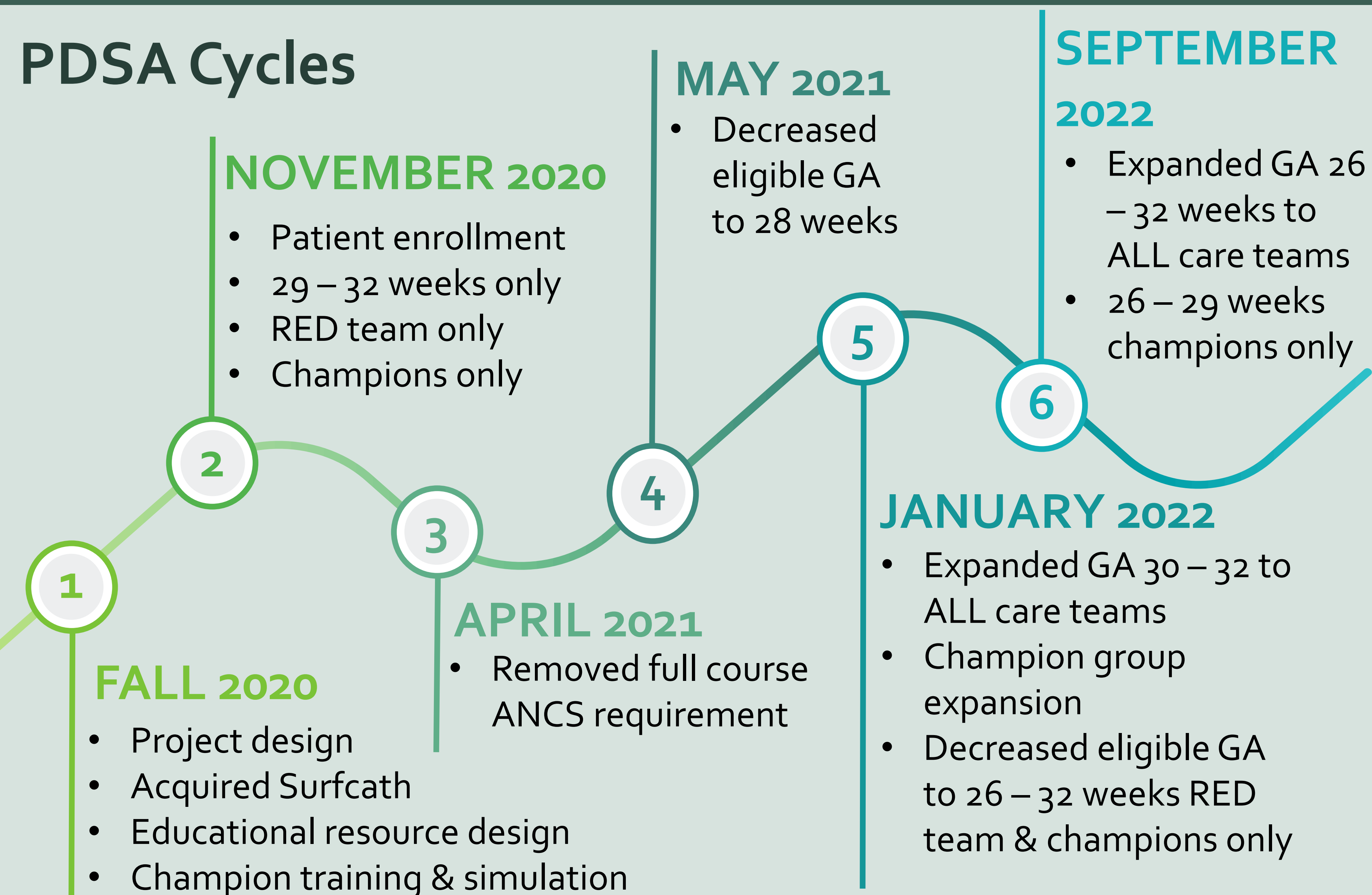


Will Invasive Ventilation be MIST?

Project Aim

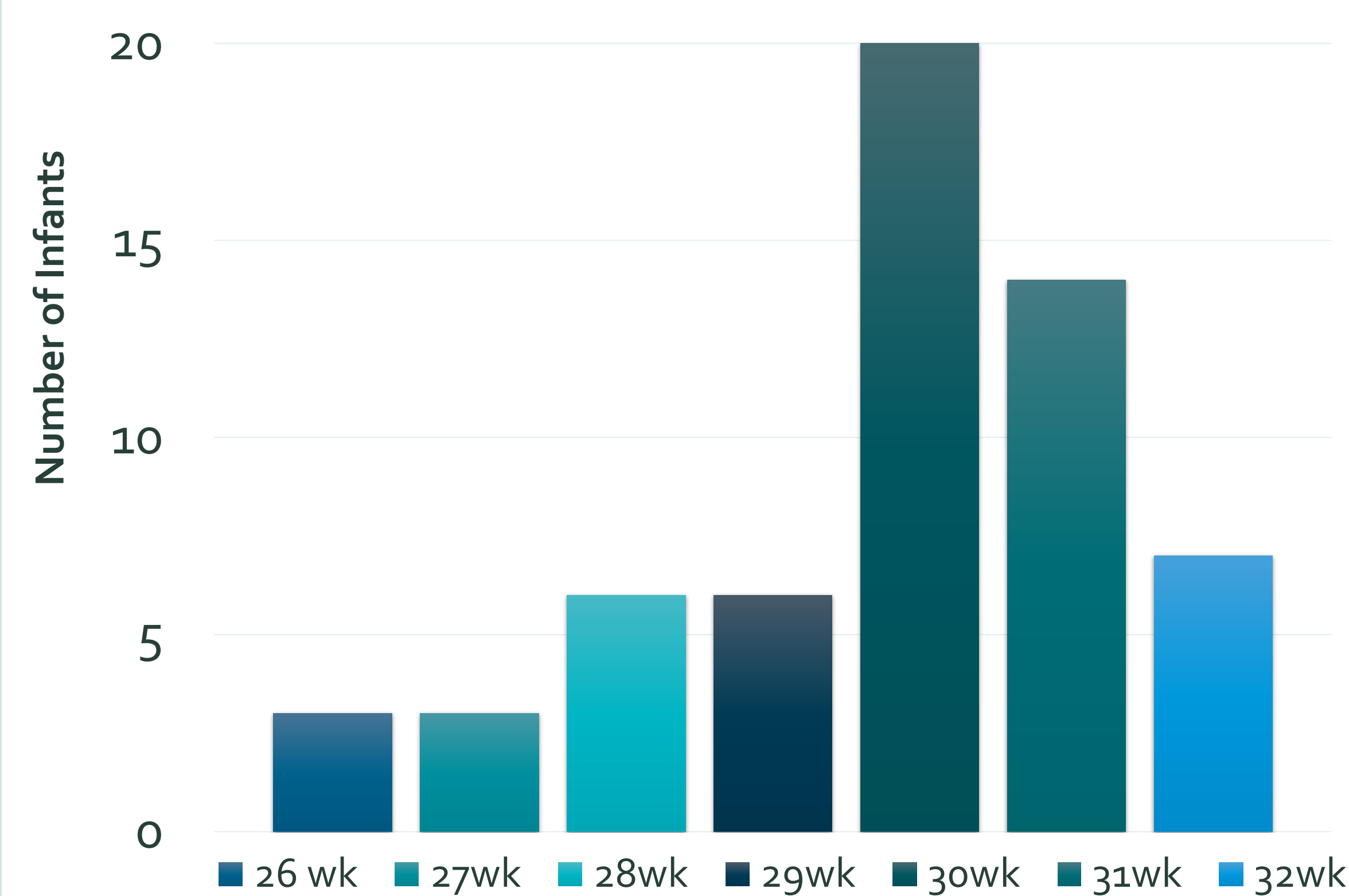
To have a safe, controlled and systematic implementation of the Minimally Invasive Surfactant Therapy (MIST) procedure, to decrease the need for mechanical ventilation in infants with RDS, and reduce composite outcome of death or BPD at 36 weeks by the end of 2023.

PDSA Cycles

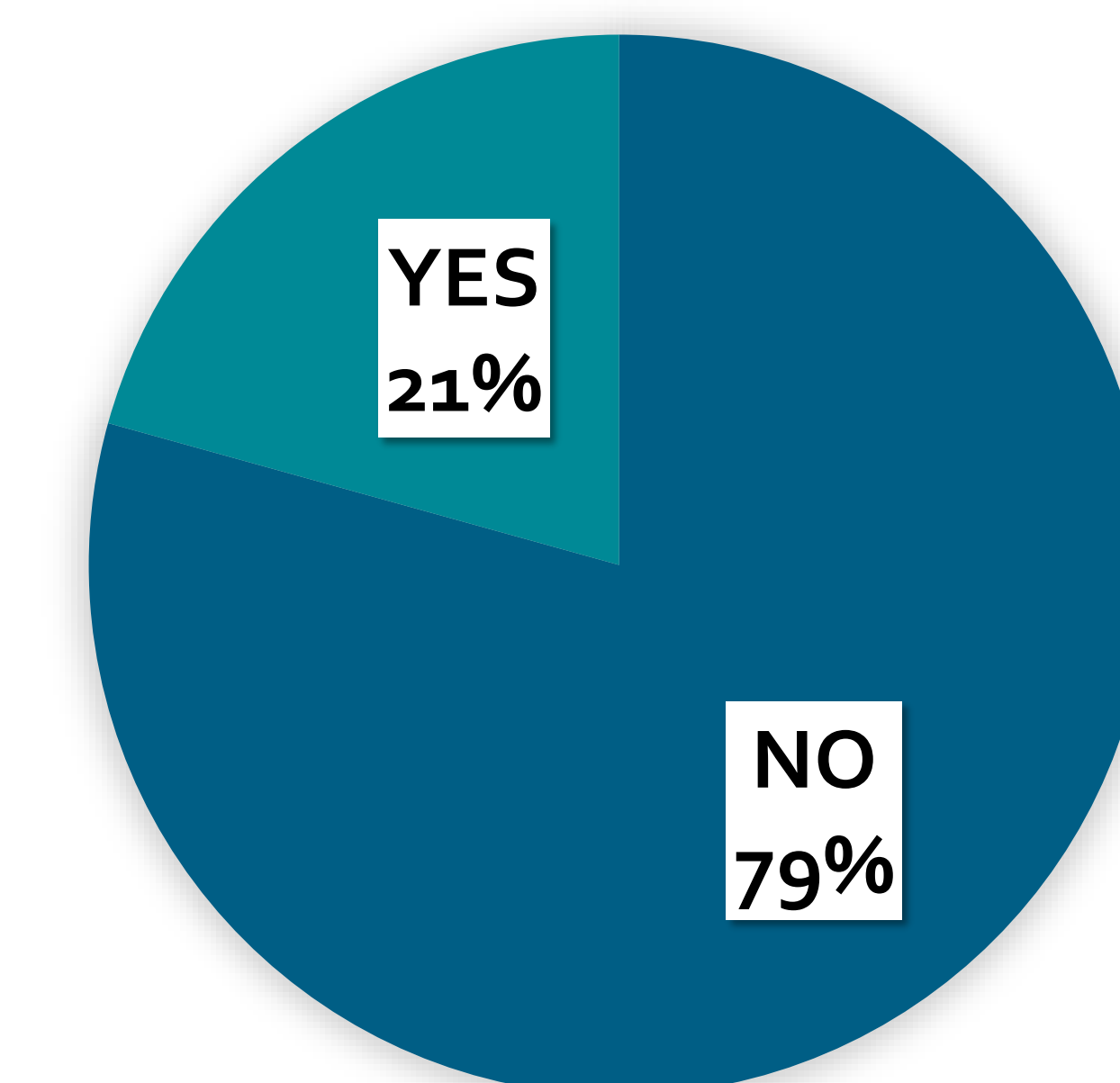


Results

Number of Infants receiving MIST by GA



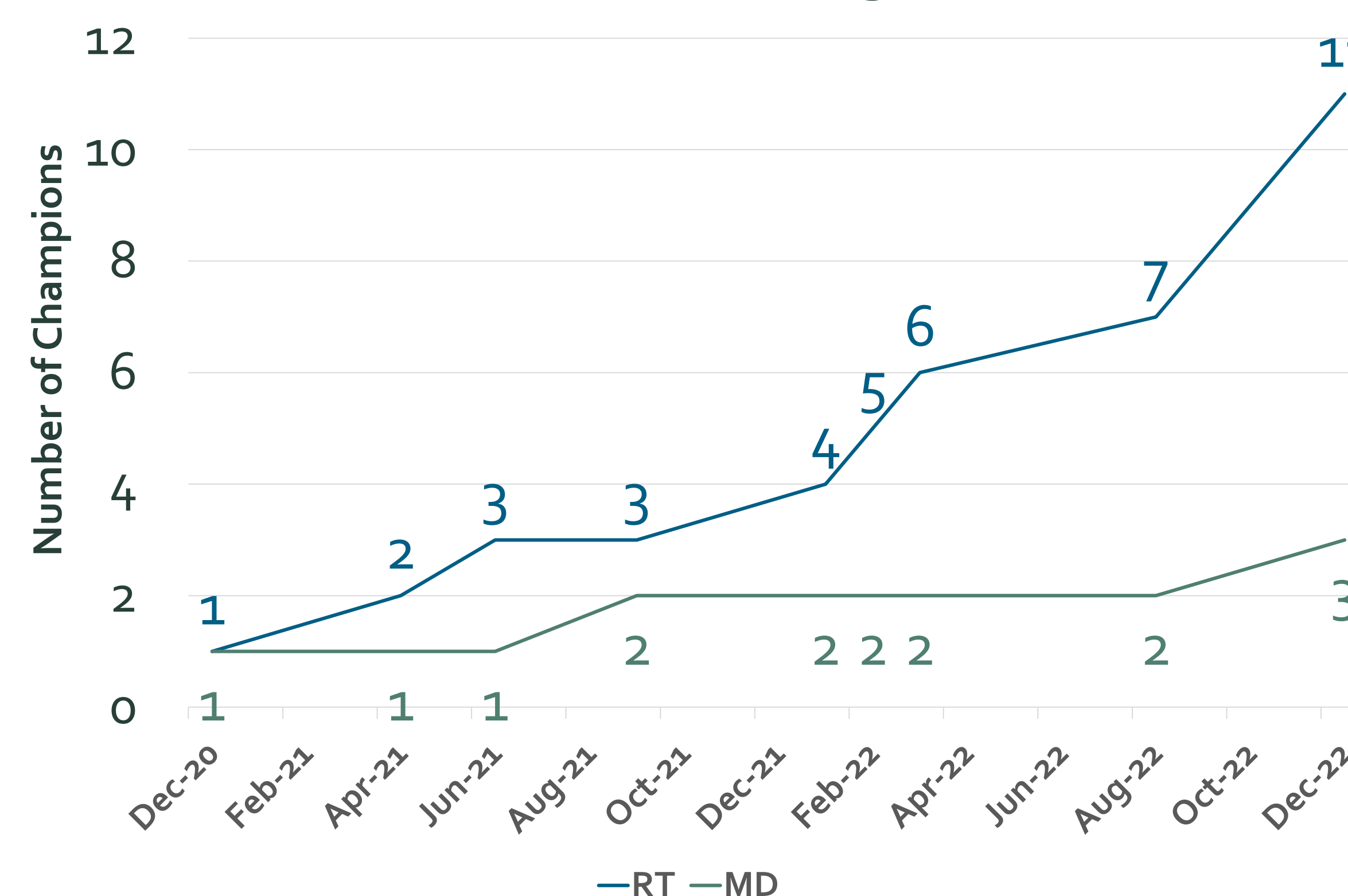
Infants Intubated Post-MIST for Repeat Surfactant



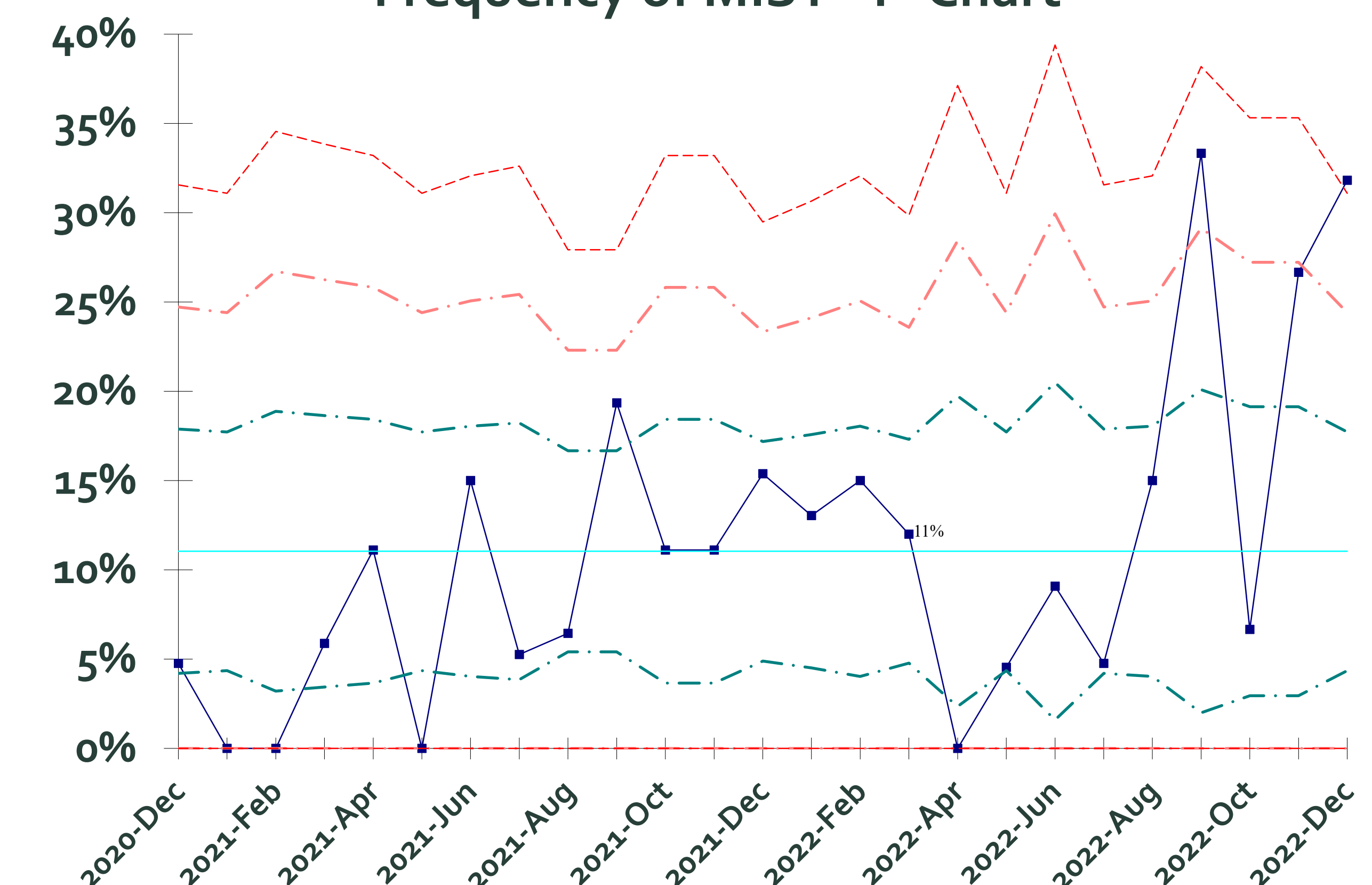
Procedure Complications

Complication	N=58
Apnea	6 (10.3%)
Bradycardia	2 (3.4%)
Desaturation	12 (20.7%)
Need for PPV	0
Pneumothorax	1 (1.7%)
Intubation	0
Airway Injury	0

Champion Group: Training Expansion



Frequency of MIST - P-Chart



Learnings

Benefits of a controlled and systematic approach:

- Team buy-in
- Lower complication rate
- Fewer intubations for repeat surfactant

Next Steps

- Repeat surfactant also via MIST
- Lower FiO₂ cut off to ensure early rescue surfactant
- Lower gestational age to 25 weeks



Authors

Julie McKanna RRT, Stefani Doucette MD, FRCPC, MSc, Jennessa Noort BHSc, RRT Kelsey Groenenboom MN NNP, Claire Hamilton MN RN, and Ayman Abou Mehrem MD, FABP, MSc
On behalf of the Foothills Medical Centre EPIQ Team

