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## PROGRAM GUIDE:

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

January 2022

## 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 means through which Alberta Innovates achieves positive impact for Albertans in alignment with the Government of Alberta's R&I priorities. Accordingly, it is essential for project outcomes to align to those of the program through which support is being sought.

The PRIHS Program is managed through the Health Business Unit within Alberta Innovates. The Health Business Unit works closely with health service delivery partners, innovators, researchers, and patients to:

- facilitate the testing and adoption of novel care models that are powered by digitally-enabled and data-informed technologies;
- deliver skills development opportunities and build partnerships to help grow the talent needed to drive our future health economy;
- work collaboratively with innovators to understand and reduce barriers that will accelerate digital innovations into care; and,
- build, integrate, and sustain platforms and activities to support a digital health ecosystem.

## Alberta Health Services

Alberta Health Services is committed to creating a rapidly learning, high-performing healthcare system that embeds research and innovation into daily practice. AHS uses Strategic Clinical Networks (SCNs) and Integrated Provincial Programs to engage our partners to improve patients care and the performance of the health system. They are important resources for Alberta's health system. These groups work with stakeholders across the province to get evidence into practice to provide better quality, better outcomes, and better value for the people of Alberta.

Each SCN and 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. They each bring together the experience and expertise of health-care professionals, researchers, government, communities, patients, and families to improve health and care across Alberta. 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. They work as change agents, creating capacity within the system to look beyond current practice and fully tap the potential of a having a single, province-wide health system.

Working across sites, zones, specialties, and health sectors, these teams help to address complex challenges that require integrated, multidisciplinary solutions. They are committed to engaging patients and families, front-line providers, community and research partners, and other diverse stakeholders and working together to develop, implement and sustain solutions that will have maximum impact and value.

## Program Overview

Alberta Innovates and Alberta Health Services are the largest innovation agency and the largest fully integrated health services delivery provider, respectively, in all of Canada. Together, we co-launched the Partnership for Research and Innovation in the Health System (PRIHS) Program out of a shared commitment to developing research and innovation activities that contribute to health system sustainability in Alberta.

The Partnership for Research and Innovation in the Health System (PRIHS) is designed to align the knowledge production efforts of researchers with the evidence needs of the health system. This is achieved by providing opportunities for researchers to propose the implementation of promising solutions to priority health system challenges in collaboration with Strategic Clinical Networks (SCNs) and Integrated Provincial Programs. These academic-clinical collaborations will help AHS identify and advance solutions that improve healthcare quality, health outcomes and overall value for Albertans in acute, primary/ambulatory, and/or community-based settings.

Building on the momentum of previous competitions, and the new paradigm that the COVID-19 pandemic has presented, we are excited to offer the seventh iteration of this Program, PRIHS Digital Health, which offers leaders in our health system the opportunity to leverage digital and data-enabled technologies to deliver innovative models of care for patients in Alberta.

Digital health transformation will disrupt existing care models and their implementation will have a cascading effect on multiple components (people, processes, technology, methods, locations, information), that when working synergistically, deliver optimal value for patients and stakeholders with which they serve. Innovative models of care will require clinicians to simultaneously address all (if not the majority) of these components if true breakthrough system changes can be realized, beyond what technology can do on its own. Digital transformation of health care can be disruptive. However, digital and data-enabled technologies applied across the care continuum have proven potential to enhance health outcomes by delivering care more ubiquitously, when, where, and how patients want it.

For PRIHS, digital health is defined as the application of technologies to support the delivery of innovative care models that empower patients, families, and their healthcare teams to improve quality of care. Technologies include, but are not limited to, virtual and augmented reality, mobile-health applications, big data analytics, connected devices, sensors, wearables, 3D printing, and computer simulation and modelling.

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.

The objectives of the PRIHS Digital Health Program are to:

- Translate research evidence that has been pilot tested, preferably in an Alberta health care setting, and has strong evidence of clinical effectiveness to suggest that the solution will address a priority health system challenge in Alberta as articulated by the [SCNs and Integrated Provincial Programs in their Transformational Roadmaps](#).
- 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.

The key outcomes (i.e., measurable effects) the program will accomplish for the benefit of Albertans are:

- ***Build capacity:*** Enhanced applied research and innovation, as well as absorptive and receptor capacity: in costing analysis and value assessment (in the use and generation of robust data and evidence for decision making), implementation science, stakeholder engagement and digital health literacy.
- ***Fostering innovation through collaboration:*** Accelerated health research and innovation outcomes in areas of strategic priority and need, e.g. (co-)implementation and assessment of innovative models of care that leverage digital or data-enabled technologies, with potential to scale and spread successful solutions to

other patient populations and/or areas in the health system (acute, primary/ambulatory, and/or community-based settings).

- **Improve health:** Demonstratable health system benefits through the implementation and adoption of solutions that improve healthcare quality, health outcomes and overall value for Albertans.

## Funding

AI and AHS are investing up to \$7 million in the PRIHS Digital Health competition:

- No maximum budget is set for each proposal
- The Project term is up to three years (2023 – 26)<sup>1</sup>
- Proposals with project terms less than 3 years are welcome to apply

Alberta Innovates only funds reasonable costs incurred subsequent to a signed Investment Agreement between Alberta Innovates and the Applicant. Any costs incurred prior to the signing of the Investment Agreement and costs greater than market prices are deemed ineligible. Costs must be incurred between arm's length entities.

## Applicant Eligibility

To qualify as an Applicant, an entity must:

- Be represented by a Primary Lead<sup>2</sup> (Applicant Representative) who holds an academic or research appointment at an Alberta-based Post-Secondary Institution; and
- Be in good financial standing with Alberta Innovates and its subsidiaries InnoTech Alberta and C-Fer Technologies<sup>3</sup>

**Note:** The PRIHS Digital Health Program encourages Applicants to collaborate with other organizations, including:

- For-Profit Organizations;
- Government Entities;
- Non-Profit/Not-for-Profit Organization; and/or
- Association/Consortium/Society

## Project Eligibility

To qualify for funding, all Projects must:

- Include one co-lead (Co-Applicant Representative) from the SCN or Integrated Provincial Program Leadership Team<sup>4</sup>;
- Address a priority as outlined in the [SCN and Integrated Provincial Program Transformational Roadmaps](#);
- 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;
- Be supported by strong evidence of clinical effectiveness (generated from pilot testing in Alberta (preferable) or another health care setting);
- 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;
- Can 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;
- Submit to other criteria that Alberta Innovates may develop from time to time.

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<sup>1</sup>Projects are given an upfront, additional 6 months for project administration and funding setup.

<sup>2</sup>Individuals 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.

<sup>3</sup>Alberta Innovates will perform a corporate search and may also carry out bankruptcy and litigation searches.

<sup>4</sup>SCN and Integrated Provincial Program Leadership that are identified as co-lead of a project are expected to recuse themselves from the Phase I 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?



### **Phase 1** Expression of Interest (EOI) to SCNs and Integrated Provincial Programs

EOI Development  
January to April 2022

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 can be found [here](#).

Submission Deadline:  
April 8, 2022 at 4:00pm MT

**Each SCN selects up to two (2) projects to advance to Phase 2.**

Decision Communicated:  
May 6, 2022



### **Phase 2** Full Application

Full Proposal Development  
May to July 2022

Primary Leads (Applicant Representatives) will be invited to submit a full proposal.

Submission Deadline:  
July 26, 2022 at 4:00pm MT

**Ten (10) Projects Advance to Phase 3**

Decision Communicated:  
October 7, 2022



### **Phase 3** Den Presentations

Interactive Proposal  
Presentation  
November 14 - 18, 2022

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

**PRIHS Steering Committee approves all funding recommendations.**

Decision Communicated:  
January 2023

## Evaluation Process

All applications are reviewed and evaluated to determine fit with the PRIHS Digital Health Program, including the outcomes, as well as technical criteria. Alberta Innovates leverages internal staff and external expert reviewers to evaluate Applications. Applications submitted to the PRIHS Program are evaluated based on [Appendix I – Evaluation Criteria](#).

Alberta Innovates retains the sole right to determine the evaluation process and does not disclose the names of its reviewers to ensure their objectivity and impartiality. Internal and external 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 & innovation activities on behalf of Albertans to help build a more healthy, sustainable, and prosperous future for the province. To maximize the impact of these investments, our funding is tied to achievement of results. For this reason, Alberta Innovates funds on a milestone completion basis. This means the Applicant must submit a Progress or 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 as well as following completion of the Project. Project performance may be monitored for up to five years after Project completion to enable Alberta Innovates to evaluate the economic, social, health and/or environmental benefits being realized for Alberta through our investments. The project's sponsoring SCN co-lead(s) may be contacted to provide necessary updates to the status of the project post PRIHS-funding.

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, with several of the current key performance indicators being highlighted on the next page.

## Terms and Conditions

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 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).

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 on the Alberta Innovates website. 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 acting on the recommendation of the PRIHS Steering Committee.

## Program Manager

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## APPENDIX I

## EVALUATION CRITERIA

Applications for PRIHS 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 introduction of 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
- is clinically effective and will produce a measurable impact in Alberta.

### 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 of the SCN Translational Roadmaps (accessible on the PRIHS web page)
  - 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.

## Impact Potential:

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