

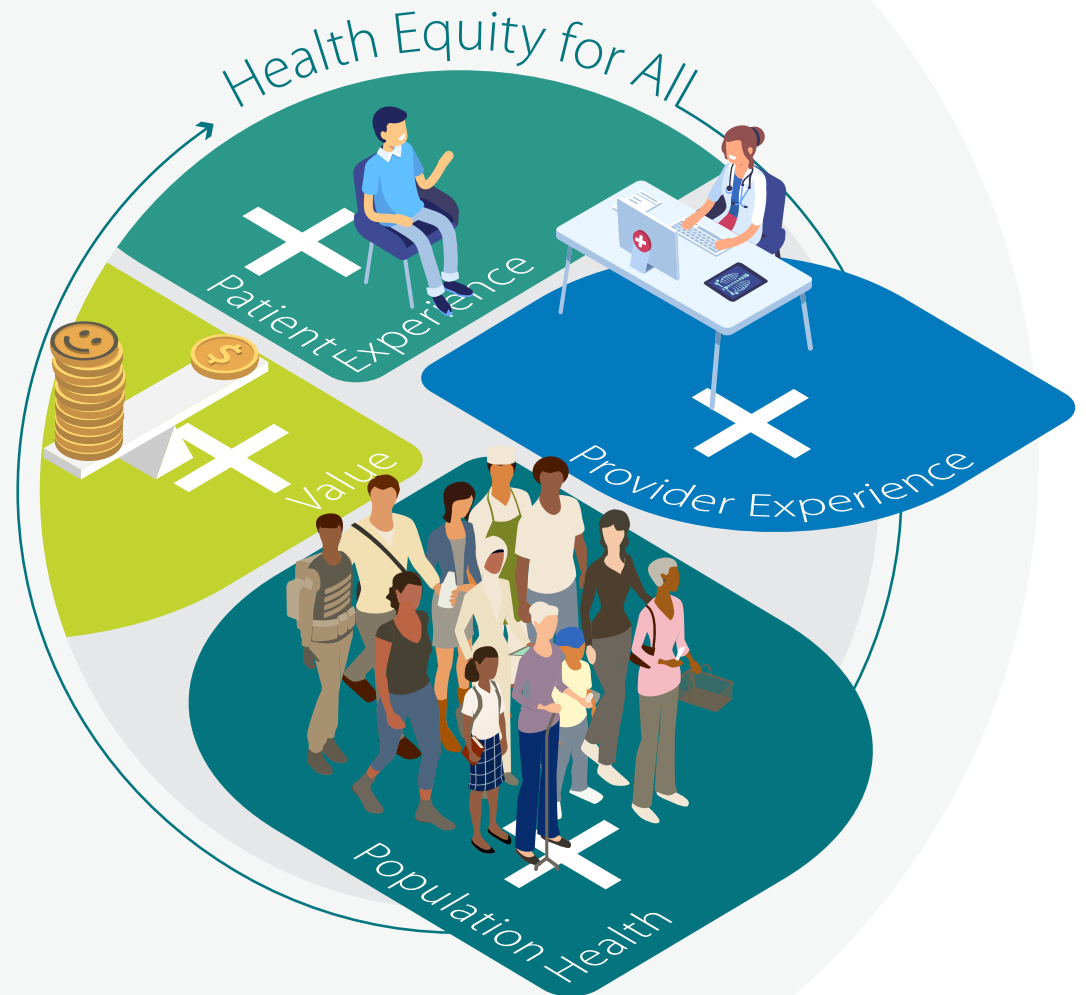


CIHR
IRSC

Institute of Health
Services and Policy Research
Institut des services et
des politiques de la santé

STRATEGIC PLAN 2021–2026

Accelerate Health System Transformation
through **Research** to Achieve the
Quadruple Aim and **Health Equity for All**



Canadian Institutes
of Health Research

Instituts de recherche
en santé du Canada

Canada

Canadian Institutes of Health Research
160 Elgin Street, 9th Floor
Address Locator 4809A
Ottawa, Ontario K1A 0W9
Canada

www.cihr-irsc.gc.ca

Also available on the Web in PDF and HTML formats
© Her Majesty the Queen in Right of Canada (2021)
Cat. No. MR4-93/2021E
ISBN 978-0-660-37328-7

Table of Contents

Glossary	4
1. Scientific Director's Message	5
2. Our Context: Canada's Health Care Systems	6
3. Our Story: Health Services and Policy Research in Canada	7
4. About Us: The CIHR Institute of Health Services and Policy Research	8
5. Our Approach to Setting Priorities	10
6. Our Strategy Accelerating system transformation with health services and policy research	
Strategic Priority 1: Accelerate the discovery of innovations that transform health care delivery systems to achieve the Quadruple Aim and improve health equity for all	11
Strategic Priority 2: Modernize the health care system with digital health solutions and data science	14
Strategic Priority 3: Integrate evidence into health services and policy decisions for improved health care system performance and outcomes	17
Strategic Priority 4: Strengthen capacity for solution-oriented research and evidence-informed health care system transformation	20
COVID-19 Priorities for Health Services and Policy Research	23
7. Our Future	24
8. Our Outlook: Concluding Remarks	26
9. Our Thanks and Acknowledgements	27
10. References	28

Glossary

Canadian Health Services and Policy Research Alliance (CHSPRA):

The primary purpose of the Canadian Health Services and Policy Research Alliance is to foster collaboration, coordination and strategic investment amongst Health Services and Policy Research organizations in Canada to accelerate scientific innovation and discovery, optimize the impact of research on health and health system outcomes, and strengthen Canada's health services and policy research enterprise.

Health Services and Policy Research (HSPR): Health Services and Policy Research is the field of scientific investigation that generates evidence on how to create systems, policies and organizational structures and invest in programs, services and technologies that maximize health and health care system outcomes.

Health equity: The absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically or geographically.

Knowledge User (KU): A knowledge user is an individual:

- who is likely to be able to use the knowledge generated through research in order to make informed decisions about health policies, programs and/or practices;
- whose level of engagement in the research process may vary in intensity and complexity depending on the nature of the research and their information needs;
- who can be, but is not limited to, a practitioner, policy maker, educator, decision maker, health care administrator, community leader, Elder, family member, caregiver, member of the public or an individual in a health charity, patient group, private sector organization or a media outlet.

Learning health systems: A concept developed in 2007 by the Institute of Medicine (now the National Academies of Medicine) regarding systems in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the delivery process and new knowledge captured as an integral by-product of the delivery experience.

Embedded research: A collaborative approach between academia and host organizations, wherein a researcher or research team work(s) within the host organization to conduct research that responds to the needs of the host organization and builds local receptor capacity, usually with a dual academic and host organization affiliation.

Patient-oriented research: Patient-oriented research refers to a continuum of research that engages patients as partners, focuses on patient-identified priorities and improves patient outcomes. This research, conducted by multidisciplinary teams in partnership with relevant stakeholders, aims to apply the knowledge generated to improve health care systems and practices.

Knowledge mobilization: Knowledge mobilization is an umbrella term that includes a wide range of activities related to both the production and use of research results. Globally, there are many terms used to describe the process of bringing evidence into the hands of those who can apply it, or moving research into practice. While CIHR has traditionally used the term “**knowledge translation**” to describe this dynamic and iterative process, the CIHR 2021-2031 Strategic Plan refers to knowledge mobilization.

Implementation Science (IS): The scientific study of the methods and strategies used to implement evidence informed interventions into routine health care in clinical, organizational, or policy contexts. Implementation Science learns from real-world experience and generates insight on how best to adapt an intervention for successful implementation in different regions, conditions, populations and/or contexts.

Quadruple Aim: The Quadruple Aim is a framework to guide the redesign of health care systems and the transition to population health that is centered on four overarching goals: improved population health outcomes, improved care and patient experience, improved provider satisfaction, and lower costs / better value.

1. Scientific Director's Message

We find ourselves in 2021 hopeful about emerging from a year-long COVID-19 pandemic yet beset by tensions and paradoxes: the greatest age of scientific advance in health and the inordinate sway of misinformation; evidence informing practice and policy as never before and a host of policies that provide too little direction too late; a heroic health system response in our hospitals and a disheartening one in our long-term care homes; a caring society with health care for all as its highest value and the almost daily reminders of racism and colonialism in how we provide that care; and the promise of connected timely information systems and the reality of fragmented disjointed inaccessible ones. It is my hope that the CIHR Institute of Health Services and Policy Research (IHSPR) Strategic Plan 2021-2026 will build on the tremendous strengths and accomplishments of Canadian health care and health services and policy research, while not shying away from the fundamental challenges that our health care systems face.

We have purposely and ambitiously entitled the plan "*Accelerate Health Care System Transformation through Research to Achieve the Quadruple Aim and Health Equity for All*" to reflect the need to address the structural, functional and environmental challenges of a health care system that was designed 40-50 years ago but must deliver accessible, high quality, equitable, sustainable, coordinated and integrated care in the 21st century. We have anchored our plan to the Quadruple Aim, which is centered around four overarching goals to redesign health care systems: improve the individual experience of care; improve the health of populations; improve the health care provider experience; and improve value for money.^{1,2} We have placed health equity at the centre of these aims to ensure that all improvement and transformation efforts are done with the intention of improving health equity for all. Getting the fundamentals right and keeping them on course with timely evidence will include examining how we organize, regulate, manage, finance, pay for, use, and deliver health care across this country's many jurisdictions and health systems. While this is a daunting agenda, it is the core of the IHSPR mandate and one we will continue to focus on in the coming years.

This strategic plan should be thought of as a process rather than a static document. As the pandemic has demonstrated, no amount of planning can prepare us for sudden and unexpected externalities. This plan will be executed over a five-year timeframe that, we know, will be replete with change. Annual action plans will be our mechanism for agile rethinking to ensure we review and, as needed, refresh our strategies. This will allow us to address current and emerging health services and policy research priorities, knowing that even within a six-month timeframe agendas and areas of focus can shift. We had the good fortune and timing to align with the [CIHR Strategic Plan 2021–2031](#), "*A Vision for a Healthier Future*", knowing that Institute alignment and support for the plan are key to its implementation. We look forward supporting the advancement of CIHR's priorities and its goal to position Canada as place where research evidence is integrated seamlessly within health policy and practice.

Ultimately, this plan outlines strategies to 1) support leading-edge health services and policy research and 2) optimize the impact of that research in transforming Canada's health care delivery systems into ones that achieve the Quadruple Aim and health equity for all. It took a village to produce this strategic plan, including hundreds of people who willingly gave their time and wisdom to help inform us of the many issues and perspectives across health care, research, training, decision/policy-making, and service delivery settings. We look forward to collaborating with this village in the pursuit of evidence-informed health care system transformation that improves health and well-being for all.

2. Our Context: Canada's Health Care Systems

Canada's health care "system" is comprised of 13 distinct provincial and territorial systems and additional federal programs. Responsibility for health care is shared between federal, provincial and territorial governments. The federal government holds responsibility for setting and administering national principles for the publicly funded Medicare system under the *Canada Health Act*, the provision of services to specific groups (First Nations people living on reserves, Inuit, Canadian Armed Forces, eligible veterans, inmates in federal prisons and some refugee claimants), and also for health protection and regulation (e.g., regulation of pharmaceuticals and medical devices), consumer safety, and disease surveillance and prevention. The provinces and territories are responsible for the administration and provision of health care services. Canada's health care systems reflect a mixture of public and private finance and delivery. Canadians have universal coverage for physician and hospital services through Medicare without financial, geographic or other barriers; however, since the administration of services is largely a provincial/territorial responsibility, there is variation across the country in the extent of public coverage for services outside the "Medicare basket," such as drugs prescribed outside of hospitals, long-term care, home care, mental health services and dental care. This patchwork of coverage for what is today largely viewed as necessary, essential care has contributed to inequities in access and outcomes geographically and across population sub-groups. These inequities are exacerbated by inadequate services in remote, rural and northern communities, growing income inequality, ongoing colonization, and systemic racism and discrimination.

Canada is among the highest spenders on health care in the Organisation for Economic Cooperation and Development (OECD). Canada's total health spending has trended upwards since 2015 and was expected to reach \$265.5 billion in 2019, equivalent to 11.5% of gross domestic product.³ Spending on hospitals, physicians and drugs accounts for the majority of total health spending.

Despite comparatively high spending levels and high life expectancy relative to other countries, Canada's health system performance in key domains such as access, equity and health outcomes is considered low compared to 10 other countries in Commonwealth Fund surveys⁴, and middling in the OECD.⁵ Long wait times and lack of timely access to publicly-funded care are long-

standing challenges consistently identified by Canadians and a top priority for policy attention. Ensuring that all Canadians have access to primary health care was identified as a top priority for action in the 2019 federal Minister of Health Mandate Letter and was reinforced again in 2021.^{6,7} Wait times sparked constitutional challenges in 2005 and 2020 to Canada's restrictions on private financing for Medicare services. Both cases argued that allowing a two-tier, duplicative public-private health care system to develop would improve access.^{8,9} The most recent court ruling preserves the *Canada Health Act* principle that access must be based on need, not ability to pay, indicating that private pay for publicly funded Medicare services is not the solution to wait times in Canada.⁹ Importantly, however, it acknowledged that individuals are subject to pain and deterioration when enduring wait times that exceed provincial guidelines.⁹

Spending trends, financial pressure on provincial budgets, sub-optimal performance and outcomes, and Charter challenges against Canada's Medicare system create an impetus for transformational change in how Canadian health care services are financed, organized, managed, and delivered. The coronavirus disease 2019 (COVID-19) pandemic has accelerated this transformation imperative with its profound impact on people, societies and health care systems worldwide. In Canada, the COVID-19 pandemic exposed fault lines in the health and health care delivery systems, notably in the long-term care sector and overall system preparedness, plus it exacerbated and illuminated longstanding socioeconomic and ethnoracial divides. COVID-19 has put a spotlight on the necessity to re-evaluate and transform care delivery in Canada to create resilient, inclusive health care systems that improve health and well-being for all.^{10,11}

The role for health services and policy research to provide leading-edge input to inform health care system transformation is clear: research investments must be made in areas of high need, where there are gaps in evidence, and where there is potential to positively impact the lives of people, the health of populations and the performance of the health system. The CIHR Institute of Health Services and Policy Research (IHSPR) is committed to working with partners across the country and internationally to achieve this aim.

3. Our Story: Health Services and Policy Research in Canada

Health services and policy research is the field of scientific investigation that generates evidence on how to create systems, policies and organizational structures and invest in programs, services and technologies that maximize health and health care system outcomes.

Multiple disciplines, professions, sectors and methodologies are harnessed to creatively address health care system challenges and answer high-priority questions, such as: what are the minimum staffing levels and appropriate staffing mix required in long-term care homes; how can virtual care be implemented to improve patient care and enhance patient and provider experience; which types of financing arrangements facilitate integrated and coordinated care across the care continuum; what interventions can be implemented to ensure people live longer and healthier lives at home; how can the system best provide care for the approximately 4.5 million Canadians who do not have a family doctor or primary care clinic; and what types of tools can help decision makers assess whether and how a successful service and/or policy innovation could be adapted to their setting?

The key requirements for responsive, world-class health services and policy research are a skilled community of researchers, accessible data platforms and infrastructure, engaged knowledge users committed to evidence-informed decision-making, and innovative funding programs. Canada's health services and policy research enterprise has evolved significantly over the past 20 years and has witnessed growth in many areas, including the size of its community, funding and programs to support innovative research. Looking ahead, continued evolution of the health services and policy research enterprise towards one that accelerates health system transformation through research innovation to achieve the Quadruple Aim and health equity for all is the goal, and one that this strategic plan is designed to support.



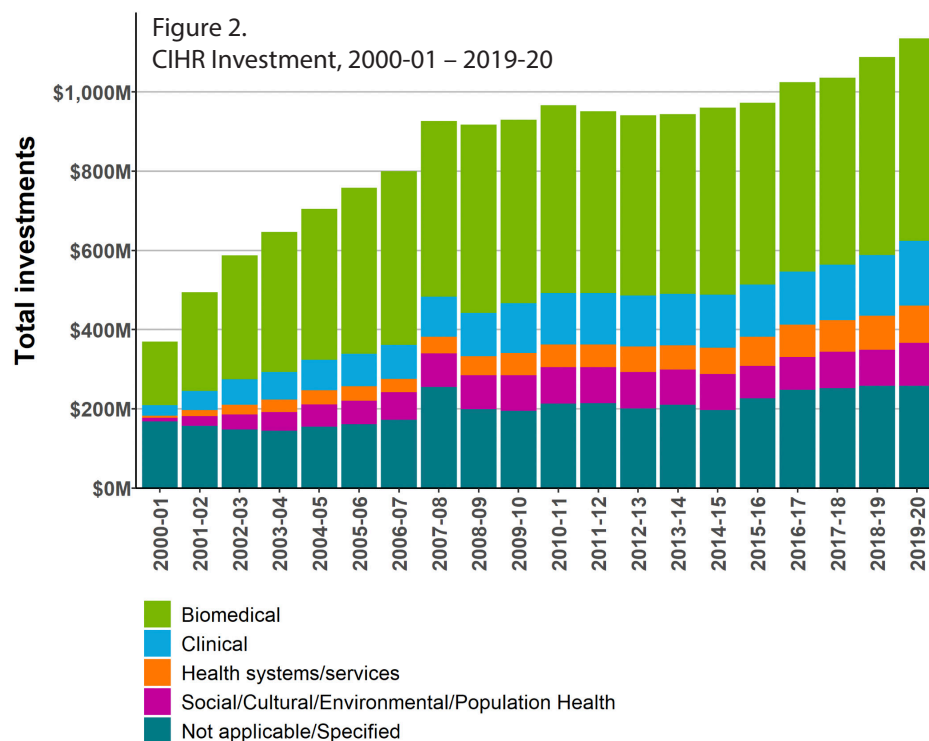
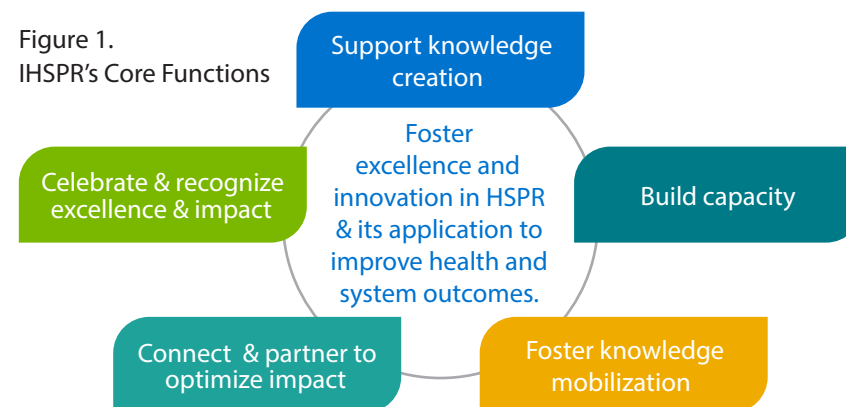
4. About Us: The CIHR Institute of Health Services and Policy Research

IHSPR is dedicated to supporting innovative research, capacity-building and knowledge mobilization initiatives designed to improve the way health care services are organized, regulated, managed, financed, paid for, used and delivered, in the interest of improving the health and quality of life of all Canadians.

IHSPR is one of the 13 Institutes at the Canadian Institutes of Health Research (CIHR), Canada's federal health research funding agency. IHSPR plays a key role in helping CIHR to achieve its mandate to create new scientific knowledge and catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian health care system.

IHSPR also has the unique responsibility of championing, within and beyond CIHR, health systems and services research – one of four research fields highlighted in the *CIHR Act*. In doing so, IHSPR leads and supports CIHR-wide major initiatives that advance

Figure 1. IHSPR's Core Functions



the organization's mandate and strategic directions and engages with other Institutes and branches to integrate health services and policy research across strategic funding programs. The Health System Impact Fellowship, Community-based Primary Health Care Signature Initiative, eHealth Innovations, Transitions in Care and Personalized Health Initiative are examples of IHSPR-led or IHSPR-supported, multi-Institute major initiatives that integrate health services and policy research within their core aims.

Overall, IHSPR's core work can be organized into five key domains (Figure 1): 1) supporting knowledge creation, 2) building and strengthening the capacity of the health services and policy research workforce, 3) fostering knowledge mobilization, 4) collaborating and partnering to optimize health services and policy research impact, and 5) celebrating and recognizing the excellence and contributions of the health services and policy research community.

Over the last two decades, CIHR's funding of health services and policy research has steadily increased from \$5M in 2000-01 (representing 1.35% of CIHR's grants and awards budget) to \$94M in 2019-20 (representing 8.26% of CIHR's grants and awards budget) (Figure 2).

4.1 Our Mission

To foster excellence and innovation in health services and policy research, and catalyze the application of research findings into policies, practice and programs that provide real-world benefit and enhance the provision of high-quality care for Canadians.

4.2 Our Vision

To accelerate health system transformation that achieves the Quadruple Aim and health equity for all through research and evidence-informed decision-making.

4.3 Our Values and Commitments

IHSPR supports and will work to uphold the values and commitments articulated in the CIHR Strategic Plan ([available here](#)). Additionally, as we implement the IHSPR strategic plan, we commit to:

Excellence, innovation and impact: IHSPR is committed to supporting excellent, innovative and impactful health services and policy research that improves the overall health system and health of Canadians, with the ultimate goal of achieving the Quadruple Aim and health equity for all. IHSPR will promote an open science approach to ensure that research and evidence supported by the Institute is accessible in a timely manner to all stakeholders to help accelerate and enable health system transformation.

Collaboration for collective impact: IHSPR is one of several partners within the health services and policy research and health research ecosystem. IHSPR is committed to engaging and collaborating with partners within Canada and other countries to support rigorous research and knowledge mobilization activities that achieve measurable impact on health and health care system outcomes.

Equity, diversity and inclusion: IHSPR is committed to supporting the principles of equity (fairness), diversity (representation), and inclusion (valued participation), including sex and gender considerations and the needs of people and populations across the life course in all activities undertaken by the Institute and will work to support CIHR's strategic priority of *Pursuing Health Equity through Research*.

Indigenous Peoples' health: IHSPR is committed to supporting CIHR's priority of *Accelerating the Self-Determination of Indigenous Peoples in Health Research*, the 2019–2024 Strategic Plan of the Institute of Indigenous Peoples' Health (IIPH), as well as the *CIHR Action Plan: Building a Healthier Future for First Nations, Inuit and Métis Peoples*.

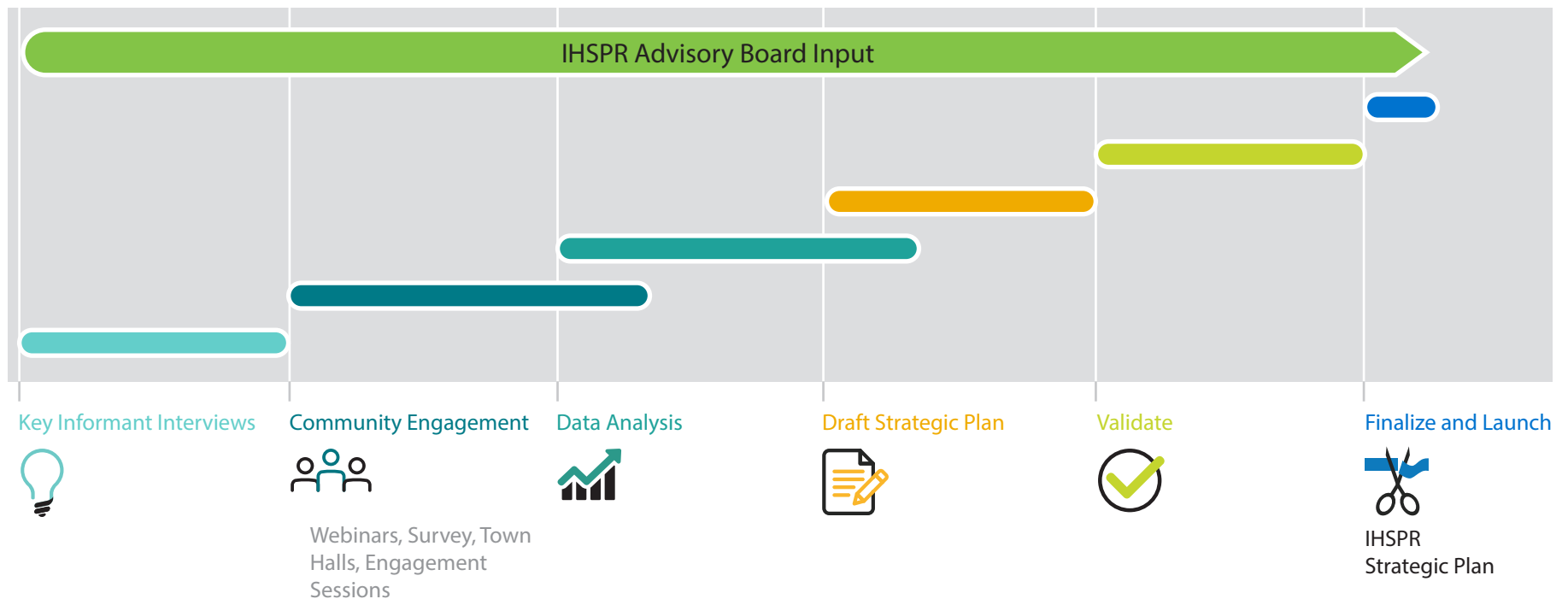
Environmental sustainability: IHSPR is committed to taking steps to understand the strategies and actions that can be applied to the Institute's activities to prevent, mitigate and respond to the risk to health posed by climate change and other environmental impacts.

Continuous learning and improvement: IHSPR is committed to being a learning organization that continuously monitors and evaluates its programs and activities and uses the results to iterate, adjust, and improve. IHSPR strives to be forward thinking, nimble and adaptable as the health research ecosystem and health care system evolve.

5. Our Approach to Setting Priorities

IHSPR identified strategic directions for health services and policy research through an evidence-informed, multi-pronged, iterative process conducted between May 2019 and January 2021 (Figure 3). Our approach was consultative and drew on multiple lines of evidence, including: an environmental scan of health services and policy research priorities in Canada and other countries; analysis of historical health services and policy research funding investments and impacts; semi-structured interviews with a purposeful sample of 48 leaders in Canada including individuals from the research, policy- and decision-making, clinical, Indigenous and patient communities; broad and focused community engagement via Canadian and international conferences, the Health System Impact Fellowship National Cohort Retreat, university Town Halls, patient roundtables, online engagement sessions, and a widely distributed community survey; partner roundtables; meetings with federal and provincial/territorial departments of health; and a rapid review of COVID-19 priorities for health services and policy research. The IHSPR Institute Advisory Board (IAB) was engaged throughout the process. We collated and analyzed the resulting input and data to identify common themes, which we refined into priorities for investment and strategies for action. Our IAB reviewed a draft strategic plan and our draft priorities were shared with the health services and policy research community for review, refinement and validation. Consistent with our strategy development process, our strategy implementation approach will be consultative and partnered.

Figure 3: IHSPR Strategic Planning Process



6. Our Strategy Accelerating system transformation with health services and policy research.

Strategic Priority 1

Accelerate the discovery of innovations that transform health care delivery systems to achieve the Quadruple Aim and improve health equity for all



Objective 1

Generate evidence about innovations in how to organize, finance, manage and deliver health care that achieve the Quadruple Aim, improve equity, and are accountable to patients and the public. Prioritized areas for attention include:

- Integration of care (including integrated delivery systems and continuity of care);
- Primary, home and community-based care;
- Long-term care (including nursing home care and care provided in retirement homes and assisted living facilities); and
- The health care workforce (including, funding and remuneration, training and support, scopes of practice, interdisciplinary collaboration, and data systems for planning).

Objective 2

Catalyze new research at the intersection of health services and policy and population health that integrates upstream prevention within health care delivery settings/approaches to improve health, health equity and well-being, and addresses the social determinants of health.

Goal

To support and invest in research that leads to better population health and increased value, while improving health equity and the health care experience for patients, families, and health care providers.

The Context:

Canadian Medicare has long been regarded as a hallmark of Canadian culture and identity. But today, the health care systems that have developed within and around this legislative framework are often seen as hospital- and physician-focused, siloed across sectors, and focused on illness and treatment instead of wellness and prevention. Furthermore, the COVID-19 pandemic, which has had a tremendous human toll, has profoundly reduced the capacity of the health care system to provide non-COVID care and starkly revealed and exacerbated some of the existing deficiencies and inequities across Canada's health care systems.^{11,12}

Amidst these gaps and challenges, however, there are examples of excellence and innovation. In some jurisdictions, team-based primary health care is standard practice and services address the social determinants of health; delivery systems are incentivized and supported to focus on patient and population health outcomes; digital health and virtual technologies are used to ensure access in rural and remote regions; care pathways that have improved outcomes, reduced costs and standardized quality are spreading across a provincial health care system; patients and communities are engaged in system-, organization- and individual-level decision-making; clinical leadership is paired with policy and research leadership to design, implement and evaluate clinically-meaningful and scalable solutions; and delivery systems are using data to continuously learn, adapt and improve. The COVID-19 pandemic has accelerated the adoption of certain innovations like virtual care^{13,14}, prompted attention to the long-term care sector and the development of new national standards¹⁵, and raised awareness that health care systems are outdated, need to be more resilient, adaptable and better prepared to withstand pressing challenges, such as future pandemics and emergencies such as those presented by climate change.

Modernizing Canadian health care is critically needed to ensure that pockets of excellence become standard practice across the country. Transformation is required to ensure delivery systems are oriented towards and supported to achieve the Quadruple Aim of improved patient experience, better population health, improved provider experience and better value, as well as to improve health equity for all. These delivery systems must be resilient and prepared to deliver consistent, high-quality outcomes, including in times of crisis. Health services and policy research will play a vital role in providing the evidence needed to evaluate current approaches, re-envision a future state for Canadian health care, and inform the modernization of contemporary delivery systems accordingly.



Strategies to Achieve Priority 1

- 1** Support large-scale, interdisciplinary, multi-sectoral, multi-jurisdictional implementation science team initiatives designed to mobilize knowledge into action and accelerate health care system transformation.
- 2** Support cross-jurisdictional research and comparative policy analyses that generate the evidence needed to build high-performing health care systems.
- 3** Increase public awareness about the power of health services and policy research to address key issues confronting health care in Canada; create opportunities for patients and the public, Indigenous Peoples and communities, decision makers, health care providers, and researchers to work together in generating and applying relevant, high-impact health services and policy research.
- 4** Embed a health equity lens within research programs to contribute to an equitable health services and policy research funding system and an equitable health care delivery system, including attention to sex and gender, racism, intersectionality, Indigenous Peoples and colonization, income inequality, global health, and rural, remote and northern communities.
- 5** Contribute to CIHR's framework for action on global health research to ensure health services and policy research priorities, partners and perspectives are incorporated.



Expected Impact: In five years, new research on transforming health care delivery systems has been generated and mobilized to achieve the Quadruple Aim and address health equity, and health services and policy research is embraced as the innovation engine of health care systems.

Alignment with CIHR Strategic Plan: “Strengthen Canada’s health systems through innovation,” “Reduce health inequities,” “Support stronger (interdisciplinary) research teams” and “Drive progress on global health research” are key strategies within CIHR’s strategic plan. IHSPR’s prioritization “Accelerate the discovery of innovations that transform health care delivery systems to achieve the Quadruple Aim and improve health equity for all” and its related strategies will directly support CIHR’s pursuit of its priorities. IHSPR will work with its sister Institutes and branches within CIHR to develop impactful initiatives that strengthen health care systems and reduce inequities through research innovation, knowledge mobilization and interdisciplinary collaboration.

Strategic Priority 2

Modernize the health care system with digital health solutions and data science



Objective 1

Support research that enhances the design, implementation, and evaluation of digital health solutions, including virtual care technologies, that aim to improve health and patient/provider experience outcomes.

Objective 2

Encourage and enhance the use of data and data analytics, including artificial intelligence (AI), in various realms of health services and policy research as a means to improve health outcomes and health equity.

Objective 3

In partnership with others, support a strong digital health ecosystem that includes leading-edge health services and policy research, enhanced data access and linkage, improved predictive modeling, secure digital health services available to all Canadians, and improved digital health literacy.

Goal

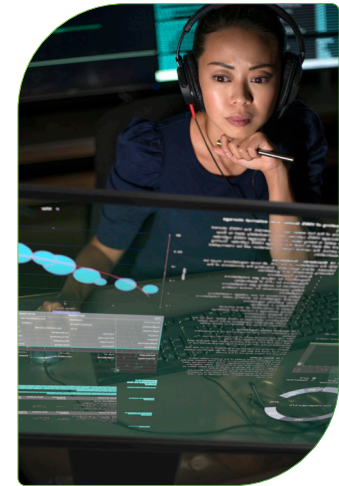
To modernize Canada's health care systems through research on digital health innovations and data science that will help to achieve the Quadruple Aim and health equity for all.

The Context:

Over the last two decades, digital tools have contributed to the complete transformation of multiple sectors, including the financial, retail and travel industries, and yet the health sector continues to lag behind. Major transformation of health research and health care is anticipated to occur over the next 5-10 years through new developments in data, analytics, and digital health solutions. Throughout the health care system, rapid digitization is occurring in most hospitals, doctors' offices, community clinics, pharmacies, and diagnostic services. Still, this landscape is characterized by fragmented data systems and platforms, limited interoperability, data islands, regulatory barriers, lack of integration of clinical care and patient-generated data into data systems, challenges with data ownership, concerns with privacy, safety and cybersecurity, and minimal provider, patient and public engagement.

Canada has international advantages that it should leverage to seize the digital and data opportunity. This includes a single payer health care system, population-based administrative data, world leading researchers in big data and artificial intelligence, and highly-regarded data-related organizations (including the Canadian Institute for Health Information, Statistics Canada, Canada Health Infoway, Canadian Institute for Advanced Research, and several provincial research organizations). Additionally, CIHR has made significant investments in the data space and forged partnerships to create and support large-scale innovative digital health research programs both in Canada and internationally, including the eHealth Innovations Partnership Program, the Personalized Health Initiative, the Transitions in Care Initiative, the SPOR Canadian Data Platform, the Active and Assisted Living Programme, and the International Digital Health Cooperation for Preventive, Integrated, Independent and Inclusive Living. The assessment and evaluation of these earlier investments and partnerships is essential for the development of novel digital health programs that build on initial learnings to optimize impact.

A strong digital health infrastructure underpinning the health care system is needed to accelerate system transformation. This was exemplified during the unprecedented COVID-19 pandemic, when almost all non-urgent care across the country moved to virtual or telemedicine visits, modernizing the health care system within days out of necessity. It is now time to continue this transformation and bring all aspects of health care (point of care diagnostics, virtual care, e-referral and e-consultations, personalized health care, patient portals and patient-held records, sensors/wearables, predictive modeling, and home health monitoring) into the digital economy through safe, secure interoperable systems. By leveraging Canada's data assets, digital health innovations, advanced analytics including AI, and expertise of the health services and policy research community, we can collaborate with partners to support transformative research to underpin expanded access to care, enhanced care provision to rural and remote communities, improved continuity of care and, ultimately, improved overall care provided to Canadians.



Strategies to Achieve Priority 2

- 1** Design innovative digital health research funding programs that support advanced analytics and the implementation and evaluation of digital health approaches (including, but not limited to, virtual care, e-consultations, e-referral, sensors, patient portals and patient-held records, and wearables).
- 2** Create opportunities for researchers, care providers, decision makers, and patients to work together in the digital health space to improve their understanding and use of data and increase their overall digital health literacy.
- 3** Encourage and promote the use of data sources and platforms by health services and policy researchers, including SPOR's Canadian Data Platform.
- 4** Work with partners to continue to improve access, linkage, and interoperability of data and data systems for health services and policy research and evidence-informed decision-making; support equitable access to data and appropriate data ownership and rights, including within Indigenous communities; and ensure privacy, safety, ethical, and regulatory issues related to data are considered and respected.



Expected Impact: In five years, research will inform the creation and implementation of digital health tools that will support timely access to care for Canadians, accelerating progress towards the Quadruple Aim and achieving health equity for all. Digital health literacy will improve across health services and policy research stakeholders, including researchers, providers, policy makers, decision makers, patients and the public through opportunities to work together and collaborate in the digital health space.

Alignment with CIHR Strategic Plan: "Digital health solutions are a health care system innovation that will support modernized and transformative care, processes, and delivery systems. IHSPR's prioritization of digital health solutions and data science will support and accelerate CIHR's achievement of its commitment to "Strengthen Canada's health systems through innovation," "Maximize results for Canadians" and "Promote open science." There is strong alignment to the CIHR future vision of investing "in research that supports the mobilization of health system innovations, including its commercialization, in areas such as technology, virtual care, and artificial intelligence."

Strategic Priority 3

Integrate evidence into health services and policy decisions for improved health care system performance and outcomes



Objective 1

To develop impact-generating health services and policy research programs that align with health care system and patient priorities, support meaningful engagement of all stakeholders, and accelerate the path from evidence to impact through effective knowledge mobilization.

Goal

To develop innovative health services and policy research funding programs and support impactful knowledge mobilization that accelerate the development of learning health systems across Canada and continually integrate and mobilize relevant, high quality, timely evidence into programs, practices and policies that advance the Quadruple Aim and health equity for all.

The Context:

Health services and policy research is a field of research closely aligned to health care system transformation and improvement. There have been consistent and concerted efforts to engage stakeholders (including policy makers, decision makers, health professionals, Indigenous Peoples, patients and the public) in setting research agendas and in the conduct of the research itself. However, health services and policy research, even with thoughtful engagement, does not always lend itself to immediate application and impact. Decisions about health care, the health system, and health policy are being made, in an ever-changing environment, and often without the appropriate evidence given misaligned research and decision-making cycles. This challenge is further compounded when research does not address priority policy or practice questions, meaningfully engage with knowledge users, or consider the enablers and barriers present in real-world implementation contexts.

To overcome these challenges, health services and policy research programs and projects should have clear pathways for impact, with the Quadruple Aim as the goal¹⁶, as well as health equity. Clear pathways for impact include a strong emphasis on knowledge mobilization, including the use of integrated knowledge translation (IKT) approaches, dissemination, and implementation science, and/or innovation scale and spread, as appropriate. Effective knowledge mobilization strategies tailored to specific audiences, alongside understanding the methods and factors associated with successful integration of an intervention into a specific setting (implementation science) or scale to another setting or context, are essential components to ensure the uptake and impact of innovations in practice or policy. Strong partnerships and engagement with stakeholders and knowledge users throughout the research process is also vital.

Previous IHSPR innovations that aimed to bridge the research-to-impact gap include: Evidence on Tap: Best Brains Exchanges and Expedited Knowledge Syntheses, Rewarding Success, Embedded Clinician Researcher Awards, and the Health System Impact Fellowship. These programs aimed to bring researchers closer to knowledge users using an IKT approach, ensuring that the research was directly relevant to the knowledge users' needs and priorities. Certain programs, such as Rewarding Success, also aimed to change the paradigm of how research is rewarded, emphasizing and incentivizing innovative, outcome-oriented research and its implementation to enhance value-based care.¹⁷ Canada's Strategy for Patient-Oriented Research (SPOR), led by CIHR, has taken a similar approach with its investments and IHSPR has worked alongside SPOR to ensure investments are complimentary and synergistic. Moving forward, IHSPR will continue to build on these funding innovations and support strong partnerships with key stakeholders. Doing so will enable appropriate mechanisms for knowledge mobilization to ensure that the most timely and relevant evidence shapes health care and health policy decisions.



Strategies to Achieve Priority 3

1 Strengthen engagement and collaborative partnerships between researchers and health care providers, decision makers, and patients/caregivers/family/the public through the design of funding opportunities and knowledge mobilization activities.



2 Accelerate impact through innovative research funding program design: Build upon successful innovative research funding models that include elements of researcher embeddedness, rapid learning, agile implementation, contextualized dissemination, implementation science, scale and spread, and alignment with health care system and public priorities.



3 Partner for impact: Collaborate with partners, including provincial funding agencies, federal, provincial and territorial departments of health, Canadian Health Services and Policy Research Alliance (CHSPRA), the Pan-Canadian Health Organizations and the Canadian Association for Health Services and Policy Research (CAHSPR), and health services and policy research organizations in other countries to amplify and optimize the impact and outcomes of strategic research investments and activities.



4 Contribute to the science of science: Develop a research-on-research strategy for IHSPR that informs the creation of high-value, high-impact research programs and encourage and support the use of CHSPRA's impact framework, titled *Making an impact: A shared framework for assessing the impact of health services and policy research on decision-making*, across the health services and policy research sector.



5 Support evidence-informed decision-making by patients, providers and decision-makers by designing mechanisms that support the mobilization of research evidence in programs, practice, and policy.

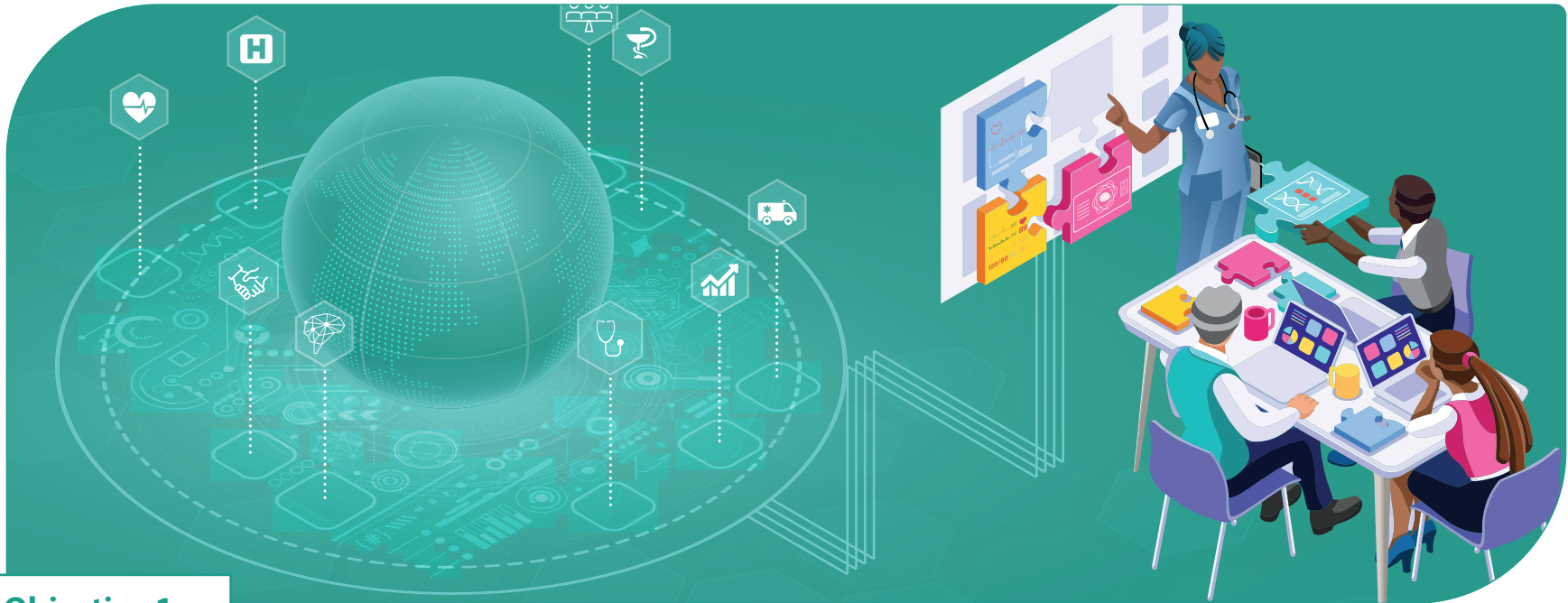


Expected Impact: In five years, IHSPR's innovative strategic research funding programs and activities will be optimized to foster research impact that improves health care system performance, equity, and outcomes and there will be stronger research evidence about the pathways to research impact. Strong partnerships between researchers, providers, decision-makers, patients and the public will increase the likelihood that adoptable, sustainable, and scalable evidence-based interventions and policies are implemented in the health care system, so that care and policy decisions are evidence-based to optimize the health of Canadians.

Alignment with CIHR Strategic Plan: "Integrate evidence into health services and policy decisions for improved health care system performance and outcomes" directly aligns with and will help to advance CIHR's priority to "Integrate Evidence in Health Decisions" and its related strategies to "Advance the science of knowledge mobilization" and "Maximize results for Canadians." Additionally, CIHR has prioritized "Advance Research Excellence in all its Diversity" and IHSPR's commitment to advance the concept of research impact and use the CHSPRA *Making an impact* framework will support and inform CIHR's reimagining efforts.

Strategic Priority 4

Strengthen capacity for solution-oriented research and evidence-informed health care system transformation



Objective 1

To train and support the health services and policy research workforce to tackle the complex health care system challenges of the present and the future, and to equip this workforce with the capabilities to inform the implementation of solutions that transform health care delivery systems to achieve the Quadruple Aim and health equity for all.

Goal

To enhance capacity to generate solution-oriented research, apply evidence, and implement evidence-informed interventions that transform health care delivery systems to achieve the Quadruple Aim and health equity for all.

The Context:

The magnitude of the challenges confronting health care systems is unprecedented. Tackling these challenges with evidence-informed solutions requires a highly trained health services and policy research workforce with cutting-edge research skills and the professional competencies required to lead, inform, and implement change. The health services and policy research community has grown significantly since the creation of CIHR in 2000. The number of grant applications and the number of researchers has increased year over year. However, in the context of increasingly complex challenges confronting health care delivery systems, the evolution of the field of science, and changing career trajectories, research funding training programs must modernize. Such modernization will equip emerging and established research leaders with a toolkit of competencies that include both research and professional skills, such as leadership, change management and implementation.¹⁸⁻²⁰ Modernization efforts must also bolster opportunities for researchers to work hand-in-hand with decision-makers, providers and patients to identify and address high-priority evidence needs. Embedded and partnered research funding programs that position researchers at the coalface of policy and decision-making will strengthen the capacity of health system organizations to generate and use research to inform decisions and build enduring relationships between academic and health system organizations. In doing so, embedded and partnered research funding programs can serve as a catalyst for evidence-informed health care system transformation.

Sophisticated methodological expertise and interdisciplinary, intersectoral collaboration are also critical elements of tackling complex health care delivery system challenges. Multiple disciplines, professions, methodologies, and sectors comprise the health services and policy research ecosystem. Research funding programs can help to optimize the interdisciplinary richness of the field by bringing together health services researchers with economists, lawyers, artificial intelligence scientists, behavioural scientists and other research experts, decision makers, providers, and patients from different sectors to co-develop and apply creative solutions to complex challenges. Attention to disciplines and methodologies under-developed or under-utilized in relation to their potential contribution to system transformation is also needed, including but not limited to health economics, dissemination and implementation science, patient-oriented research, and big data analytics.



Strategies to Achieve Priority 4

- 1** Collaborate with CHSPRA, university training programs, health system organizations and research funders to foster modernized training approaches that equip graduate, post-doctoral and early career researchers with an enriched set of core competencies, applied training experiences, and mentorship that amplifies their capacity to make a positive impact throughout their careers within and outside of academia.
- 2** Support embedded research models across multiple career stages that accelerate the generation of timely, responsive evidence and foster learning health system environments that promote rapid learning and continuous improvement.
- 3** Strengthen capacity for interdisciplinary and intersectoral collaborations, grounded in principles of co-production that harness the expertise of the diverse disciplines and sectors that comprise the health care ecosystem, to work together to address complex challenges.
- 4** Develop health services and policy research talent for cutting-edge science and methodological innovations that generate new insight and catalyze solutions.
- 5** Contribute to CIHR's development of a "policy framework that will address gaps in training and support across all career stages, transitions, and paths" (CIHR Strategic Plan, Priority B, Strategy 3) and ensure its relevance and value to the health services and policy research community.



Expected Impact: In five years, a new cadre of PhD graduates will be equipped with the research and professional skills to lead evidence-informed health care system transformation; an increased number of health system organizations will have embedded research departments, employ researchers within their organizations, and embrace a culture of rapid learning and continuous improvement; and health services and policy researchers will be working in partnership with decision makers, providers, patients and the public to address high-priority challenges and accelerate evidence-informed health care system transformation.

Alignment with CIHR Strategic Plan: Strengthening capacity for solution-oriented research and evidence-informed health care system transformation aligns with CIHR's priorities to "Strengthen Canadian Health Research Capacity" (including enhancing training and career support and enhancing CIHR's rapid response capacity) and "Integrate Evidence into Health Decisions."

COVID-19 Priorities for Health Services and Policy Research

In recognition of the profound effects of COVID-19 on people's health and the functioning of health care systems, and the significant volume of research investment and activity that was mobilized to help inform the policy and clinical response to the pandemic, IHSPR conducted a rapid-cycle priority-identification process in April 2020 focused on COVID-19 priorities for health services and policy research. Our aim was to create a shared understanding of health services and policy research COVID-19 priorities across the country. The intended impact of this work was to help align resources with the most important evidence needs for policies and interventions that would contribute to improved health and health system outcomes. Seven priorities and three cross cutting themes were identified (Figure 4). More information about each priority and cross cutting theme can be found in the publication, *Informing Canada's Health System Response to COVID-19: Priorities for Health Services and Policy Research*.²¹ In September 2020, these priorities were updated to reflect the evolving pandemic context. Long-term care was added as a priority and supporting the health of Indigenous Peoples and supporting the health of vulnerable populations, including addressing issues of systemic racism and inequity, each became stand-alone priorities.

The health services and policy research COVID-19 priorities align with IHSPR's new strategic priority areas. As conveyed in the above Healthcare Policy publication, there is opportunity and space for health services and policy researchers over the coming years to lead COVID-19-related research, investigate other aspects of pandemic and emergency preparedness and health system response, and/or continue with their core health services and policy research-focused programs of research. The health care system transformation envisioned in this strategic plan will only be achieved with careful analysis of the short- and long-term consequences of the pandemic and application of the lessons learned to inform a more resilient, higher performing, and more equitable health care system than that which existed prior to COVID-19. This is consistent with the UN Research Roadmap for the COVID-19 Recovery, which identified health services and systems as one of five key pillars that must be addressed to ensure socio-economic recovery from the pandemic.²²



Figure 4: HSPR COVID-19 priorities and cross cutting themes

7. Our Future

7.1 Our Partnerships

The challenges confronting health care systems in Canada are complex and affect people, populations, organizations, sectors, and regions. A collective, partnered approach will be essential to make an impact and achieve the Quadruple Aim and health equity for all. IHSPR values its partnerships with organizations and communities in Canada and internationally and commits to working collaboratively to accelerate evidence-informed health care system transformation through implementation of this strategy. In addition to partnering to increase the size, number, and impact of opportunities for the health services and policy research community, IHSPR commits to creating and supporting opportunities for integrated partnerships between researchers and knowledge users within its funding initiatives. Funding agencies around the world are increasingly requiring researchers to partner with knowledge users on their research projects. This type of partnership is particularly encouraged in health services and policy research, which is so close to practice and policy making. The Partnerships for Health System Improvement (PHSI), Evidence on Tap, eHealth Innovations Partnership Program, Rewarding Success, and Health System Impact Fellowship programs are examples of funding initiatives founded on partnerships that have influenced and informed IHSPR's approach to research funding design. IHSPR will continue to support strong partnerships and collaborations throughout the entire research lifecycle – a key element to ensuring measurable and collective impact.

In 2014, IHSPR, alongside provincial health research funding organizations and many of Canada's health charities, partnered with the community to develop the first-ever pan-Canadian Vision and Strategy for Health Services and Policy Research.²³ This work became the basis of IHSPR's 2015-2019: Health System Transformation through Research Innovation Strategic Plan and led to the creation of the Canadian Health Services Policy Research Alliance (CHSPRA).²⁴ With many partner organizations wanting to work collectively to address common priorities, CHSPRA became a vehicle to foster greater collaboration, coordination and collective impact in health services and policy research activities and investment across Canada, particularly in high-priority areas of pan-Canadian interest. Today, five years and 40+ partners since its inception, CHSPRA remains a leading innovative partnership for IHSPR and the health services and policy research community.



7.2 Our Impact

To position health services and policy research as the innovation engine of health care systems²⁵, IHSPR will be deliberate in its approach to ensure the systems' needs are reflected in all facets of its work to implement this strategic plan and increase the likelihood of research impact. IHSPR uses a "relevance by design" approach in its strategic planning and to guide its investments in novel program development, engagement activities, and funding opportunity and peer review design. This approach aims to build linkages between researchers and stakeholders to ensure the research is relevant to the system's needs. Examples of IHSPR's relevance by design approaches include: priority-setting workshops to understand the community's needs and identify key areas for investment; working directly with ministries of health and the health services and policy research community to help establish priority areas and inform the design of funding opportunities; the use of peer review criteria to explicitly assess potential for impact; and designing funding programs that require integrated KT and embedded research approaches. IHSPR's mission has always been to catalyze the application of research findings to policies, practice and programs that support high-quality care for Canadians, and its relevance by design approaches have helped move the dial towards impact over the last two decades of research investment.

Within an ever changing and complex ecosystem, IHSPR is dedicated to continuous learning, improving our approaches to fund innovative ideas and research with impact, and understanding the overall impact of our research programs. Although there is increasing interest among health research funders to understand the impacts of their investments and the science of research impact assessment is evolving, several challenges remain. Singular projects may take years before demonstrating their real-world value. Program evaluations can also take many years and attribution of impact can be difficult to untangle. Notably, several impact assessment frameworks have been developed to further our collective understanding

of impact, and to aid researchers and research funders in their planning and assessment. According to the CHSPRA *Making an Impact framework*¹⁶, there are several different types of research impact, and the pathways to these impacts are complex and non-linear. The framework posits that research impact can be improved with: co-identification of pressing problems warranting research attention; targeted research and capacity-building initiatives that address priorities and create opportunities for partnerships between researchers and knowledge users; translatable, timely and high-quality research findings tailored to the knowledge user's context; and receptor capacity to use and implement the evidence. The impacts achieved by way of these enabling pathways can be of different natures and proximity, including direct/instrumental (e.g., inform a new or change in policy), conceptual (e.g., influence decision-making by generating new ideas, awareness and attitudes), symbolic (e.g., support existing policies or decisions), or imposed (e.g., research use is mandated by an organization). Types of impact include, but are not limited to, policy, practice, process, product/service, behaviour, technological, societal, health and/or economic. The ultimate goal, regardless of the nature or type of impact, is to improve the Quadruple Aim of improved patient and provider experience, better population health and value, as well as improved health equity for all.

IHSPR will continue to incorporate relevance by design principles within funding programs, ensure activities are centered on integrated KT approaches, and support effective dissemination and implementation. IHSPR will use the *Making an Impact* framework as its guiding light and commit to monitoring and assessing its own impact. IHSPR will evaluate its research programs and activities, the resulting evidence that is generated, and how that knowledge is ultimately used to shape policy, practice, and programs.

8. Our Outlook: Concluding Remarks

IHSPR's Strategic Plan outlines the Institute's key priority areas for investment and activity over the next five years. IHSPR is committed to ensuring that these investments and activities are grounded in the core values described within the plan, with the ultimate goal of supporting the generation of timely, relevant, equitable, and impactful research that can be mobilized to improve the health care system and the overall health and well-being of Canadians.

Accelerating health care system transformation through research to achieve the Quadruple Aim and health equity for all is a lofty goal and not one that IHSPR can achieve alone. IHSPR is committed to working with CIHR's Institutes and branches, CHSPRA, provincial funding agencies, ministries of health and health systems, health providers, patients, the public and other key partners in the health services and policy research ecosystem to leverage collective efforts to move towards this goal. As a learning organization, IHSPR will build upon previous successes and continue to monitor, assess, and evaluate programs and activities for their impacts.

As Scientific Director, I want to provide my deep gratitude to the IHSPR team. I cannot overstate the importance of their hard work, experience, engagement, creativity, leadership, insights, and sheer brilliance to the functioning of IHSPR and this plan for our future. Dr. Meghan McMahon and Dr. Jessica Nadigel, IHSPR Associate Directors, were the prime movers in developing this plan, ably supported by Erin Thompson and Nida Shahid in data analysis and writing, Johanne Richard in keeping us organized, and Bahar Kasaai in providing key insights. I am incredibly fortunate to be working with this talented team to take on the challenging task of implementing this strategic plan.



DR. RICK GLAZIER

Scientific Director,
CIHR Institute of Health
Services and Policy Research

9. Our Thanks and Acknowledgements

The development of IHSPR's 2021-2026 strategy was made possible through the commitment and contributions of our diverse community of researchers, knowledge users and partners, our fellow CIHR Institutes, CIHR executives and CIHR staff, and our IAB. IHSPR is ever grateful for the breadth, depth, quality, and diversity of the input we received, and extends sincere thanks to all of these individuals for passionately sharing in our commitment to transform health care in Canada with health services and policy research. Thank you to IHSPR's previous Scientific Directors, Dr. Morris Barer (2000 – 2006), Dr. Colleen Flood (2006 – 2010) and Dr. Robyn Tamblyn (2011 – 2019) and their teams for creating a strong HSPR foundation in Canada and for leading transformational initiatives upon which this strategy builds. A big thank you to Dr. Diane Finegood, Executive Director of CHSPRA for her continued commitment to working in collaboration to strengthen the health services and policy research ecosystem and her dedication to the Health System Impact Fellowship Learning Collaborative.

We wish to give very special thanks to our IAB, which is comprised of dedicated, brilliant individuals from the research, health services delivery, government, health charity, research funding, Indigenous and patient communities. Thank you for the rich discussions and your insightful feedback. At the time of writing this strategy report, IHSPR's IAB members include:

Dr. Stirling Bryan (Chair), Professor, School of Population & Public Health, University of British Columbia; Senior Scientist, Centre for Clinical Epidemiology & Evaluation Vancouver Coastal Health; Professor (part-time), Health Economics Research Unit, University of Aberdeen; President, BC Academic Health Science Network

Ms. Christina Weise (Vice-Chair), President and CEO, Weise Insights Ltd.

Dr. Katie Aubrecht, Canada Research Chair in Health Equity and Social Justice; Assistant Professor, Department of Sociology, St. Francis Xavier University

Dr. Arlene Bierman, Director of Center for Evidence and Practice Improvement (CEPI), Agency for Healthcare Research and Quality

Mr. Thomas Beaudry, Engagement and Reconciliation Community Coordinator, Agriculture and Resource Development, Province of Manitoba

Dr. Antoine Groulx, Family Physician; Full Professor, Clinical Medicine, Université Laval; General Director, Alliance santé Québec; Scientific Director, Quebec SPOR Unit

Ms. Alies Maybee, Patient Partner; Co-founder, Patient Advisors Network (PAN)

Dr. Tom Noseworthy, Professor (Health Policy & Management), Community Health Sciences and O'Brien Institute for Public Health, Cumming School of Medicine, University of Calgary

Mr. Marcel Saulnier, Associate Assistant Deputy Minister, Strategic Policy Branch, Health Canada

Dr. Anne Snowdon, Professor, Strategy and Entrepreneurship & Chair, World Health Innovation Network (WIN), University of Windsor, Odette School of Business

Dr. Vasanthi Srinivasan, Executive Director, Ontario Strategy for Patient-Oriented Research (SPOR) SUPPORT Unit

Dr. Ross Upshur, Head, Division of Clinical Public Health, Dalla Lana School of Public Health

Dr. Pamela Valentine, President and CEO, MS Society of Canada

Dr. Verna Yiu, President and CEO, Alberta Health Services (AHS)

10. References

1. Sikka R, Morath JM, Leape L. The Quadruple Aim: care, health, cost and meaning in work. *BMJ Qual Saf.* 2015;24:608-610. doi:10.1136/bmjqs-2015-004160
2. Bodenheimer T, Sinsky C. From Triple to Quadruple Aim: Care of the Patient Requires Care of the Provider. *Ann Fam Med.* 2014;12(6):573-576. doi:10.1370/afm.1713
3. Canadian Institute for Health Information. National Health Expenditure Trends; 2020. <https://www.cihi.ca/sites/default/files/document/nhex-trends-2020-narrative-report-en.pdf>
4. Osborn R, Doty MM, Moulds DB, Sarnak D, Shah A. 2017 Commonwealth Fund International Health Policy Survey of Older Adults; 2017. [https://www.commonwealthfund.org/sites/default/files/2019-01/Robin Osborn_2017 Survey Presentation_IHP Symposium.pdf](https://www.commonwealthfund.org/sites/default/files/2019-01/Robin%20Osborn_2017%20Survey%20Presentation_IHP%20Symposium.pdf)
5. Organization for Economic Co-operation and Development. Health at a Glance 2019: OECD Indicators; 2019. doi:10.1787/4dd50c09-en
6. Office of the Prime Minister. Minister of Health Mandate Letter; 2019. <https://pm.gc.ca/en/mandate-letters/2019/12/13/minister-health-mandate-letter>
7. Office of the Prime Minister. Minister of Health Supplementary Mandate Letter; 2021. <https://pm.gc.ca/en/mandate-letters/2021/01/15/minister-health-supplementary-mandate-letter>
8. Chaoulli v. Quebec (Attorney General). 2005 SCC 35.
9. Cambie Surgeries Corporation v. British Columbia (Attorney General). 2020 BCSC 1310.
10. McMahon M, Creatore MI, Thompson E, et al. The Promise of Science, Knowledge Mobilization, and Rapid Learning Systems for COVID-19 Recovery. *Int J Heal Serv.* Published online 2021. doi:10.1177/0020731421997089
11. Canadian Institute for Health Information. Overview: COVID-19's impact on health care systems. Published 2020. <https://www.cihi.ca/en/covid-19-resources/impact-of-covid-19-on-canadas-health-care-systems/overview-covid-19s-impact-on>
12. Webster P. COVID-19 highlights Canada's care home crisis. *Lancet.* 2021;397(10270):183. doi:10.1016/s0140-6736(21)00083-0
13. Webster P. Virtual health care in the era of COVID-19. *Lancet (London, England).* 2020;395(10231):1180-1181. doi:10.1016/S0140-6736(20)30818-7
14. Bhatia RS, Shojania KG, Levinson W. Cost of contact: Redesigning healthcare in the age of COVID. *BMJ Qual Saf.* Published online 2020:1-4. doi:10.1136/bmjqs-2020-011624
15. The Governor General of Canada. A Stronger and More Resilient Canada: Speech From the Throne; 2020. https://www.canada.ca/content/dam/pco-bcp/documents/pm/SFT_2020_EN_WEB.pdf
16. Canadian Health Services and Policy Research Alliance. Making an Impact: A Shared Framework for Assessing the Impact of Health Services and Policy Research on Decision-Making; 2018. https://c2756327-591d-43bb-b7c1-a8fa96cea8a2.filesusr.com/ugd/5adc92_3ae941eaedb04ab4a66b6f83f98a479d.pdf
17. Nadigel J, Tambllyn R. Rewarding Success: Changing the Paradigm of How Research Is Rewarded. *Heal Pap.* 2019;18(3):41-49. doi:10.12927/hcpap.2019.25927
18. Canadian Health Services and Policy Research Alliance. Modernizing Health Services and Policy Research Training: A Pan-Canadian Strategy; 2015. https://c2756327-591d-43bb-b7c1-8fa96cea8a2.filesusr.com/ugd/5adc92_4b4c942ad529449489953892703473cc.pdf

19. Bornstein S, Heritage M, Chudak A, Tamblyn R, McMahon M, Brown AD. Development of Enriched Core Competencies for Health Services and Policy Research. *Health Serv Res.* 2018;53:4004-4023. doi:10.1111/1475-6773.12847
20. Council of Canadian Academies. Degrees of Success: The Expert Panel on the Labour Market Transition of PhD Graduates; 2021. https://cca-reports.ca/wp-content/uploads/2021/01/Degrees-of-Success_FullReport_EN.pdf
21. McMahon M, Nadigel J, Thompson E, Glazier RH. Informing Canada's health system response to COVID-19: Priorities for health services and policy research. *Healthc Policy.* 2020;16(1):1-27. doi:10.12927/HCPOL.2020.26249
22. United Nations. UN Health Research Roadmap for the COVID-19 Recovery; 2020. <https://www.un.org/en/pdfs/UNCOVID19ResearchRoadmap.pdf>
23. CIHR Institute of Health Services and Policy Research in collaboration with Terrence Sullivan & Associates. Pan-Canadian Vision and Strategy for Health Services and Policy Research 2014–2019; 2014. https://c2756327-591d-43bb-b7c1-a8fa96cea8a2.filesusr.com/ugd/5adc92_9d93b6487bbc421aa380f11d35718f43.pdf
24. CIHR Institute of Health Services and Policy Research. CIHR Institute of Health Services and Policy Research Strategic Plan 2015-19: Health System Transformation Through Research Innovation; 2015. <https://cihr-irsc.gc.ca/e/49711.html>
25. Tamblyn R, McMahon M, Girard N, Drake E, Nadigel J, Gaudreau K. Health services and policy research in the first decade at the Canadian Institutes of Health Research. *C Open.* 2016;4(2):E213-E221. doi:10.9778/cmajo.20150045