

# A NICU quality initiative to improve admission temperature of preterm neonates < 32 weeks gestation

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## Background

- Preterm neonates are prone to very rapid **heat** loss due to their higher body surface area, immature skin and poor sub cutaneous fat
- Hypothermia is associated with increased morbidity like hypoglycemia, respiratory distress, more oxygen needs, metabolic acidosis.
- For every 1 C decrease in admission temperature the odds of late onset sepsis increases by 11% and odds of death increases by 28%

## Problem identified

Among 8 neonates < 32 weeks gestation born in the year 2015, whose charts were reviewed retrospectively, the mean admission temperature was 35.5 C and only 12.5% had admission temperature in normal range 36.5-37.5 C

## SMART AIM

To achieve an admission temperature of 36.5-37.5 C in  $\geq 80\%$  of babies < 32 weeks gestation born at AIIMS over a period of 6 months by implementing a "golden hour bundle" through staff education and **multiple** PDSA cycles

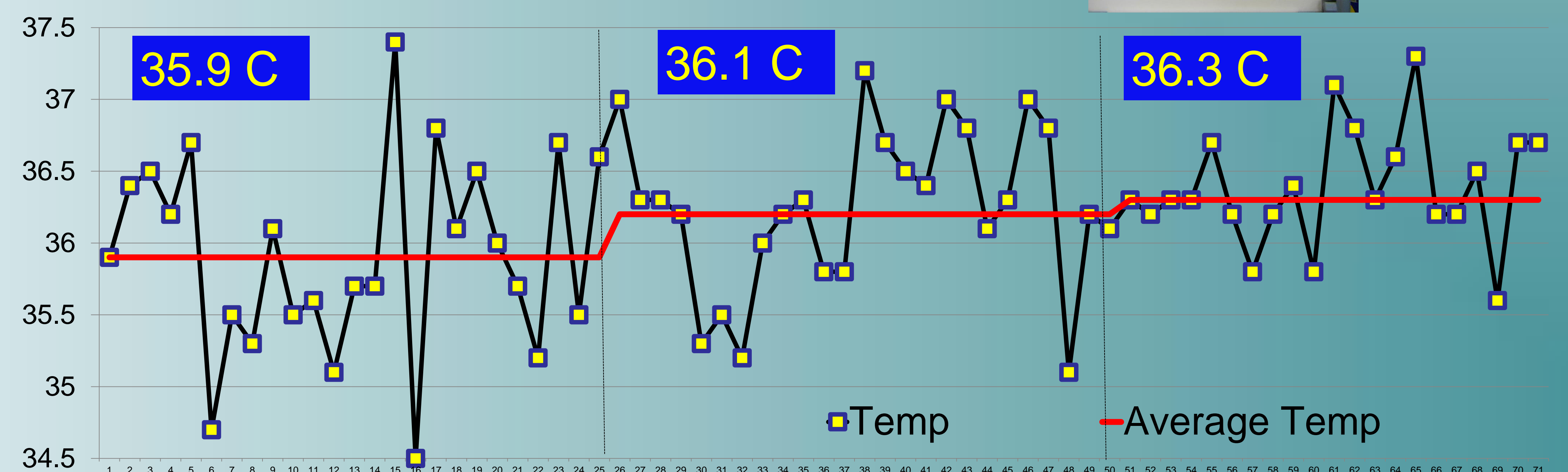
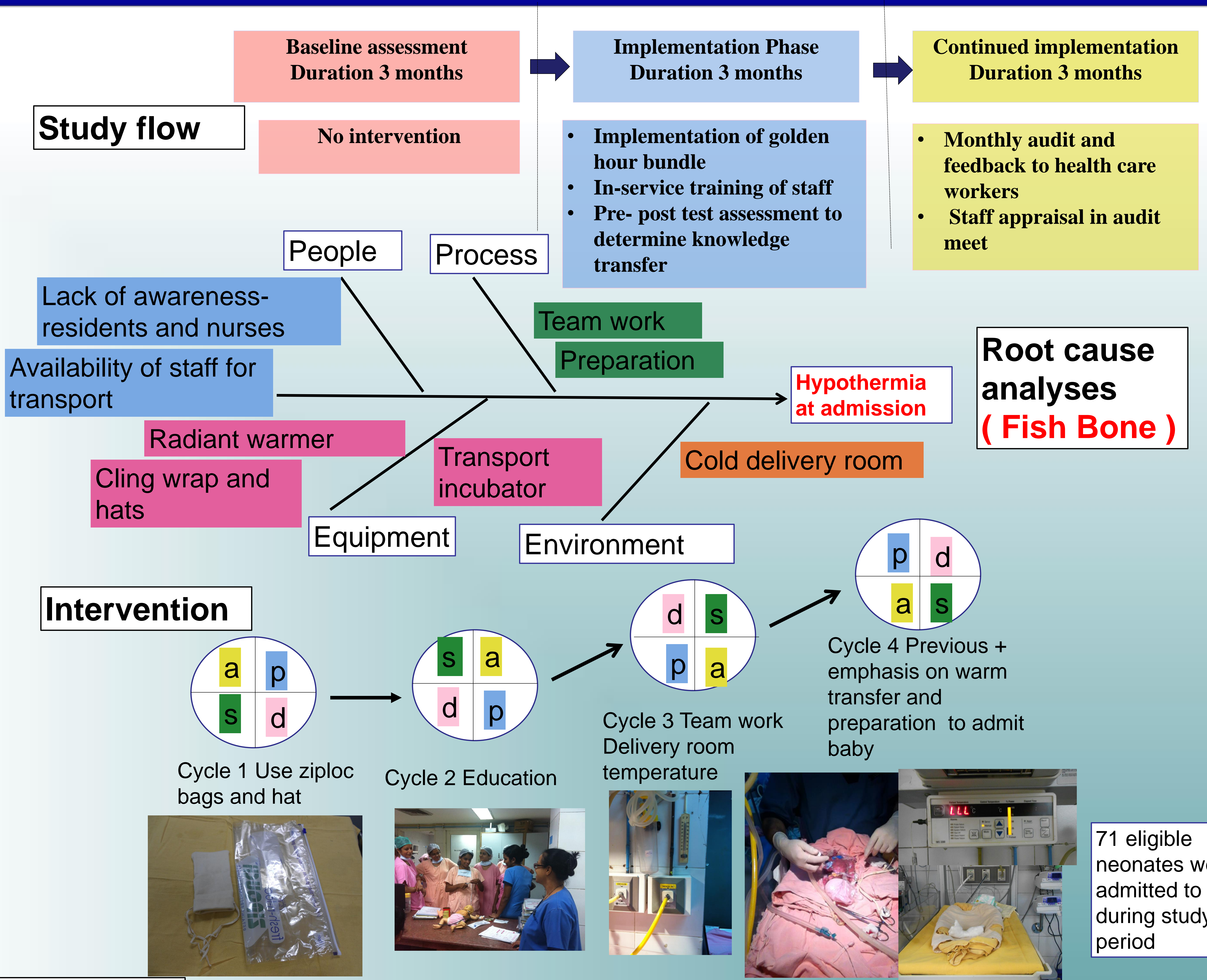
Golden hour bundle focuses on thermoregulation, delayed cord clamping and gentle ventilation



**Admission temperature**

## Conclusion

Implementation of golden hour bundle led to improved admission temperature of neonates < 32 weeks gestation. Admission temperature of 36.5-37.5 C was noted in 28% of neonates at baseline and increased to 35% after intervention.



71 eligible neonates were admitted to NICU during study period