



Quality Improvement Initiatives to Promote Breastfeeding in the Neonatal Intensive Care Unit (NICU)

by : Valeria Navarro Ortiz



Breastfeeding and it's benefits:

- AAP recommends exclusive breastfeeding for the first six months of life.
- Breastmilk provides essential immunological protection for premature infants.
- NICU breastfeeding rates exhibit low levels in the University Pediatric Hospital Dr. Antonio Ortiz (HOPU).





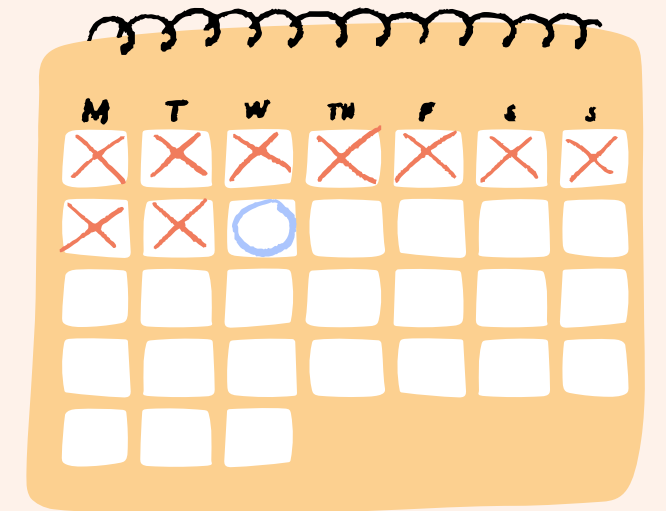
- “Breastfeeding rates among preterm infants are substantially lower than those of full term infants.” (Brockway, Benzies, Carr, & Aziz, 2018, p.123)
- “Appropriate nutrition beginning at birth is a key component to lifelong health and breastmilk feeding is the recommended optimum feeding method for preterm infants.” (Brockway et al., 2018, p.123).



Objective

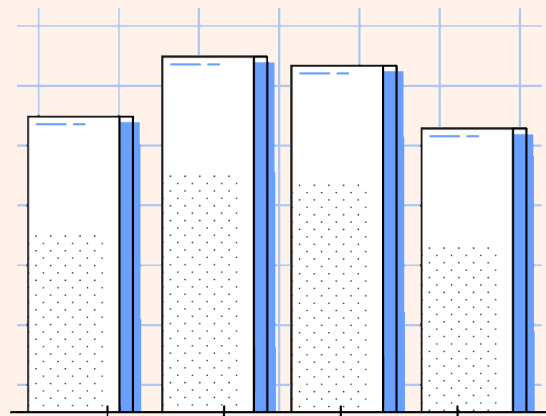
Increase the percentage of
breastfeeding rates in our NICU by
25%.

Before PDSA-1:



Baseline data - 2019:
30 % of infants fed
breastmilk.

Audits:
selected day to
verify infant's
feeding records.



PDSA-1

- Survey to mothers of NICU admitted infants.
- We identified breastfeeding barriers as well as social and economical barriers.



Baby in NICU[Photograph] Raising Children. <https://raisingchildren.net.au/newborns/premature-babies-sick-babies/neonatal-intensive-care/nicu-what-to-expect>

Breastfeeding barriers:

- Limited knowledge of it's benefits.
- NICU environment (limiting visiting hours and availability of lactation specialist).

Social and economical barriers:

- Lack of emotional and family support.
- Transportation
- Work
- Limited resources

PDSA-2



- 2021: educational video was created teaching about milk expression techniques.
- The video also included instructions of safe transport of expressed milk to the NICU.
- Shorts surveys were continued through phone because of COVID-19 restrictions.

ALIMENTANDO A TU BEBÉ CON LECHE MATERNA EN NICU



USA EL ENLACE DEL VIDEO O ACERCA LA
CÁMARA DE TU TELÉFONO AL CÓDIGO QR



Enlace:

<https://cmmoreda.wixsite.com/nicu>

PDSA - 3: In-person interviews



PDSA- 4

Educational sheets that contain information on:

- Extraction techniques and equipment.
- Breastmilk benefits.
- Breastfeeding for premature infants.
- Follow-up phone call was done one week later.

**INFORMATE
ACERCA DE:**



EXTRACTORES DE LECHE




CUALIDADES DE LA
LECHE MATERNA



LACTANCIA EN EL PREMATURO





Results...

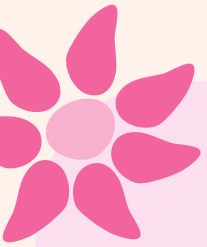
- **2019- 2025:** 1,850 infants audited.
- **Baseline data:** 30% of infants in NICU fed any amount of breastmilk.
- **Needs assessment:** mothers with lower education were not feeding as often as desired.



Needs assessment:

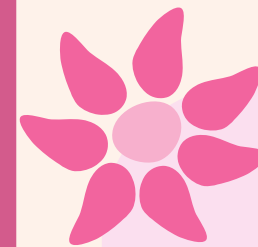
- Needs assessment: mothers with lower education were not feeding as often as desired.
- They also lacked confidence in their ability to succeed breastfeeding.
- Minimal family support





video implementation:

- 61% watched the video.
- 98% understood the information.



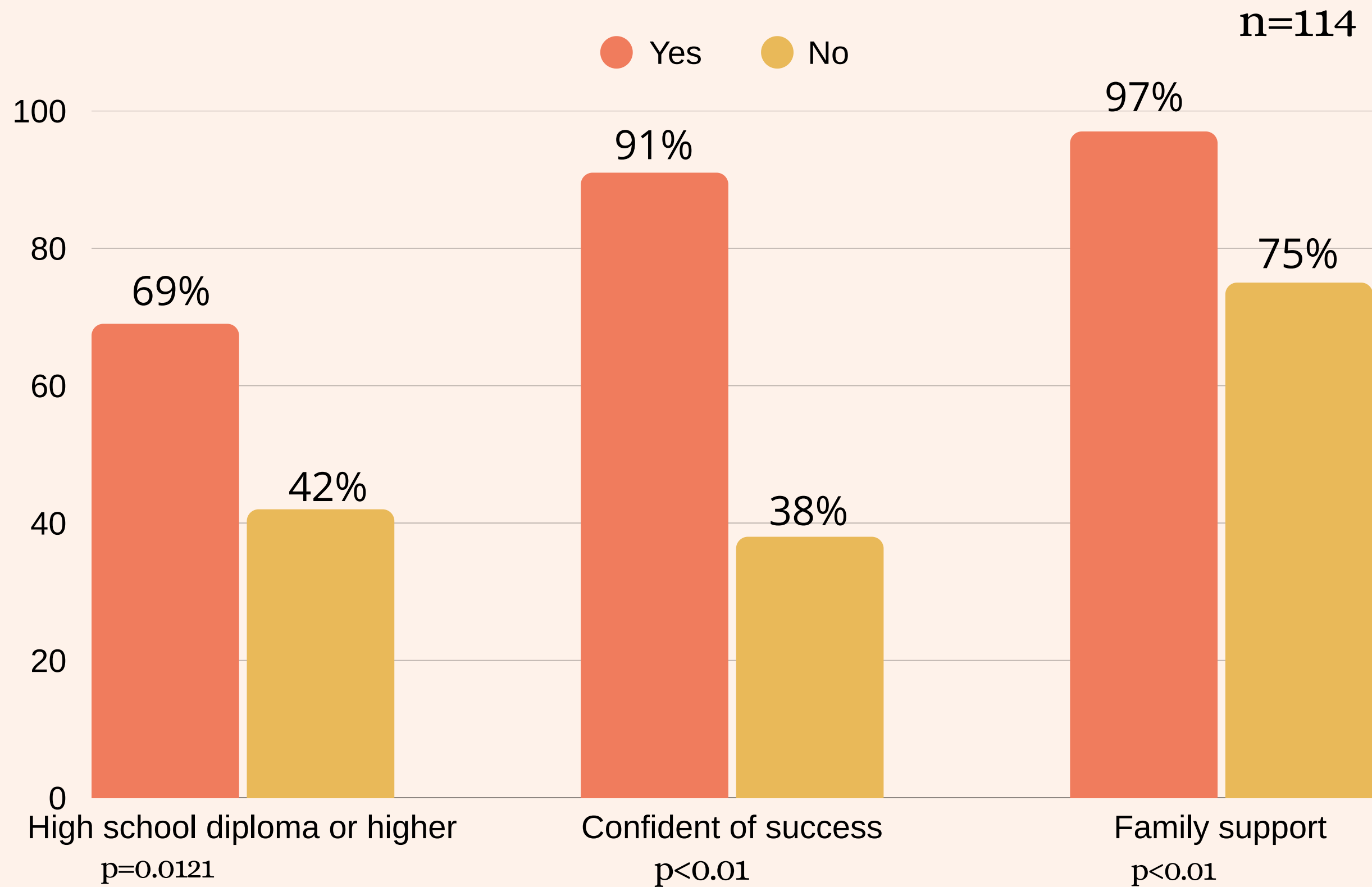
Educational Sheets:

- 21% of mothers watched the video .
- 24% read all the educational material.
- 29% read some of them.



Results

Need assessment



Needs assessment

Not associated to
breastfeeding plans:

- Maternal age
- infant's gestational age
- insurance
- first child
- orientation during pregnancy
- work or school

Lack of knowledge about
breastmilk benefits was
evidenced.

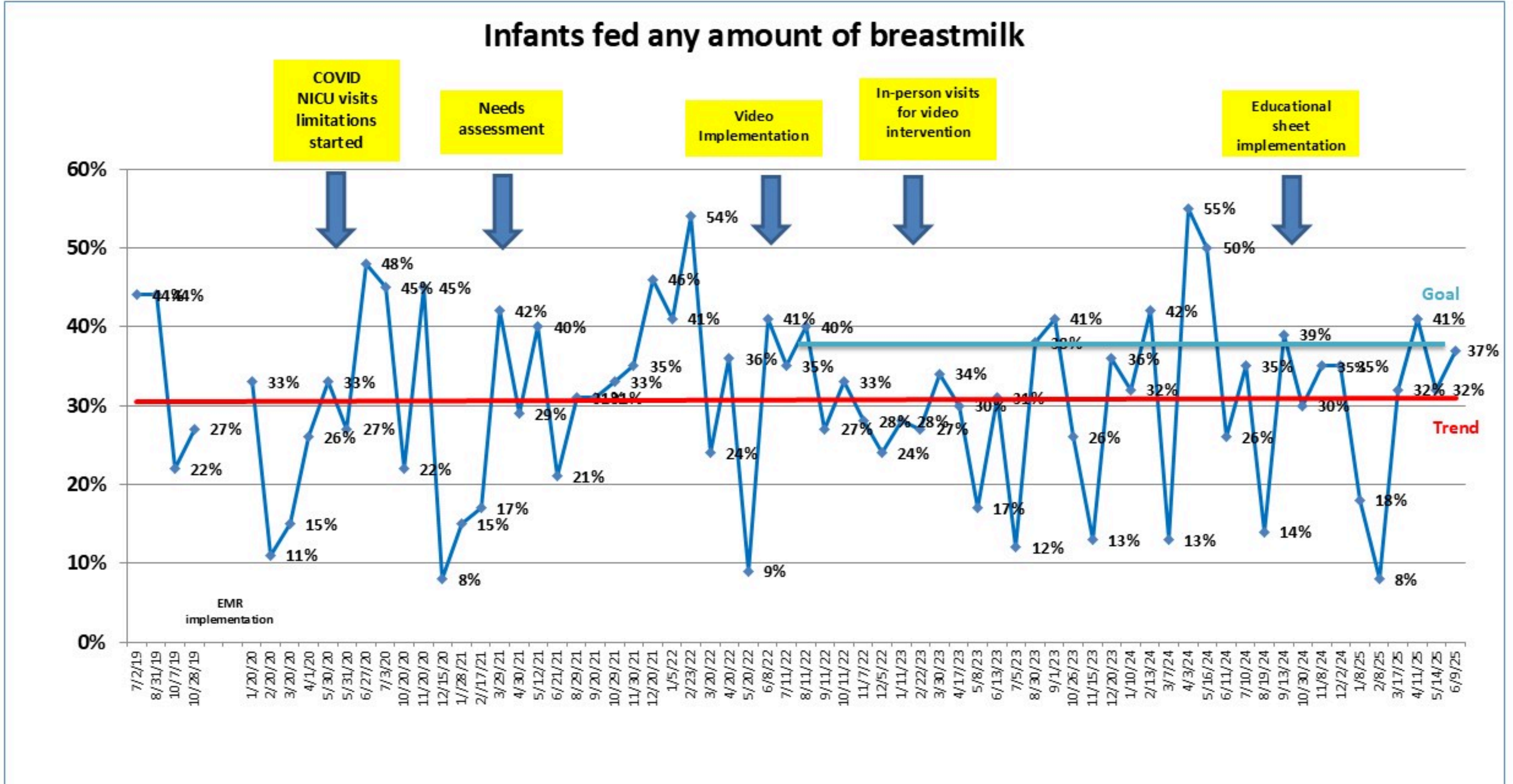


Figure 1: Run charts of infants fed any amount of breastmilk since July 2019 to June 2025

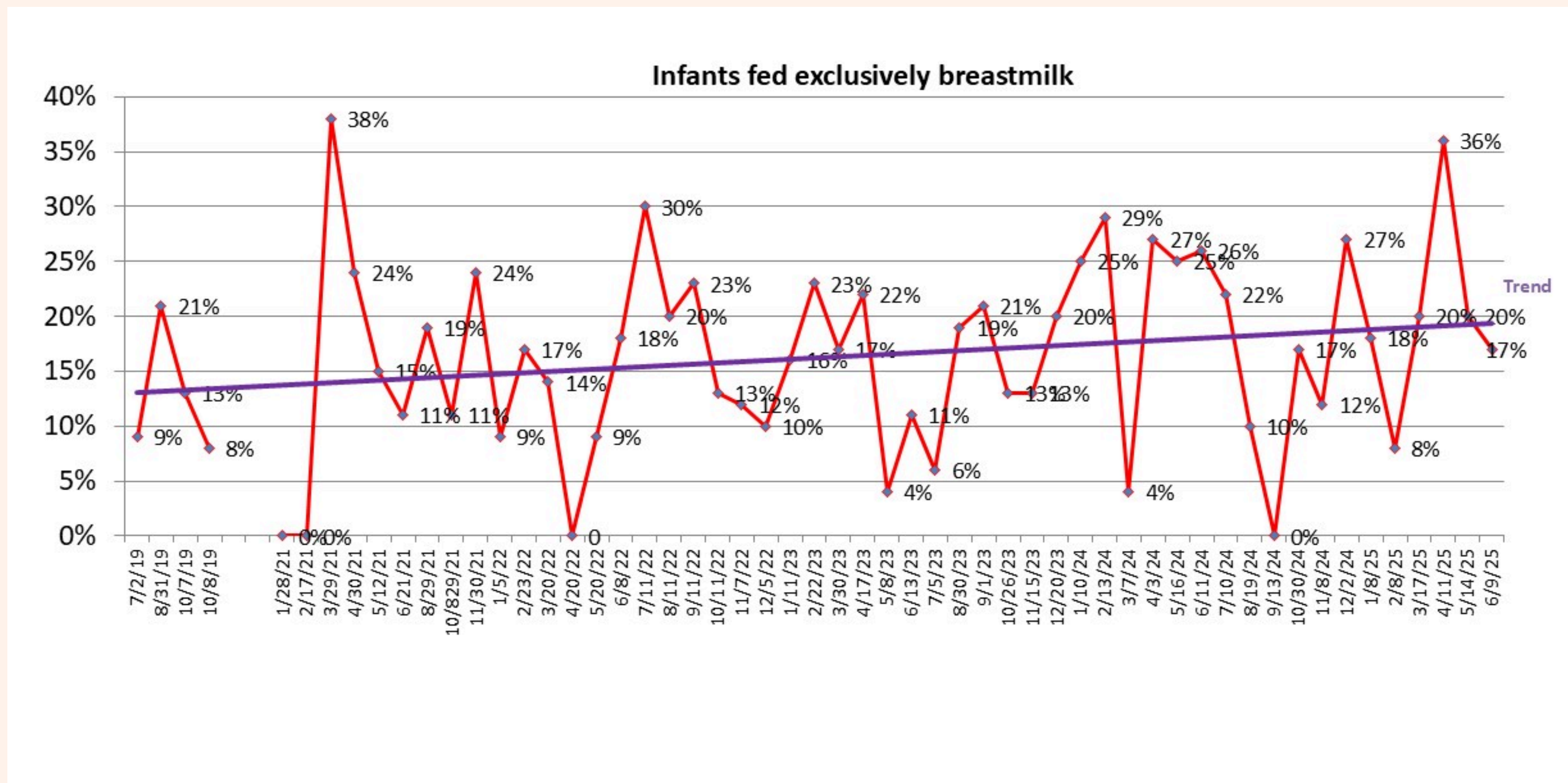
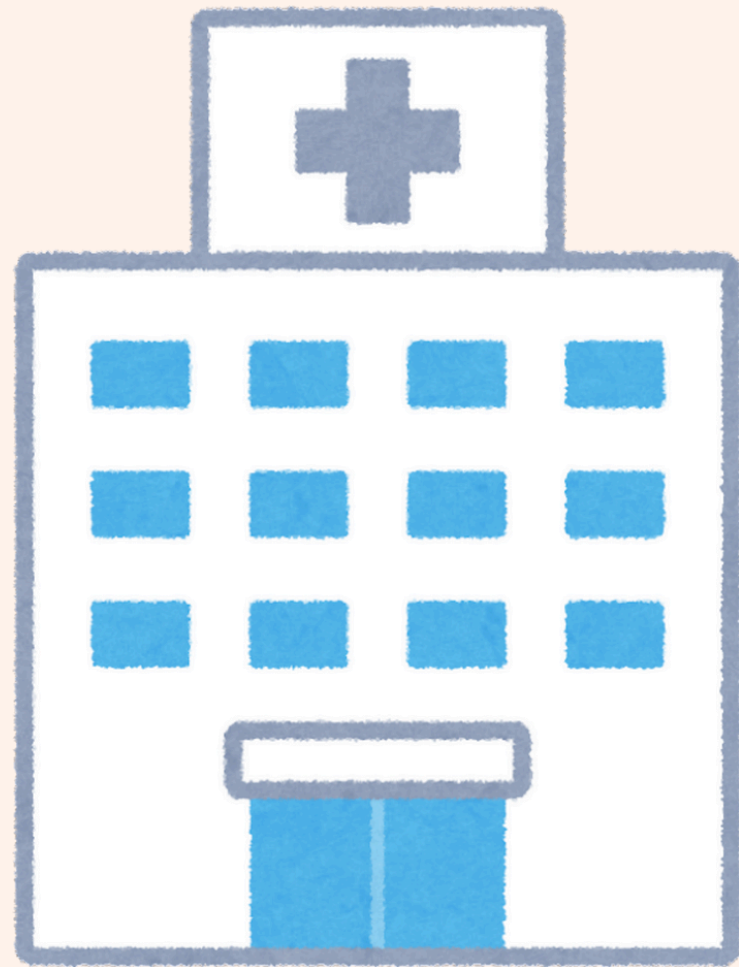


Figure 2: Run chart of infants fed exclusively breastmilk

Challenges

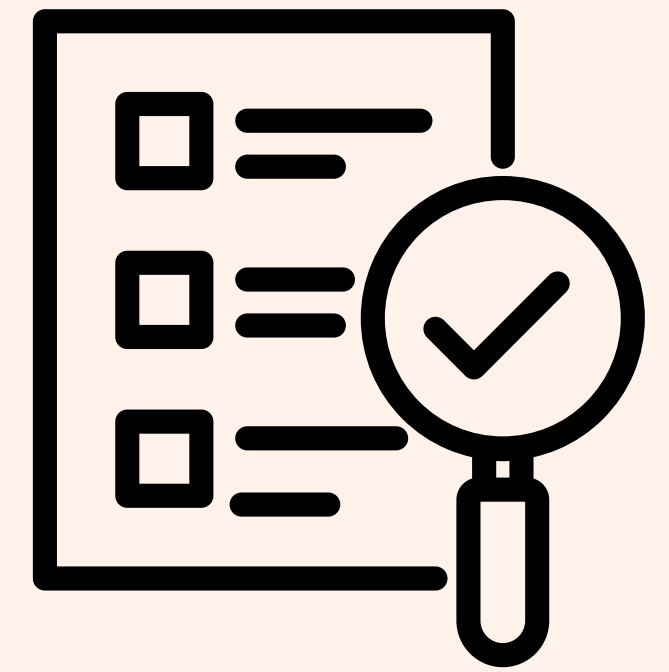


- 80% of hospital patients are in Medicaid.
- Low resources
- Transportation problems
- Not enough personal
- Research students





Conclusion

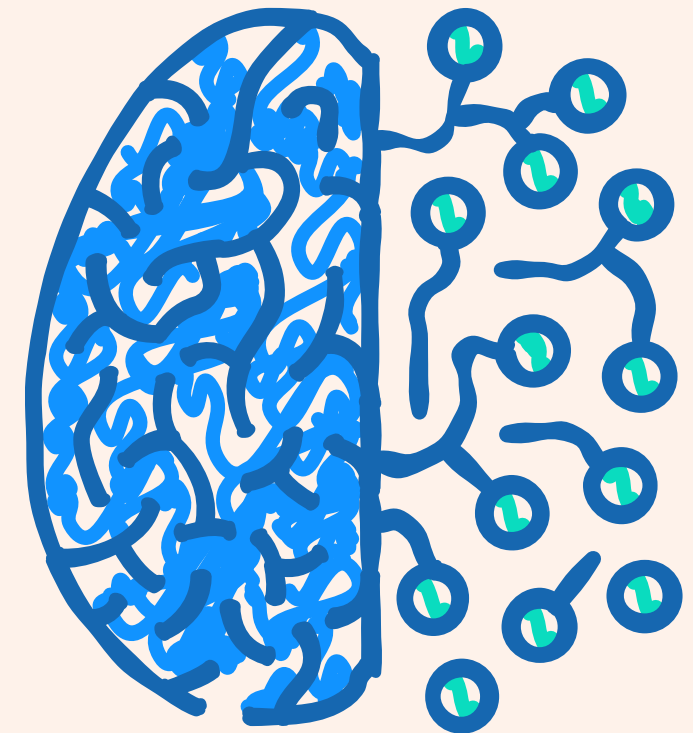


- Increasing breastfeeding rate by 25% has not been obtained.
- Consider repeating a needs assessment evaluation to contrast with 2019 results.
- Consider developing a new PDSA cycle depending on the needs assessment results.



Future research goals

- Implement this research to our Brain Care Investigation.
- Teach about the benefits of reading for the infants neurodevelopment, while also teaching about kangaroo care and massages.



Thank You



References

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