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## Aim

To maintain NEC rates at the JGH NICU below the yearly national average for infants born <33 weeks GA.

## Importance

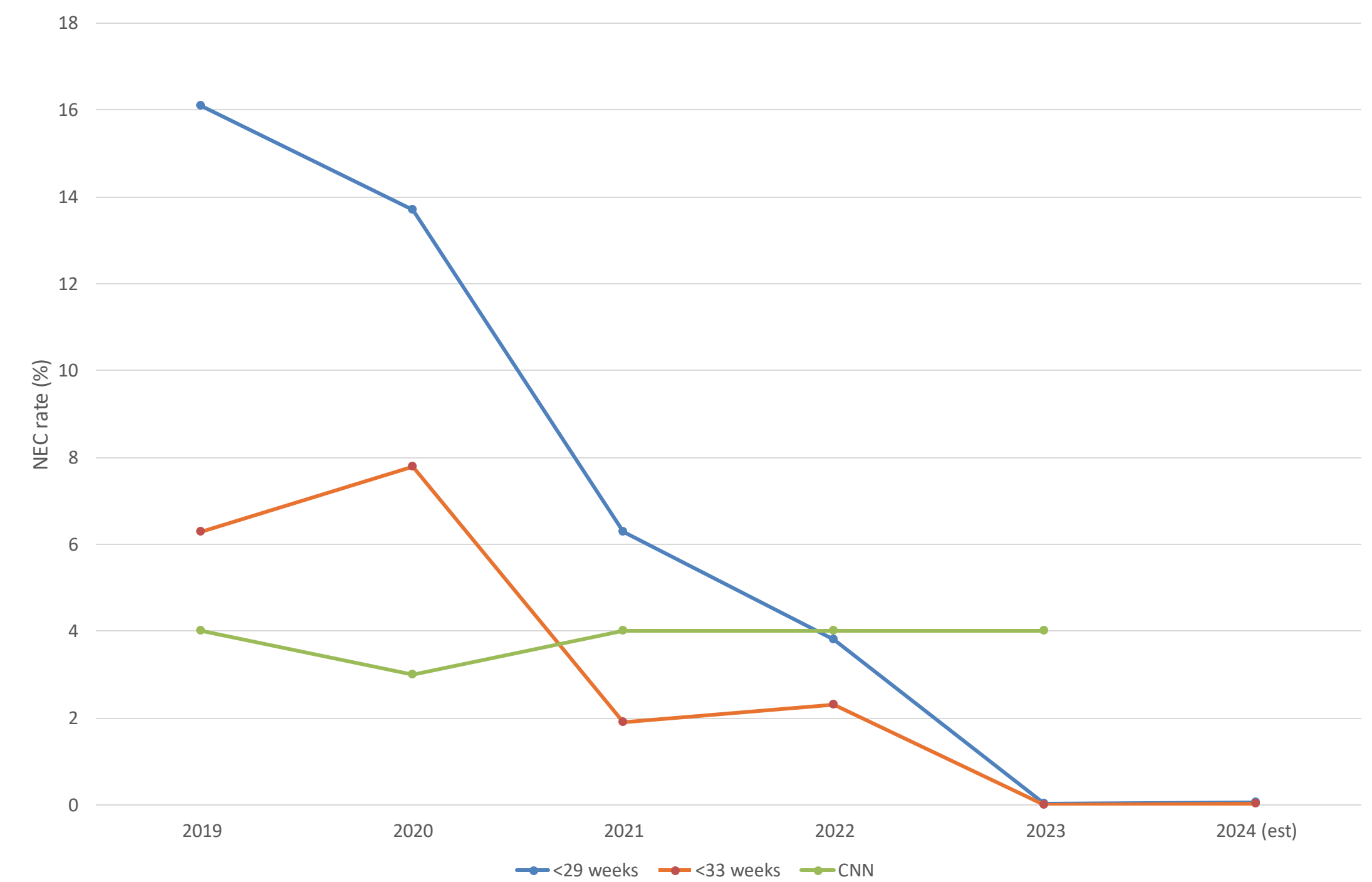
- NEC affects 4% of infants born at <33 weeks <sup>(1)</sup>
- It is associated with a mortality rate of 23% <sup>(1)</sup>
- It represents different forms of intestinal injury with different pathophysiology <sup>(2)</sup>
- Multiple associated co-morbidities
- Many strategies have been demonstrated to lower the incidence of NEC <sup>(3,4)</sup>

We GUT this!

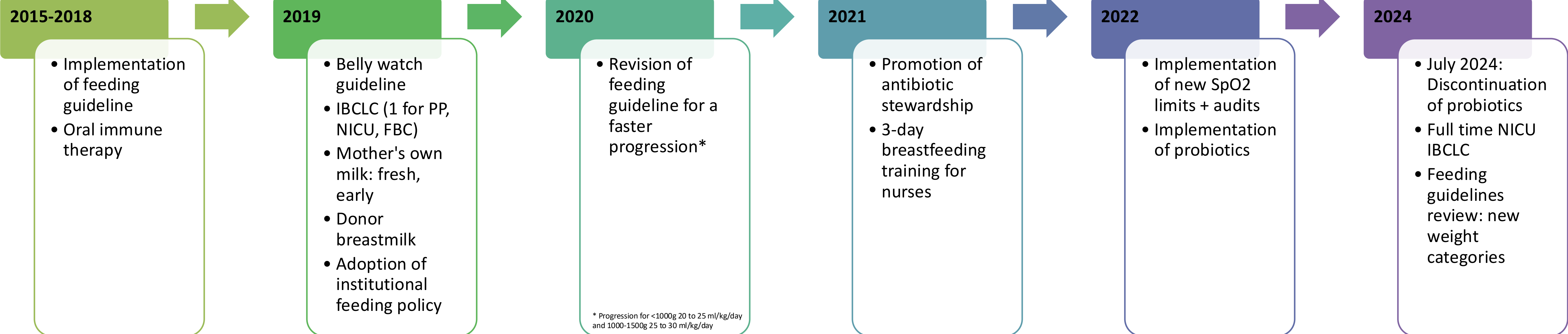


## Data / Results

Incidence of NEC at the Jewish General Hospital NICU compared to the national average



## PDSA Cycle / Change plan



## Next Stage/ Plan

- Ongoing implementation of Skin-to-skin protocol
- Clinical rounds on PRBC and Plt transfusion threshold guideline
- Ongoing NEC sentinel events review
- Routine hand hygiene audits
- Review of outcomes of probiotic use in ELBW infants
- Journey to a Neo-BFI certification <sup>(5)</sup>
- NEC management guideline <sup>(6)</sup>

### References

- (1) The Canadian Neonatal Network (2024). The Canadian Neonatal Network 2023 Annual Report. <https://www.canadianneonatalnetwork.org/portal/Portals/0/Annual%20Reports/2023%20CNN%20Annual%20Report.pdf>
- (2) Kim, J.H., Sampath, V. & Canvasser, J. (2020) Challenges in diagnosing necrotizing enterocolitis. *Pediatrics*, 16–20. <https://doi.org/10.1038/s41390-020-1090-4>
- (3) Neu, J. (2022). Prevention of necrotizing enterocolitis. *Clinics in Perinatology*, 49(1), 195–206. <https://doi.org/10.1016/j.clp.2021.11.012>
- (4) The EPIQ gut health group (2022). Toward a NEC free Canada: Prevention of necrotizing enterocolitis in Canadian NICUs [Unpublished document].
- (5) The EPIQ gut health group (2024). Promoting care of infants with necrotizing enterocolitis [Unpublished document].
- (6) Nyqvist, K. H., Häggkvist, A. P., Hansen, M. N., Kylberg, E., Frandsen, A. L., Maastrup, R., Ezeonodo, A., Hannula, L., Koskinen, K., & Halek, L. N. (2012). Expansion of the ten steps to successful breastfeeding into neonatal intensive care: expert group recommendations for three guiding principles. *Journal of human lactation : official journal of International Lactation Consultant Association*, 28(3), 289–296. <https://doi.org/10.1177/0890334412441862>