

# AHS Innovation Pipeline

A 5-step process for rigorously evaluating and spreading health innovation and moving evidence into care

The innovation pipeline is important driver to advance quality and outcome improvements across Alberta's health system. It provides the evidence necessary to inform executive decision making and ensure major health system investments are directed to solutions that maximize impact and value for Albertans.

As a learning health system, AHS seeks to continuously improve performance, patient outcomes, and the experience of patients and providers. To achieve this, we must rigorously evaluate new treatments, practices, strategies, technologies and tools; action and advance good ideas; and ensure their safety, feasibility, and effectiveness.

The innovation pipeline is a clearly defined, iterative process that can be replicated across health disciplines and used to evaluate ideas that originate at a local, zone or provincial level. Evidence builds at each step and there are specific criteria a solution must meet to warrant further consideration and advance to the next step.

This process of evidence-gathering, evaluation, and implementation ensures potential solutions are safe, efficiently and rigorously tested in clinical settings, and adapted for an Alberta context. The best solutions (i.e., those with strong evidence of clinical effectiveness and potential to deliver significant impact and value) are then spread and scaled provincially to become the new standard of care for people in all parts of Alberta.



## Collaborative

Involves patients, families, health care teams, operational leaders, and researchers

## Evidence based

Rigorous; generates the evidence needed to inform decisions and prioritize initiatives

## Value & outcome driven

Solutions must demonstrate significant gains to warrant investment and advance to full implementation

## Flexible & inclusive

Process supports multi-disciplinary research and reach across health and care sectors

## Iterative

Process facilitates ongoing adaption based on learnings and feedback

Before beginning

### Problem definition

Partners must clearly define the problem they are trying to solve and consider its magnitude, root causes, context, and impacted population. Stakeholders identify the problem as a priority rooted in the needs of Albertans, gaps in care, and opportunities to improve quality, outcomes & value.

STEP

1

### Solution / idea generation

Identify potential solutions that logically address the defined problem and its root cause and explain how they would be applied improve outcomes, access or value. Solutions may be technological or a new practice, service, or approach.

### Proof of concept in a healthcare setting

Solution enters initial 'testing' phase where focus is on providing evidence of clinical effectiveness, safety, and value (i.e., quality, outcomes, economic benefit or equity) and documenting any barriers, enablers, or conditions for success. Some solutions do not progress beyond this stage (i.e., show limited gains). This is a positive outcome in that it allows AHS to avoid investing in, or moving too quickly to adopt, a particular solution that may not deliver the outcomes we seek, or when alternatives might lead to greater impact.

2

### Implementation test in Alberta (pilot)

Tests that the solution works in Alberta and requires evidence of clinical and cost-effectiveness and feasibility at multiple Alberta sites or contexts. This step includes designing an evaluation that incorporates patient and clinician feedback and local adaptations, and considers barriers, facilitators and other factors influencing uptake.

3

### Test of broader implementation (spread & optimization)

Validates the clinical and cost effectiveness of the solution on a broader (provincial or multi-zonal) scale, and optimizes the solution to maximize impact and value. The evaluation considers feasibility, uptake, and any additional requirements for sustainment.

4

### Full-scale implementation to sustainment

Solution is ready for "prime time" (full deployment). Evaluation includes implementation effectiveness, operational and financial impact, quality and outcome improvements at full-scale, and assessment of resources, infrastructure and potential refinements to sustain the solution and observed gains, and methods for ongoing measurement and monitoring.

At the early stages, **clinician researchers** are the lead partner, providing capacity for early evaluation.



As solutions move through the pipeline, Alberta's **health system** becomes the lead partner, advancing innovation of greatest value and impact.



### Funding that supports this process

**PRIHS** and **HIIS** are the only AHS-partnered annualized funding enablers for the innovation pipeline. Researchers can access funding from CIHR and other sources in Steps 1 & 2 but must meet external criteria and requirements.

PRIHS and HIIS are strategically positioned at Steps 3 & 4 to support value-based, strategic investments and drive high-impact innovations.

They are intentionally designed to fit together, creating a clear path to rapidly spread and scale-up smart innovations that address health system priorities and demonstrate the rigour and readiness to sustain province-wide.

For more information, see the [AHS Innovation Pipeline Primer](#)

PRIHS: Partnership for Research & Innovation in the Health System | HIIS: Health Innovation Implementation and Spread