# Digital4Health (D4H)

October 10, 2024

### **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 <u>Publications</u> page on our website). Accordingly, it is essential for project outcomes to align with those of the program.

The **Digital4Health (D4H)** 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 human-centered care.

### **Program Overview**

The **D4H** Program is designed to catalyze the pilot-testing, evaluation, and adoption of technology-enabled care models by cultivating partnerships between Health Service Delivery Partners (HSDPs) and digital health Technology Solution Providers (TSP). As a challenge-driven program, D4H provides an opportunity to address priority health system challenges through the implementation and real-world testing of promising digital health solutions that deliver health and economic value in Alberta. This Program explores novel care models to support the transformation of the health system to be more sustainable and citizencentric. Through a process of collaboration, HSDPs and TSPs can generate evidence that will facilitate adoption and scale of technology-enabled care models.

#### The objectives of the D4H program are to:

- 1. Unlock capacity for the development, pilot-testing and evaluation of novel citizen-centric care models using market-ready digital health solutions.
- 2. Facilitate Health Service Delivery Partners in navigating and leveraging digital health solutions to address priority health system challenges.
- **3.** Enable Technology Solution Providers to gain real-world evidence for their digital health solutions.
- **4.** Facilitate the creation of a connected health ecosystem.
- **5.** Mobilize knowledge on health system barriers and enablers to activate the adoption of innovative care models in Alberta.

#### **Definitions:**

Care Models are systems through which health systems deliver value to patients. They are comprised of six primary components: people, process, equipment, location, method, and information. Each of the six components must work synergistically to deliver meaningful results for patients and stakeholders. New care model development, and breakthrough system changes, are possible when health teams are willing to redesign all six of these components simultaneously. Digital health technology has the potential to facilitate new care model development.

**Digital Health** is an opportunity to accelerate research, transform care models, and reimagine sociological behaviours and processes to create an inclusive, patient-centred future. It presents valuable opportunities to strengthen the well-established correlation between a healthy population and economic prosperity. Examples of digital health technologies include when advanced technologies such as cloud computing, 3D printing, artificial intelligence, robotics, additive manufacturing, machine learning, extended reality (xR), and other tools merge our physical and digital worlds in the life sciences and healthcare sectors.

**Market-ready** for the purposes of the D4H Program, is defined as meeting a minimum <u>Technology</u> <u>Readiness Level (TRL)</u> of 7 with all necessary regulatory approvals obtained, ready to be deployed in a real-world setting.

**Health Service Delivery Partner (HSDP)** for the purposes of the D4H Program. is a public or private health and wellness care and/or service entity located in the province of Alberta, or with significant footprint in the

province of Alberta, providing health and care services to Albertans. See Applicant Eligibility section in this guide for additional information on requirements.

The key outcomes (i.e., measurable benefits) the program are:

1. Novel, technology-enabled care models are implemented and tested in Alberta.

Metric: # of novel and technology-enabled care models implemented and tested

2. Digital health technologies are increasingly tested and evaluated in the real-world, Alberta context.

Metric: # of digital health technologies implemented and evaluated

3. Digital Health technology is successfully procured into Alberta's Health System based on the evidence generated over project term.

<u>Metric</u>: # of successful implementation or procurement events as a result of participating in this program

4. Digital health technologies will gain contextual health economic evidence to support future adoption efforts in Alberta and elsewhere (Economic Value).

Metric: # of health economic and feasibility studies completed

5. Improved health and well-being of Albertans reported as a result of the project.

Metric: Patient Reported Outcome and/or Experience Measures (PROMs, PREMs)

6. Successful partnerships are built between the health system and industry.

Metric: Number of successful partnerships formed

D4H key outcome measures are curated based on Appendix A – Impact Model.

### Challenge Model

D4H is a challenge-driven program. Challenges are data-informed, needs-driven, and provide unique opportunities for applicants to leverage digital health solutions across the continuum of care to implement and test technology-enabled care models.

The D4H Program has two streams: a **Partner Challenge Stream** and **Project Stream**.

**Partner Challenge Stream**: Alberta Innovates partners with organizations to tackle specific, co-identified challenges within Alberta's health system. This stream aims to leverage these partnerships to pilot and evaluate digital health solutions that address our partnered challenges and have the potential to transform care delivery in Alberta. Please refer to current and past challenge on the <a href="Program Webpage">Program Webpage</a> for more details.

**Project Stream:** Designed for Health Service Delivery Partners (HSDPs), who have partnered with a Technology Solution Provider(s) (TSPs)ready to deploy an innovative digital health solution for real-world implementation. This stream provides support to HSDPs to implement their innovations to address data-informed, health system needs that generates evidence and insights to facilitate broader adoption and scale within Alberta's health system.

### **Funding**

Funding amount is up to \$200,000 per project.

Maximum term is up to 24 months.

Funds for the D4H Program are dispersed directly to the Applicant.

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. Please refer to Schedule B in the Investment Agreement posted on the <a href="Program webpage">Program webpage</a> for detailed information, including eligible and ineligible expenses.

#### **Key Dates**

The **Partner Challenge Stream** has challenge-specific submission dates throughout the year. Challenge-specific submission deadlines will be posted under the "**Partner Challenge Stream**" on the Program webpage (see the <u>Program webpage</u> for more details).

The **Project Stream** has a continuous intake for applications.

### **Eligibility**

### **Applicant Eligibility**

#### The D4H Program is open to:

- Alberta-based Health Service Delivery Partners:
  - o Academic institutions
  - Governments
  - Not-for profit organizations
  - For-profit organizations
  - Associations/Consortia/Societies

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

- Exist as a corporate person, with up-to-date corporate filings;
- Be authorized to undertake the proposed project, and execute a grant with Alberta Innovates on our standard terms;
- Be incorporated in Alberta AND/OR incorporated in another jurisdiction and extra-provincially registered in Alberta (applicable to for-profits and not-for profits);
- Have an Alberta footprint with significant physical and corporate operation presence in Alberta and/or servicing a significant number of Albertans;
- Be a General Partnership, Limited Partnership or Limited Liability Partnership and registered in Alberta (applicable to for-profits and not-for profits);
- 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: For Applicants that are <u>not</u> 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; and
- Meet any required eligibility criteria specific to the challenge.

### **Project Eligibility**

To qualify for funding, all Projects must:

- Align with the objectives of the D4H Program and Key Outcomes described above;
- Address a health system challenge:
  - o if applying to the "Partner Challenge Stream", projects must align with the Partner Challenge(s) as posted by Alberta Innovates and partners, or

- o If applying to the "Project Stream", projects must align with a data-informed, health system priority that is delivered in partnership between HSDP and TSP(s);
- Have the potential to support the development of novel, technology-enabled care models;
- Have the potential to improve the health and well-being of the people of Alberta;
- Implement and pilot digital health technology that meets at a minimum TRL level 7 requirements;
- Include key measurable milestones with deliverables, stepped with critical "go / no -go" decision points;
- Include a clear plan to evaluate project success (Health, economic and feasibility evaluation);
- Include a clear and compelling path to sustainable implementation post-project;
- Be completed within the 24-month term; and
- Submit to other criteria that Alberta Innovates may develop from time-to-time.

### **Project Expenses**

The <u>Investment Agreement</u> outlines the <u>eligible and ineligible expenses</u> for projects in the D4H Program.

### **How to Apply**



#### **PHASE 1** Full Proposal

The HSDPs will work with qualifying TSPs to co-create a Full Proposal. The review process is highly competitive, may include a strengthening exercise, and only the highest-quality projects will be considered for funding. If the review is positive, a funding recommendation will be made to necessary stakeholders and may include adjustments to the funding request and/or funding conditions.

**HSDP Register** on the <u>Alberta Innovates Application Portal</u> ("Portal") and access, complete and submit the Full Application within the *Funding Opportunities* tab on the Portal dashboard.



### **PHASE 2** Agreement

Successful applicants (HSDP) 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 D4H objectives and intended outcomes. Alberta Innovates staff and external expert reviewers are engaged to evaluate Applications.

Alberta Innovates evaluates submitted Applications to the D4H Program based on alignment to the priority of the health system challenge, the opportunity to successfully implement technology-enabled care models, and overall positive health and economic impact potential for Alberta.

Alberta Innovates retains the sole right to determine the evaluation process and assessment criteria 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 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, our funding is tied to the achievement of results and outcomes. 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 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.

<u>Appendix A</u> outlines the D4H Impact Model as a theoretical model for defining the interrelated components of the program that are required, and can be measured, for its success.

### **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 on the Alberta Innovates website 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 D4H program.

Please note that Alberta Innovates may modify this guide from time to time in keeping with any changes to the Program.

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.

Alberta Innovates will only correspond in writing, and provide copies of the application, to the person named in the application form as the one authorized to speak for the applicant.

Should you have any questions about this guide or what is expected, please contact Alberta Innovates (see contact information below).

### **Contact Information**

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### **APPENDIX A: D4H Impact Model**

The Digital4Health Program catalyzes the transformation of the health system to be more sustainable and citizen-centric through the power of digital health technologies and innovation. The D4H Impact Model provides a theoretical model for defining the interrelated components of the program that are required for its success. D4H performance indicators outlined in the Program Overview section of this guide are coordinated to assess the four levels of the impact model.

## Inputs

- Funding and robust funding processes, procedures and infrastructures
- Knowledge and sector-specfic expertise and skills
- Peer Networks

### **Outputs**

- Novel, technology-enabled care models are implemented and pilot-tested
- Digital health technologies are increasingly tested and evaluated in the real-world, Alberta context
- Digital health technologies gain contextual health economic evidence
- Partnerships are built between the health system and industry

- · Care models are adopted sustainably
- Digital health technologies are successfully procured into Alberta's health system, based on the evidence generated
- System barriers to technology-driven innovation are understood, overcome, and shared broadly
- Health care provider and citizen attitude and perception towards digital health technologies are improved

#### Outcomes

- Increased digital transformation capacity of Health Care Providers, Technology Solution Providers, and Citizens
- Improved health and well-being of Albertans reported as a result of D4H funded projects

### **Impacts**

• Health system is tranformed to be more sustainable and person-centered

Adapted from Canadian Institute for Health Information (CIHI) – A Performance Measurement Framework for Canadian health System: https://secure.cihi.ca/free products/HSP Framework Technical Report EN.pdf