

Empowering Parents in Alberta's Neonatal Intensive Care Units (ICUs)

Success Moving Across the Innovation Pipeline

SCNergy, Winter 2023

Fewer critically ill newborns are requiring emergency department (ED) visits and hospital readmission within seven days after going home following implementation of a new model of care in all 14 neonatal intensive care units (NICU) across the province.

[Alberta Family Integrated Care \(FICare\)](#) encourages parents to actively participate in their baby's care and work alongside their NICU healthcare team to build the knowledge, skills, and confidence needed to parent their babies in the NICU and at home.

Following the province wide implementation of Alberta FICare in 2019, the average length of stay in the NICU has been reduced by half a day, enabling babies to go home sooner. In the first week after leaving hospital, ED visits have dropped 26 per cent, and hospital readmissions are



down 37 per cent for former NICU patients. The FICare model exists in other jurisdictions but was adapted for Alberta and tested within the province with NICU practitioners.

Alberta FICare is the first example of a project that has moved through the [Innovation Pipeline](#), a mechanism created by the Strategic Clinical Networks (SCNs) that provides a framework for how novel practices and interventions move through the healthcare system – from pilot or proof of concept, to testing and validation, to scale and spread across multiple health conditions and/or geographies, to an integrated (and funded) initiative within the health system.



“It normally takes 17 years for an idea about how to improve healthcare to be put into practice,” says Karen Benzies, Professor with the Faculty of Nursing, and Adjunct Research Professor with the Departments of Pediatrics and Community Health Sciences, at the University of Calgary. “By partnering with the Maternal, Newborn, Child and Youth SCN (MNCY SCN), we scaled rapidly into NICUs across the province within three years and last summer received funding to make Alberta FICare sustainable into the future.”

In the past, when someone had a promising idea to introduce into healthcare, there wasn't a commonly understood path to follow. The 'Pipeline' provides common criteria to help identify and choose which good ideas to invest in. It operationalizes an endorsed definition of value by creating a standardized set of evidence requirements to support value-based decision making in our health system and allow the most effective and efficient delivery of solutions.

“Having a baby in the NICU can be a stressful experience for parents and learning to care for a preterm baby both in the hospital and at home requires extensive support over time during the hospitalization,” says Dr. Deborah McNeil, Scientific Director of Alberta Health Services' MNCY SCN and Adjunct Associate Professor Faculty of Nursing and Department of Community Health Sciences Cummings School of Medicine, University of Calgary, which was involved in the refinement and scale and spread of Alberta FICare. “Nurses have moved into an educational role and support parents who want to be involved in all aspects of their baby's NICU care when they are ready.”

“This is an example of innovation for the SCNs,” adds McNeil. “The critical partnerships between researchers, healthcare teams, and families benefit babies, moms and dads, and the healthcare system.”

Parents in the NICU are supported and educated to provide skin-to-skin care, change diapers and clothes, participate in bedside rounds, bath, weigh, feed, take temperatures, and provide comfort during treatments and procedures.

“We've always had excellent care in the NICUs, but this model enables healthcare teams to integrate families within the healthcare team,” says Dr. McNeil, adding early involvement of parents in care has many benefits for preterm babies, including healthy brain development, less feeding and breathing supports, and stabilized breathing and heart rate.

Approximately 50,000 babies were born in Alberta in 2021, with 8.8 per cent of them — about 4,400 — born preterm and requiring care in a NICU. A stay in the NICU can range from two to nearly 100 days.

Kyrsten Franz's son Theodore was born at 27 weeks in early November and received care at the Rockyview General Hospital NICU.

“If family integrated care didn't exist, this experience would be 10 times harder,” says Franz. “Being able to care for my baby in the NICU helps normalize the experience. I can still make decisions and do something as simple as diaper changes, and we are constantly reminded that we are an important part of our child's care.”

As part of FICare, parents receive a journal that contains resources and information, outlines how parents can participate in bedside rounds, and provides space for parents to write about their baby, their NICU journey and things they've learned, and to record their questions.

"It's overwhelming to be introduced to a large multidisciplinary team," says Benzies. "Parents play an integral role in the care of their baby; it's important they have a voice in their care and that the teams value and respect their unique knowledge about their baby."

It's estimated the reductions in NICU length of stay have saved the health system about \$1.2 million over a two-year period.

Expansion of FICare across the province was made possible through partnerships between the MNCY SCN and the University of Calgary, and funding from Alberta Innovates (Partnership for Research and Innovation in the Health System), the Alberta Children's Hospital Research Institute, the Canadian Institute of Health Research and Alberta Health/Alberta Health Services Health Innovation Implementation and Spread Fund.