

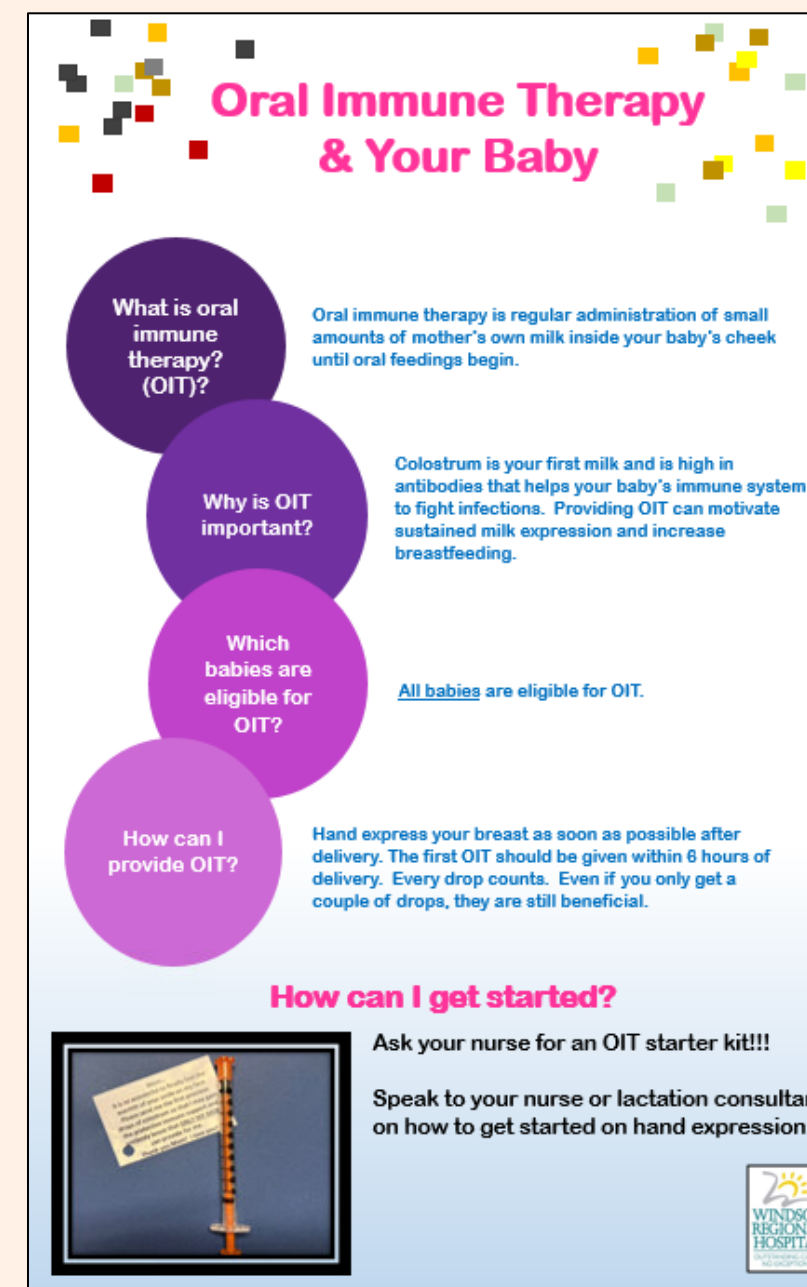
Aim

To promote breast milk feeding for infants admitted to and discharge from the WRH NICU.

Importance

Breast feeding has numerous maternal and newborn benefits. Despite the majority of families expressing a desire to breast feed, 44% of WRH NICU families stopped breast milk feeding by discharge (WRH NICU FACT survey). Thus practices to promote breast milk feeding & supply are required. Early expression of breast milk helps production & supply and can be given as oral immune therapy (OIT) to decrease feeding intolerance. In addition, the frequency of negative oral experiences during the early course in the NICU may also delay feeding; swallowing exercises may be one approach to stimulate oral feeding skills.

Change plans



- OIT care package post delivery
- Disseminating OIT posters in OB/NICU

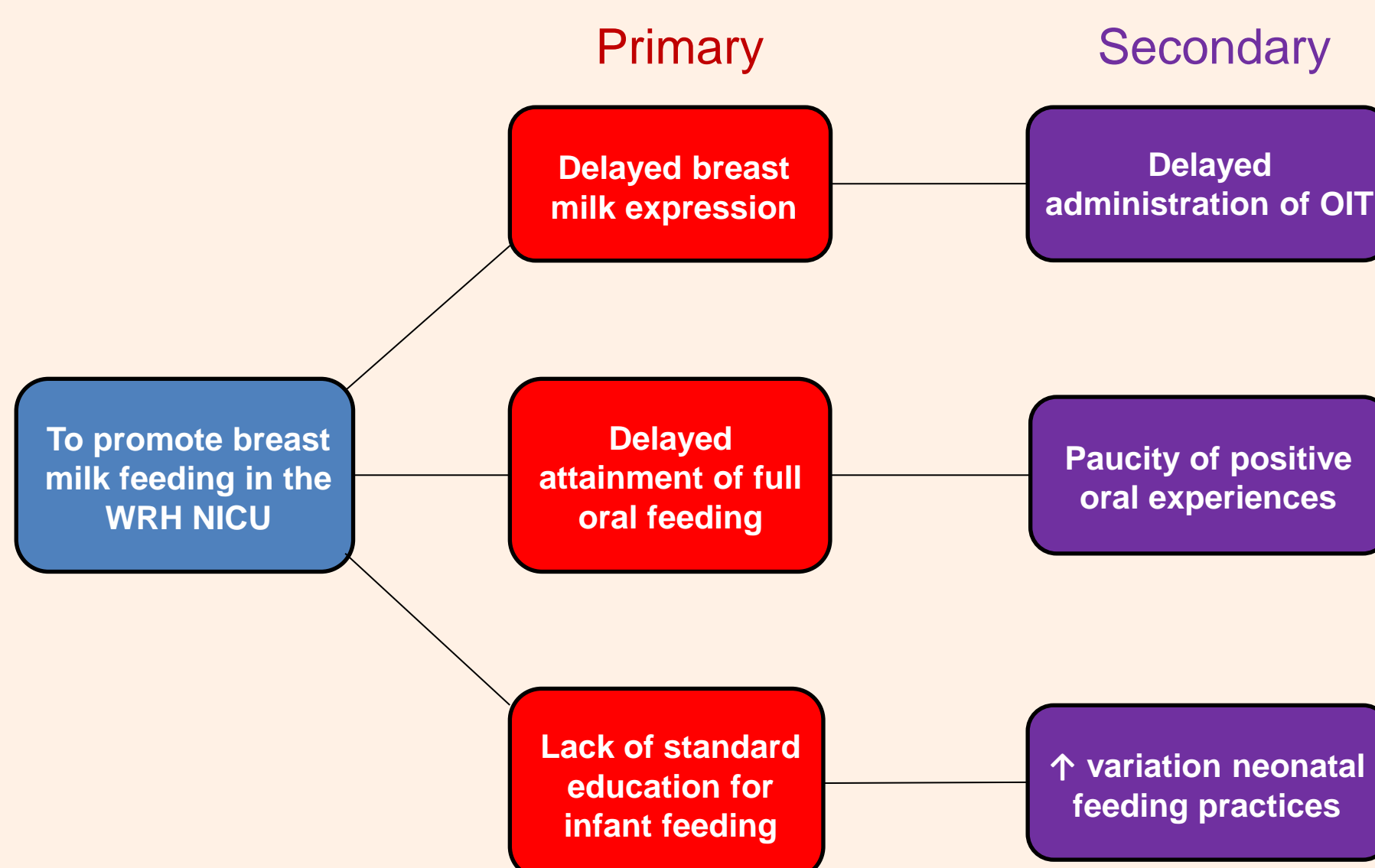


Development of educational material for families with parent input

Swallowing exercises

- promote positive oral experiences & ↓ time to full feeds
- Started Jan 2019
- Infants <32 weeks GA off CPAP
- Twice weekly by OT for up to 15 min per session (originally 5 times per week)
- 0.1 ml of breast milk (mother or donor) on posterior tongue
- Applied using 1ml syringe q 30 sec
- Observe for swallow, choking, fatigue, unstable vitals

Driver diagram



Results

Figure 1: Run chart for oral immune therapy at WRH

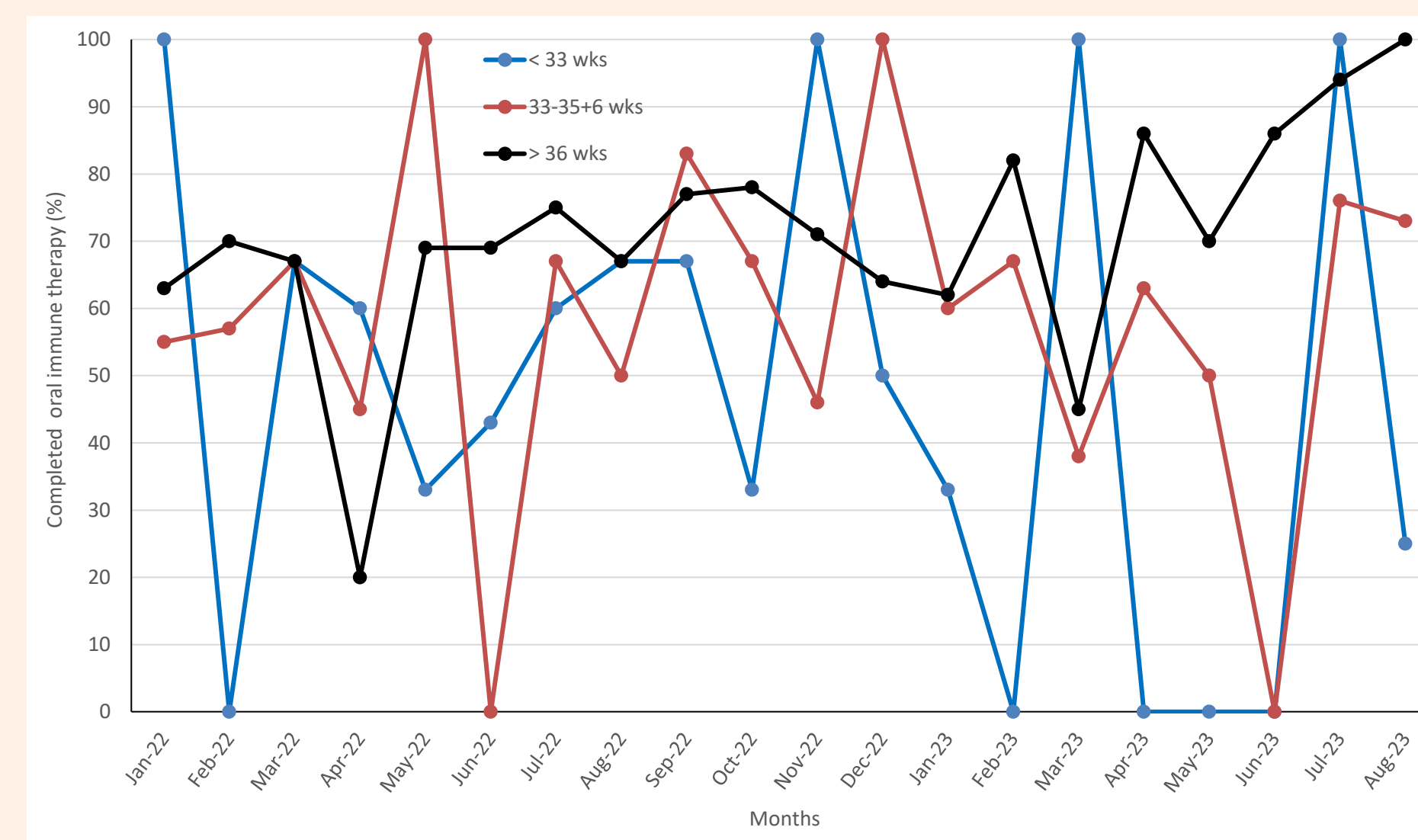


Figure 2: Swallowing exercises at WRH

	Control (n = 69)	Swallowing exercises (n = 119)
Birth gestation, weeks (SD)	30.2 (1.9)	29.9 (2.0)
Birth weight, grams (SD)	1463 (408)	1448 (378)
Female sex, n (%)	27 (39.1)	54 (45.4)
Gestation at start of oral feeds, weeks (SD)	34.1 (1.2)	33.3 (1.4)
Days of life at start of oral feeds, median (IQR)	19 (11-25)	17 (11-33)
Gestation at full oral feeds, weeks (SD)	36.6 (1.7)	36.9 (1.8)
Days of life at full oral feeds, median (IQR)	41 (32-58)	47 (34-65)
Days to full oral feeds, median (IQR)	19 (10-24)	17 (12-25)
Discharge gestation, weeks (SD)	37.3 (1.4)	37.7 (1.9)
Days of life at discharge, median (IQR)	45 (38-65)	51 (37-70)
Days to discharge, median (IQR)	25 (17-29)	21 (16-27)

Results reported as mean (standard deviation) or median (interquartile range). Abbreviations: SD – standard deviation, IQR – interquartile range.

Lessons learned / Next stage

OIT rates have improved in near term infants but not for lower gestation infants. To address this gap, we will distribute an online education module for staff. With the initiation of swallowing exercise, we have not observed an improvement in days to full oral feeding; however, our these exercises decreased in from 5x to 2x per week during the study interval. As such, we will explore expanding the frequency of swallowing exercises by including additional providers. Quality improvement also requires regular stakeholder engagement (allied health staff, interdisciplinary staff and families). For our preterm feeding education, we will survey families regarding implementation of this education pamphlet.