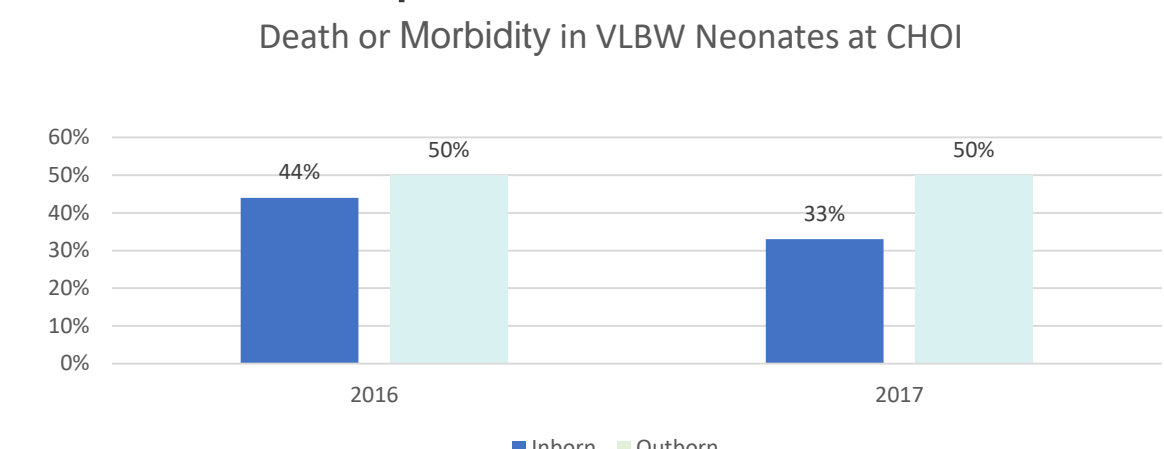


## Rationale / Background

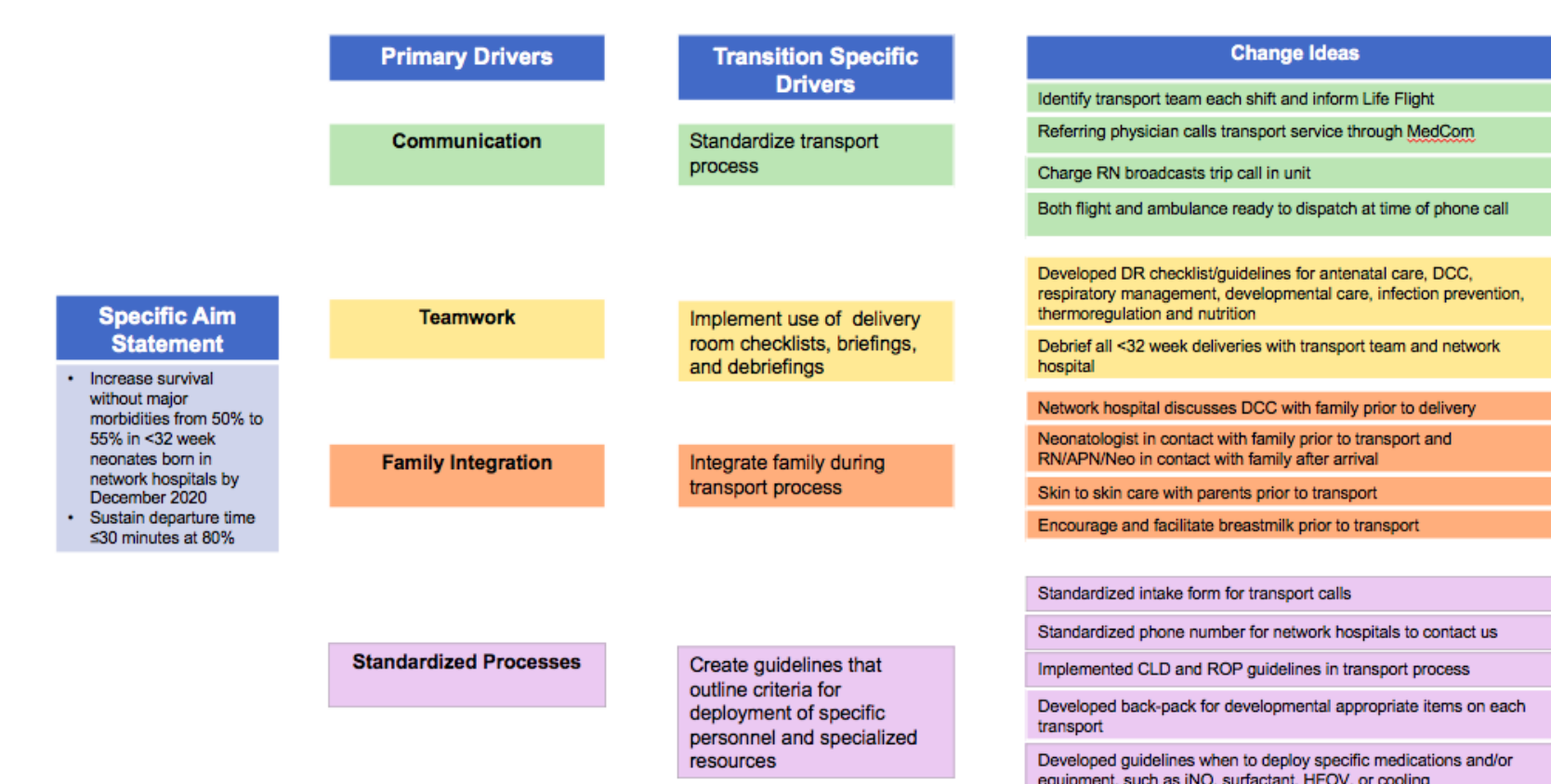
- Infants <32 weeks born in network hospitals have higher morbidity and mortality compared to those born at our hospital
- Transport team departure time was <30 minutes for 19% of our transports



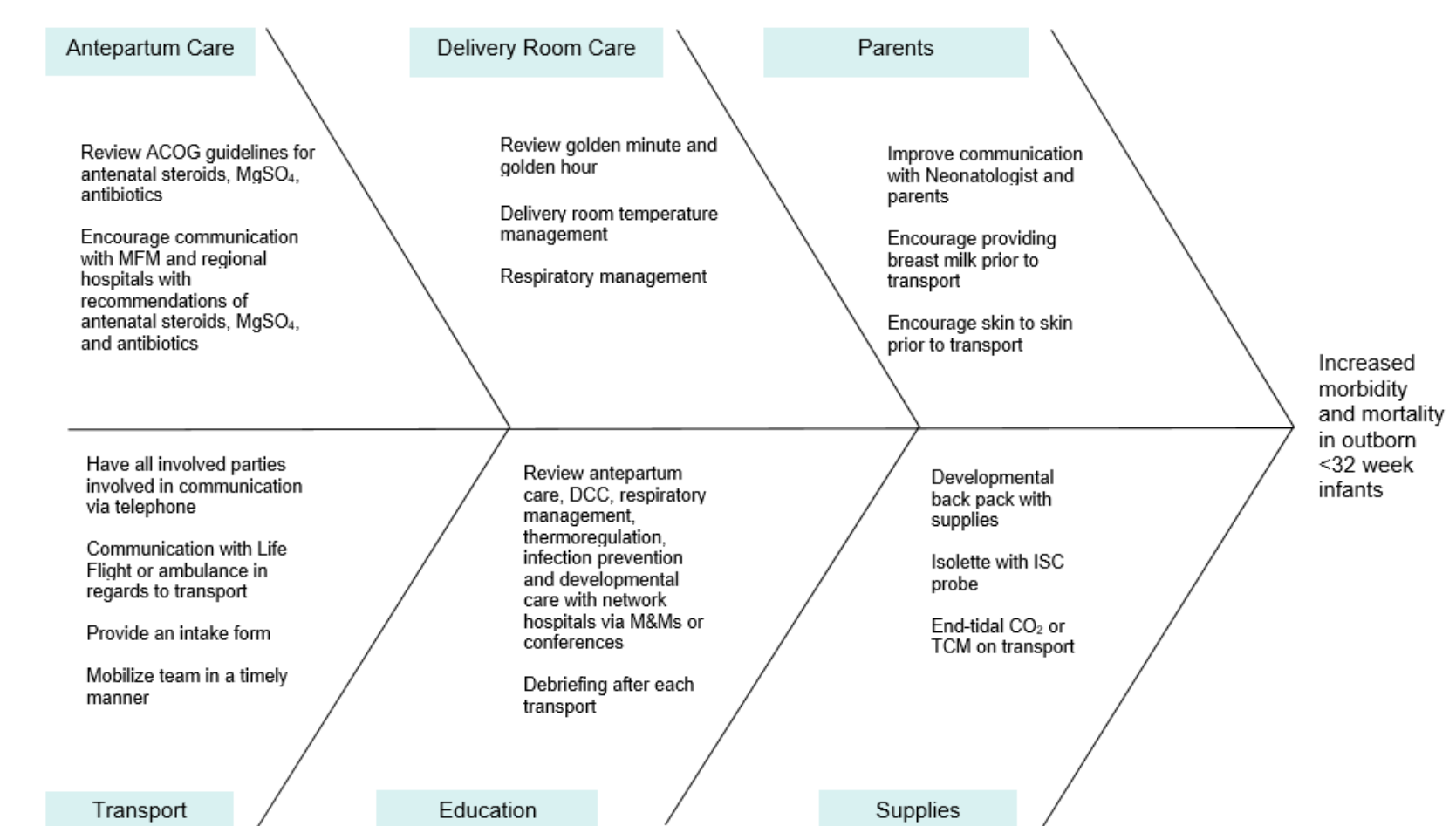
## Smart Aim

- Increase survival without major morbidities in <32 week neonates in network hospital by December 2020
- Sustain departure time ≤30 minutes for 80% of all transports

## Driver Diagram



## Current State



## Measures Plan

Outcome Measures	For Numeric Data: Numerator	For Numeric Data: Denominator	Unit of Measure	Test Population	How data obtained	Freq. of Measurement	Was data shared
Increased survival without major morbidities	All outborn	All outborn	%	<32 weeks	Nightingale	Yearly	Yes
<b>Process Measures</b>							
Antepartum Care: Administration of Steroids, MgSO4, and antibiotics	# of mother's who received	Total number of mother's delivered	%	<32 week deliveries	Chart review	Monthly	Yes
Thermoregulation: Neonate delivery room temperature 36.5-37.5°C	# of neonates within range	All outborn babies	%	<32 weeks	Chart review	Monthly	Yes
Transportation: Time to leave CHOI	# of transports left within ≤30 minutes	Total # of transports	%	All neonates	Chart review	Monthly	Yes
<b>Balancing Measures</b>							
Severe IVH rate	Neonates diagnosed with severe IVH	All outborn neonates	%	<32 weeks	Chart review	Monthly	Yes
NEC Rate	Neonates diagnosed with NEC	All outborn neonates	%	<32 weeks	Chart review	Monthly	Yes
CLD Rate	Neonates diagnosed with CLD	All outborn neonates	%	<32 weeks	Chart review	Monthly	Yes
ROP Rate	Neonates diagnosed with ROP	All outborn neonates	%	<32 weeks	Chart review	Monthly	Yes
<b>Family Centered Care</b>							
Physician Talked with Families	Parents who talked with CHOI physician prior to transfer	All outborn neonates	%	<32 weeks	Chart review	Monthly	Yes
Skin to skin provided at network hospital	Family of outborn neonate were able to touch neonate prior to transport	All outborn neonates	%	<32 weeks	Debriefing with outside facility	Monthly	Yes
DCC	Discussion with family by network prior to DCC	All outborn neonates	%	<32 weeks	Debriefing with outside facility	Monthly	Yes
<b>Value Measure</b>							
ISC probe	N/A	N/A	Dollars	Total number used	Chart review	Yearly	No
ETCO2/TCM/Flow Sensor	N/A	N/A	Dollars	Total number used	Chart review	Yearly	No

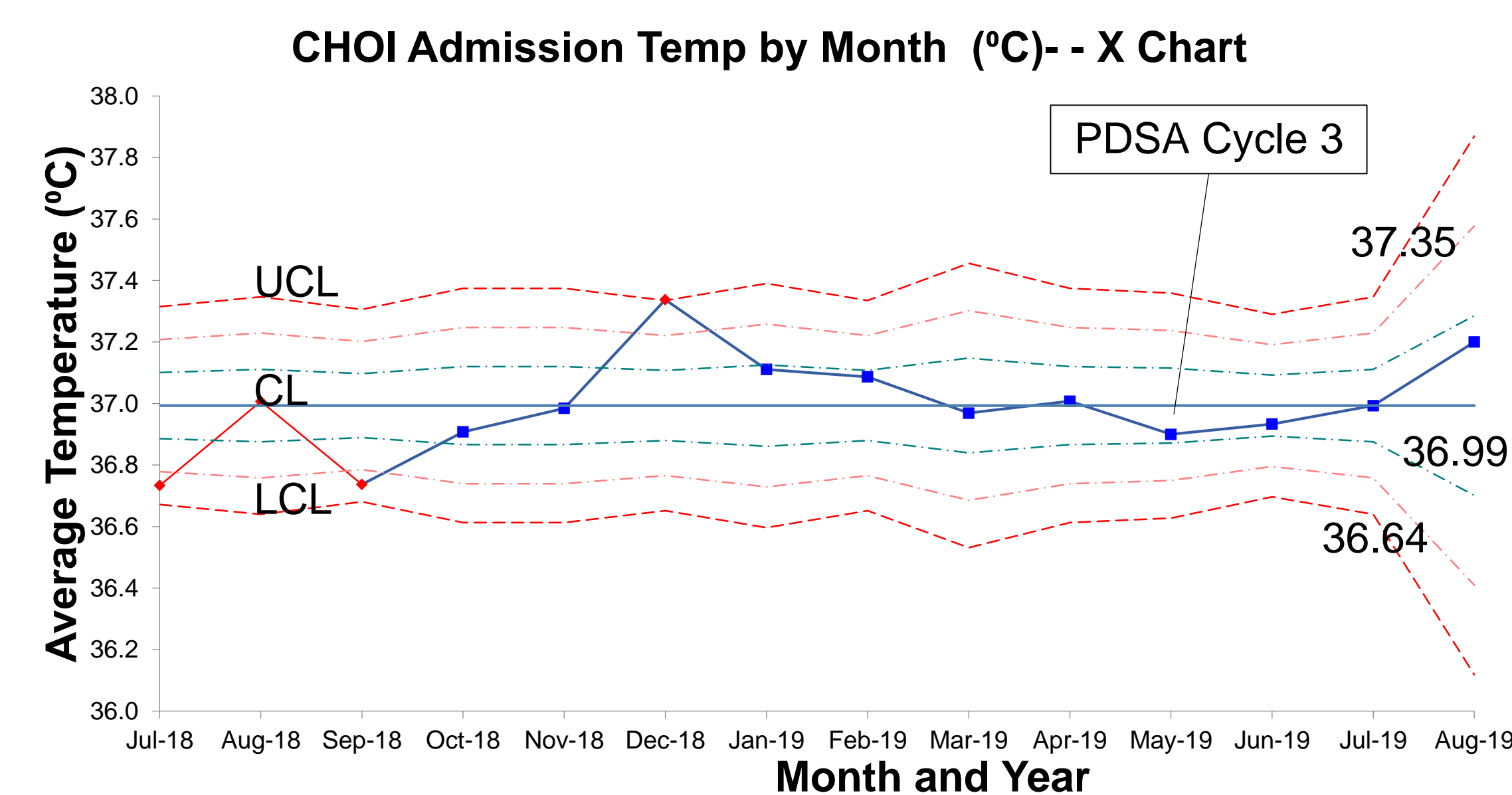
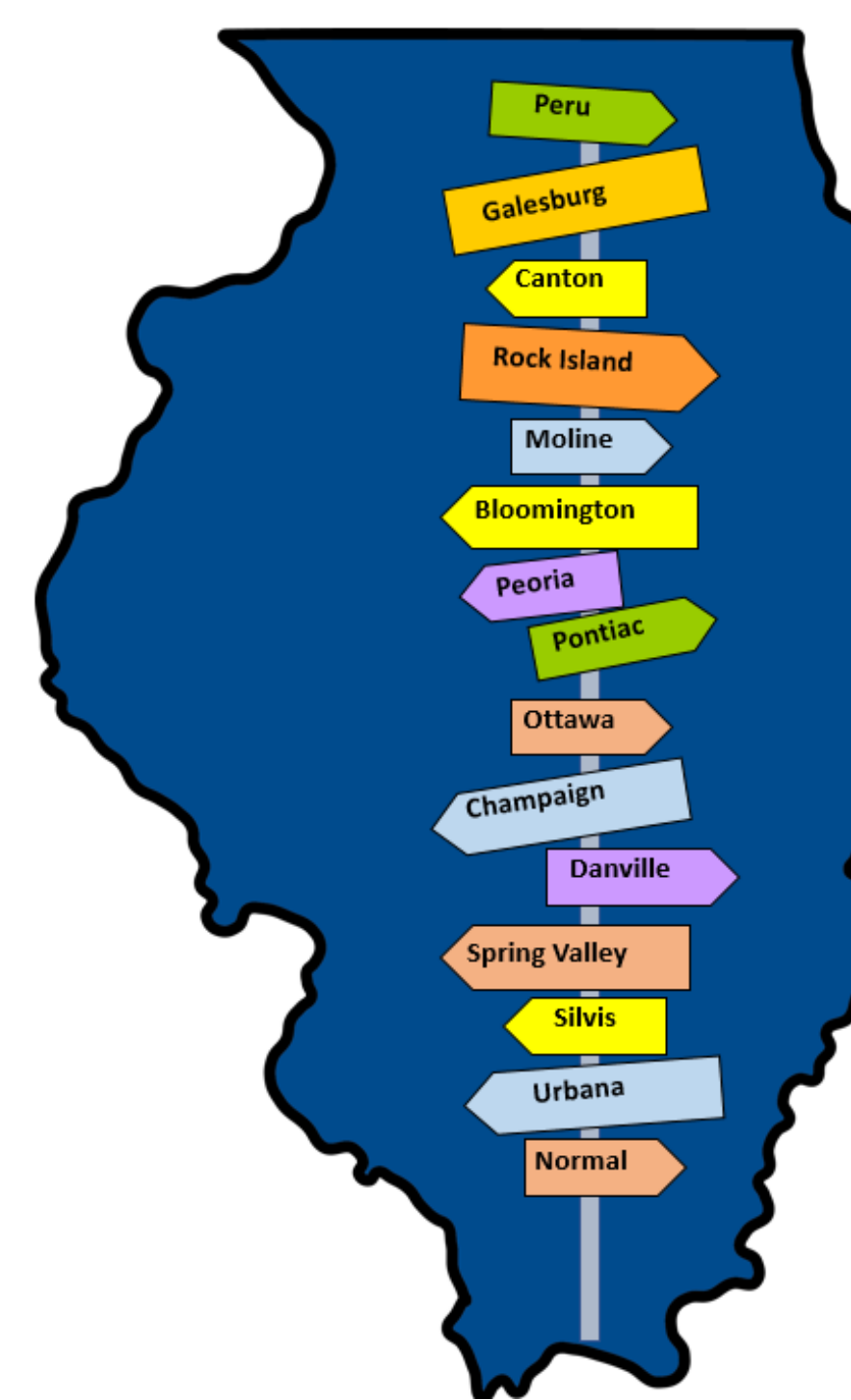
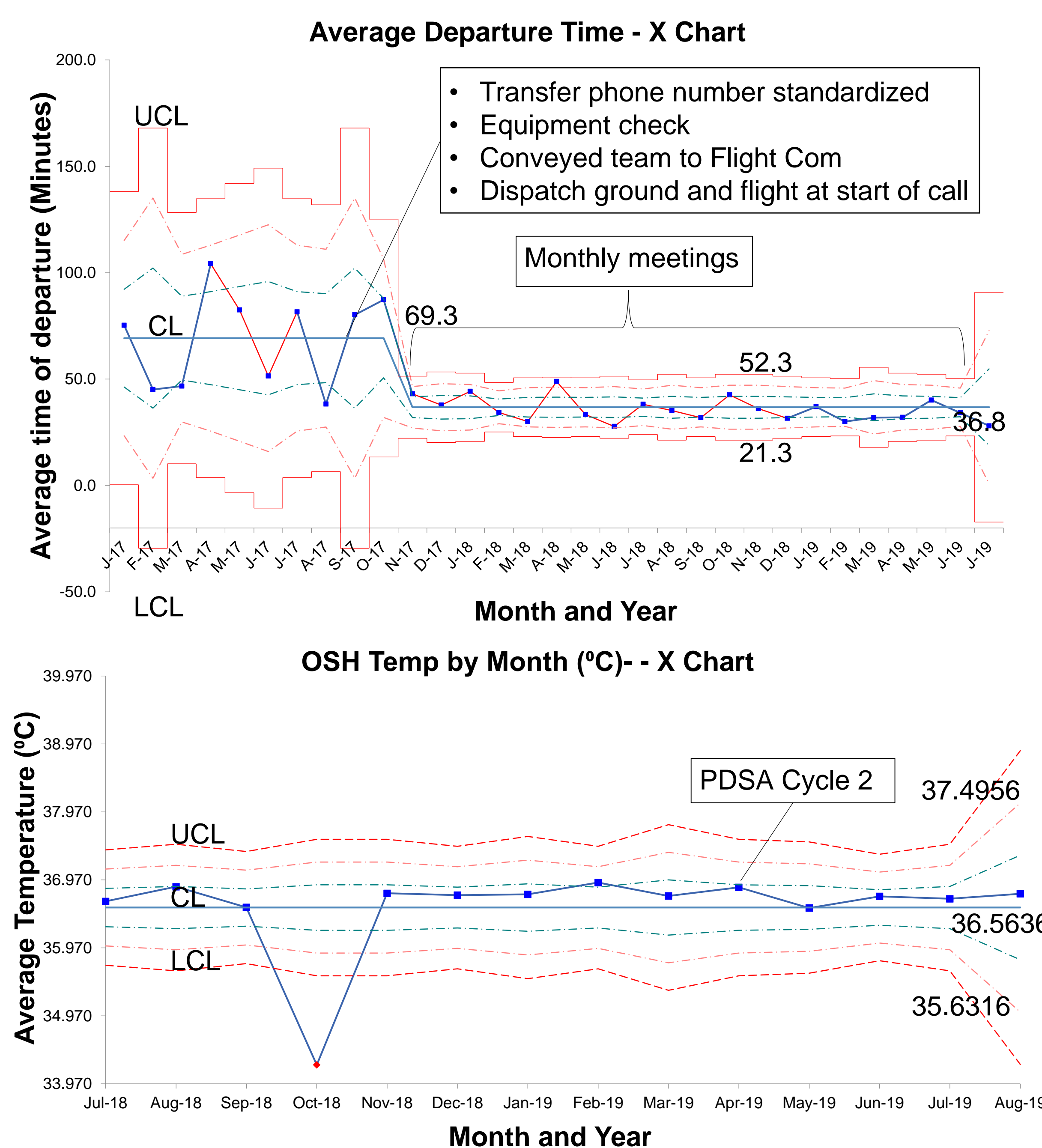
# Standardizing Care for <32 Week Infants during Intra-Facility Transport "In"



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# Oh, the Places You'll Go!

Congratulations! Today is your day. You're off to Great Places!  
 You're off and away! --Dr. Seuss



## Tests of Change/Implementation

### PDSA Cycle 1

- **What we tested:** Response time to network hospital to provide safe, appropriate, and timely care to newborns
- **What we learned:** No policy in place for transport, no standardized communication from network physicians, NCCU transport team (RN, RT, MD) readiness, and improved communication with ground and flight
- **Next Test:** More timely arrival leads to improving respiratory, nutritional, and developmental care in <32 week neonates

### PDSA Cycle 2:

- **What we tested:** Lung management, thermoregulation, nutrition, and developmental care during transport
- **What we learned:** Standardizing management and monitoring of ventilator parameters, starting caffeine, maintaining temperature with the use of ISC probe, use of developmental aids, educating the mother on pumping and improving communication
- **Next test:** Need to educate network hospitals to improve temperature regulation, lung support, developmental care and nutrition

### PDSA Cycle 3:

- **What we tested:** Improving antenatal care, thermoregulation, DCC, lung management, infection prevention, nutrition, and developmental care at regional hospitals
- **What we learned:** Review of respiratory equipment was needed amongst the network facilities
- **Next test:** Improving family involvement via the EBCD process



CHOI NCCU Staff



## Surprises and Challenges

- Network hospitals had written protocols that they could not deviate from
- Dispersion of local guidelines to network hospitals and availability of the guidelines at the network hospitals (hard copy vs. internet based)
- Getting approval from IRB for EBCD
- Communication of maternal fetal medicine physicians to regional obstetricians
- Equipment, such as ETCO2/ISC probe, were not accurate
- iSTAT machine to obtain chemistries would not always work at network hospitals
- Getting approval from Life Flight for TCM on helicopter

## We Would Appreciate your Help With

- Start the EBCD process
- Obtain funds for the EBCD process
- Temperature regulation in transport isolette
- Difficulty with developmentally appropriate restraint system in ambulance

## Next Steps

- Annual, all day, interprofessional neonatal conference designed for referring hospital staff education held at Children's Hospital of Illinois (CHOI)
- Monthly and as needed interprofessional neonatal classes provided by CHOI Neonatal Nurse Practitioners (NNP) and Respiratory Therapists (RT) held on site at network hospitals
- Implementation of telehealth for network hospitals

## Team Members and Acknowledgements

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