

# Statewide Collaborative to Reduce Infant Mortality (IM) through Improved Hospital-based Safe Sleep (SS) Education and In-hospital Practices

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## Background

- Unsafe sleep practices are a modifiable cause of IM.
- From September 2015 through July 2017, the New York State Perinatal Quality Collaborative (NYSPQC) conducted a Safe Sleep (SS) quality improvement project focused on:
  - Increasing the percentage of infants placed in a SS environment during the birth hospitalization
  - Improving caregiver education documentation
  - Increasing the percentage of caregivers who understand SS education prior to discharge.

## SMART Aim

By September 2016, we AIM to reduce infant sleep-related deaths in NYS by improving safe sleep practices for infants.

### Specifics Aims:

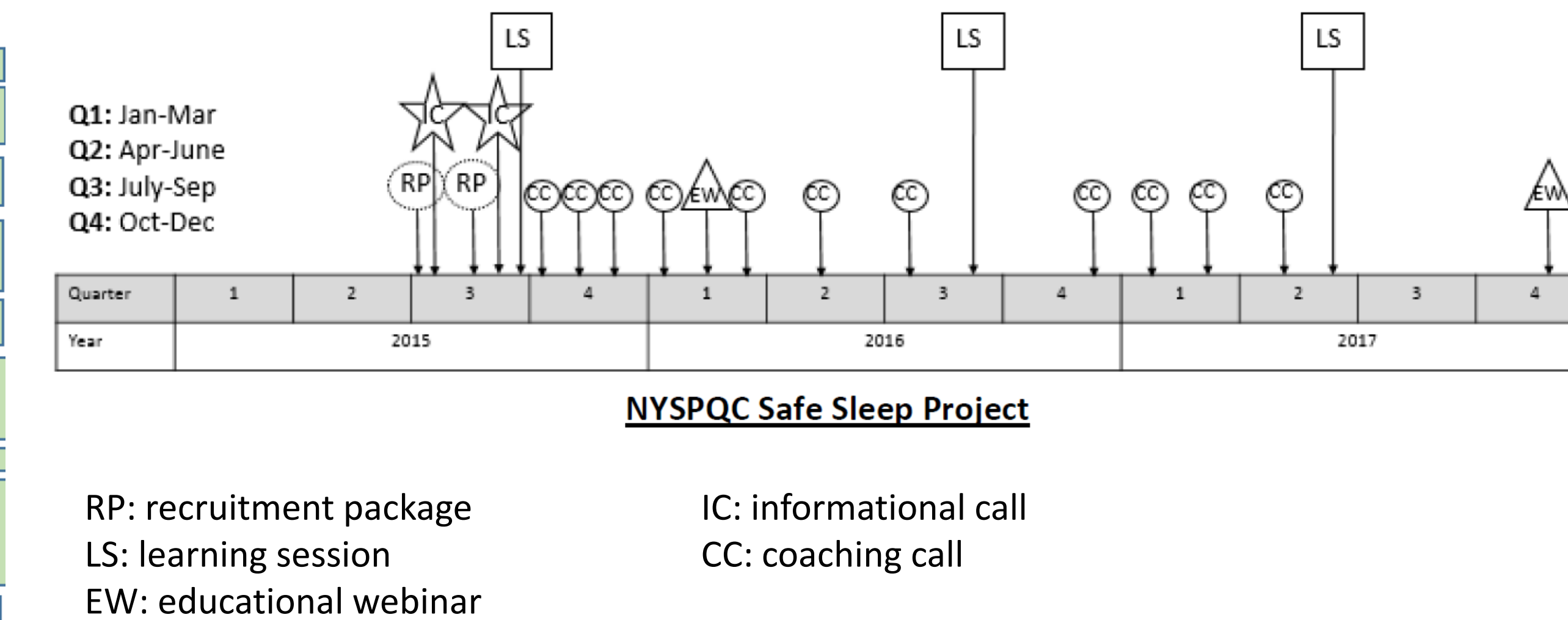
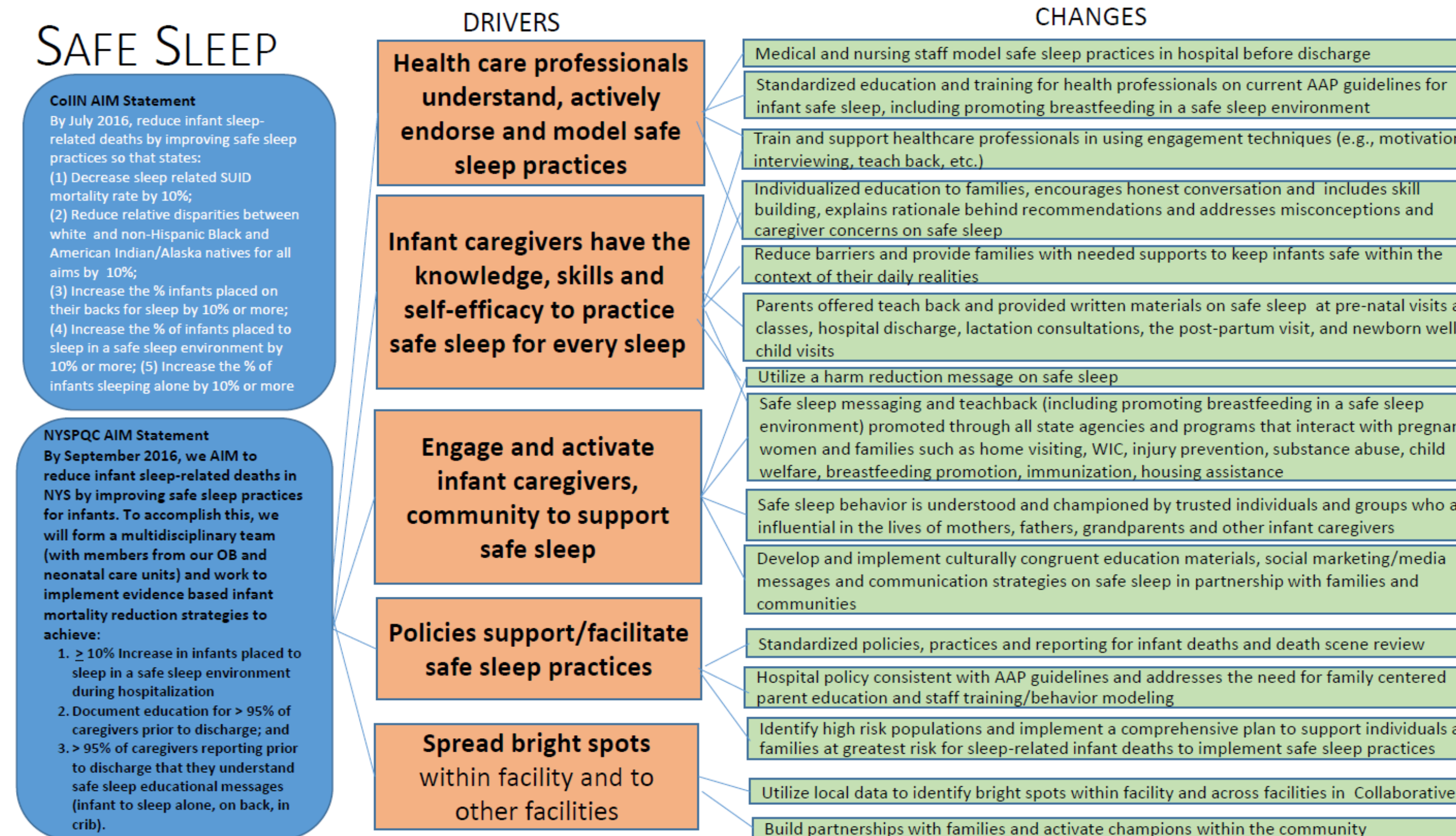
- > 10% Increase in infants placed to sleep in a safe sleep environment during hospitalization
- Document education for > 95% of caregivers prior to discharge;
- > 95% of caregivers reporting prior to discharge that they understand safe sleep educational messages (infant to sleep alone, on back, in crib)

### Safe sleep environment defined as:

- Infants sleeping/awake and unattended in a crib
- Positioned supine
- Safe clothing
- Head of the crib flat, and the crib free of objects.

- Setting: 72 birthing hospitals (BH), of which 59 had NICUs
  - All BHs had varying baseline SS approaches
  - Improvement was achieved using in-person learning sessions, monthly coaching webinars and data collection, access to expert faculty, a project website and email listserv.
- A multidisciplinary team of perinatal caregivers
  - Baseline data were collected
  - In-person collaborative learning sessions and coaching call webinars
  - NYSPQC hosted Listserv and website repository of learning materials and shared resources
- Measures:
  - Primary outcome measure: % infants in SS environment
  - Process measures: EHR documentation; caregiver report

## Methods



## Results

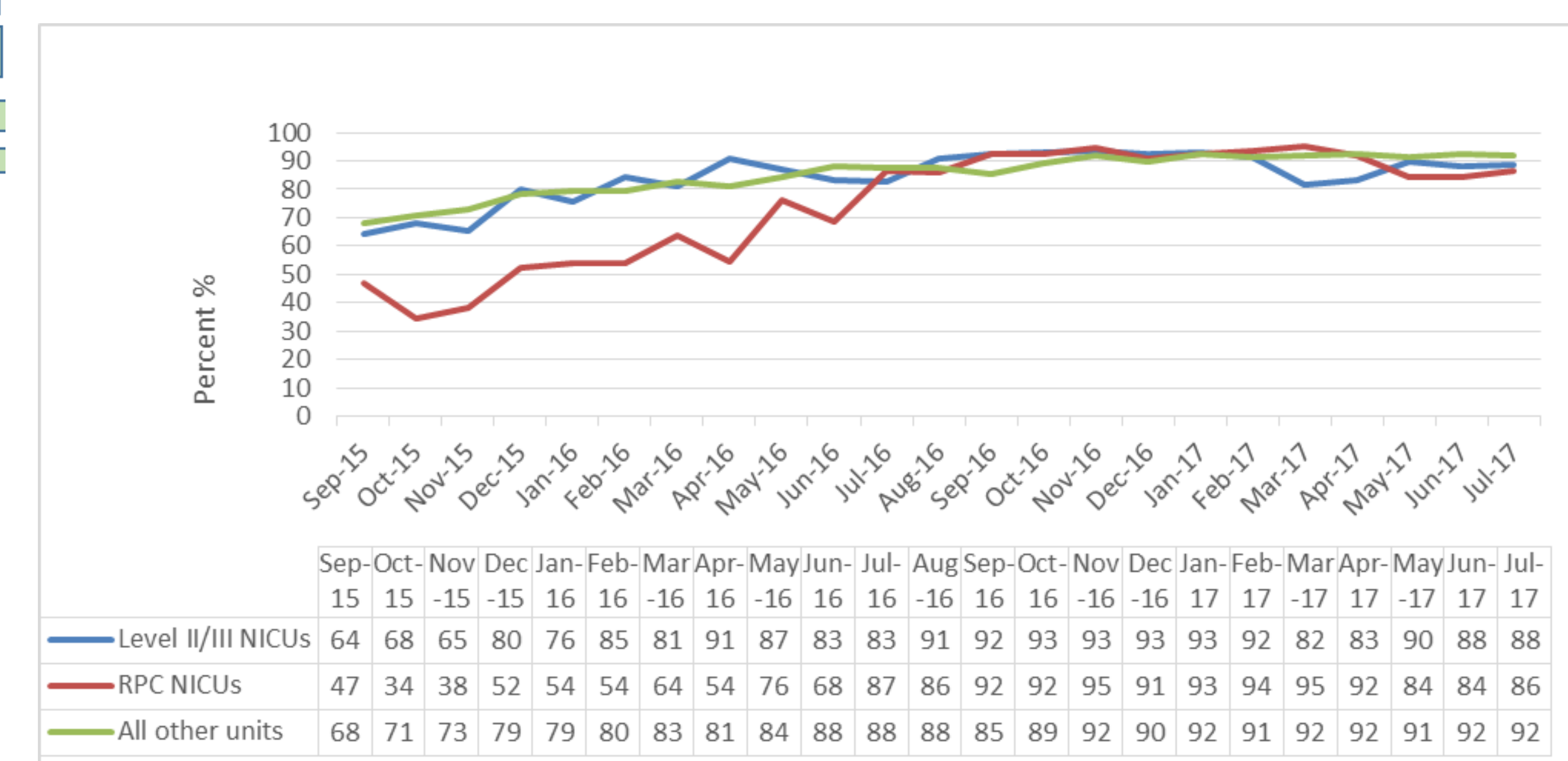


Figure 3: Percent of infants, sleeping or awake-and-unattended in a safe sleep environment, by unit type, New York State Perinatal Quality Collaborative

## Results

### Over the project period:

- Medical record documentation increased 8% (90% to 98%)
- In-hospital use of SS environment increased by 38% (66% to 91%)
- Percent of caregivers understanding SS practices increased by 24% (72% to 88%) (Figure 1)
- Level (L) 2 Birthing Hospitals (BH) saw the most improvement in the SS environment, increasing from 58% at baseline to 93% in July 2017
- L 3 BHs showed the least improvement, increasing from 74% to only 86% (Figure 2)
- NICUs saw a 51% increase in the SS environment from 58% to 87%
  - Regional Perinatal Center NICUs (L 4) increased by 83% from 47% to 86% (Figure 3)
- Barriers to use of the SS environment in L 3 BHs included:
  - Supine positioning, with a 3% decrease from 98% at baseline to 95% July 2017
  - Objects in the crib, which increased 3% from 90% to 93%
- Similar barriers were seen in NICUs, where objects in the crib increased from 79% at baseline to 92%, and head of the bed flat, which increased from 73% to 96%.

Note: All other units defined as infants residing in any unit other than the NICU, including: well baby, rooming-in, and other units.

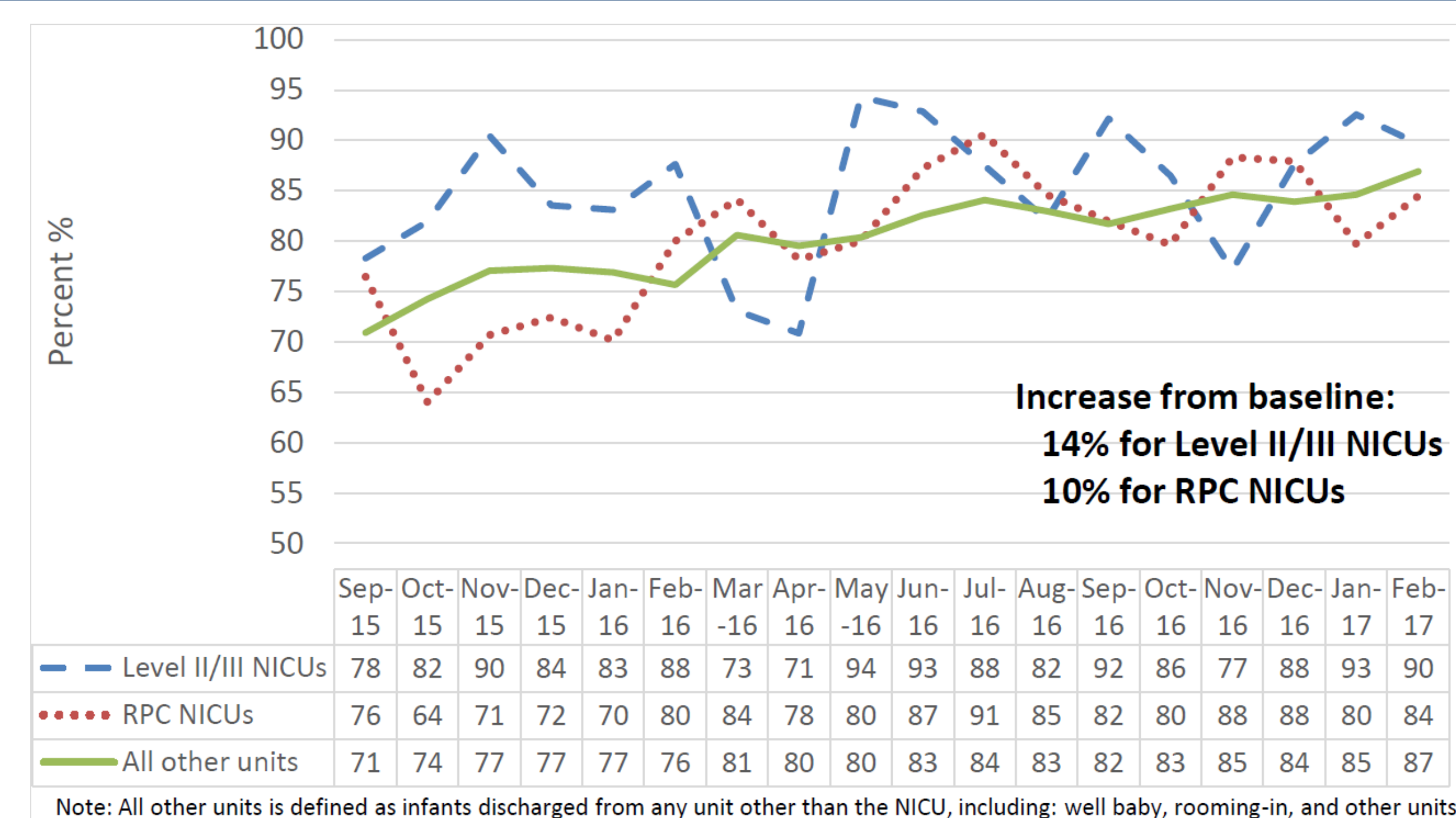


Figure 1: Percent primary caregivers indicating they understand safe sleep practices by unit type

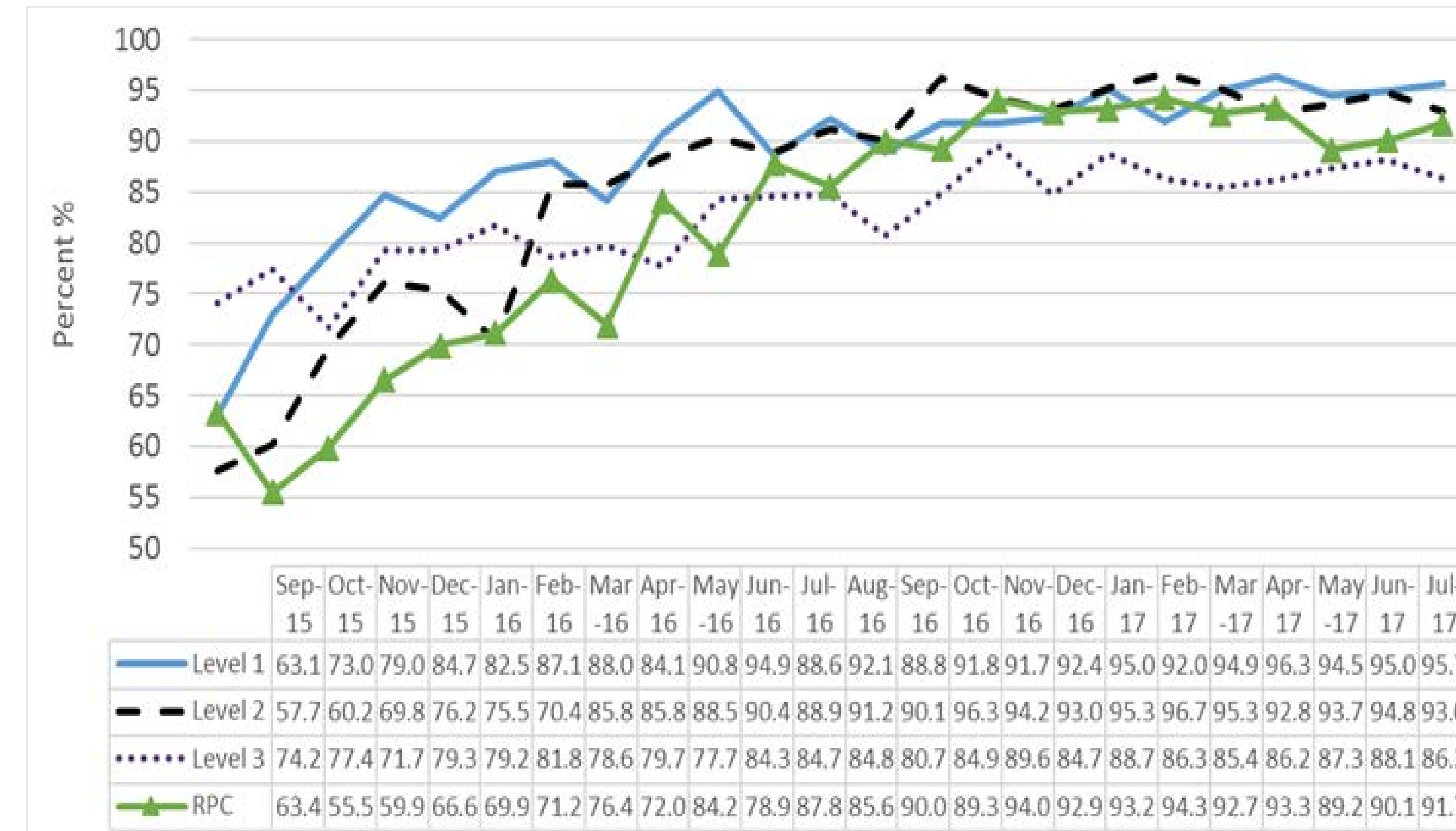


Figure 2: Percent of infants, sleeping or awake-and-unattended in a safe sleep environment, by birthing hospital level, New York State Perinatal Quality Collaborative

## Conclusions

- Implementation of the NYSPQC SS Project improved SS compliance in BHs and increased caregiver knowledge, skills and self-efficacy
- NICU-focused SS education and practices achieved comparable rates of use of the SS environment as other unit types
- Variation related to caregiver understanding and staff concerns about supine positioning, head of bed elevation and objects in the crib varied by perinatal designation level and unit type, indicating an opportunity for intervention

## Acknowledgements

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