



How to Make your Research Matter in Complex Healthcare Systems: Sustaining the Long-Term Impact of Alberta Family Integrated Care in NICUs

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Virtual

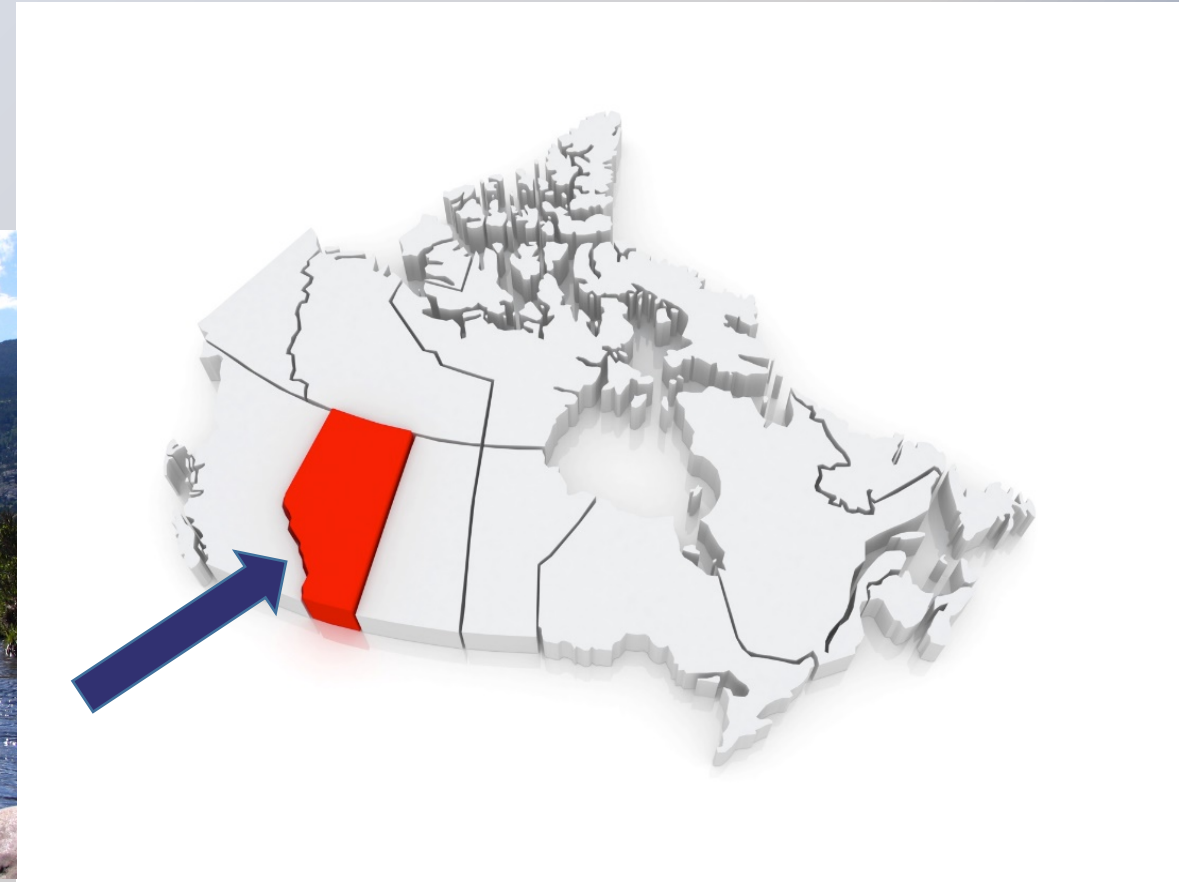
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Conflict of Interest

I am the founder of Liminality, a company to ensure that Alberta **FI**Care™ (also known as Merge) is accessible to NICUs across the world.

Research Context – Alberta, Canada



Learning Objectives

At the end of this presentation, you will be able to:

- 1) Describe underlying assumptions and strategies for sustainability of a provincial quality improvement initiative in neonatal intensive care units.
- 2) Describe how these strategies contributed to the sustainability of the quality improvement initiative over time.
- 3) Apply these strategies to increase sustainability of quality improvement initiatives in your setting.

Why Alberta **FI**Care™? Pre-Implementation Interviews

Alberta HCPs' and hospital administrators' recommendations (Benzies et al., 2018)

- Enhance professional development
- Tools to deliver consistent care, and strengthen continuity of care
- Recognize parental capacity to be involved in care
- Support family participation in care, including design of family-friendly environments

Canadian Premature Babies Foundation Report (2014)

- Improve staff support (e.g., education, training on empowering parents to provide care)
- Improve consistency and continuity of care across facilities and providers
- Improve supports to facilitate family participation in care
- Expand supports for families (e.g., physical, financial, social, and emotional)

Alberta FICare™ cRCT

Primary Research Question:

Does Alberta FICare™ for moderate and late preterm infants with admission to Level II NICU reduce hospital length of stay?

Method:

cRCT in 10 Level II NICUs in Alberta (Benzies et al., 2018)

- Control sites: Standard care
- Intervention sites: Alberta FICare™

Queen Elizabeth II Hospital

Grey Nuns

Red Deer Regional Hospital

Rockyview General Hospital

South Health Campus

Royal Alexandra Hospital

Misericordia

Peter Lougheed Centre


Medicine Hat Regional Hospital

Chinook Regional Hospital



Effectiveness of Alberta Family Integrated Care on infant length of stay in level II neonatal intensive care units: a cluster randomized controlled trial

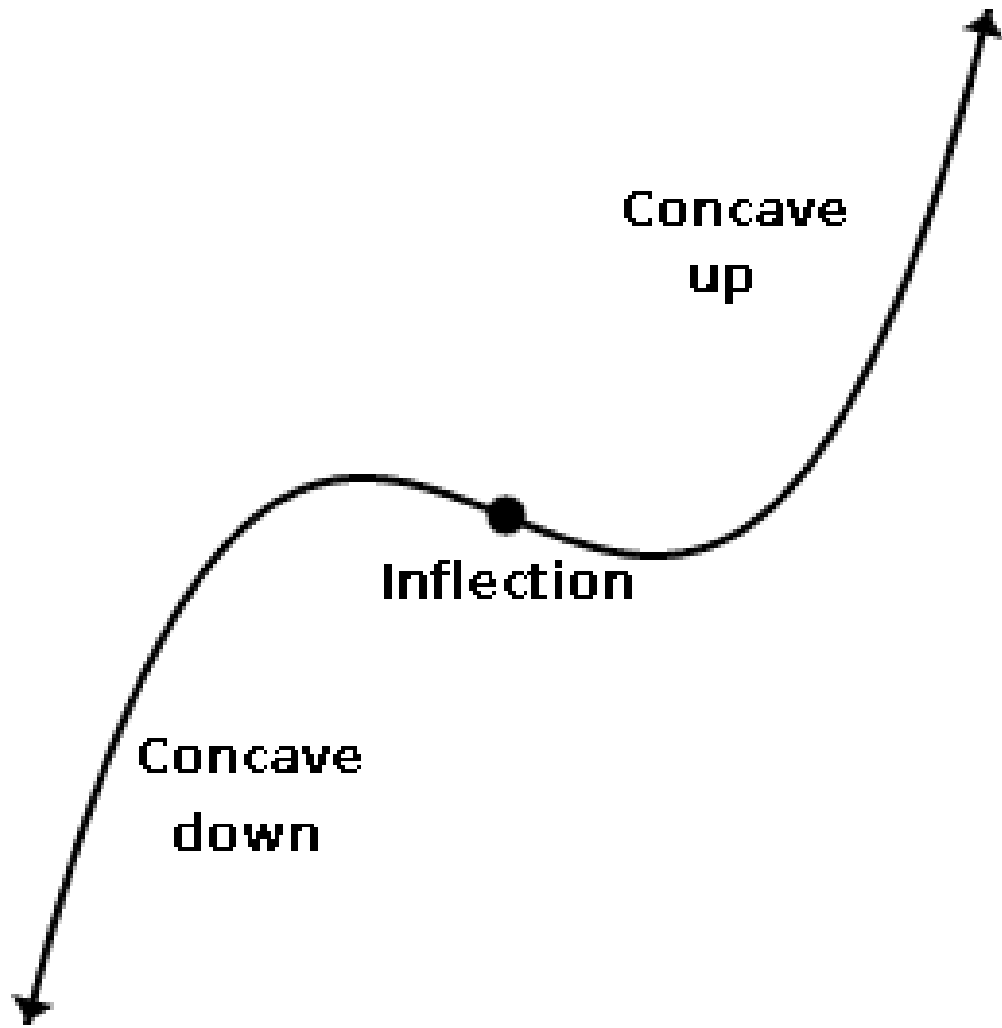


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Reduction in the length of stay by 2.5 days (95% CI 0.4, 4.6) favoring Alberta FICare



Making your Research Matter in Complex Healthcare Systems



Inflection Points for
Sustainability of
Alberta **FI**Care™



Framing Alberta **FI**Care™ Sustainability

Evidence of adoption
Evidence of fidelity

Sustainment of the **FI**Care™
intervention

Sustainment of the **FI**Care™
associated outcomes, impacts

Inflection Points

- Initiative rationale (co-conceptualized)
- **Iterative co-design (model)**
- Confirmed effects (value)
- **Enduring partnerships**
- **Dynamic, iterative implementation cycles**

Inflection Points

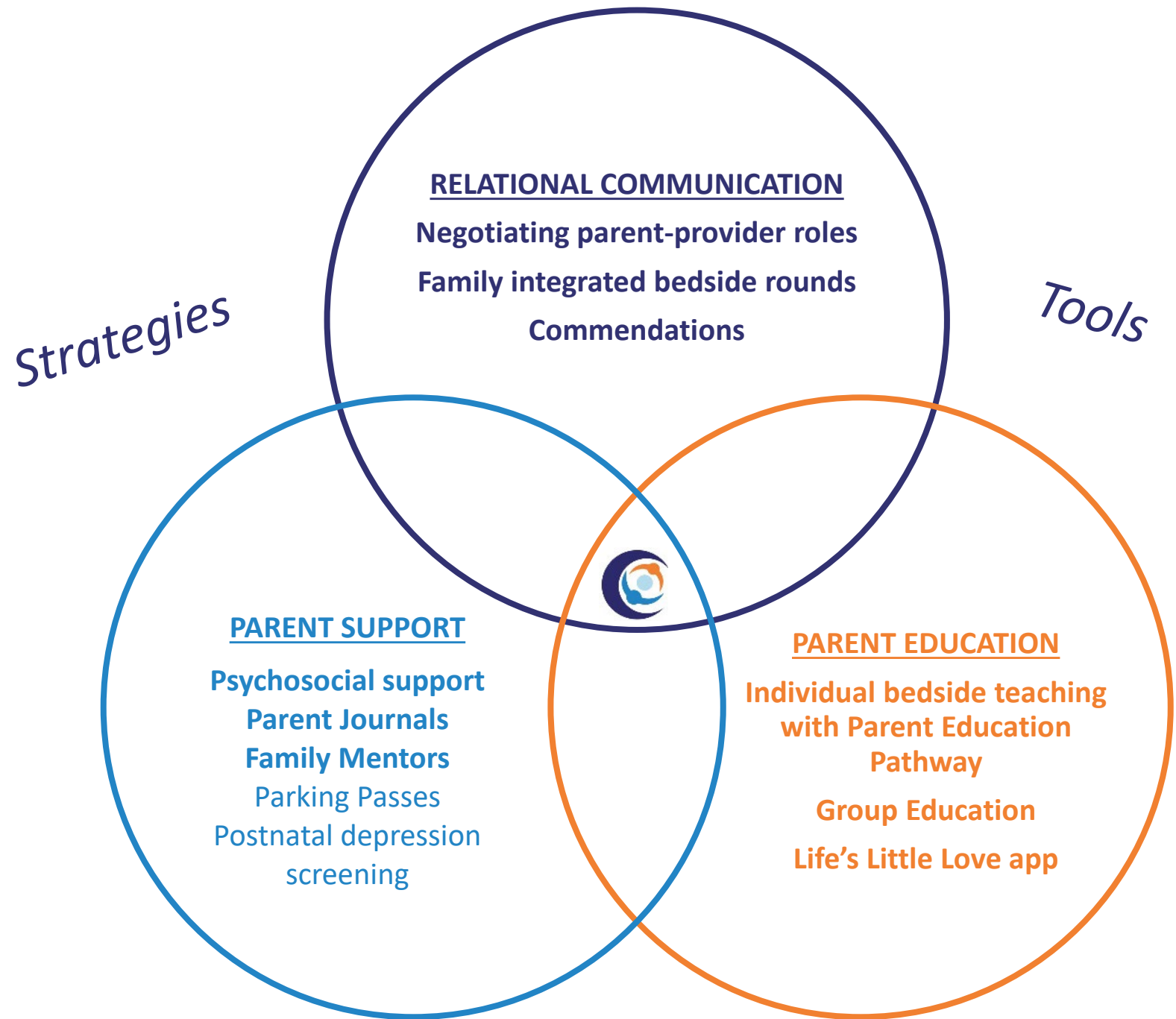
- Triangulated evidence of effect
- Iterative refinement through Scale-Spread phases
- **Test-to-Sustainment transition structure (governance, teams)**

Iterative Co-Design

Lennox et al.,
2018

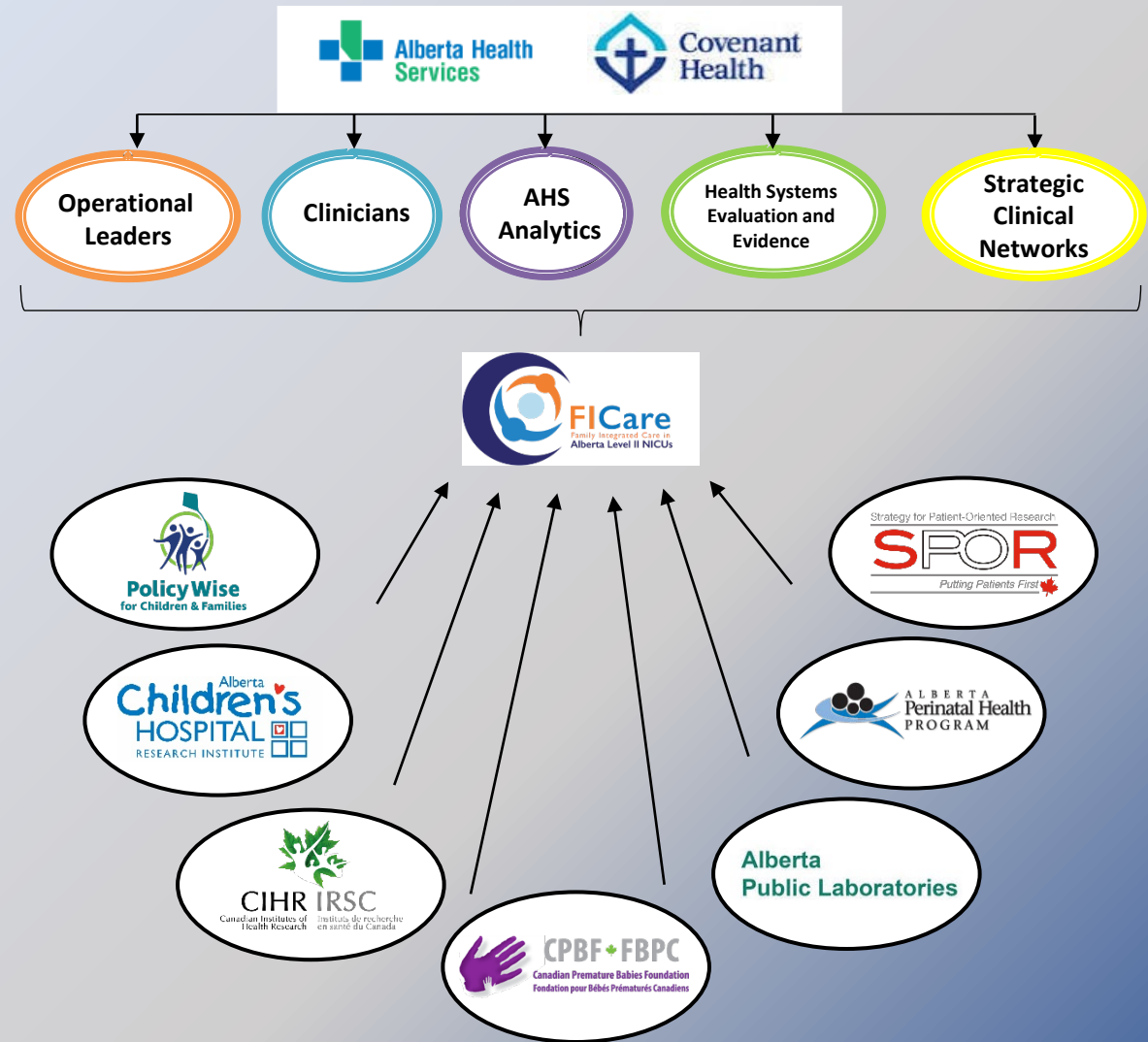
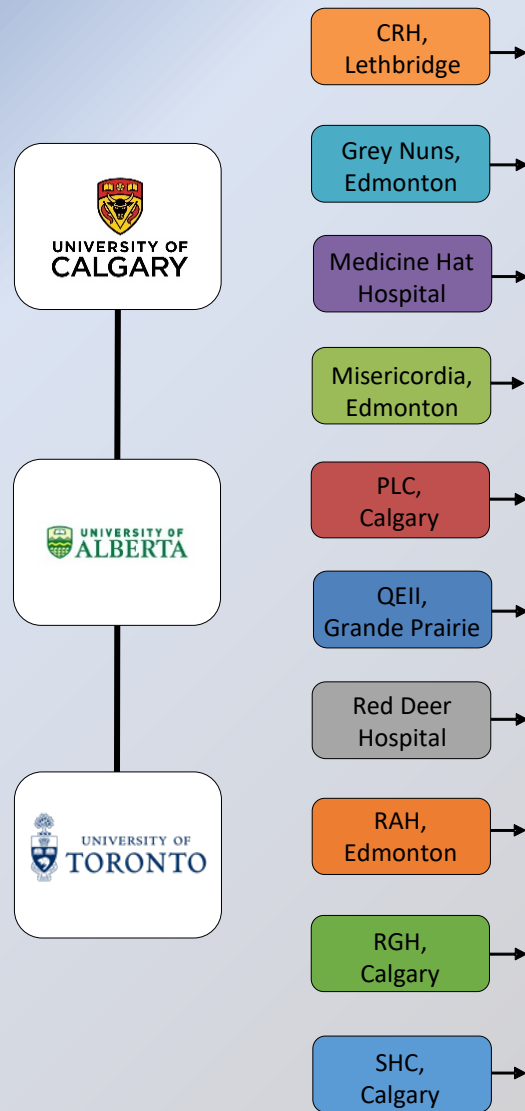
Alberta **FiCare**[™]
was *co-designed*
for the Alberta
context upon the
advice of Alberta
health care
providers.

Benzies et al., 2018, 2020; Brockway 2020



Enduring Partnerships

Lennox et al., 2018

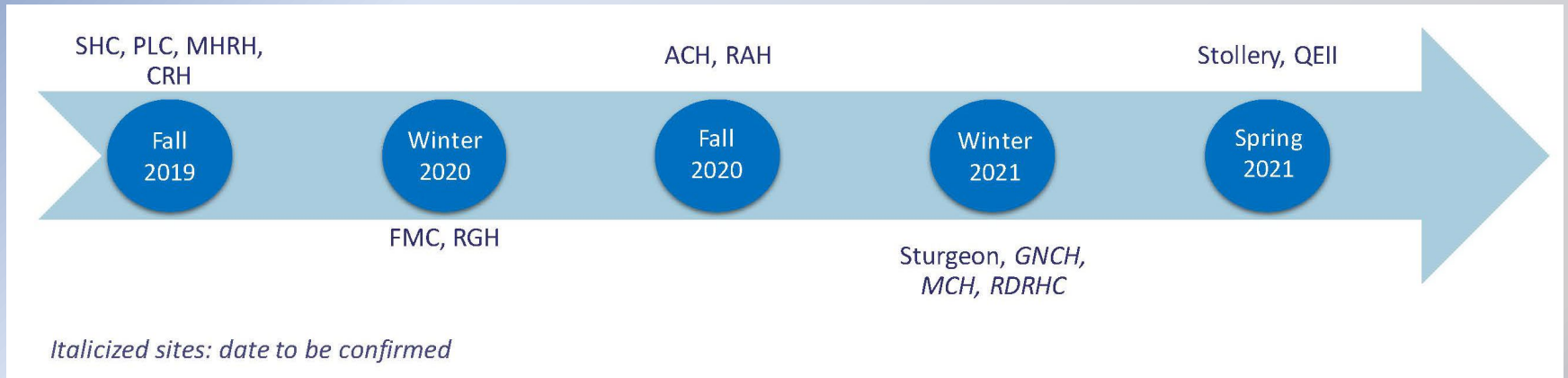


Start: June 2019

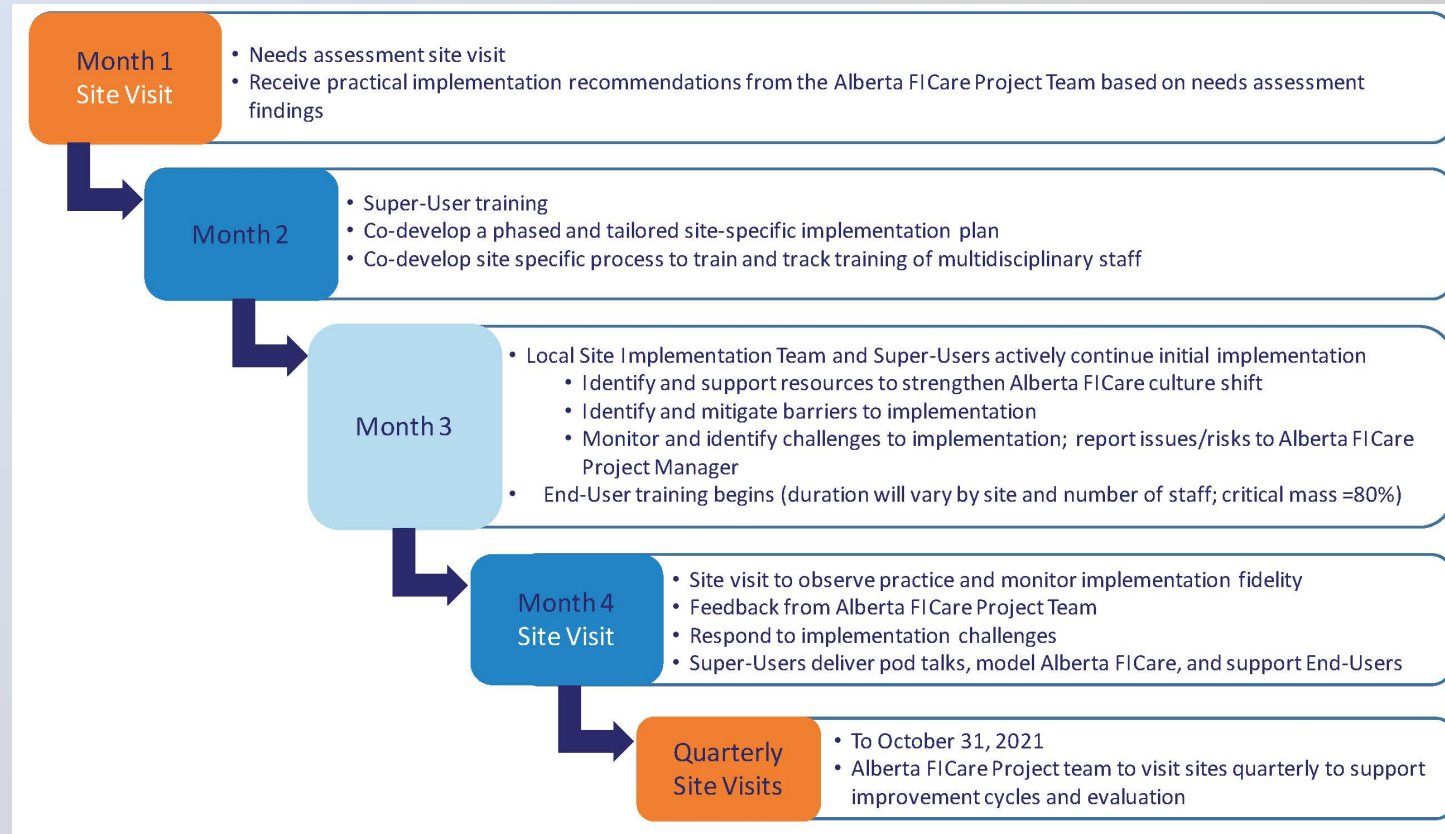
End: October 2021

Negotiating Initiative Processes

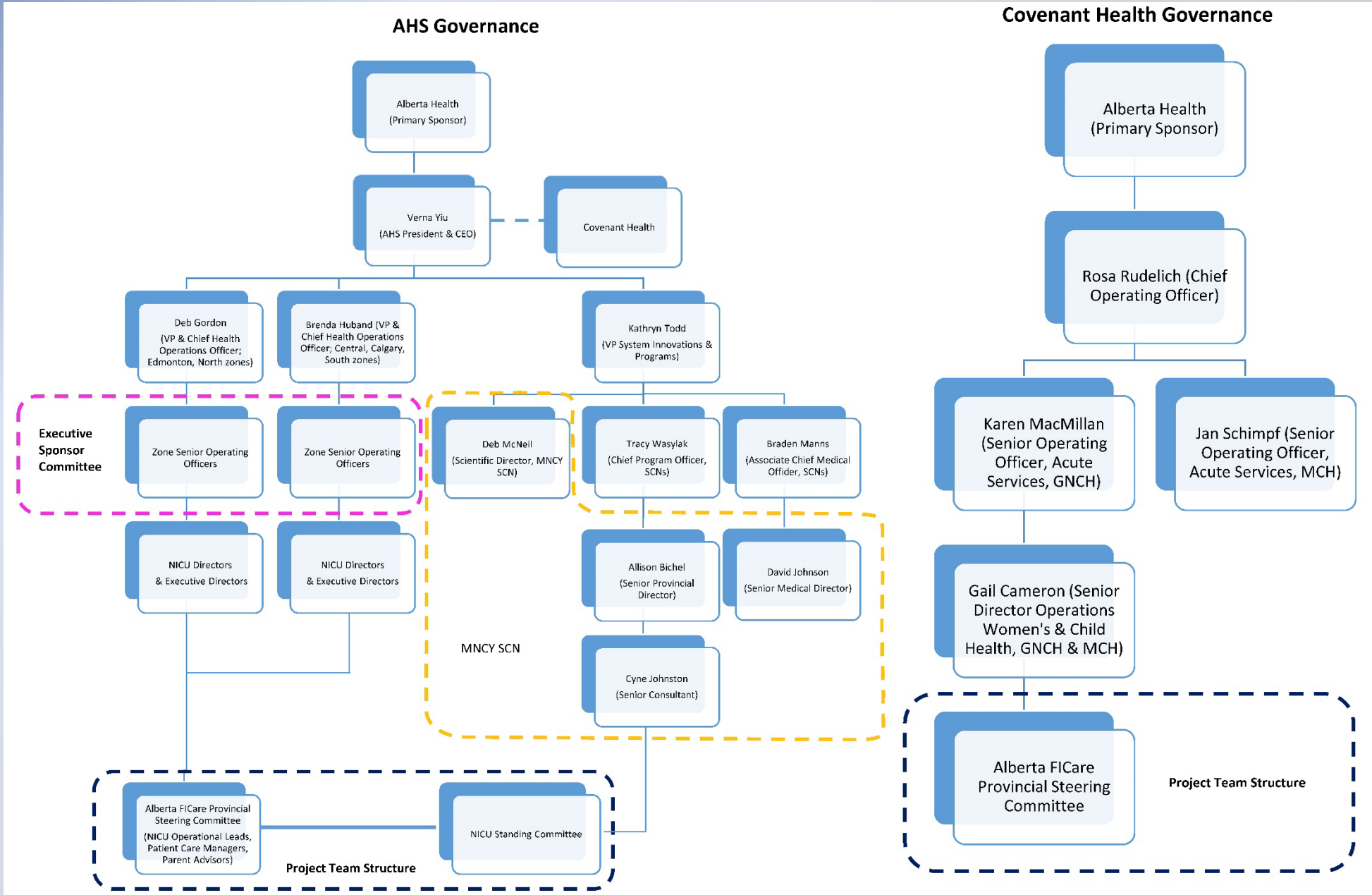
Lennox et al., 2018



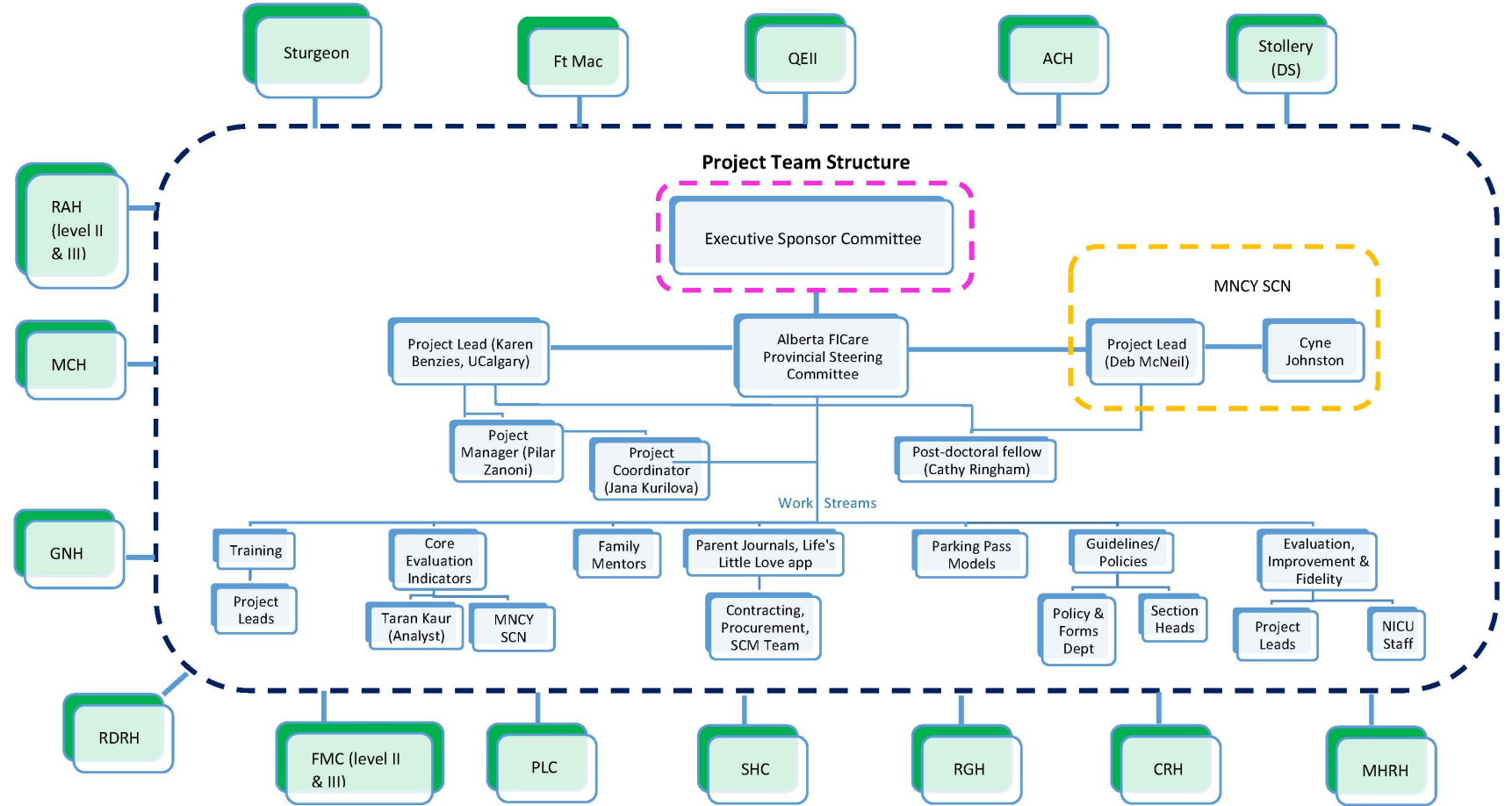
Implementation Cycles



Test-to-Sustainment Governance Structure



Project Team Structure



- Local Site Implementation Teams**
- Parent Advisors (may also be Family Mentors)
 - NICU Manager or delegate
 - Allied Health Manager or delegate
 - Medical Director or delegate
 - Clinical Nurse Educator
 - NICU staff rep(s) from nursing, allied health

“Take Home” Messages for Sustainability

- Identify barriers & facilitators to sustainability
- Co-design or adapt intervention
- Be ready, skilled, and confident to iterate and test adaptations
- Audit then feedback local evidence about intervention effectiveness
- Rethink traditional research structures & processes
- Focus on **sustainment of daily practices**

Value of Sustaining Alberta FICare™

Alberta FICare™ provides the tools and strategies to bring parents close to their infant in NICU that leads to:

Empowered, skilled and confident parents with less stress
Improved family experience

Reduced LOS without concomitant increases in ED visits or readmissions
Hospitals avoid costs

Publications

McNeil, D.A., **Benzies**, K. M., Zanoni, P., Kurilova, J. (2021). Alberta Family Integrated Care (FICare)[™]: From engaged clinicians in a cluster randomized controlled trial to health system partnership in scale and spread across a province. In: McCutcheon C, Reszel J, Kothari A, Graham ID, editors. *How We Work Together: The Integrated Knowledge Translation Research Network Casebook*. Volume 4, 16-19. Ottawa, ON: Integrated Knowledge Translation Research Network. Available from: <https://iktrn.ohri.ca/projects/casebook/>

Benzies, K. M., Aziz, K., Shah, V., Isaranuwachai, W., Scotland, J., Larocque, J., Mrklas, K. J., Naugler, C., Stelfox, H. T., Chari, R., Soraisham, A., Akierman, A. R., Phillipos, E., Amin, H., Hoch, J., Zanoni, P., Kurilova, J., Lodha, A., and the Alberta Family Integrated Care (FICare) Team. (2020, November 20). Effectiveness of Alberta Family Integrated Care (FICare) in Level II Neonatal Intensive Care Units (NICU) on infant and maternal outcomes: a provincial, pragmatic, cluster randomized controlled trial. *BMC Pediatrics*, 20:535. <https://doi.org/10.1186/s12887-020-02438-6>

Benzies, K. M., Shah, V., Aziz, K., Isaranuwachai, W., Palacio-Derflinger, L., Scotland, J., Larocque, J., Mrklas, K., Naugler, C., Suter, E., Stelfox, H. T., Chari, R., Lodha, A., & Alberta FICare Level II NICU Study Team. (2017). Family Integrated Care (FICare) in Level II Neonatal Intensive Care Units: Study protocol for a cluster randomized controlled trial. *BMC Trials*, 18, 467.

Benzies, K. M. (2016). Relational communications strategies to support family-centered neonatal intensive care. *Journal of Perinatal and Neonatal Nursing*, 30(3), 233-236.

Benzies, M., Shah, V., Aziz, K., Lodha, A., Misfeldt, R. (2018). The health care system is making ‘too much noise’ to provide family-centred care in neonatal intensive care units: Perspectives of health care providers and hospital administrators. *Intensive and Critical Care Nursing*. In press, 11 May 2018.

Trainee Publications

Brockway, M. Benzies, K.M., Carr, E., & Aziz, K. (2018). Breastfeeding self-efficacy and breastmilk feeding for moderate and late preterm infants in the Family Integrated Care trial: a mixed methods protocol. *International Breastfeeding Journal*, 13:29

Brockway, M., Benzies, K. M., & Hayden, A. (2017). Interventions to improve breastfeeding self-efficacy and resultant breastfeeding rates: A systematic review and meta-analysis. *Journal of Human Lactation*, 33(3), 486-499.

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- Alberta Children's Hospital Research Institute (Play Study)
- Canadian Institutes of Health Research (18-month follow-up)
- Maternal Newborn Child and Youth and Critical Care Strategic Clinical Networks
- AHS Analytics
- Strategy for Patient-Oriented Research
- Alberta Public Laboratories
- Faculty of Nursing, University of Calgary
- Graduate Students, Universities of Calgary and Toronto
- Pilar Zanoni, Project Manager
- Jana Kurilova, Project Coordinator
- Many Research Assistants





FICare Team Plus



Comments? Questions?

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