

### Aim

Successfully transitioning neonates with complex medical needs (CMN) to home/community

- Establish continuity and care pathway
- Optimal stability for home care
- Parents/caregivers have emotional preparedness and technical, navigational, & coping skills

### Problem/Opportunity Gap

- Neonates with CMN account for **1% of total pediatric population** but account for **32.7% of all provincial child health spending**<sup>1</sup>
- Complexity of their care and social needs are increasing exponentially<sup>2</sup>
- **BCWH:** prolonged NICU stay, involvement of multiple sub-specialities, high resource needs after discharge, and significant re-hospitalization rates<sup>3</sup>

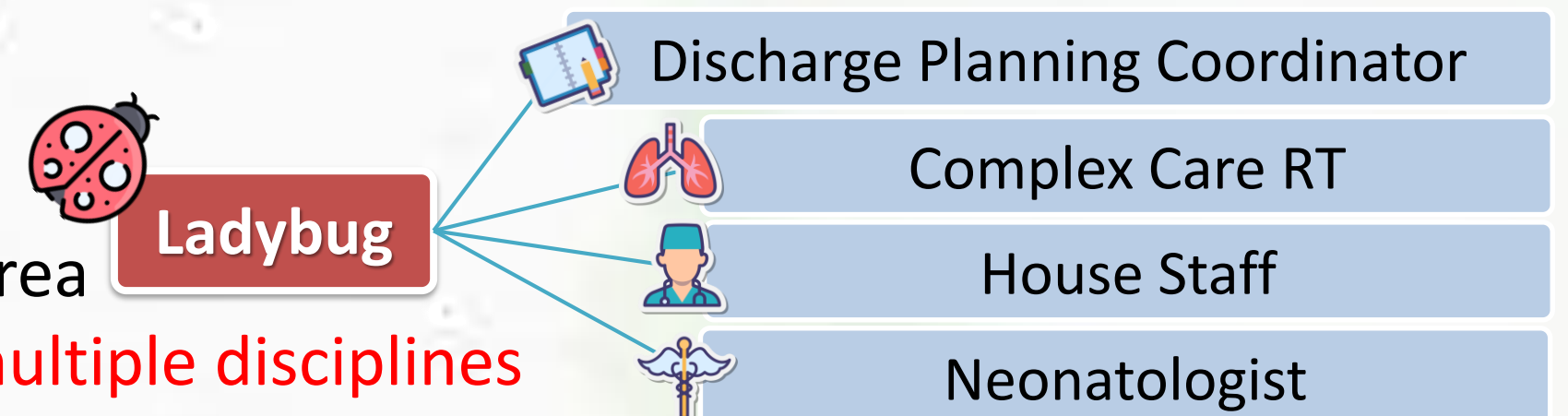
### Timeline and Key Interventions

Established the **Neonatal Complex Care Team (NCCT)**

- 2013**
- Consist of **a NICU RN and RT**
  - QI initiative to meet unique needs of neonates with CMN

Opening of **Complex Care Pod**

- 2018**
- Cohorting in a single physical area **Ladybug**
  - **Collaboration with multiple disciplines & programs**



### Evaluation

#### Patient Healthcare Outcomes

- NICU:
  - Length of stay
  - Resource use
  - Discharge disposition
- Post-discharge:
  - Clinic visits
  - BCCH interactions
  - BCEHS
  - Community hospitals

#### Economical Impacts

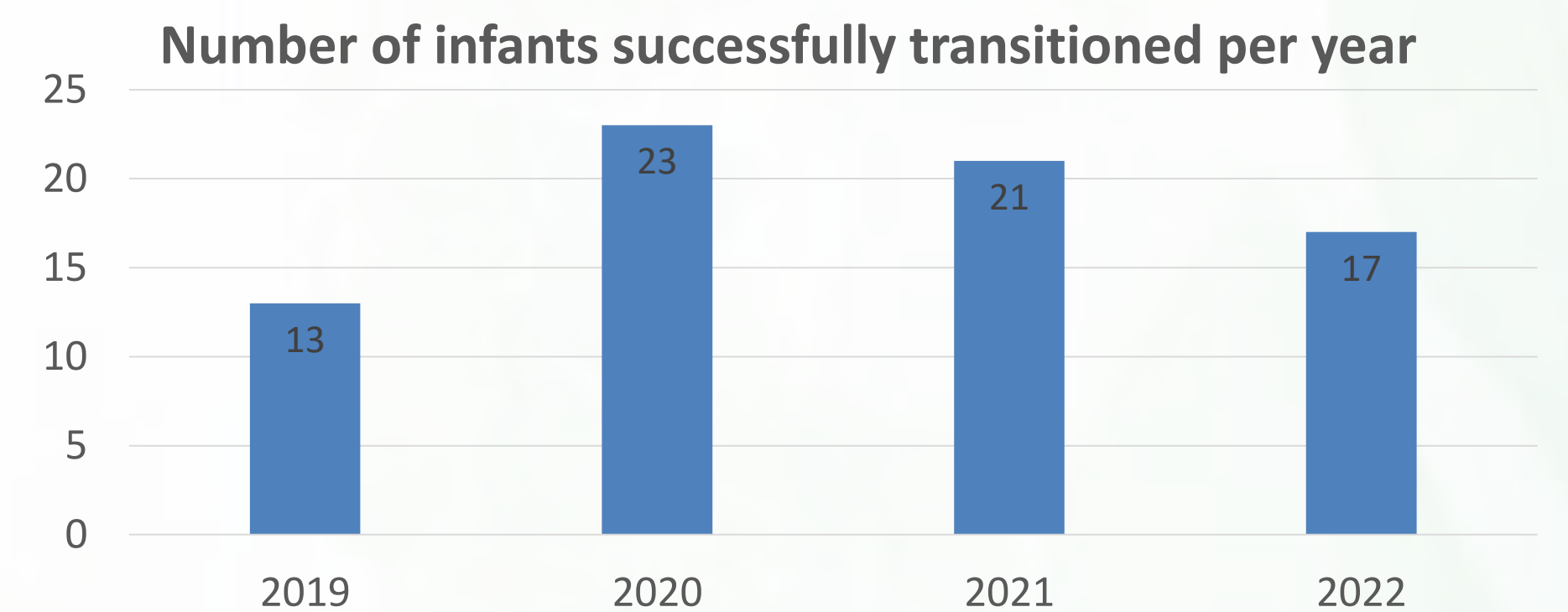
- Neonatal Program
- BCWH Program
- PHSA

#### Patient-reported Outcomes

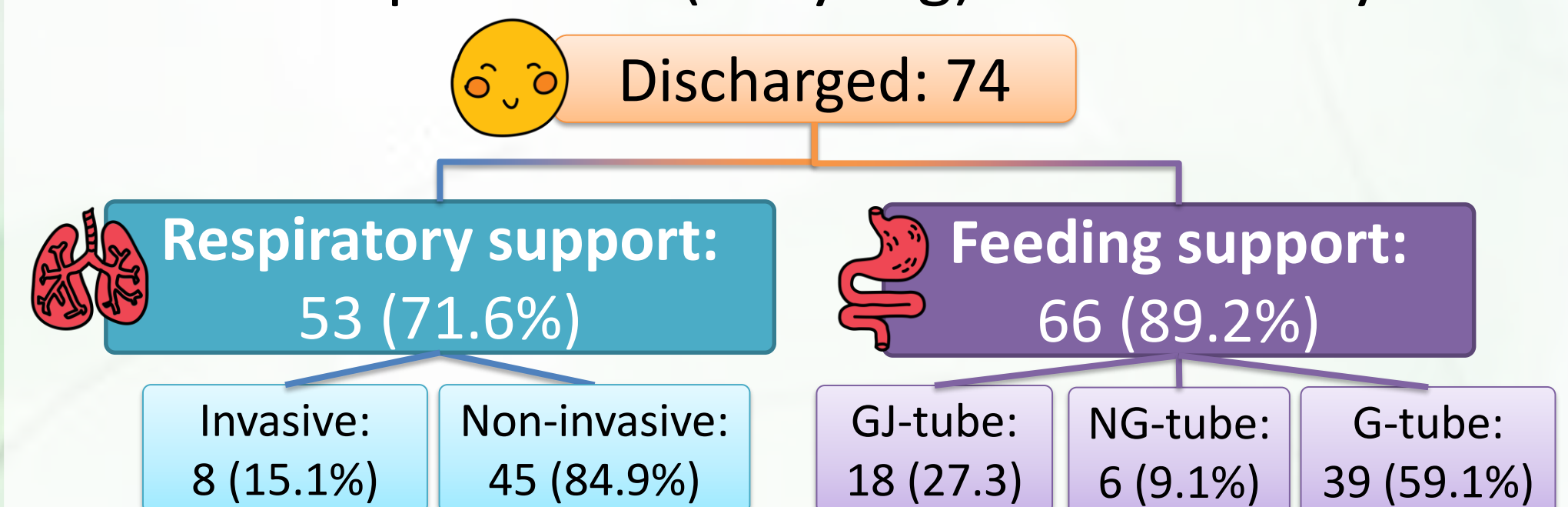
- ✍ Caregivers experience
- ✍ Hidden/out of pocket costs
- ✍ Caregiver well-being

### Results

- Total of **78 admissions** (May 2019 – Sept 2022)
  - 34 (43.6%) inborn



- Average length of stay in NICU is 160 days
  - Of which, average length of stay in Complex Care (Ladybug) Pod is 78 days



### Key Learnings

1. NCCT care model works
2. Non-invasive strategies for home ventilation

### Future Directions

- Getting home safely, to stay at home
- Evaluate family outcomes
- Sharing & building collaborative network across Canada

### Acknowledgements

We thank the **Complex Care Team** and **Ladybug Alumni Family** for their contribution to the project

### References

1. Cohen E et al. Patterns and costs of health care use of children with medical complexity. *Pediatrics* 2012.
2. Dewan T, Cohen E. Children with medical complexity in Canada. *Paediatr Child Health* 2013.
3. Kieran E et al. Outcomes of neonates with complex medical needs. *Advances in Neonatal Care* 2019.