

Partnership for Research and Innovation in the Health System (PRIHS 8 – Digital Health)

April 3, 2023

About Alberta Innovates

Innovation is the catalyst for sustainable jobs, economic and community strength, improved health, and environmental benefits. [Alberta Innovates](#) leads and accelerates innovation from discovery to use across all sectors in all parts of the province. As Alberta's largest research and innovation agency, we are uniquely positioned to propel great ideas forward to improve the lives of Albertans today and for generations to come.

Alberta Innovates believes the research and innovation (R&I) ecosystem is stronger and more sustainable when it is broadly representative of the overall diversity of our community. We strive to ensure that all interested and qualified parties have an equitable opportunity to participate and contribute to the ecosystem and that our processes are inclusive.

The projects that our programs invest in are critical to how Alberta Innovates achieves positive impact for Albertans in alignment with the Government of Alberta's R&I priorities, as expressed in our corporate Business Plan. (See the most recent Business Plan on our [Publications](#) page on our website.) Accordingly, it is essential for project outcomes to align with those of the program.

The PRIHS 8 – Digital Health Program is managed through the Health team within Alberta Innovates. The Health team partners with stakeholders to strengthen economic competitiveness and enhance the well-being of people living in Alberta by cultivating a health innovation ecosystem that excels at converting research and innovation into sustainable person-centered care.

About Alberta Health Services

Alberta Health Services (AHS) is an integrated health care system; one of the largest in the world serving over 4.5 million people living in Alberta. AHS has defined value-based decision making as the discipline of basing decisions on evidence that aligns to organizational definitions of value which can be measured, validated, and is reflective of real-world settings.

AHS is committed to creating a rapid learning, high-performing healthcare system that embeds research and innovation into daily practice. Alberta's Strategic Clinical Networks™ (SCNs) and Integrated Provincial Programs engage partners to improve patient care and the performance of the health system. Each SCN and Integrated Provincial Program focuses on a specific area of health and is united by a common mission: to improve the health of Albertans by bringing together people, research, and innovation. SCNs and Integrated Provincial Programs are embedded within the delivery arm of our provincial health system. This ensures accountability, alignment of priorities and resources and supports collaboration, engagement, and rapid knowledge translation of evidence into care. SCNs and Integrated Provincial Programs work as change agents, creating capacity within the system to look beyond current practice and fully tap the potential of a single, province-wide health system.

Program Overview

The Partnership for Research and Innovation in the Health System (PRIHS) Program was launched out of a shared commitment to develop research and innovation activities that contribute to health system sustainability in Alberta.

PRIHS is designed to align the expertise of researchers to create new knowledge with the evidence needs of health providers. The Program provides opportunities for researchers and clinicians to implement promising solutions that address priority health system challenges in collaboration with Strategic Clinical Networks (SCNs) and Integrated Provincial Programs. By fostering innovation through collaboration, PRIHS accelerates health research and innovation outcomes into areas of strategic priority and need, with the potential to scale and spread to other patient populations and/or areas in the health system. These academic-clinical collaborations help identify and advance opportunities that improve healthcare quality, health outcomes, and overall value for Albertans in acute, primary/ambulatory, long term care and/or community-based settings.

SCNs and Integrated Provincial Programs consist of networks of patients and families, academic partners, clinical leaders, and other stakeholders who are knowledgeable about specific areas of health and/or populations. They serve as enduring structures for setting Research & Innovation (R&I) priorities and driving clinical innovation within AHS.

SCNs are key to the success of PRIHS. Developing PRIHS projects in partnership with SCNs ensures that:

- Project teams have access to key health system expertise, stakeholders, and leadership as early as possible in the PRIHS lifecycle; and*
- PRIHS projects are developed and implemented sustainably with an appropriate line of sight to Alberta's health system priorities.*

The objectives of the PRIHS 8 – Digital Health Program are to:

- 1. Translate research evidence into practice by testing the implementation of digital health solutions that:*
 - a. have been tested, preferably in an Alberta health care setting, have strong evidence to overcome a gap in care, and produces a measurable impact (improve or maintain) on patient health (i.e., clinical effectiveness), resulting in a system benefit; and,*
 - b. address a priority health system challenge in Alberta as articulated by the [SCNs and the Integrated Provincials Programs in their Transformational Roadmaps](#).*
- 2. Generate the evidence needed to identify and accelerate the spread and/or scale of evidence-based solutions that close care gaps to foster more efficient and/or effective use of health care resources.*

PRIHS 8 – Digital Health

Digital Health is an opportunity to accelerate research, transform care models, and reimagine sociological behaviours and processes to create an inclusive, patient-centered future.

Digital health transformation is critically dependent upon the human factor and is driven by the type of care being delivered and its desired outcome. Advanced technologies, such as 3D printing, artificial intelligence, robotics, additive manufacturing, machine learning, extended reality, and other tools merge our physical and digital worlds, changing the delivery of care and playing a key role in the service provision and health of Albertans. As a leader in technology and innovation adoption, Alberta continues to lay the foundation required for the evolution of digital health, and with Connect Care fully implemented across the province in 2024, there is significant opportunity to leverage these tools. The potential of digital health lies in its ability to build connections and foster collaborations between patients and health care teams, while helping ensure workload and resources to deliver care is optimized. Realizing the full potential of digital health requires more than digitalizing traditional models of care; it requires re-examining the fundamentals of integrated care.

Digital Health can enable the health system to:

- Collect, sense, measure, connect, and distribute valuable information effectively and efficiently.
- Create, amalgamate, analyze, and apply highly complex information to improve decision-making.
- Complement and increase the value of existing e-health implemented solutions.

Now more than ever, there is a growing and ever-changing shift in the needs of Albertans. With the province emerging from the disruption caused by the pandemic, the core challenges across the spectrum of care have been magnified, further highlighting the inequities that exist for vulnerable populations, those with greater health needs and/or those who are challenged in accessing care. At the same time, patients are increasingly expecting timely intervention and treatment closer to their homes. Alberta is responding to these trends by shifting care from illness to wellness, from acute to community care, and from provider to team-based care. PRIHS offers leaders in our health system the opportunity to leverage digital and data-enabled technologies to further transform models of care, that will lead to the improvement of patient outcomes, healthcare quality, value to the system, and overall value for the people of Alberta.

Funding

The PRIHS 8 – Digital Health Program provides support for up to \$5 million.

- No maximum budget is set for each proposal;
- The Project term is up to three years (2024 – 27)¹;
- Proposals with project terms less than 3 years are welcome to apply.

Alberta Innovates only funds reasonable costs incurred after an Investment Agreement is signed by Alberta Innovates and the Applicant. Any costs incurred prior to the signing of the Investment Agreement, and costs greater than market prices, are ineligible. Costs must be incurred between arm's-length entities.

¹Projects will be given an upfront, additional 6 months for project administration and funding setup.

Key Dates

See the “How to Apply” section below for more details^{2,3,4}.

²With the reconfiguration of the SCNs and Integrated Provincial Programs, the Respiratory and Kidney SCN Scientific Offices were retained within the larger Medicine SCN and their access to PRIHS funding (prior to amalgamation) has been retained. Medicine, Medicine (Kidney) and Medicine (Respiratory), are each permitted to recommend 2 EOIs to Phase 2 – Full Application.

³AHS Diagnostic Imaging will also be permitted to select up to two (2) Expressions of Interest (EOIs) to advance to Phase 2 – Full Application

⁴Prior to advancing to Phase 2 – Full Application of the PRIHS 8 – Digital Health funding competition, AHS IT will be working with each SCN and Integrated Provincial Program to perform IT assessments to assess feasibility of the proposed digital health technology from the perspective of AHS IT. See Appendix I – Evaluation Criteria “Feasibility” for more information.

Eligibility

Applicant Eligibility

The PRIHS 8 – Digital Health Program is open to researchers and clinicians with an Alberta-based Post-Secondary Institution.

In addition, to qualify for funding, the Applicant must:

- Be represented by a Primary Lead⁵ (Applicant Representative) who holds an academic or research appointment at an Alberta-based Post-Secondary Institution;
- Be in good financial standing with Alberta Innovates and its subsidiaries InnoTech Alberta and C-Fer Technologies⁶;
- Be authorized to undertake the proposed project, and execute a grant with Alberta Innovates on our standard terms; and
- Not otherwise be prohibited from receiving Alberta Innovates funding, for instance due to a past bad debt or otherwise not be in good financial standing with Alberta Innovates or its subsidiaries, InnoTech Alberta and C-FER Technologies.

Please note: The PRIHS 8 - Digital Health Program encourages Applicants to collaborate with other organizations, including:

- Government Entities;
- Non-Profit/Not-for-Profit or For-Profit Organizations; and/or
- Associations/Consortia/Societies

Please note: For organizations that are **not** post-secondary institutions, Alberta Innovates may perform corporate, bankruptcy and litigation searches, and conduct other forms of due diligence on the Applicant company and its principals.

Project Eligibility

To qualify for funding, all Projects must:

- Align with the objectives of the PRIHS 8 – Digital Health Program;

⁵Individuals that have a vested interest in the technology required to transform the model of care are not eligible to participate as Applicant and/or Co-Applicant Representatives but can participate on the project team as collaborators. Project teams must disclose actual, potential, or perceived conflicts of interest and identify mechanisms for mitigation within their proposed project. Alberta Innovates and Alberta Health Services retain the right to request a conflict-of-interest mitigation strategy at any time throughout the project.

⁶Alberta Innovates will perform a corporate search and may also carry out bankruptcy and litigation searches.

- include one co-lead (Co-Applicant Representative) from the SCN or Integrated Provincial Program Leadership Team⁷;
- address a priority as outlined in the [Transformational Roadmap of an SCN or Integrated Provincial Program](#);
- consist of one or more evidence-based digital health solution(s) that can be formulated into an implementation study leading to the development of an innovative care model;
- have been tested, preferably in an Alberta health care setting, have strong evidence to overcome a gap in care, and produces a measurable impact (improve or maintain) on patient health (i.e., clinical effectiveness), resulting in a system benefit;
- have the potential to deliver significant, measurable impact to health system performance;
- include key project milestones based on metrics and deliverables, stepped with critical “go/no go” decision points;
- demonstrate a significant positive impact on the utilization of health resources within the timeframe of a PRIHS grant i.e., tests a solution that can likely generate cost savings and/or help avoid future costs; and
- submit to other criteria that Alberta Innovates may develop from time to time.

Project Expenses

For detailed information regarding eligible and ineligible expenses for the PRIHS Program, please refer to [Schedule C – Eligible and Ineligible Expenses of the PRIHS Investment Agreement](#).

⁷SCN and Integrated Provincial Program Leadership that are identified as Co-Lead of a project are expected to recuse themselves from the Phase I review and selection process. SCN and Integrated Provincial Program Executive Leadership are excluded from all involvement in PRIHS EOI and Full Application review processes, evaluation and selection processes and panels. The SCN Chief Program Officer (CPO) and SCN Associate Chief Medical Officer (ACMO) are **not eligible** to apply to this competition.

How to Apply

The Program will accept applications that meet the objectives of the PRIHS 8 – Digital Health Program.



PHASE 1 - Expression of Interest (EOI)

Prospective Primary Leads (Applicant Representatives) connect with Strategic Clinical Networks (SCNs) or Integrated Provincial Programs to discuss ideas. SCNs or Integrated Provincial Programs will invite high potential opportunities to submit an EOI. Contact information and the priority areas of each SCN and Integrated Provincial Program can be found at [here](#).

Submission Deadline: June 19, 2023, 4:00 p.m. MST

Decision Communicated: July 14, 2023

Each SCN and Integrated Provincial Program selects up to two (2) projects to advance to Phase 2.



PHASE 2 - Full Application

Primary Leads (Applicant Representatives) will be invited to submit a Full Proposal.

Invited Applicants will register on the [Alberta Innovates Application Portal](#) (“Portal”) and will access, complete, and submit the Full Application within the *Funding Opportunities* tab on the Portal dashboard.

Submission Deadline: October 30, 2023, at 4:00 MST

Decision Communicated: December 22, 2023

Up to ten (10) Applicants advance to Phase 3.



PHASE 3 - Den Presentations

Interactive Proposal Presentation

December 2023 – February 2024

Successful Phase 2 applicants are invited to present their proposals to the PRIHS 8 – Digital Health Review Committee.

Den Presentations (virtual): Week of February 5 – 9, 2024

Decision Communicated: March 2024

PRIHS Steering Committee approves all funding recommendations.



PHASE 4 - Investment Agreement Execution

Successful applicants will execute an agreement with Alberta Innovates to proceed with the Project.

Agreement will include details regarding:

- Reporting on progress to milestones and budget on an agreed timeline during the term of the Agreement; and
- Reporting on progress to outcomes on an agreed to timeline during and following the term of the Agreement.
- Project payments are based on milestone achievement and progress reporting.

Evaluation Process

All applications are reviewed and evaluated to determine fit with the PRIHS Digital Health Program. Alberta Innovates leverages external expert reviewers to evaluate Applications.

Applications submitted to the PRIHS Program are evaluated based on [Appendix I – Evaluation Criteria](#).

Alberta Innovates and AHS retain the right to determine the evaluation process and assessment criteria and may not disclose the names of its reviewers to ensure their objectivity and impartiality. Parties involved in the evaluation are subject to confidentiality and conflict-of-interest policies set by Alberta Innovates.

Performance Measurement

[Alberta Innovates invests in research and innovation activities on behalf of Albertans to help build a healthier, more sustainable, and prosperous future for the province.](#)

To maximize the impact of these investments, funding is tied to achievement of results and outcomes. For this reason, Alberta Innovates funds on a milestone completion basis. This means the Applicant must submit Progress Reports and a Final Report and demonstrate sufficient progress before Alberta Innovates advances the next milestone payment.

The Investment Agreement outlines the responsibilities the Applicant has in reporting Project outcomes to Alberta Innovates over the course of the Project and following completion of the Project. Outcomes of the Project may be monitored for up to five years after Project completion, so Alberta Innovates can evaluate the economic, social, health and/or environmental benefits to Alberta resulting from our investments.

Alberta Innovates has a common set of performance metrics it monitors, both at the individual Project level and for the aggregate Program. These metrics may evolve over time.

Terms and Conditions

Once we have evaluated and approved an application for funding, Alberta Innovates will require the Applicant to sign our standard-form Investment Agreement. A copy of the [Investment Agreement](#) is available for your reference.

This Program Guide is intended as a high-level overview of the Program. It provides interested Applicants with a roadmap of what to expect over the lifecycle of a Project in the PRIHS 8 - Digital Health Program, from the announcement of the program, through the Application stage, during the Project and after completion of the Project. Should you have any questions about this guide or what is expected, please contact Alberta Innovates (see contact information below). Please note that Alberta Innovates may modify this guide from time to time in keeping with any changes to the program. Alberta Innovates will only correspond in writing and provide copies of the Application to the person named in the Application form as the Primary Lead (Applicant Representative).

The Investment Agreement sets out in detail the roles, responsibilities, and obligations of the various Parties to ensure a successful Project. Alberta Innovates will not provide any funding until the Investment Agreement has been signed by all Parties.

Alberta Innovates will only fund Applicants who have satisfied all eligibility criteria. Meeting the eligibility criteria does not guarantee access to funding, and all funding decisions will be made by Alberta Innovates at its sole discretion.

Contact Information

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APPENDIX I: Evaluation Criteria

Applications for PRIHS 8 – Digital Health will be reviewed based on several broad criteria, with more specific details evident through the information requested in the application form. A summary of those criteria follows:

Problem/Solution Specification:

The application introduces a novel digital health solution that:

- addresses a quantitative measurable gap within the Alberta health system (services, infrastructure, policy, etc.) that is a priority and of significance to Albertans; and
- supported by evidence to demonstrate that the solution can produce a measurable impact (improve or maintain) to patient health that translates into a system benefit.

Relevance:

- Extent to which the targeted problem & solution(s) are relevant to: a) the overarching objective of PRIHS (i.e., contributing to the implementation of digital health solutions and sustainability within the health system) and generating impact within the PRIHS time horizon, and b) health system need / priorities (as endorsed by the SCN communities).
- Applicants contact the Scientific Director (SD) or Assistant Scientific Director (ASD) of the appropriate SCN or Integrated Provincial Program to discuss potential ideas or solutions. During this initial discussion, the SD/ASD will assess PRIHS readiness and alignment to Digital Health through the project's:
 - alignment with a priority as identified in one (or more) of the [SCN Transformational Roadmaps and/or the Integrated Provincial Programs Strategic Plans](#)
 - strong evidence of clinical effectiveness (generated from pilot testing in Alberta or another health care setting);
 - potential to deliver significant, measurable impact to health system performance, including eliminating variation in care by ensuring proper or correct use of health services, products, and resources.

Scientific Merit:

- Extent to which the proposed digital health solution(s) and the implementation study are informed by evidence, methodologically sound, and designed to generate high quality evidence on the impact of the solution, the implementation process, and likelihood of adoption.

Feasibility:

- Extent to which patients and families and the affected areas have been engaged in implementation planning and endorse the design as reasonable and sustainable.
- Suitability of the project team for the proposed activities (e.g., expertise, roles).
- Demonstration of clearly delineated evidence from Alberta or another jurisdiction that can inform successful implementation and the methodological approach that will be used to test and understand the implementation of the digital health solution (i.e., identification of facilitators and barriers to implementation).

- Extent to which the study deliverables and timelines are realistic and reflect a good understanding of the resources and operational activities required.
- Extent to which foreseeable risks (e.g., data access, requirement for AHS IT services, team member changes, privacy) have been identified and appropriate mitigation strategies are outlined. This will include an IT Assessment to assess feasibility of the proposed digital health technology from the perspective of AHS IT, including alignment with:
 - Existing AHS enterprise IT strategies to maximizing the use of AHS’s existing platform investments (Connect Care, Oracle, etc.), avoiding unhelpful variation, and ensuring a reliable modern systems’ foundation compliance and feasibility within existing AHS IT.
 - AHS information technology standards, including technical considerations such as operating systems, reliability, and security, as well as sustainability considerations such as skills and support.

Impact Potential:

- Demonstrated potential to impact one or more of the following areas:
 - Patient and population health outcome
 - Patient and family experience
 - Experience and/or safety of the workforce
- Demonstrated impact on groups with known health inequities.
- AND support health system sustainability and value for the money invested.

Note: The magnitude of the expected impact(s) will be assessed along with the evidence upon which the estimate is based and the capacity to measure and attribute change. Factors such as how transformative the solution(s) is and if it addresses a cross-cutting theme or leverages an emerging technology will be considered in assessments of impact potential.