

**Implementation Science (IS) Project Descriptions**

Building on the [suite of Phase 1](https://www.child-bright.ca/research) patient-oriented research projects, CHILD-BRIGHT is now focusing our commitment towards equitably mobilizing and implementing the knowledge that has been generated. To achieve this aim, we will build off of the momentum generated through our previous efforts and conduct **10 IS research projects** organized into 3 groups based on the type of output that is to be implemented. Below are the preliminary descriptions of these IS research projects organized across these three groupings. Please note that official project nomenclature and descriptions will be developed in partnership with patients and families. The descriptions and naming conventions outlined below will be amended but are included here to orient the reader to the general direction of each of these projects in Phase 2.

**Group 1: Implementation of new practice guidelines**

In Phase 2, the network will study how to implement new practice guidelines based on evidence from Phase 1 projects. The five project teams will focus on guidelines related to neurodevelopmental follow-up, early interventions, whole genome sequencing, and pain detection in children with brain-based developmental disabilities (BDD).

* **Phase 2 IS Research Project 1.1** will study the implementation of neurodevelopmental assessment tools towards improving the provision of neurodevelopmental follow-up for 18-month-old children with congenital heart disease
* **Phase 2 IS Research Project 1.2** will implement the spread and scale of a suite of tools that measures pediatric neurodevelopment or assesses the holistic health of the child and parents at a number of Canadian neonatal follow-up clinics.
* **Phase 2 IS Research Project 1.3** will study how the broader application of constraint-induced movement therapy (CIMT) can be used as an intervention for children diagnosed with cerebral palsy.
* **Phase 2 IS Research Project 1.4** will conduct implementation science research to understand how to implement a comprehensive trio-based genome-wide sequencing service for families of children with CP and related BDDs first in British Columbia and then across other provinces.
* **Phase 2 IS Research Project 1.5** will conduct a feasibility study to determine how to implement a novel diagnostic pathway in small community clinics that will locate the source of pain in non-verbal children with severe neurological impairment.

**Group 2: Implementation of new eHealth technologies**

In Phase 1, the three network projects developed new eHealth technologies (web-based tools and apps) to support children with BDD and their families. In Phase 2, we will conduct IS research regarding how to implement these specific technologies into the health and community systems.

* **Phase 2 IS Research Project 2.1** will study how an eHealth-based education program intended to teach parents how to improve the emotional and behavioural regulation of children with BDD can be scaled in the health systems of multiple jurisdictions across Canada.
* **Phase 2 IS Research Project 2.2** will conduct implementation science research to spread and scale the use of a mobile app that details information about appropriate and accessible leisure activities for families of children with disabilities.
* **Phase 2 IS Research Project 2.3** will study how to more broadly implement a video-game based training technology to improve executive functioning in children with BDD within a variety of clinical settings.

**Group 3: Implementation of new practice roles**

In Phase 1, two network projects researched how service delivery could be improved by incorporating new roles (navigators and coaches) to support families. In Phase 2, we will conduct implementation science research regarding how to incorporate nurse navigators and coaches to support families of children with BDD.

* **Phase 2 IS Project 3.1** will study how to more broadly incorporate the nurse navigator role to improve the mental health and stress of parents of high-risk infants in the NICU.
* **Phase 2 IS Project 3.2** will study the widespread implementation of an online education tool and coaching resource for parents of preschool children with emerging developmental delays in various settings and provinces.