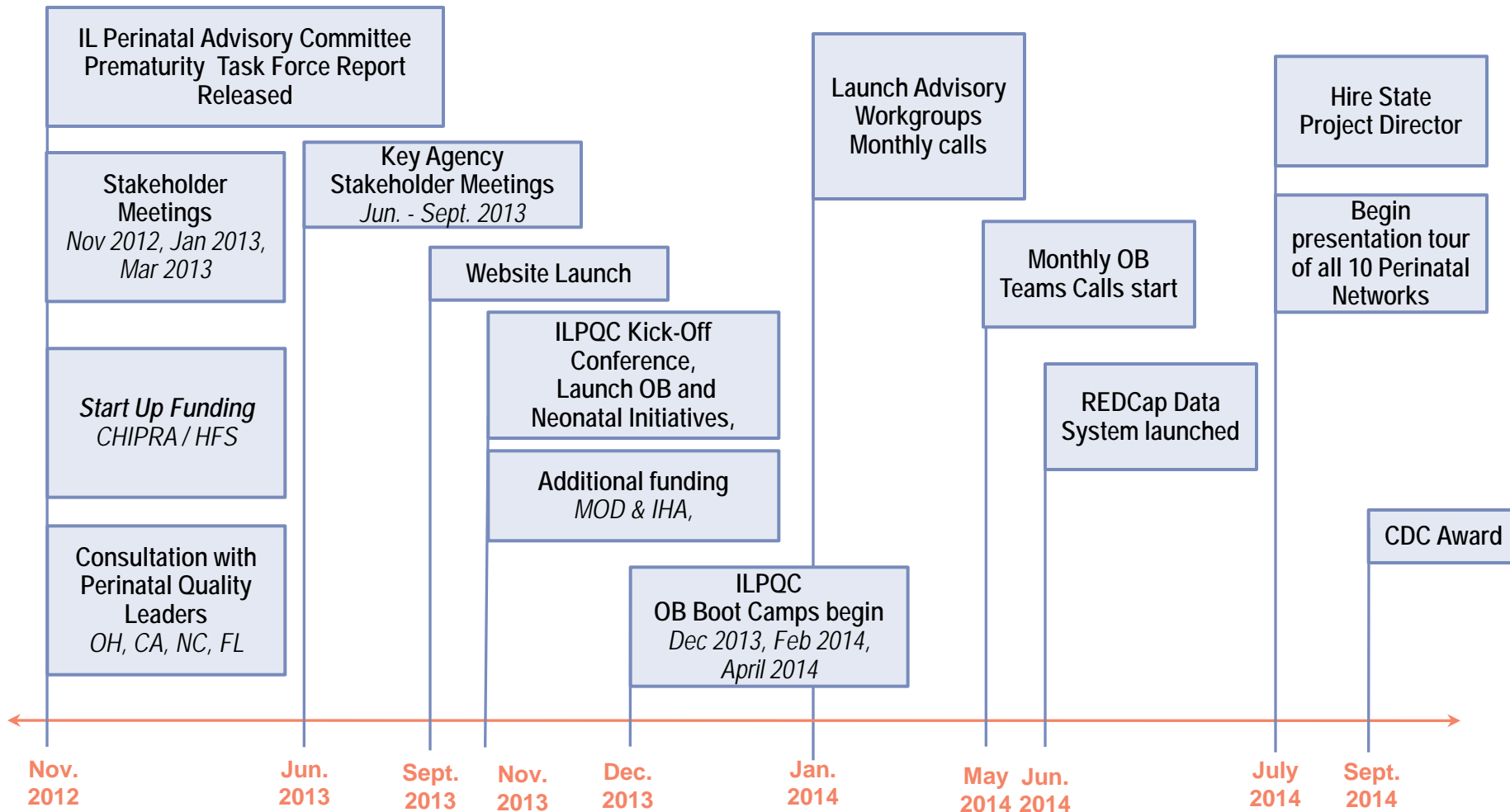


# Why a state perinatal quality collaborative in IL?

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- ILPQC was formed to provide hospitals support for perinatal QI to help make IL the best and safest place to be born
  - ▣ Input from physicians, nurses and stakeholders across the state
  - ▣ Collaborative infrastructure, shared learning
  - ▣ QI expertise and hospital specific support
  - ▣ Data system and rapid reporting to provide hospitals with data to compare across time and across hospitals statewide

# ILPQC Timeline



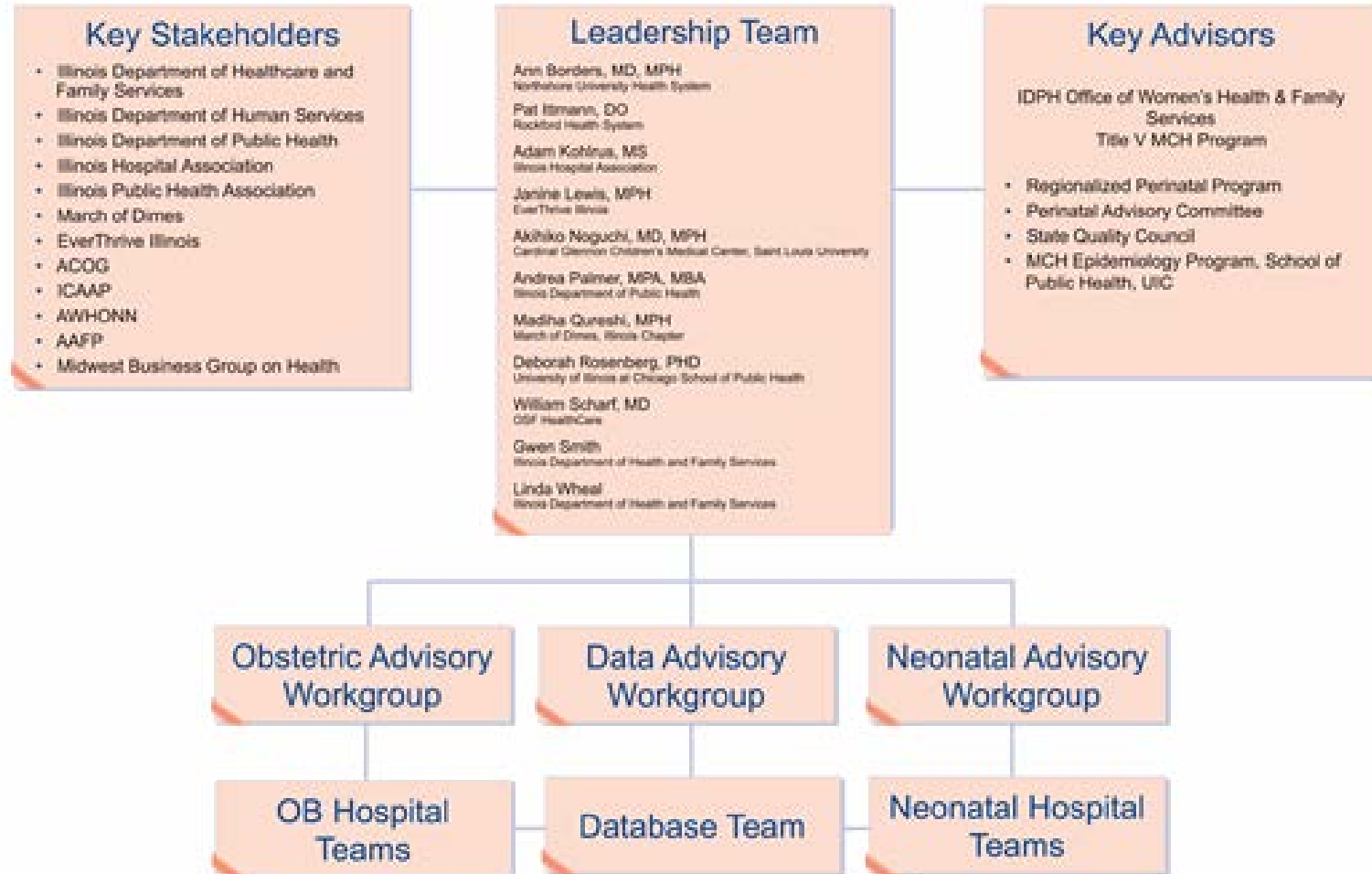
# Mission

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.



A statewide perinatal quality collaborative that involves all perinatal stakeholders; utilizes data-driven, evidence-based practices; improves perinatal quality resulting in improved birth outcomes, improved health for women and infants, and decreased costs; builds on Illinois' existing state-mandated Regionalized Perinatal System, and operates with long-term sustainable funding.

# ILPQC Infrastructure



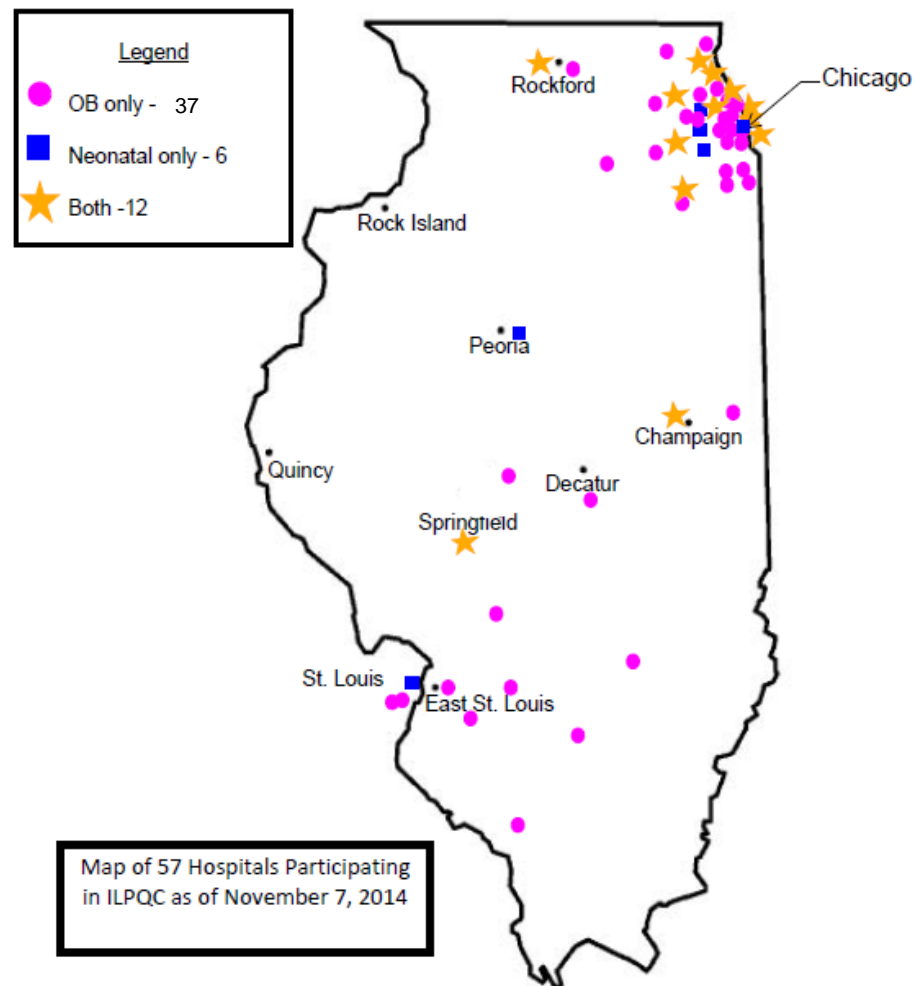
# Highlights from Year One



- Engaged hospital teams statewide with QI support, education and initiatives
- Developed statewide collaborative structure: advisory workgroups and monthly team calls
- Designed ILPQC website
- Developed ILPQC data system
- Launched OB Early Elective Delivery and Neonatal VLBW Nutrition Initiatives
- Received CDC State-Based Perinatal Quality Collaborative grant
- Started planning for Birth Certificate Accuracy and other future initiatives

# Hospitals Engaged

- 49 hospitals in OB Initiative
  - 64% births in IL covered by ILPQC
  - 38 entering data into REDCap
- 18 hospitals in Neonatal Initiative
  - 84% of IL NICU beds covered by ILPQC
  - 18 entering data into REDCap



# ILPQC Website

- Up-to-date ILPQC happenings
- Latest news related to ILPQC initiatives
- Partner announcements and resources
- Members only area
  - Share resources with ILPQC members
  - Collaborate and communicate via online ILPQC forums/discussion boards

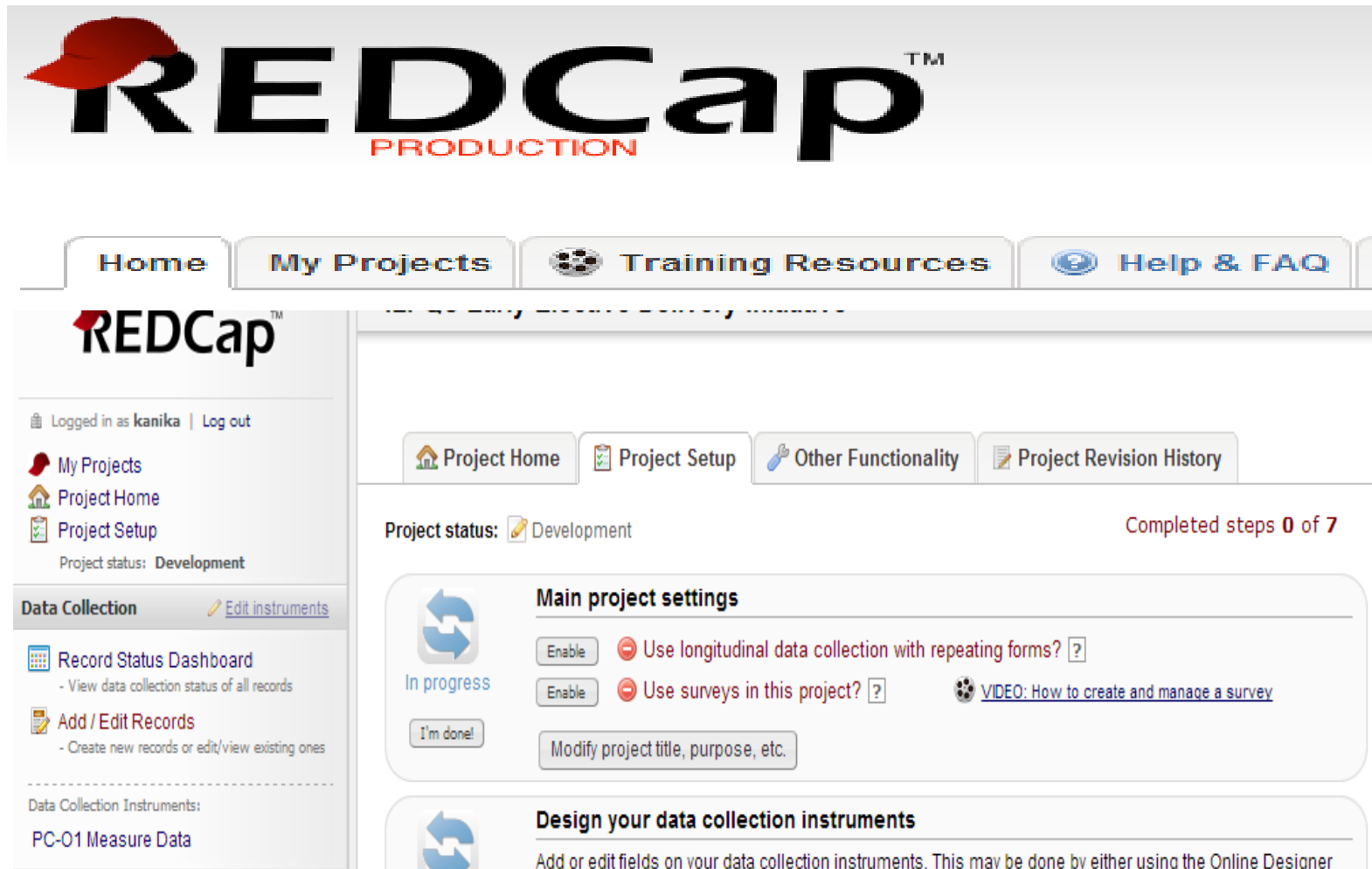


# REDCap Data System



- Independent, secure, confidential
- Built in collaboration with CHITREC
- Data team: Project Manager and Coordinator meet weekly with ILPQC leadership to support data system
- Customizable data forms based on advisory group recommendations and initiative needs
- Real-time data reporting available to users to view their progress and compare to others for all initiatives
- Data analysis and reporting on quarterly basis

# REDCap – User View



The screenshot displays the REDCap user interface. At the top, the REDCap logo is prominently featured with the word 'PRODUCTION' underneath. Below the logo is a navigation bar with buttons for 'Home', 'My Projects', 'Training Resources', and 'Help & FAQ'. The main content area is titled 'Project Setup' and includes a sub-navigation bar with 'Project Home', 'Project Setup', 'Other Functionality', and 'Project Revision History'. The project status is shown as 'Development' with 'Completed steps 0 of 7'. The 'Main project settings' section contains two toggle switches: 'Use longitudinal data collection with repeating forms?' and 'Use surveys in this project?'. The 'Design your data collection instruments' section is partially visible at the bottom.

## REDCap™

PRODUCTION

Home My Projects Training Resources Help & FAQ

### REDCap™

Logged in as kanika | Log out

- My Projects
- Project Home
- Project Setup

Project status: Development

Data Collection [Edit instruments](#)

- Record Status Dashboard  
- View data collection status of all records
- Add / Edit Records  
- Create new records or edit/view existing ones

Data Collection Instruments:  
PC-01 Measure Data

Project Home Project Setup Other Functionality Project Revision History

Project status: Development Completed steps 0 of 7

#### Main project settings

In progress

Enable  Use longitudinal data collection with repeating forms? [?](#)

Enable  Use surveys in this project? [?](#) [VIDEO: How to create and manage a survey](#)

#### Design your data collection instruments

Add or edit fields on your data collection instruments. This may be done by either using the Online Designer

# Neonatal Nutrition Initiative

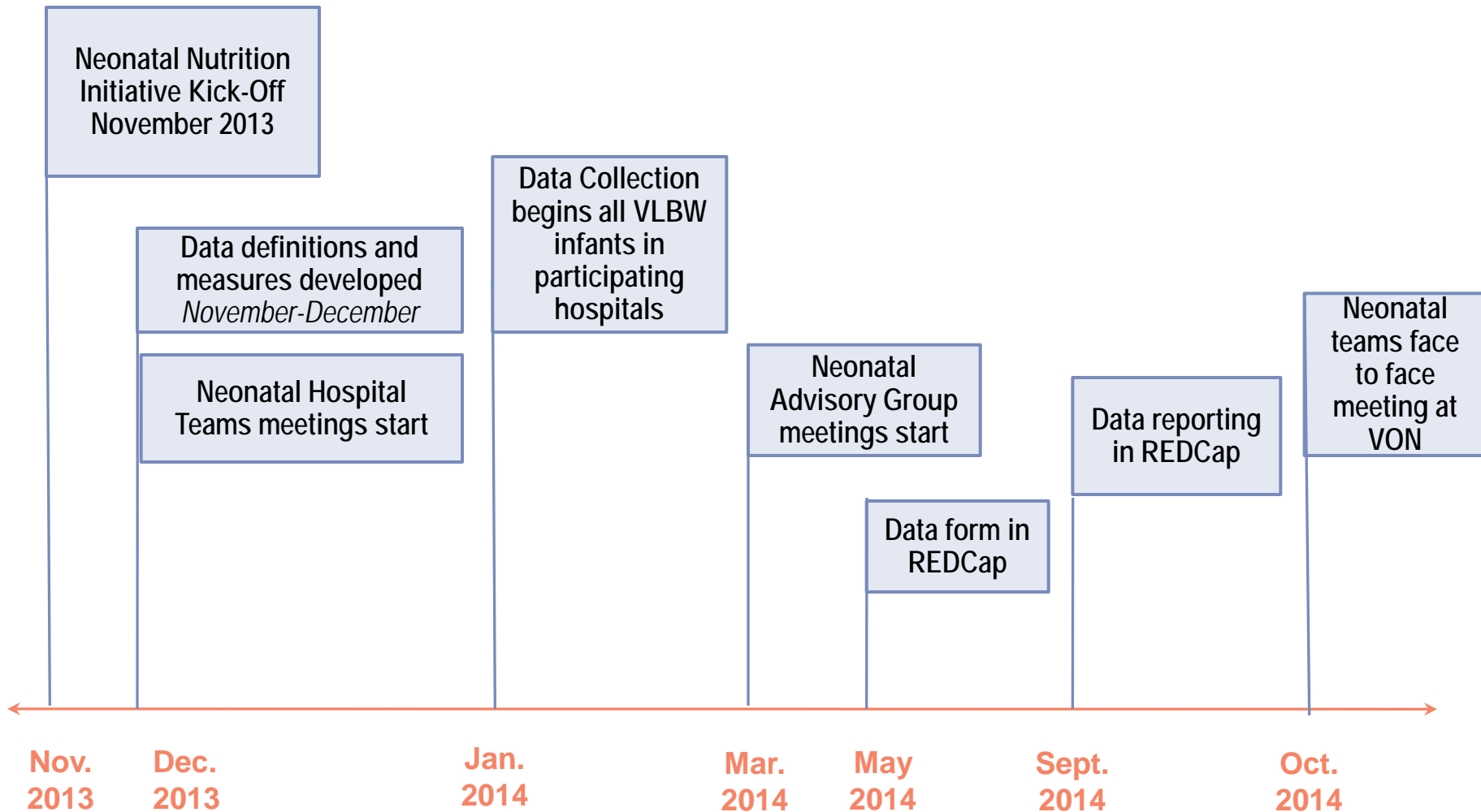
**Aim:** Reduce from 45% to below 30% the percentage of very low birth weight (VLBW) infants discharged from a neonatal intensive-care unit (NICU) with weight <10th percentile by the end of 2014.

**Approach:** Implement evidence-based toolkit (based on CPQCC and VON) on practices for parenteral & enteral nutrition



- 18 Level III & II NICUs participating
- Monthly data collection on all VLBW infants starting January 2014. As of October 2014, data reported on 1,012 infants

# Neonatal Initiative Timeline



# Evidence-Based Practices

- Early TPN with amino acids on DOL 1
- Early lipids in first 24 hours
- Early Breast milk as feeding of choice
- Early early enteral feeds with standardized advancement and definition of feeding intolerance
- Early fortification of breast milk to promote growth

# Hospitals Participating Neonatal Nutrition Initiative




Adventist Hinsdale Hospital -  
Hinsdale  
Advocate Condell Medical Center -  
Libertyville  
Advocate Good Samaritan Hospital  
- Downers Grove  
Cardinal Glennon Children's  
Hospital - St. Louis  
Carle Foundation Hospital - Urbana  
CHOI at OSF St. Francis Medical  
Center - Peoria  
Edward Hospital - Naperville  
Evanston Hospital - Evanston  
Northwest Community Hospital -  
Arlington Heights


Northwestern Memorial - Chicago  
RMCH at Loyola University Medical  
Center- Maywood  
Rockford Memorial Hospital- Rockford  
Rush University Medical Center -  
Chicago  
Silver Cross Hospital- New Lenox  
St. Alexius Medical Center - Hoffman  
Estates  
St. John's Hospital - Springfield  
University of Chicago - Chicago  
University of Illinois at Chicago -  
Chicago

# Neonatal REDCap Data Sheet

## Nutrition data sheet

 VIDEO: Basic data entry (16 min)

 Download PDF of - select PDF download option -

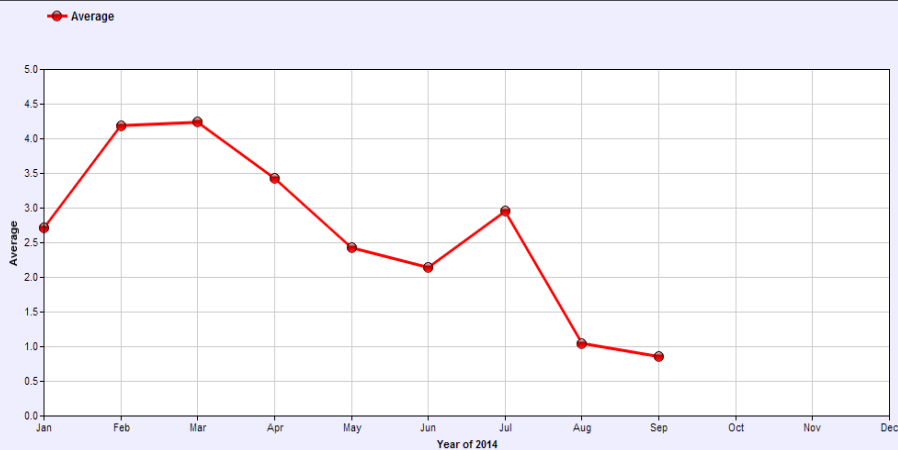
 Adding new Record ID 186-1

Record ID	186-1
Baby ID Number	<input type="text"/>
<small>* must provide value</small>	
Birth Date	<input type="text"/> <input type="button" value="Today"/> Y-M-D
<small>* must provide value</small>	
Birth gestational age	<input type="text"/>
<small>* must provide value</small>	<small>Determined by LMP or early ultrasound primarily. If not, use clinical estimate. Expressed in days.</small>
Was the infant an out born?	<input type="radio"/> Yes <input type="radio"/> No <span style="float: right;"><small>reset</small></span>
Gender	<input type="radio"/> Male <input type="radio"/> Female <span style="float: right;"><small>reset</small></span>
Race	<input type="radio"/> White <input type="radio"/> Black <input type="radio"/> Hispanic <input type="radio"/> Other <span style="float: right;"><small>reset</small></span>
<b>Birth</b>	
Weight	<input type="text"/> <small>Enter in grams (range 250-6000 g) with 4 significant digits (i.e 1235g).</small>
HC	<input type="text"/> <small>Head circumference in cm to nearest tenth (range 15.0-50.0 cm)</small>
Length	<input type="text"/> <small>Length in cm to nearest tenth (range 25 - 60 cm)</small>
<b>DOL 7</b>	
Weight	<input type="text"/> <small>Enter in grams (range 250-6000 g) with 4 significant digits (i.e 1235g).</small>
HC	<input type="text"/> <small>Head circumference in cm to nearest tenth (range 15.0-50.0 cm)</small>
Length	<input type="text"/> <small>Length in cm to nearest tenth (range 25 - 60 cm)</small>
<b>DOL 28</b>	
Weight	<input type="text"/> <small>Enter in grams (range 250-6000 g) with 4 significant digits (i.e 1235g).</small>
HC	<input type="text"/> <small>Head circumference in cm to nearest tenth (range 15.0-50.0 cm)</small>
Length	<input type="text"/> <small>Length in cm to nearest tenth (range 25 - 60 cm)</small>

# Process Measures: TPN and Lipids Start Time

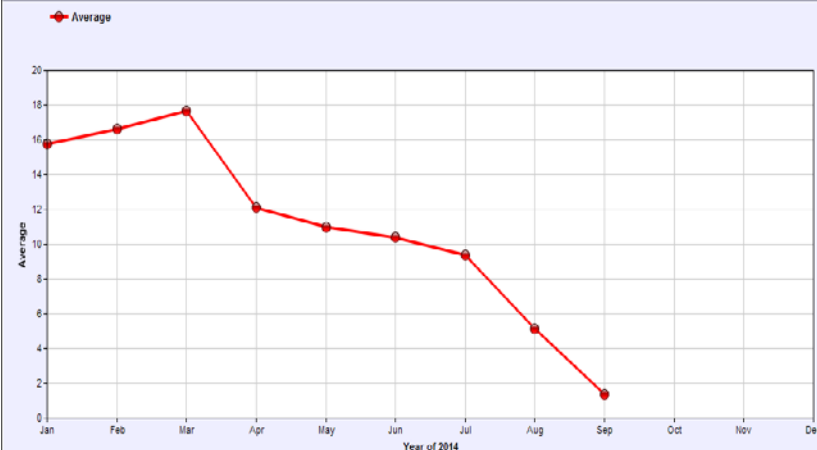
From almost 3 hours to less than 1 hour

*Hour of Life When TPN Started*



From 16 hours to less than 2 hours

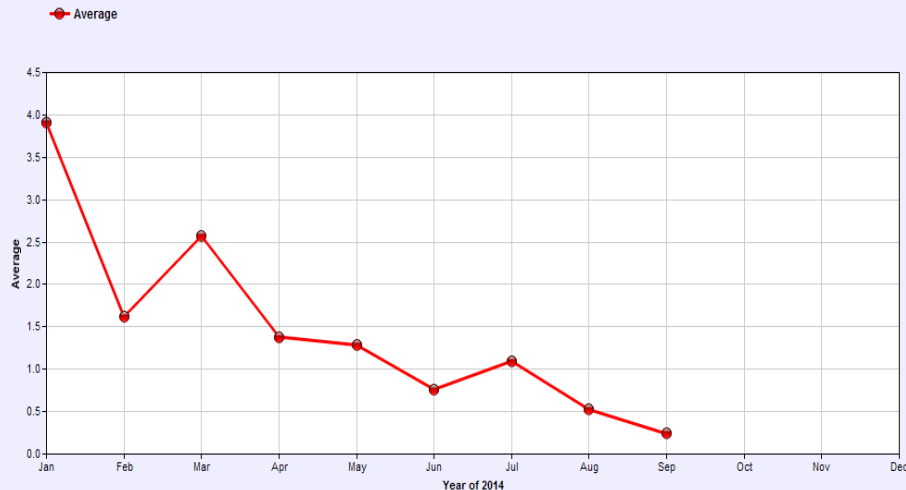
*Hour of Life When IV Lipids Started*



# Process Measures: Enteral Feeds

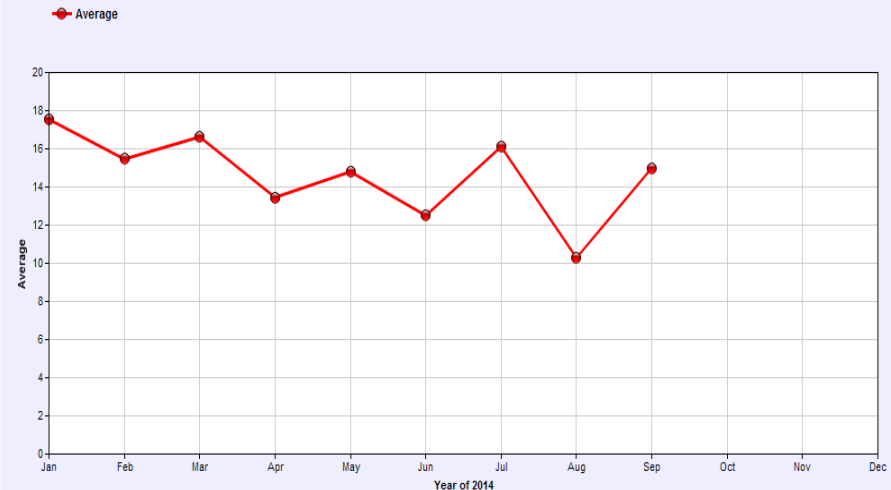
Start day from 4 days to < 1 day

*Age in Days When First Enteric Feeding Started*



Days to 120 ml/kg feeds from 18 to 15 days

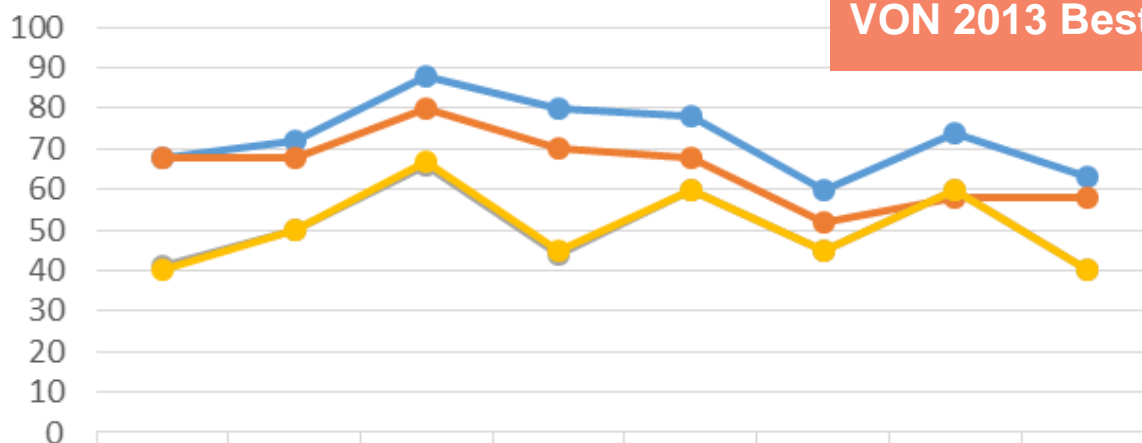
*Age(days) When 120Kcal/kg/d is Achieved for the first time*



# Process Measures: Breast Milk > 50% of Enteral Feeds

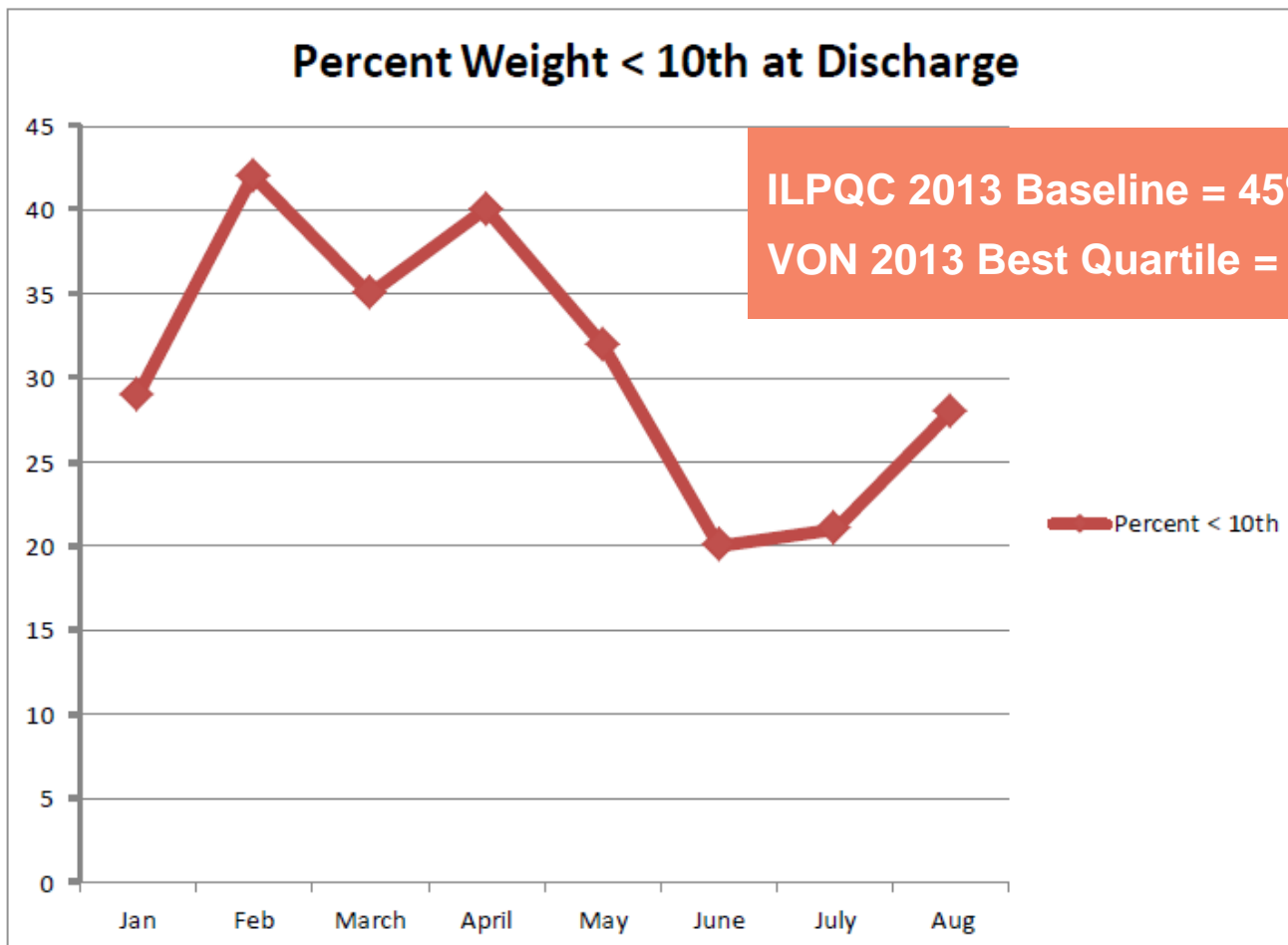
Breast Milk > 50 %

ILPQC 2013 Baseline = 43%  
 VON 2013 Best Quartile = 64%



	Jan	Feb	March	April	May	June	July	Aug
—●— DOL 7	68	72	88	80	78	60	74	63
—●— DOL 28	68	68	80	70	68	52	58	58
—●— 36 wks CA	41	50	66	44	60	45	60	40
—●— Discharge	40	50	67	45	60	45	60	40

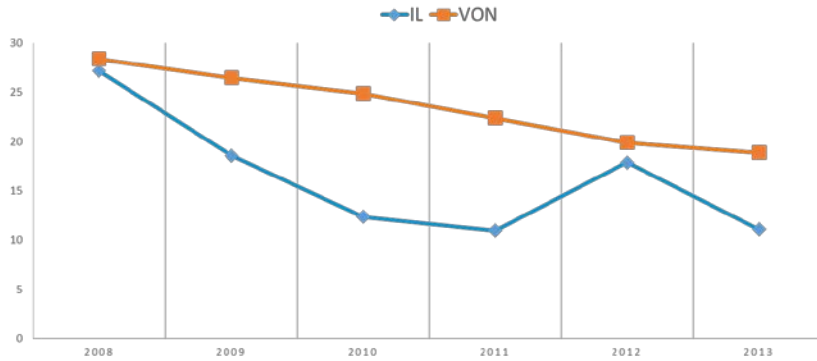
# Outcome Measure: Weight at Discharge



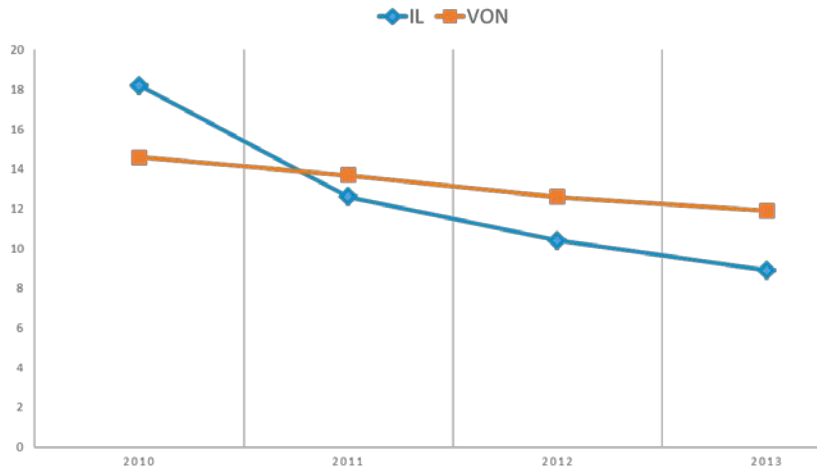
**Percent Very Low Birth Weight Infants in the NICU with Weight < 10<sup>th</sup> Percentile at Discharge**

# Maintaining the Gains

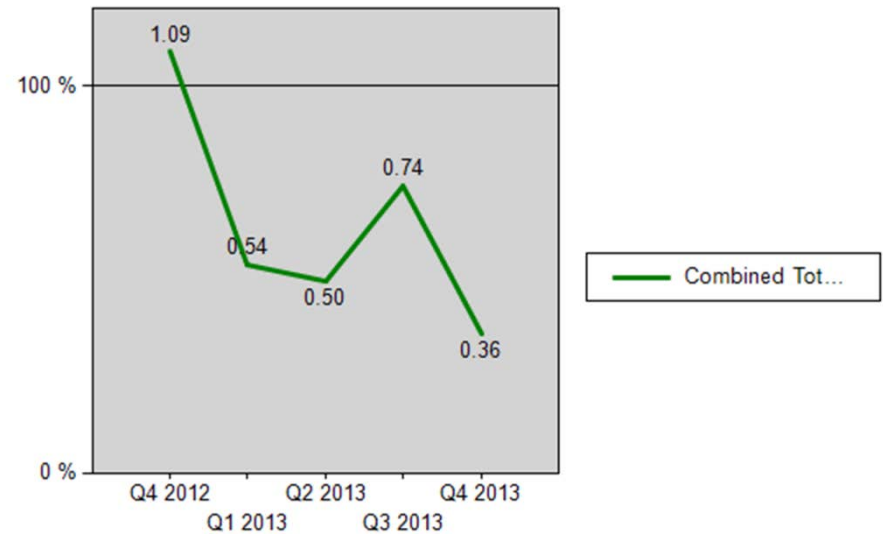
ADMISSION TEMP VLBW



ILPQC NOSOCOMIAL INFECTION



Infections per 1000 line days



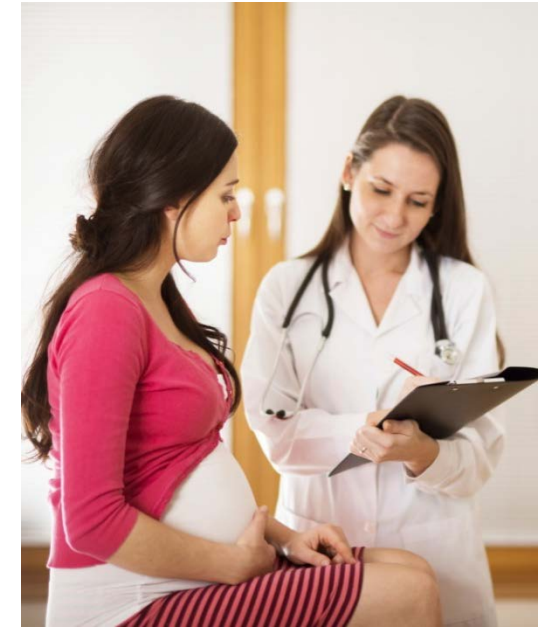
# Initiative Value/Cost Savings

- Decreased cost TPN and lipids with less TPN days.
  - ▣ 1500 VLBW/yr x3 days = 4500 Days less TPN.
  - ▣ 4500days x \$1000/day = **\$4.5 million savings**
- Decreased CLABSI due to decreased CVC days and increased BM
- Improved long term outcome with better growth

# Early Elective Delivery Overview

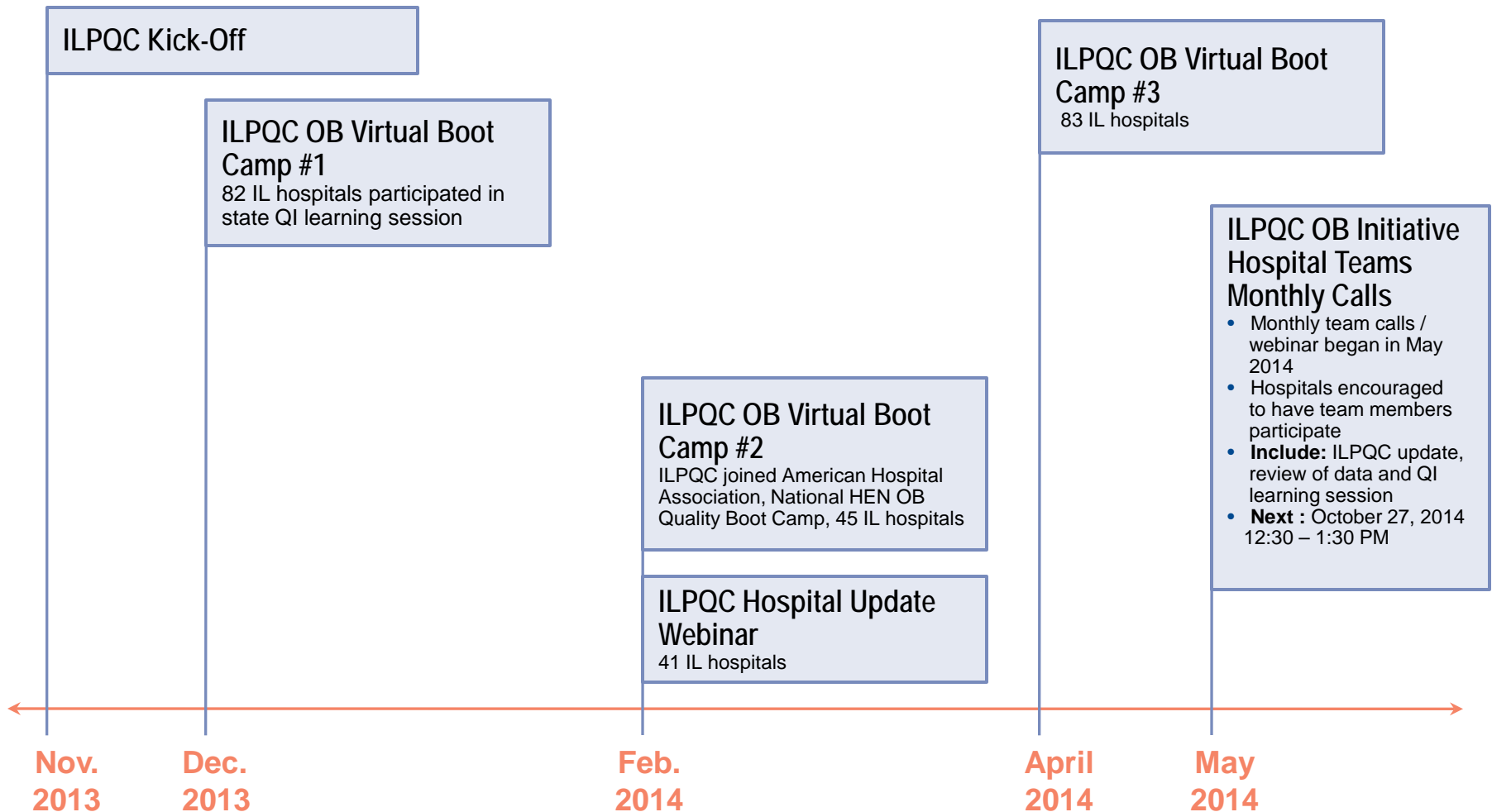
**Aim:** Reduce EED to <5% and improve ability for hospitals to compare accurate EED data across time and across other Illinois hospitals.

**How:** Provide access to tool kits, learning sessions, secure reporting system to compare.



- 38 IL birthing hospitals have submitted data
- Quarterly data entry (PC-01) for 2013 thru 2014

# EED Initiative Timeline



# Hospitals Participating ILPQC EED Initiative



Abraham Lincoln Memorial Hospital	Elmhurst Memorial Hospital	Silver Cross Hospital
Adventist Glen Oaks Hospital	Evanston Hospital	SSM St. Mary's Health Center
Advocate Christ Medical Center	Gibson Area Hospital	St. Alexius Medical Center
Advocate Condell Medical Center	Illinois Valley Community Hospital	St. Anthony Hospital
Advocate Illinois Masonic Medical Center	MacNeal Hospital	St. Francis Hospital
Advocate Lutheran General Hospital	Memorial Hospital of Belleville	St. John's Hospital
Advocate Sherman Hospital	Memorial Hospital of Carbondale	St. Joseph Hospital (Breese)
Advocate South Suburban Hospital	MetroSouth Medical Center	St. Mary's-Good Samaritan Hospital
Alexian Brothers Health System	Mount Sinai Hospital	Stroger Hospital of Cook County
Barnes-Jewish Hospital	Northwest Community Hospital	Swedish Covenant Hospital
Carle Foundation Hospital	Northwestern Memorial Hospital	Touchette Regional Hospital
Centegra Health Systems	OSF St. James Medical Center	University of Chicago
Central DuPage Hospital	Palos Community Hospital	Vista Medical Center East
Decatur Memorial Hospital	Presence St. Joseph (Chicago)	West Suburban Medical Center
Edward HospitalHospital	Provena St. Joseph (Joliet)	Westlake Hospital
	Richland Memorial Hospital	
	Rockford Memorial Hospital	
	Rush University Medical Center	
	Rush-Copley Medical Center	

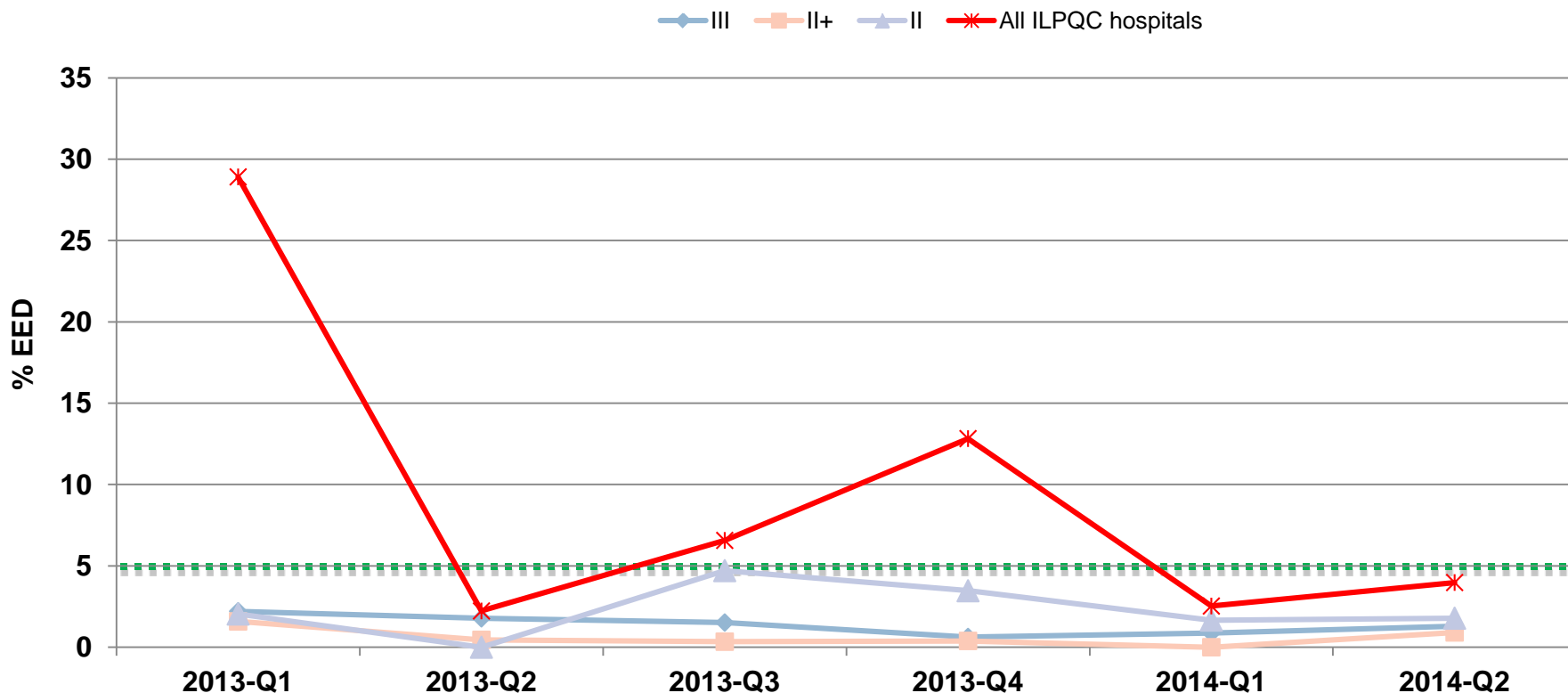
# EDD REDCap Data Sheet

## PC-01 Measure Data

+ Adding new Record ID 7	
Record ID	7
Project ID	<input type="text" value="▼"/>
<small>* must provide value</small>	
Hospital ID	<input type="text"/>
<small>* must provide value</small>	
Quarter	<input type="text" value="▼"/>
<small>* must provide value</small>	
Year	<input type="text" value="▼"/>
<small>* must provide value</small>	
<b>POPULATION</b>	
1. What was your hospital's total initial Patient Population?	<input type="text"/>
<small>* must provide value</small>	<small>Total population = total number of deliveries</small>
2. What was your hospital's sample size?	<input type="text"/>
<small>* must provide value</small>	<small>Total cases reviewed</small>
3. What was your hospital's sampling frequency?	<input type="radio"/> Monthly <input type="radio"/> Quarterly <input type="radio"/> Not Sampled
<small>* must provide value</small>	<small>reset</small>
<b>NUMERATOR</b>	
4. What was the number of patients with elective deliveries between $\geq 37$ and $< 39$ weeks of gestation?	<input type="text"/>
<small>* must provide value</small>	
<b>DENOMINATOR</b>	
5. What was the total number of patients delivering newborns with $\geq 37$ and $< 39$ weeks of gestation?	<input type="text"/>
<small>* must provide value</small>	

# Early Elective Delivery Data

Percent Non-medically Indicated Early Elective Deliveries (EED)  
at 37 to <39 weeks gestation (based on Joint Commission EED PC01 measure)  
ILPQC Hospitals, 2013 (baseline) through 2014 Q2



Note: Level I hospital data is included in the All ILPQC hospitals (aggregate) line in the graph, but not displayed separately due to <3 Level I hospitals reporting.

- Letters of commendation for reaching QI goals
- Hospital recognition banners for reaching goals in collaboration with MOD, IHA
- Disseminate best practices materials from other hospitals, states
- Coaching calls/ PDSA support

# CDC State-Based Perinatal Quality Collaboratives Grant



- In collaboration with Illinois Department of Public Health
- One of 3 grants awarded across the country
  - Other states: Massachusetts and North Carolina
- Formal mentoring from established collaboratives in Ohio, NY and California

# Next Steps for ILPQC

- Continue to focus on low burden / high value QI support and collaborative learning for hospital teams
- Sustain current initiatives
- Launch neonatal and OB initiatives for 2015
  - ▣ Neonatal and OB break out sessions discuss launch of next initiatives
- QI education activities for 2015
  - ▣ Discuss in break out sessions

# Participate in an ILPQC QI Initiative

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- Establish a QI team at your hospital
  - Nurse
  - Physician
  - Quality professional if applicable
- Request ILPQC data system REDCap access
- Submit team roster and data access request via online forms at [www.ilpqc.org](http://www.ilpqc.org)

# Participate in Advisory Groups

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- Neonatal, Obstetric, and Data Advisory Workgroups meet monthly to provide guidance
- Representation across state, perinatal levels, and professions (MDs, RNs QI)
- **Contact [info@ilpqc.org](mailto:info@ilpqc.org) to participate**
- Additional key advisory groups include
  - Perinatal Network Administrators and Educators
  - State Quality Council

# ILPQC Contacts

Ann Borders

OB Lead

Aki Noguchi and Pat Ittmann

Neonatal Leads

Patricia Lee King

State Project Director

Paulina Osinska

Project Coordinator

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Website: [www.ilpqc.org](http://www.ilpqc.org)



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