

Introduction

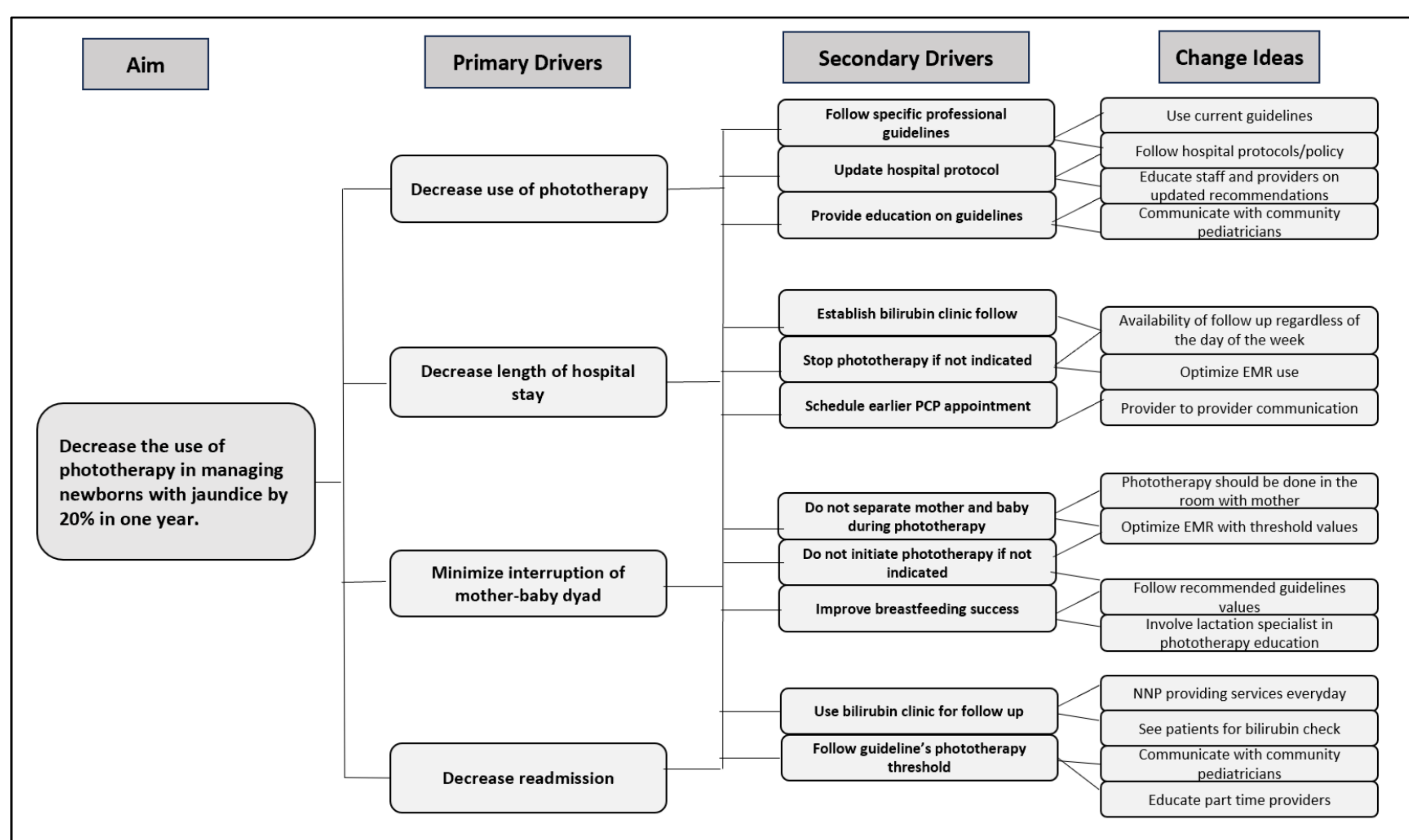
- In August 2022, the American Academy of Pediatrics (AAP) published a revised clinical guideline for management and prevention of hyperbilirubinemia in the newborn infant ≥ 35 weeks' gestational age. The new guideline incorporates hour-specific recommendations for treatment and follow-up. We implemented a quality improvement (QI) project utilizing the revised AAP guidelines to evaluate the impact on phototherapy use and readmissions.

Objectives

The primary aim was to decrease phototherapy use among newborns ≥ 35 weeks' gestation with jaundice by at least 20% in one year.

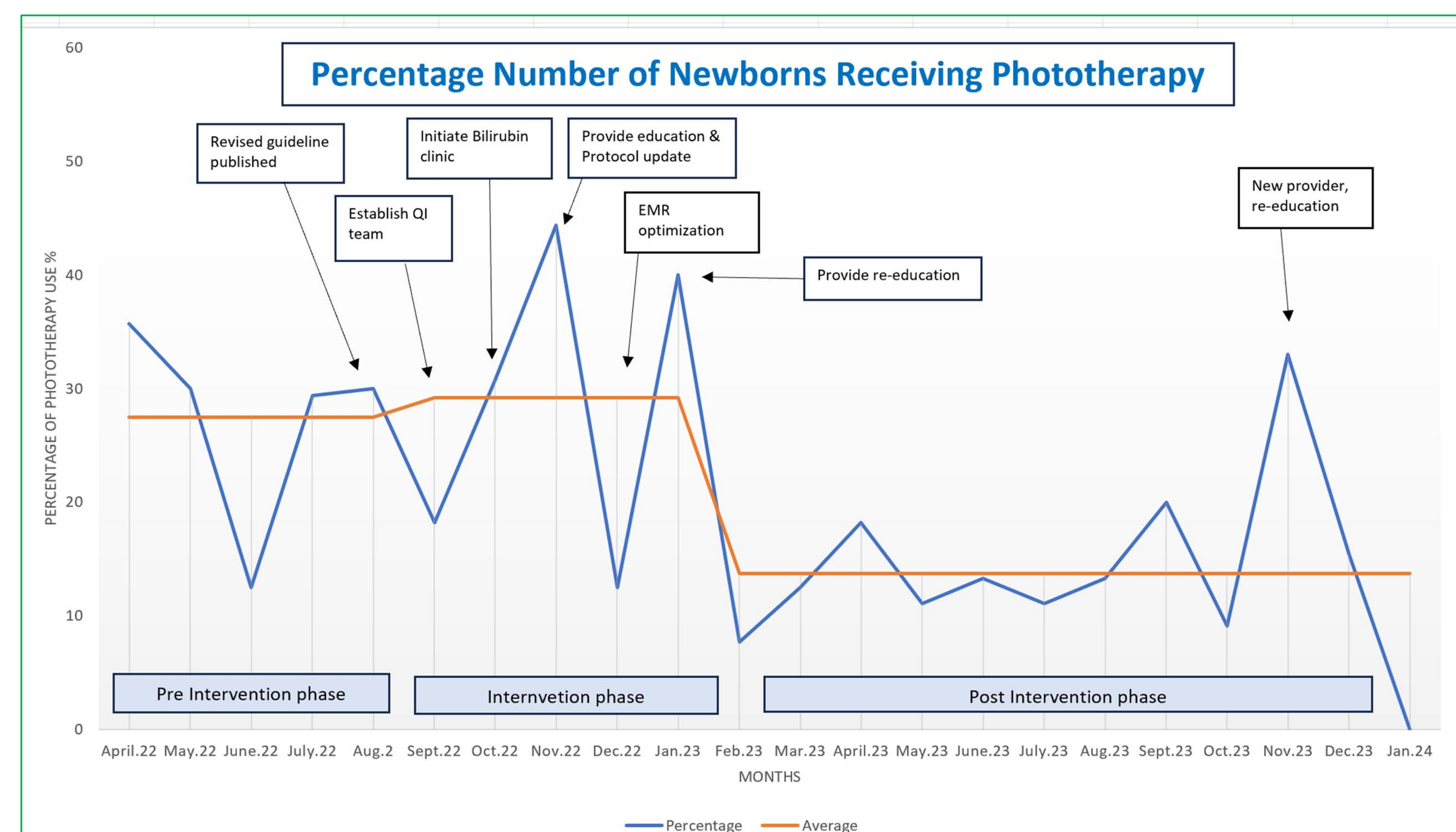
Methods

- This QI project was performed at a rural community hospital with around 700 births per year. Baseline data were obtained from 4/22-8/22.
- Key drivers were identified; intervention done 9/2022 - 1/2023.
- PDSA cycle methodology was used to identify barriers and implement improvements using data from monthly reports.
- Post-intervention data were collected from 2/2023 - 1/2024.
- The process measure is the number of newborns with jaundice.
- The outcome measure is percentage of newborns with jaundice receiving phototherapy.
- The balancing measure is the number of readmissions due to neonatal jaundice.



Results

- The average percentage of newborns with jaundice was 19.4% pre-intervention and 19.7% post-intervention.
- The average percentage of newborns with jaundice treated with phototherapy was 27.5% pre-intervention and 13.7% post-intervention.
- The number of readmissions due to jaundice decreased from 6.8% (4 readmissions pre-intervention) to 2.4% (3 readmissions post-intervention).
- The average length of hospital stay (LOS) was 3.1 days if requiring phototherapy and 2.1 days if not requiring phototherapy treatment among newborns with jaundice.



Discussion/Conclusion

- Implementation of the revised AAP neonatal jaundice guidelines reduced phototherapy use by 50.2% in infants with jaundice without an increase in number of readmissions. Reducing phototherapy use has a potential impact of reducing LOS and cost while improving infant bonding and breast feeding.

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