

## Problem Statement

In a 40-bed, level IIIB NICU in a major metropolitan area in the Mid-Atlantic region, a site review revealed only 23% of patients received skin-to-skin (commonly referred to as kangaroo care) in the first week of life when admitted to the NICU.

### Pre-Implementation Data:

- 23% patients held skin-to-skin in first week of life
- 31% held skin-to-skin from birth to discharge
- 77% held in any fashion from birth until discharge

## Purpose and Goals

### Purpose:

- Develop and support skin-to-skin initiation in the NICU by implementing and evaluating a skin-to-skin evidence-based bundle of practices with the engagement of unit leadership, staff, providers, support services, and parents.

### Process Goals:

- 100% holding events accurately documented
- 100% patients documented if criteria met daily
- 100% patients will have documented parent education regarding skin-to-skin

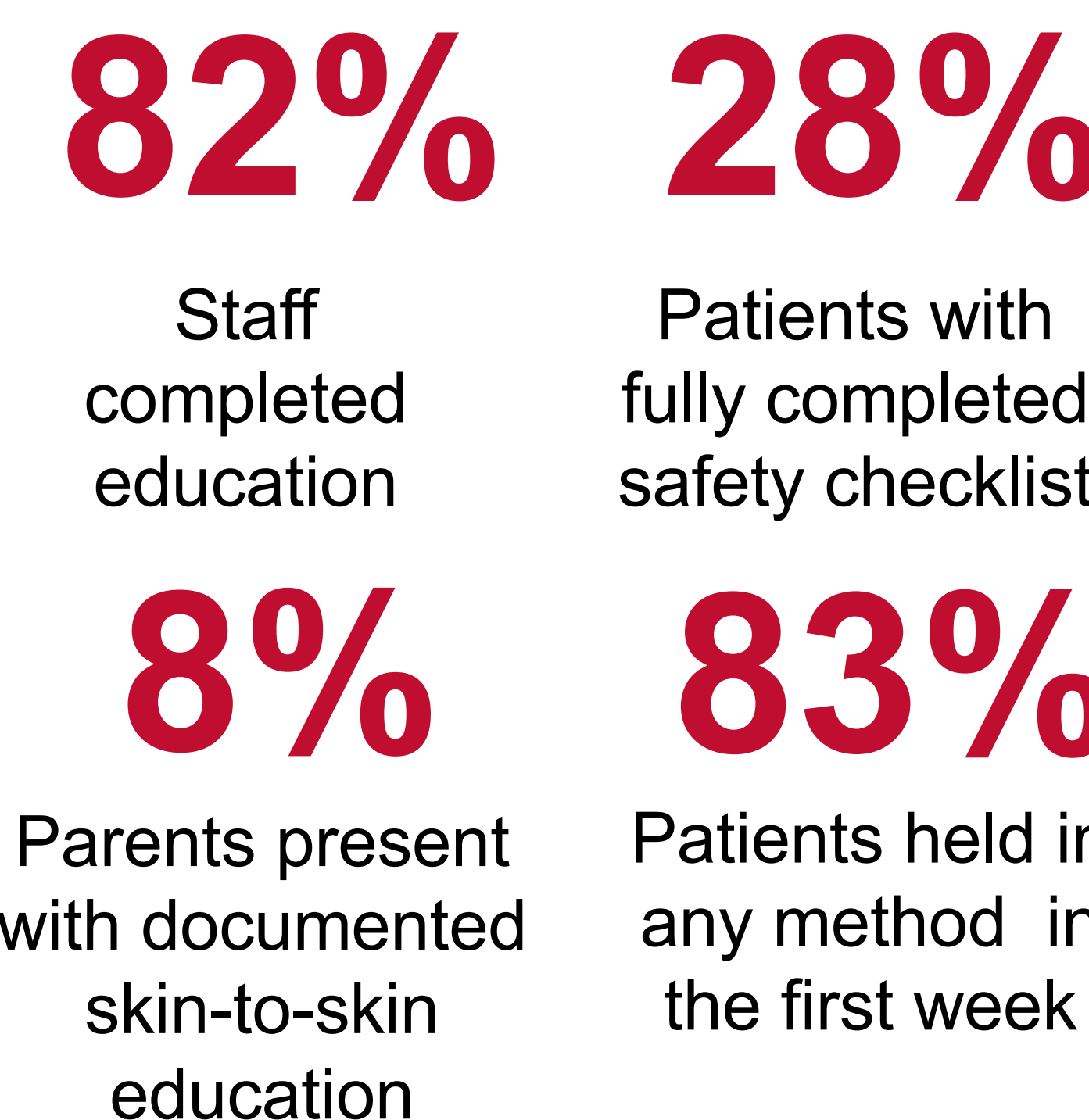
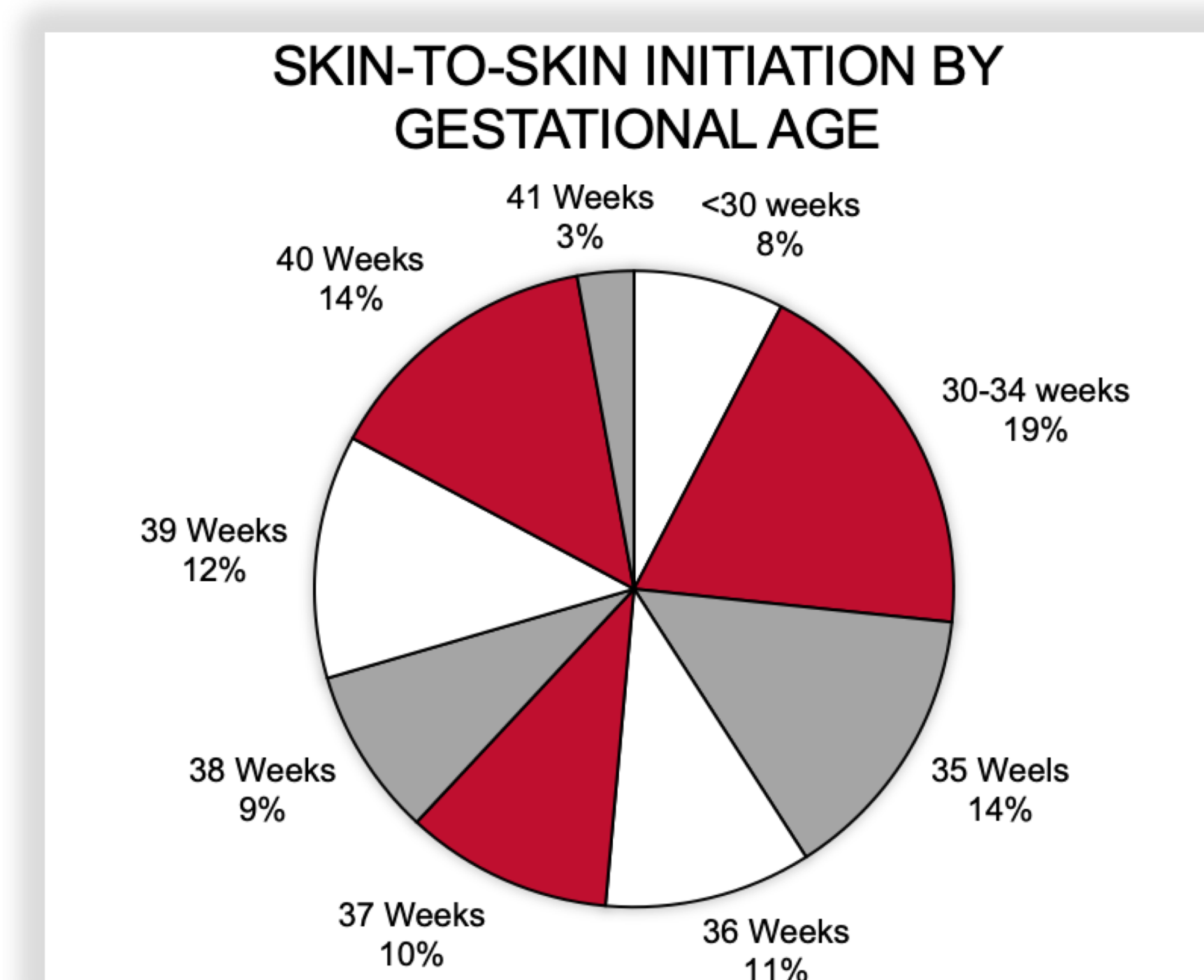
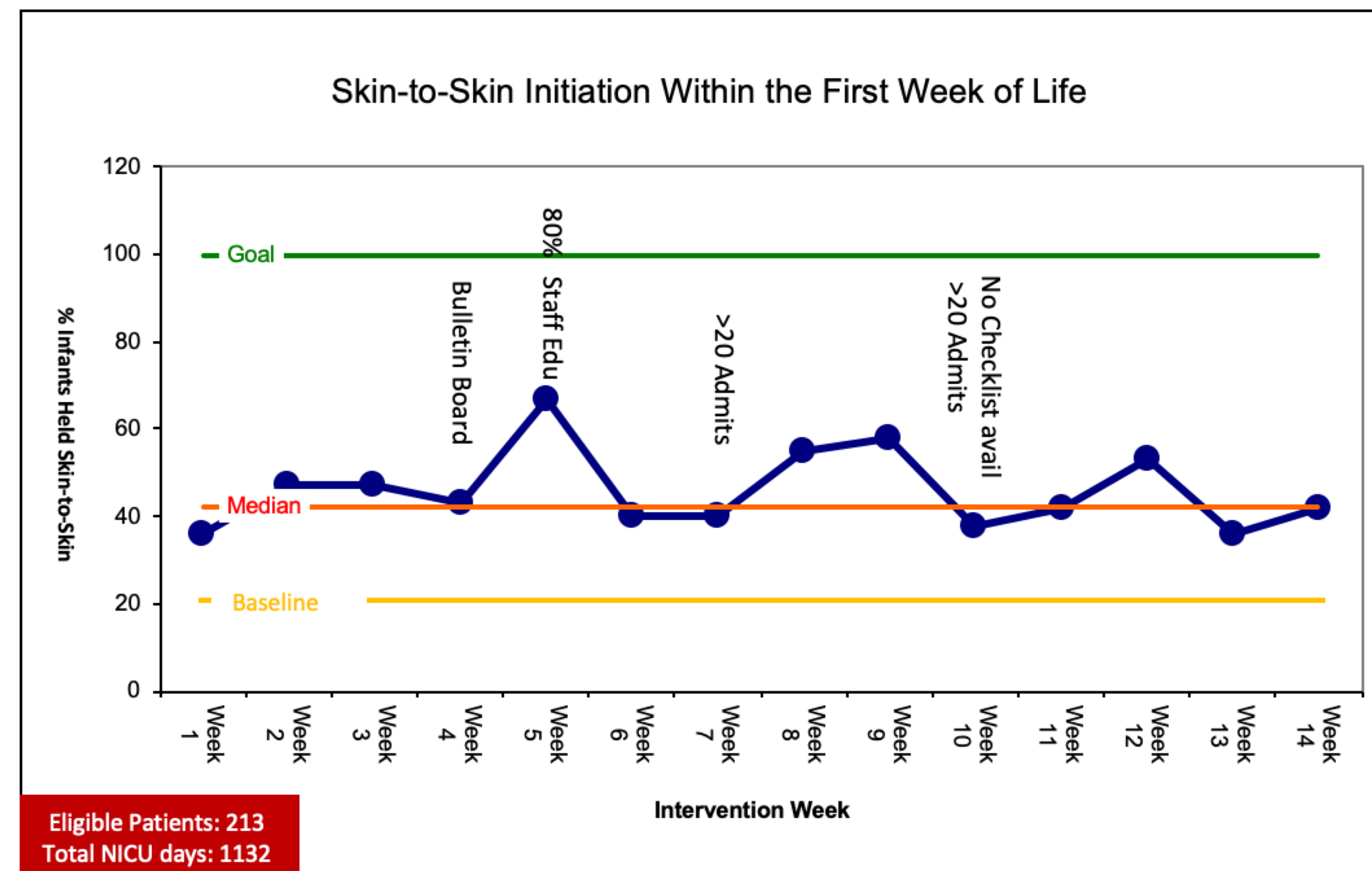
### Outcome Goal:

- 100% eligible infants to have documented skin-to-skin at least once within the first 7 days of life.

## Methods

- A skin-to-skin evidence-based bundle was developed to address implementation barriers to skin-to-skin in a level III NICU within the first 7 days of life between August and December 2023
- **The evidence-based bundle includes:**
  - **RN education**
  - **Parent education**
  - **Interprofessional collaboration daily discussion between physician and RN to identify skin-to-skin candidates.**
- Weekly audits based on nursing documentation identified the percentage of infants who received skin-to-skin in the first week of life for all NICU admissions.
- Balancing measures included:
  - Temperature and oxygen requirement change
  - Apneas, bradycardias, or desaturations
  - Line or tube dislodgement during skin-to-skin

## Results



## Discussion

- Initiation of skin-to-skin doubled in the first week of life (43%) from pre-implementation (23%).
- Initiation of skin-to-skin within 7 days (43%) greater than pre-implementation overall skin-to-skin (31%)
- Balancing measures supported safe skin to skin practices
  - Average temperature difference - 0.0012° C
  - 3% average FiO2 increase when held skin-to-skin
  - No incidents of line or tube dislodgement
  - No recorded apneas, bradycardias, or desaturations during skin-to-skin
- Vital sign stability comparable to Jones & Santamaria's findings regarding physiologic parameters (2018).
- Comparable results to implementation of bundles to increase skin-to-skin (Marsh, et al, 2021).

## Conclusions

- SSC bundle increased holding events during infant's first week of life without adverse events
- Unit barriers were overcome with multimodal parental and staff education
- Adherence would be improved with permanent inclusion in safety checklist
- Sustainability measures include
  - Daily EHR report
  - Consideration for inclusion of education in annual competencies
  - Unit-based provider, nurse, and support staff champion
- Future projects and continuation should focus on education and clear shared goals among the care team

## Limitations

- Data collection strategy very large number of data points in including the first 7 days of life and non-skin-to-skin holding
- Audit form reflects highest form of respiratory support, presence of phototherapy, IV access type, and bed type per day, not specific to holding event.
- Differing provider preferences for skin-to-skin based on acuity
- Temporary inclusion on existing safety checklist
- High patient census and turnover on multiple weeks (10/7-10/13 & 10/28-11/3)

## Acknowledgements

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## References

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