

Assessing The Impact of Health Services and Policy Research

Case illustrations of implementing the CHSPRA Informing Decision-Making Impact Framework

Michael Smith Health Research BC Alberta Innovates British Columbia Ministry of Health Institut national d'excellence en santé et en services sociaux Canadian Institutes of Health Research – Institute of Health Services and Policy Research



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Institut national d'excellence en santé et en services sociaux

Michael Smith Health Research BC (formerly Michael Smith Foundation for Health Research)

Impact Analysis Working Group

This work was done under the auspices of the CHSPRA Impact Analysis Working Group and is a part of a complementary suite of resources that includes the following:

- Making an impact: A Shared Framework for Assessing the Impact of Health Services and Policy Research on Decision-Making
- Assessing the Impact of Health Services and Policy Research A Guide to Implementing the CHSPRA Informing Decision-Making Impact Framework

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Canadian Institutes of Health Research – Institute of Health Services and Policy Research: Process to Develop and Publish the CIHR Health System Impact Fellowship: 2017-19 Embedded Research Impact Casebook

Introduction

Research Impact Assessment Frameworks and the Need for Practical Guidance

Research impact assessment frameworks are an important tool for assessing system-level impact. Frameworks can help determine the types of impacts to be assessed in the short-, medium- and long-term. Although a number of well-documented frameworks have been used in impact assessment (e.g., Payback Framework, Canadian Academy of Health Sciences Framework), the actual implementation of impact frameworks is not well-documented and there is little practical guidance for individuals and organizations on how to do impact assessment. In other words, what should organizations consider when implementing impact frameworks in real-world impact assessments?

Practical Guidance Arrives: The Canadian Health Services and Policy Research Alliance (CHSPRA) 'How-to Guide' for Implementing the 'CHSPRA Framework'

The Canadian Health Services and Policy Research Alliance (CHSPRA) Informing Decision-Making Impact Framework (the CHSPRA Framework) is a research impact framework for individuals and organizations seeking to assess the impact of health services and policy research on decision-making. Figure 1 illustrates the framework's impact categories and pathways to impact.¹ In the fall of 2018, seven CHSPRA member organizations agreed to implement the CHSPRA Framework in their contexts. These organizations have diverse mandates and different degrees of impact assessment experience and resources. They implemented the framework for different purposes and at various points in the impact assessment process. The organizations formed a community of practice and met biweekly to discuss their implementation experiences.

Their discussions resulted in the development of the 'how-to guide', <u>Assessing the Impact of Health Services</u> and Policy Research — A Guide to Implementing the CHSPRA Informing Decision-Making Impact Framework.

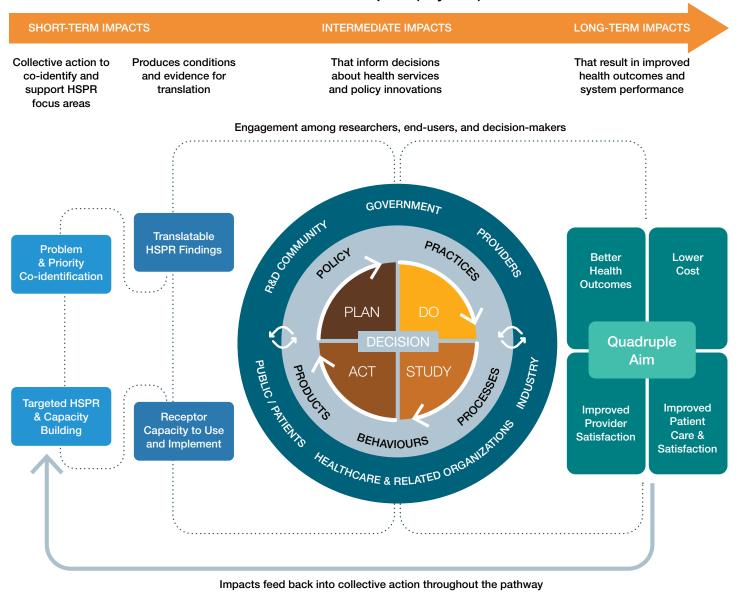
Implementation in Action – Case Illustrations of Implementing the CHSPRA Framework

In addition to developing the guide, five of the organizations produced case illustrations to tell their stories of implementing the CHSPRA Framework. The illustrations form the content of this document and describe the lessons learned and value of the framework in planning or completing impact assessments within each organization's unique context. It is hoped that over time, more organizations will apply the CHSPRA Framework to their own context.

¹ A fulsome description of the CHSPRA Framework, including indicators, can be found in <u>"Making an impact: A shared framework for assessing the</u> impact of health services and policy research on decision-making"

FIGURE 1

The CHSPRA Informing Decision-Making Impact Framework



Time for Impact (in years)



Case Illustration #1 Michael Smith Health Research BC

Background and Context

Michael Smith Health Research BC is a new organization created by the consolidation of the Michael Smith Foundation for Health Research (MSFHR) and the BC Academic Health Science Network. As MSFHR (BC's health research funding organization), we have a history of using the Canadian Academy of Health Sciences (CAHS) Framework to guide our evaluation and research impact activities. The CAHS Framework offered a common language for talking about research impact and provided methodological approaches, but we observed that most of our measurement was focused on the framework's 'advancing knowledge' and 'capacity building' dimensions. The CHSPRA Framework builds on the CAHS Framework and provides detailed guidance for examining how heath research 'informs decision making'.

In terms of organizational capacity, we have an evaluation and impact analysis team with expertise in both qualitative and quantitative methodologies. The organization belongs to several communities of practice including the Canadian Evaluation Society and the NAPHRO (National Alliance of Provincial Health Research Organizations) Impact Analysis Group. The leadership team are deeply committed to evaluation and impact assessment activities for accountability, learning and analysis, to drive resource allocation, and as a means for communicating about our impact as a health research funder over the last 20 years.

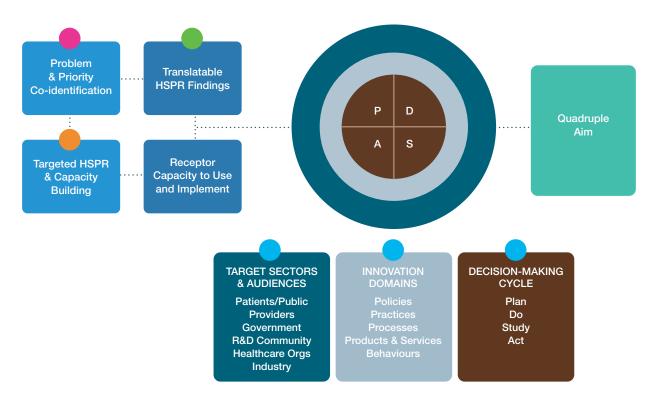
The leadership team are deeply committed to evaluation and impact assessment activities for accountability, learning and analysis, to drive resource allocation, and as a means for communicating about our impact as a health research funder over the last 20 years.

Assessment Questions and Their Relationship to the CHSPRA Impact Categories

QUESTION #1: To what extent has the funding program encouraged and enabled collaboration between researchers and decision makers to plan, conduct, and study the implementation of health interventions?

QUESTION #2: To what extent has the funding program enabled conditions that allowed research evidence to be translated into practice and policy in the context of the BC health care system? **QUESTION #3:** To what extent has the funding program enabled training and capacity building for implementation science and knowledge translation in British Columbia?

QUESTION #4: Did the funding program improve the implementation and adoption of evidence-based, implementation-ready interventions that address one or more of the BC health system priorities?



How We Used the CHSPRA Framework

We embedded the CHSPRA Framework within our evaluation plan for one of our health research funding programs, the <u>Implementation Science Team</u> program. Evaluation questions were closely tied with the program objectives. Evaluation questions were then used to drive data collection (which included select CHSPRA indicators and other information). We used the CHSPRA Framework in-part, as opposed to in-whole, given that not all aspects of the framework were relevant to the Implementation Science Team Program.

We decided to pilot the CHSPRA Framework with this program for two main reasons: 1) starting with one program enables both evaluation staff and other stakeholders to become familiar with the CHSPRA Framework and its concepts and achieve buy-in; 2) the Implementation Science Team program was closely aligned with the CHSPRA Framework given that the program is focused on understanding how evidencebased practices are used to improve health care and health. Moreover, the program design stipulated that all teams must address one or more current health system priorities and involve at least one trainee (to build capacity) and a senior-decision maker within the BC health system as part of their research team. The program's alignment with the CHSPRA Framework enabled us to use more aspects of the framework than we might have for other funding programs. We adapted indicators from the CHSPRA Framework to our context and identified relevant data sources including quantitative and qualitative data from the funding application process (including peer review), funding progress reports, and interviews/discussions with researchers. Data have been collected on a rolling basis. Data collection (and indicators) have been shaped by program stage and purpose. For example, information collected six months into the program focused on short-term outputs such as laying the conditions for research to influence policy and practice, and health services and policy research training and capacity building. As the program advances, so will the data we collect.

The table below outlines how we adapted the CHSPRA indicators. Note that because we only funded 10 teams through this program most indicators were transformed into open ended questions to collect qualitative data (apart from indicators on training and leveraged funding where we collected counts as well as qualitative data):

Program Evaluation Question	Original CHSPRA Indicator (Impact Category)	Adapted Open-ended Question/Indicator
To what extent has the funding program encouraged and enabled collaboration between researchers and decision makers to plan, conduct, and study the implementation of health interventions?	Important problems warranting HSPR ² attention are co-identified with decision-makers [number (#) and description of type of problems] (Problem and Priority Co- identification)	Description of how the project was co-identified/co-developed with research users
To what extent has the funding program enabled conditions that allowed research evidence to be translated into practice and policy in the context of the BC health care system?	Number of HSPR projects that include meaningful participation of patients or members of the public as appropriate (Translatable HSPR Findings)	Description of how research users are involved in the project Description of successes and challenges related to working with research users (including senior decision makers)
To what extent has the funding program enabled conditions that allowed research evidence to be translated into practice and policy in the context of the BC health care system?	Number (#) and type of HSPR funding programs/ projects according to HSPR priority theme areas (Targeted HSPR & Capacity Building)	Number (#) of projects focused on BC health priority areas
	Training activities (Targeted HSPR & Capacity Building)	Number (#), type, and description of training and capacity building initiatives enabled by the funding program

² HSPR stands for health services and policy research.

Program Evaluation Question

Did the funding program improve the implementation and adoption of evidencebased, implementation-ready interventions that address one or more of the BC health system priorities?

Original CHSPRA Indicator (Impact Category)

Research evidence directly informed agenda setting, prioritysetting, policy debates, and briefings (e.g., invited policy papers and consultancies, information requests by decision makers, invited meetings and interactions with decision makers)

(Decision-making cycle – Plan)

Evidence of participation of researchers in process of making decisions (e.g., participation in policy networks, boards, advisory groups)

(Decision-making cycle – Do)

Research directly underpinned policy decision (e.g., legislation, regulation, program, practice, behaviour, service delivery)

(Decision-making cycle – Do)

Number (#), per cent (%) and type of HSPR trainees (Health Services & Policy Target

(Audience – R&D Community)

Leveraged funding from follow-on funding

(Health Services & Policy Target Audience – R&D Community)

Adapted Open-ended Question/Indicator

Description of examples of researchers participating in processes related to decision making/informing policy e.g., invited policy papers and consultancies, information requests by decision makers, invited meetings and interactions with decision makers

Description of instances where research underpinned policy documents or decisions (including barriers and enablers)

Number (#) and type (e.g., Masters, PhD) of research trainees working directly on the project

Dollar amount (\$) and source of additional leveraged funding received for the project, both cash and in-kind

Lessons Learned

The CHSPRA Framework was used to shape our evaluation plan for the funding program (i.e., we used the framework prospectively as opposed to retrofitting it). However, the CHSPRA Framework could be incorporated into an existing evaluation plan as well.

We revisit the CHSPRA Framework regularly to ensure that our data collection is aligned with the framework. For example, in the process of developing mid-term funding progress reports we reconnected with the CHSPRA Framework to ensure we were capturing relevant data.

We have a small sample size (a total of 10 research teams funded through the program), and as such we are collecting mostly qualitative data that directly maps onto the CHSPRA indicators. Adapting indicators involved some divergence from the original CHSPRA indicators. As a result, data are contextspecific and may not be comparable with other programs or data collected by other organizations.

A central part of the CHSPRA Framework is looking beyond the researcher perspective. Collecting information that reflects the experience of a crosssection of research stakeholders is a challenge. We developed a research user experience survey to access this group but received a very low response rate. Another challenge is establishing a robust counterfactual; we've considered following up with the teams that did not receive funding to assess whether they continued with their projects and continued building capacity for implementation science. Previous experience tells us that it's challenging to follow up with researchers not currently receiving funding and we expect low response rates.

Overall Value of the CHSPRA Framework

We use research impact assessment to understand the benefits of health research in relation to: advancing knowledge, informing decision making, capacity building, and health and socioeconomic impacts. We have established ways of tracking the 'advancing knowledge' and 'capacity building' aspects of our work, but less established ways of measuring 'informing decision making'. The CHSPRA framework has helped fill this gap and provided us with practical tools to accomplish this. Like CAHS, the CHSPRA Framework provides a common language for talking about and measuring research impact.

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Case Illustration #2

The Alberta Provincial SPOR SUPPORT Unit (AbSPORU) CHSPRA Framework Application: Initial Lessons Learned and Future Implementation Plans

Background and Context

Alberta Innovates is a provincial research and innovation (R&I) organization that provides funding, support services, network connections, technical expertise, and applied research services to stimulate and grow cross-sector research and innovation in Alberta. As part of its health sector investments strategy, Alberta Innovates partnered with the Canadian Institutes of Health Research (CIHR) on the national strategy for patient-oriented research (SPOR) and provided 1:1 matched funding over 5-years for Phase 1 of the Alberta SPOR SUPPORT Unit (AbSPORU) valued at \$48 million.

Launched in 2014/15, AbSPORU is a provincial platform that helps stakeholders engaged in patientoriented research access capacity development opportunities, expert advice and research support services through a coordinated network and virtual 'one-stop-shop'. AbSPORU also works with stakeholders in health services to support the use of patient-oriented research evidence in decision-making and health care delivery. In response to funding requirements, Alberta Innovates' Performance Management and Evaluation (PME) team³ – the unit responsible for assisting organizational stakeholders in monitoring, evaluating, and assessing the outcomes and impact of investments – helped codevelop and implement a performance management strategy to inform AbSPORU assessment activities. AbSPORU's performance management strategy for Phase 1 was tailored to the platform's needs and aligned with the Canadian Academy of Health Sciences' (CAHS) Impact Framework and Alberta Innovates' Health Research-to-Impact Framework.⁴

While the CHSPRA Framework was not originally used to inform AbSPORU's PM Strategy, the framework has been applied:

- i) *retrospectively* as a resource in AbSPORU's Phase 1 summative evaluation, and
- ii) *prospectively* in application for AbSPORU Phase
 2 funding renewal as part of the Unit's enhanced
 Performance Management and Impact Strategy
 proposal.

³ Alberta Innovates and its predecessor organizations (Alberta Innovates – Health Solutions (2010-2016) and the Alberta Heritage Foundation for Medical Research (1979-2010)) have a history of using impact assessment to understand and demonstrate the benefits of organizational investments in health research. Examples of this work have been published in peer reviewed journals including Research Evaluation and Frontiers in Research Metrics and Analytics.

⁴ Graham KER, Chorzempa HL, Valentine PA, Magnan J. Evaluating health research impact: development and implementation of the Alberta Innovates -Health Solutions Impact Framework. Res Eval. 2012;21(5):354-67. Available from: <u>http://doi.org/10.1093/reseval/rvs027</u>

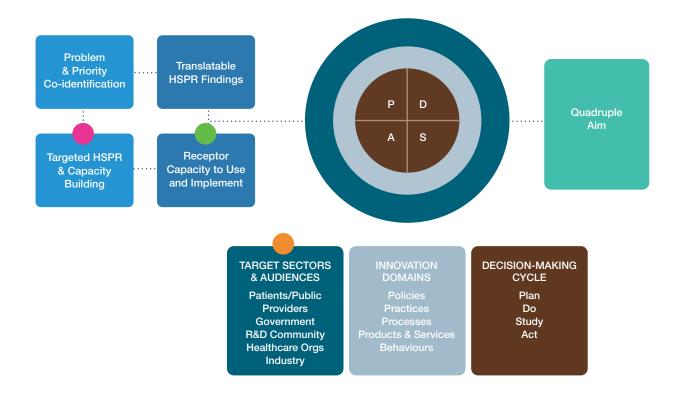
Assessment Questions and Their Relationship to the CHSPRA Impact Categories

QUESTION SET #1. Purpose – To understand the program's results, outcomes, and impacts to provide evidence about the value of the program: *To what extent has AbSPORU achieved its intended objectives and outcomes? What impacts have been achieved? What helped and hindered the program to achieve the impacts? For whom, in what ways, and in what circumstances has AbSPORU been successful? To what extent did the outcomes and impacts from the program match the needs of the intended clients?*

QUESTION SET #2. Purpose – To understand the extent to which changes in the generation, use and impact of patient-oriented research can be attributed to the activities of the AbSPORU platforms: *What advancements in patient-oriented research has AbSPORU contributed to? To what extent can the outcomes and impacts reasonably be attributed to AbSPORU?*

QUESTION SET #3. Purpose – To identify areas for improvement and opportunities for AbSPORU moving forward: What experiences have program clients had regarding their involvement with the program? What has been positive? What needs to be improved? Is AbSPORU management and leadership effective and efficient? How can the management and leadership be improved? Is the AbSPORU Governance Structure set up to effectively direct the Unit? How can the Governance Structure be improved?

This illustration shows how the above primary and secondary evaluation questions used to frame the AbSPORU Phase 1 Summative Evaluation (2019/20) were mapped to the CHSPRA Framework.



How AbSPORU Used the CHSPRA Framework

i) Retrospective application: AbSPORU (Phase 1) Evaluation (2019/20)

The CHSPRA Framework was used in AbSPORU's Phase 1 summative evaluation. More specifically, the framework **was used to inform the evaluation design** and was included as part of an environmental scan of best practices to inform how AbSPORU might enhance its PM strategy to address gaps in assessing research impact on decision-making, and longer-term health outcomes realized from the research and innovations of clients supported by AbSPORU.

While the CHSPRA Framework was successfully incorporated into the scanning methodology, challenges were experienced in applying it retrospectively for data collection and demonstration of evidence for impact on the platform's mid and long-term outcomes. Originally the CHSPRA Framework indicators were to be used in the evaluation's analysis, interpretation, and presentation of results where appropriate. However, due to the lack of available data collected that aligned to the CHSPRA Framework indicators, this was unfeasible within the evaluation scope. Instead, **potential indicators from the CHSPRA Framework's core indicator set** and key considerations for their implementation were identified to help AbSPORU refine its PM strategy moving forward.

ii) Planning for prospective application: AbSPORU (Phase 2) Funding Renewal proposal (2020/21)

It is anticipated elements of the CHSPRA Framework will be used prospectively in AbSPORU Phase 2 (2021-2026) to inform monitoring, evaluation and impact assessment planning and activity. In its Phase 2 funding renewal application, AbSPORU enhanced its performance management strategy by incorporating elements of the CHSPRA Framework's theory of change into the Unit's logic model. AbSPORU also proposed adapting some of its core indicators into the Unit's measurement strategy, to improve the Unit's ability to monitor and assess the results generated by health services and policy research (HSPR) clients specifically.

Stakeholder engagement is anticipated to be

essential for the further co-development, refinement, and implementation of the AbSPORU Phase 2 Performance and Impact Management Strategy proposal. In AbSPORU Phase 2, as part of its community engagement outreach and sustainability strategy, the Unit expanded its provincial partnership network to include additional organizations representing academia, healthcare and community perspectives⁵. The input of these key stakeholder groups is needed to ensure the Performance and Impact Management Strategy developed for AbSPORU is relevant, feasible and optimally designed for implementation. Specifically, stakeholder engagement will be used to: i) validate the Unit's theory of change (and associated logic model); ii) identify indicators applicable to the context (that are not already operational); iii) inform data collection plans and information sharing plans (among Unit partners and collaborators that provide POR services); and once implemented, iv) help to interpret, describe, and communicate the Unit's impact.

Overall, three of the 12 core set of CHSPRA Framework indicators applicable to AbSPORU

have been identified for integration into the Unit's administrative systems and processes (i.e., the client intake portal and records management system). Another four (possibly five) indicators have been identified for potential use in a follow-up survey for AbSPORU clients. Adopting these CHSPRA indicators would allow AbSPORU to more easily identify HSPR clients, track their experience (relative to other clients served) and associated research outputs and outcomes, and assess the Unit's influence or *contributions* to those output and outcome results over time.

⁵ In Phase 2, AbSPORU Partners, contributing matched funding and or in-kind resources to the Unit include: CIHR, Alberta Innovates; Universities of Alberta, Calgary, and Lethbridge and Athabasca University; Alberta Health; Alberta Health Services; The University Hospital Foundation; The Women and Children's Health Research Institute; and The Alberta Children's Hospital Research Institute.

Lessons Learned

Reflecting on AbSPORU's experience using the CHSPRA Framework there have been things that worked well and areas where the framework has been adapted to best fit.

For example, the inclusion of the CHSPRA Framework in the AbSPORU Evaluation environmental scan verified it was a good fit for AbSPORU given its context, intended outcomes, and target audience. Additionally, feedback from evaluation stakeholders revealed some key considerations in developing tailored, fit-for-purpose impact frameworks within the context of health research. One consideration for those contemplating the use of the CHSPRA Framework in whole or in part is feedback from the AbSPORU evaluation stakeholders. They caution that aligning Unit outputs to the broader ultimate outcomes identified in the CHSPRA Framework (i.e., improved population health and wellness and associated socio-economic prosperity) may imply an unrealistic level of impact and expectation for a platform program with the upstream research focus of AbSPORU. In practice, one way to address the concern is by using cascaded or nested logic models and associated pathways to impact, useful in modelling a program or initiative's contribution to more complex systems.

Furthermore, because AbSPORU does not fund research, some of the CHSPRA Framework's core indicators relative to HSPR funding do not apply. Instead, *AbSPORU will adapt the framework's funding-related indicators* to focus on tracking the quantity of HSPR projects that it supports and the associated resources allocated to those projects *as proxy measures of the Unit's investments in and contributions to HSPR*. Finally, as outlined in the considerations of the <u>'how-to guide'</u>, indicator data collection is easier to do when planned prospectively and leverages existing processes (e.g., administrative systems). Retrospective data collection for some CHSPRA indicators may not be feasible due to costs, timeliness, or lost opportunity.

Overall Value of the CHSPRA Framework

By adopting impact frameworks and implementing them in practice, AbSPORU is better positioned to respond to stakeholder and funder requirements and inquiries about the platform's outcomes and contributions to impact.

By adopting impact frameworks and implementing them in practice, AbSPORU is better positioned to respond to stakeholder and funder requirements and inquiries about the platform's outcomes and contributions to impact.

Case Illustration #3 British Columbia Ministry of Health

Background and Context

The Ministry of Health has overall responsibility for ensuring that quality, appropriate, cost-effective, and timely health services are available for all British Columbians. In March 2018 the Ministry of Health released Putting our Minds Together: Research and Knowledge Management Strategy (the Strategy), a ministry-wide commitment to improve the use of research evidence in health-care policy development, implementation, and evaluation. Activities under the Strategy support strengthening the culture and infrastructure for research and knowledge management ministry-wide and building long-term collaborative relationships with researchers. The ministry's Partnerships and Innovation Division is responsible for implementing and monitoring the Strategy, including assessing the impacts of the Strategy's activities on policy development and decision-making.

In planning how we would approach monitoring and assessing the impacts of the Strategy, the CHSPRA Framework was one tool recommended to us by a group of external international experts⁶ identified by the Michael Smith Foundation for Health Research. The group provided foundational guidance in drafting the Strategy including how to monitor and assess its impacts and encouraged seeking further guidance from the authors of the CHSPRA Framework. Broadly, our monitoring and assessment plan centres on 1) monitoring indicators to track activities and progress over time and demonstrate results, and 2) assessing impacts to understand how the Strategy's activities may be achieving the Strategy's objectives and where we might improve. This includes (a) ministry staff's capacity to effectively access and use evidence in policy and decision making, (b) the ministry's relationship with the British Columbia research community for engaging and collaborating on research needs, and c) the ministry's leadership and culture for supporting the use of research in policy. It is still too early to assess health outcomes, which will be considered in future plans.

Work is ongoing with the support of leadership, the Ministry Research Advisory Committee (MRAC) and a small group of dedicated staff within the Research and Technology Branch.

⁶ External researchers who provided advice included: Dr. Steve Hanney, Senior Research Fellow, Brunel University, London, England; Dr. Moriah Ellen, Assistant Professor at the Institute of Health Policy, Management and Evaluation at the University of Toronto, and Investigator at McMaster University and Senior Lecturer in the Jerusalem College of Technology; Dr. Sarah Thackway, Executive Director, Epidemiology and Evidence, at New South Wales Health, and Conjoint Associate Professor, School of Public Health and Community Medicine, at the University NSW, Australia; Dr. Jeremy Grimshaw, Senior Scientist, Clinical Epidemiology Program, Ottawa Hospital Research Institute, Full Professor, Department of Medicine University of Ottawa; Dr. Hans van Oers, Chief Science Officer at National Institute of Public Health and the Environment, (RIVM), Tilburg University, the Netherlands.

Assessment Questions and Their Relationship to the CHSPRA Impact Categories

QUESTION #1: To what extent is the Strategy building the ministry's relationship with the research community? For example, is the strategy creating opportunities for researchers to understand the research needs of policy makers and are policy makers using researchers' expertise?

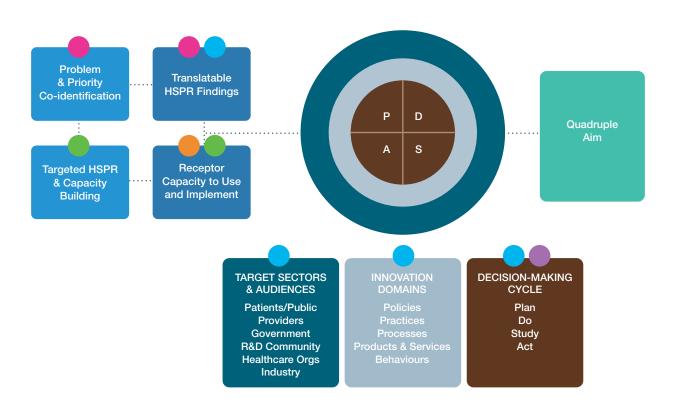
QUESTION #2: To what extent is the Strategy helping build capacity and infrastructure for ministry staff access to and use of research evidence in policy and decision making?

QUESTION #3: To what extent is the Strategy promoting a culture that values research at all levels of the organization?

QUESTION #4: To what extent is the Strategy having an impact on ministry policies and decision-making?

QUESTION #5: Are there recommendations for improvements or additional actions that could be taken to advance the objectives of the Strategy?

This illustration shows how the above questions were mapped to the CHSPRA Framework.



How We Used the CHSPRA Framework

An internal working group reviewed a number of tools recommended by the group of external international experts and identified in the literature, including the CHSPRA Framework. We lined-up the CHSPRA Framework example questions against other tools (e.g., SAGE - Staff Assessment of enGagement with Evidence⁷ Transparency Framework^{8,9}, Theoretical Domains Framework^{10,11,12}) to identify areas of commonality and sorted the questions by theme. We considered these themes and questions against the short- and medium-to-long-term outcomes of the Strategy activities to shape our monitoring and assessment plan.

It was critical for us to utilize existing monitoring, assessment, or evaluation activities already underway within the ministry as they related to the Strategy to avoid overlap and duplication, and to capture and leverage existing data collection where possible. However, where we needed to create new questions or instruments, we adapted our questions and approach from the CHSPRA Framework and other tools. We adapted the Impact Narrative Tool in developing our Fellowship Survey to capture the experiences of CIHR/ MSFHR Health System Impact Fellows and Mitacs Fellows working within the ministry as well as their ministry supervisors. We were inspired by the concept of the scorecard or dashboard when creating a 2-page Year 1 (2018/19) Update on nine of the Strategy's twelve indicators for communication purposes with ministry staff and the research community.

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¹⁰ Cane J, O'Connor D, Michie S. Validation of the Theoretical Domains Framework for use in behaviour change and implementation research. Implement Sci. 2012;7:37. Available from: <u>https://implementationscience.biomedcentral.com/track/pdf/10.1186/1748-5908-7-37.pdf</u>

⁷ Makkar SR, Brennan S, Turner T, Williamson A, Redman S, Green S. The development of SAGE: a tool to evaluate how policymakers' engage with and use research in health policymaking. Res Eval. 2016;25(3):315-28. Available from: <u>http://doi.org/10.1093/reseval/rvv044</u>

⁸ Rutter J, Gold J. Evidence transparency framework [Internet]. London (UK): Institute for Government; 2015 [cited 2022 Apr 27]. 4 p. Available from: https://www.instituteforgovernment.org.uk/publications/evidence-transparency-framework

⁹ Rutter J, Gold J. Show your workings: assessing how government uses evidence to make policy [Internet]. London (UK): Institute for Government; 2015 [cited 2022 Apr 27]. 22 p. Available from: <u>https://www.instituteforgovernment.org.uk/publications/show-your-workings</u>

¹¹ Atkins L, Francis J, Islam R, O'Connor D, Patey A, Ivers N, et al. A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. Implement Sci. 2017;12:77. Available from: <u>https://implementationscience.biomedcentral.com/track/</u>pdf/10.1186/s13012-017-0605-9.pdf

¹² French SD, Green SE, O'Connor DA, McKenzie JE, Francis JJ, Michie S, et al. Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework. Implement Sci. 2012;7:38. Available from: <u>https://implementationscience.biomedcentral.com/track/pdf/10.1186/1748-5908-7-38.pdf</u>

Lessons Learned

Working with the CHSPRA Framework, we made adaptations to the wording of indicators and questions and used the Impact Narrative Tool as a basis to develop semi-structured interview questionnaires for research Fellows and their ministry supervisors. We are continuing to use and adapt elements from the CHSPRA Framework and other tools to develop interview guides for policy makers and leadership, which are still in development. Future plans are to refresh the Strategy's monitoring indicators and draw heavily on the CHSPRA Framework's toolkit of 23 well-vetted indicators, including the 12 core indicators.

Putting our Minds Together: Research and Knowledge

Management Strategy is the ministry's first strategy focused on improving the use of research evidence within the ministry and the first time we have sought to assess the impacts of research in a more holistic way. Our biggest challenge will be in embedding these activities within the ministry, which is going to take some time. However, consulting with international experts, users of the CHSPRA Framework, and experts within the ministry has significantly helped our planning efforts. Finding out what data collection activities were already underway in the ministry that could be incorporated into the plan was another important step. This provided opportunities to share information about the strategy with colleagues who were not as familiar with its aims and activities and to collaborate on efforts.

It is important to note that how we are assessing the impacts of the Strategy continues to evolve and monitoring and assessment activities had to be scaled back during the COVID-19 pandemic.

Overall Value of the CHSPRA Framework

The flexibility of the CHSPRA Framework both in terms of using the indicators and sample questions alongside other tools and being able to select from a menu of options and adapt to our needs has been of great value in our work. Assessing our plan and questions against the CHSPRA Pathways to Impact categories has reassured us that our approach is reasonably sound. We've also benefitted from learning from other implementers as familiarity and use of the CHSPRA Framework grows. For example, we sought input from our CHSPRA implementation colleagues in creating our Fellowship and Supervisor surveys, adapted from the Impact Narrative Tool. While our monitoring and assessment plan is still in the early stages, we are continuing to use the framework as we implement and refresh our plan and look forward to continued collaboration with other organizations.

Assessing our plan and questions against the CHSPRA Pathways to Impact categories has reassured us that our approach is reasonably sound. We've also benefitted from learning from other implementers as familiarity and use of the CHSPRA Framework grows.

Case Illustration #4 Institut national d'excellence en santé et en services sociaux (INESSS)

Background and Context

Since its inception in 2011, the mission of the Institut (INESSS) is to promote clinical excellence and the efficient use of health- and social services-related resources. To accomplish its mission, the value of technologies, drugs, and interventions are thoroughly evaluated from a fair and reasonable stance. Scientific reports that meet established standards for health technology assessment (HTA) are produced (i.e., notices, guides, norms, literature reviews, clinical practice guidelines, or state of practices) following the evaluations. As part of the assessment process, INESSS ensures appropriate knowledge translation of the evaluation. This is typically done through dissemination channels. However, the Ministry of Health and Social Services sometimes requests that support to implement the results be provided to partner organizations.

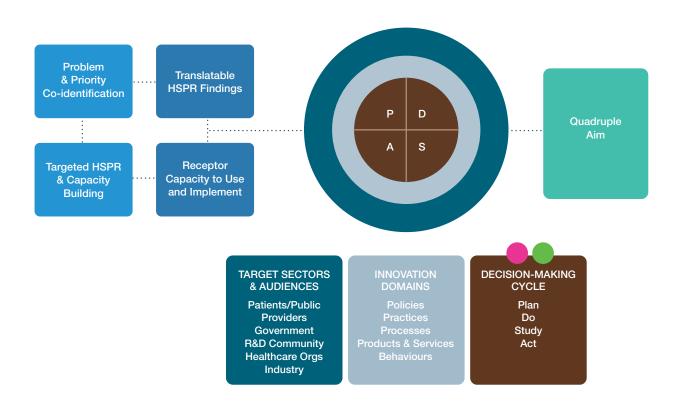
This comprehensive process aims to inform decision- and policy-making processes of ministerial authorities and healthcare organizations and to improve professional and organizational practices in the context of the Quebec; this in turn translates into better health and social services for the population. The publication of scientific reports and knowledge transfer strategies are the primary outcomes at INESSS. Knowing the impact of such efforts is important for adjusting the evaluation process, which translates into improved capacity to respond to societal needs. Yet, impact within the health and social services system remains poorly documented and hard to demonstrate. For instance, short-, medium-, and long-term impact of HTA is difficult to assess because it may be direct or indirect, expected or unexpected, or positive or negative. Moreover, the complexity of evaluating its impact is compounded by: the quality of scientific products and the legitimacy and accuracy of recommendations; the timely and targeted dissemination of recommendations; the social, political and organizational contexts of decision-making; and the rapid evolution of technologies, as well as other facilitating and constraining factors.

Considering this complexity, INESSS has limited capacity and experience in assessing the impact of its scientific reports. For this reason, it was necessary to consolidate the organization's impact assessment process using a comprehensive, rigorous framework that could be adapted to the INESSS context. The CHSPRA Informing Decision-Making Impact Framework and indicators have proven to be very useful for: reflecting on specific issues in HTA, especially on the users of the scientific reports; identifying relevant assessment questions; and structuring an appropriate assessment process.

Assessment Questions and Their Relationship to the CHSPRA Impact Categories

QUESTION #1: What is the level of user satisfaction with INESSS's scientific reports?

QUESTION #2: What is the rate of respondents, among targeted users, who mention using the scientific report to inform their decision-making?



How We Used the Framework

First, an overall evaluation of the alignment of the framework with INESSS's organizational objectives was conducted during the planning phase. A logic model was then produced, and the set of proposed indicators were analyzed considering the data available, the activities ensuring accountability to INESSS's strategic plan, and other opportunities or capacities within the organization (e.g., external audit, mandatory evaluation plan). From the analysis, we decided to focus on short-term impact indicators related to "Decision-making cycle – Plan and – Do". We used indicators aligned with those of the CHSPRA Framework (e.g., per cent (%) of end users that reported HSPR evidence was useful):

- 1. Rate of user satisfaction with INESSS's scientific reports
- 2. Rate of respondents, among targeted users, who mention using the scientific report to inform their decision-making

A questionnaire was developed from the Information Assessment Method (©McGill)¹³ based on previous work at INESSS and a partnership with researchers at McGill University. It is a validated strategy to assess the value of information from the perspective of users, based on a theory of information acquisition, cognition, and application. This method has been used in a variety of contexts, including the evaluation of guideline dissemination among health professionals.

The questionnaire was constructed as follows: 1) for each project selected, INESSS asked users to evaluate one to two reports; 2) for each document, the respondent evaluated its relevance, satisfaction, and use (or intention to use) in a cascading fashion based on the answers provided in the preceding questions. The questionnaire was made available on an online survey platform in the spring of 2019 to facilitate data collection. It was sent to targeted users based on the six selected products.

Lessons Learned

The assessment process went as planned. We collected data from 293 respondents (e.g., health and social services professionals, healthcare managers, etc.) for the six selected scientific reports.¹⁴ In general, respondents were satisfied with the products. Most respondents (73%) reported using scientific reports in their decision-making. This proportion rises to 96% when respondents who said they intended to use the materials are included. Respondents reported using scientific reports to directly inform their practice, to better understand issues relevant to their practices/decisions, and to support discussions with colleagues. The results indicate a clear commitment from INESSS's user community towards its publications.

Apart from some methodological considerations, the survey proves to be a relevant method to rapidly capture the appreciation and different uses of INESSS's scientific reports. The survey is now available online to systematically solicit users that search our website for documents to provide feedback on an ongoing basis. Facing the complexity of defining and measuring the impact of INESSS's activities, the CHSPRA Framework and set of indicators were useful in three ways: 1) to elicit strategic conversations (and considerations) on impact assessment process within INESSS; 2) to make sense of impact pathways for HTA and for INESSS; and 3) to plan the impact assessment process for INESSS and adapt specific questions.

The fact that many accountability activities were underway (strategic plan, quinquennial external audit, mandatory multi-year evaluation plan) helped to put impact assessment on INESSS's agenda. At the same time, it demanded important coordination efforts to pursue and adjust all those objectives (i.e., accountability activities and impact assessment). Human resources and concurrent objectives (as operational activities) were other challenges.

Overall Value of the Framework

Even though the CHSPRA Framework was initially developed to assess the impact of health services and policy research conducted in an academic research funded context, it was possible to successfully apply it within the context of HTA. Both the framework and indicators proved to be valuable for INESSS's impact assessment planning process. This impact assessment addressed one point along the pathway to impact outlined by the CHSPRA Framework – the analysis of short- and medium-term effects, specifically of the publication of INESSS scientific reports from the perspective of their users in health and social services. Impact assessment activity is now an integral part of the new INESSS strategic plan.

¹³ Pluye P, Grad R, Repchinsky C, Jovaisas B, Johnson-Lafleur J, Carrier M-E, et al. Four levels of outcomes of information-seeking: a mixed methods study in primary health care. J Am Soc Inf Sci Technol. 2013;64(1):108-25. Available from: <u>http://doi.org/10.1002/asi.22793</u>

¹⁴ Institut national d'excellence en santé et en services sociaux (INESSS). Évaluation de l'impact des produits de connaissances de l'INESSS. Rapport rédigé par Olivier Demers-Payette. Québec (Qc):INESSS; 2019. 23 p. Available from: <u>https://www.inesss.qc.ca/fileadmin/doc/INESSS/DocuAdmin/</u> INESSS evaluation impact 2018-2019.pdf

Case Illustration #5

Canadian Institutes of Health Research – Institute of Health Services and Policy Research: Process to Develop and Publish the CIHR Health System Impact Fellowship: 2017-19 Embedded Research Impact Casebook

Background and Context

The organization

The Institute of Health Services and Policy Research (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's mandate is to support innovative research, capacity-building and knowledge translation 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 the strategic lead for the Health System Impact (HSI) Fellowship program, which was launched in 2017.

The Fellowship program and the knowledge translation product

The HSI Fellowship is a key component of a multi-pronged pan-Canadian Training Modernization Strategy developed by the Canadian Health Services Policy Research Alliance (CHSPRA). This pan-Canadian strategy identifies key strategic directions to modernize university-based HSPR doctoral and post-doctoral training programs for optimized career readiness and impact. The HSI Fellowship aims to prepare PhD trainees and post-doctoral fellows with the professional skills, competencies, experiences and networks to make meaningful and impactful contributions to our health system, and contribute towards building a high-performing learning health system that harnesses the full talent of doctoral trainees and post-doctoral fellows for continuous health system improvement. A fulsome description of the program and its impacts are available in a series of publications¹⁵.

¹⁵ Selected publications describing the program and examples of its impacts include:

- (1) McMahon M, Tamblyn R. The Health System Impact Fellowship: perspectives from the program leads; Comment on "CIHR health system impact fellows: reflections on 'Driving Change' Within the Health System". Internat J Health Policy Man. 2019;8(10):623-6. Available from: <u>https://doi.org/10.15171/ijhpm.2019.59</u>
- (2) CIHR-Institute of Health Services and Policy Research (CIHR-IHSPR) and Canadian Health Services and Policy Research Alliance (CHSPRA). CIHR Health System Impact Fellowship: 2017-2019 embedded research impact casebook [Internet]. CIHR; 2021 [cited 2022 Apr 27]. 44 p. Available at: https://cihr-irsc.gc.ca/e/52737.html
- (3) McMahon M, Brown A, Bornstein S, Tamblyn R. Developing competencies for health system impact: early lessons learned from the health system impact fellows. Healthc Policy. 2019;15(SP):61-72. Available from: <u>https://doi.org/10.12927/hcpol.2019.25979</u>
- (4) Blanchette M-A, Saari M, Aubrecht K, Bailey C, Cheng I, Embrett M, et al. Making contributions and defining success: an eDelphi study of the inaugural cohort of CIHR health system impact fellows, host supervisors and academic supervisors. Healthc Policy. 2019;15(SP):49-60. Available from: <u>https://doi.org/10.12927/hcpol.2019.25980</u>

In line with IHSPR's commitment to research impact and the impact-oriented focus of the fellowship, the Institute joined forces with CHSPRA to produce the first HSI Fellowship Embedded Research Impact Casebook. The Casebook aims to showcase and value the contributions and impacts of the HSI Fellows while embedded within their health system organizations, and the commitment of the health system and academic mentors to embedded research. It includes 18 Impact Narratives¹⁶ submitted by HSI Fellows (from the 2017, 2018 and 2019 cohorts), written in collaboration with their academic and health system supervisors. These Fellows were embedded in 15 different health system organizations spanning several sectors such as healthcare delivery, public (e.g., provincial health departments, health authorities, public health), not-for-profit, and pan-Canadian health organizations across five provinces (Alberta, British Columbia, Nova Scotia, Ontario, and Quebec).

Assessment Questions and Their Relationship to the CHSPRA Impact Categories

We used the CHSPRA Framework to inform the knowledge translation product described above. Assessment questions were not developed.

How the CHSPRA Framework was used

Use of the CHSPRA Framework in developing the HSI Fellowship Reporting Process and the Knowledge Translation product (Impact Casebook)

The CHSPRA Impact Framework directly informed the HSI Fellowship's end-of-grant reporting requirements, impact analyses and impact reporting (including a knowledge translation product). The process is described below:

- The Fellow's end-of-grant reporting requirements emphasize impacts, through a reporting template that incorporates the CHSPRA *Impact Narrative* template¹⁷ (optional) and a question asked on key impacts stemming from the Fellowship (mandatory requirement). The Impact Narrative template was adapted for the HSI Fellowship program by a working group of organizations that used the CHSRPA Framework to write Impact Narratives.
- To support completion of the *Impact Narrative*, Fellows are trained with an interactive webinar led by IHSPR and Eddy Nason¹⁸ on writing *Impact Narratives*. This session offers Fellows an introduction to/overview of the CHSPRA Framework and the informing decision-making indicators, and provides illustrative examples of compelling *Impact Narratives*, followed by an interactive discussion period.
- 3. Fellows jointly write the *Impact Narrative* with their academic and health system supervisors within three months of Fellowship completion.
- 4. The first *Impact Casebook* was published, featuring a collection of all submitted *Narratives* of the first three cohorts of the fellowship (2017-19), including a synthesis grounded in CHSPRA's theories of change and impact framework to understand the diverse impacts reported.

¹⁶ Impact Narratives briefly communicate 'the story' of the contributions that a program/intervention/organization has made to affecting change along the pathway to impact. Narratives are often used as communication tools, but can also be analysed to provide a more nuanced understanding of types of impacts and how they came about.

¹⁷ The CHSPRA Impact Narrative template can be found in Appendix B of <u>Making an impact: a shared framework for assessing the impact of health</u> services and policy research on decision-making.

¹⁸ Eddy Nason was a key contributor to CHSPRA's "Assessing the impact of health services and policy research: a guide to implementing the CHSPRA Informing Decision-Making Impact Framework". Available from: <u>https://doi.org/10.7939/r3-mfr5-jx74</u>

Additionally, although the creation of the HSI Fellowship preceded the development of the CHSPRA Impact Framework, the program design and its emphasis on impact and integrated Knowledge Translation (iKT) mirror elements of the framework's impact pathway. For example, the <u>fellowship application</u> utilizes an iKT approach involving the fellowship team (the fellow, their academic supervisor and the "host" health system supervisor), working together to co-identify the Fellowship program of work, and aligning it to an impact-oriented goal of the host organization. Moreover, Fellows undertake impact-aligned embedded research to help advance their host organization's impact goal (i.e., two years for postdoctoral fellows, one year for doctoral fellows).

Analysis of Impact Narratives and their Relationship to the CHSPRA Impact Categories

The *Narratives* speak to the embedded research impacts catalyzed through the Fellowship work and are a means of showcasing the Fellows' and supervisors' notable and wide-ranging contributions. These contributions are aligned with CHSPRA's impact categories and core suite of indicators as follows:

- Co-identifying pressing HSPR priorities with decision-makers embedded in the health system organization to help define the Fellowship program of work.
- Building research capacity within and beyond the organization, through Fellow/supervisor interactions with people (e.g., decision-makers, clinicians), training (support of team members to use and conduct research), data infrastructure and related tools (e.g., visual dashboards), and/or leveraging of research funds (writing successful grant applications).

- **Producing translatable research evidence** to support the organisation's goals to become a learning health system (e.g., through peer-reviewed publications, novel frameworks, systematic reviews, cohort studies), whilst using co-creation methods to directly engage teams, knowledge users and senior leadership throughout the process.
- Informing decision-making about health services and policy innovation and supporting decision-makers at the organizational, provincial, and national levels in the uptake of research evidence (e.g., through the development of new national indicators, informing service delivery models, producing and submitting research-informed reports, policy briefs or reports to their organizations, provincial governments, Ministries, and others).
- Improving health system performance and health outcomes, through uptake of research evidence into practice, which led to the indirect or direct improvement of health system performance and health outcomes, such as improving hospital Emergency Department overcrowding flow strategies or improving care of frail elderly in palliative care.

The Narratives speak to the embedded research impacts catalyzed through the Fellowship work and are a means of showcasing the Fellows' and supervisors' notable and wide-ranging contributions.

Lessons Learned

The biggest challenge encountered in producing this first Impact Casebook, was the analysis of voluminous amount of qualitative data submitted, which amounted to over 100 pages worth of rich impact data to review for analysis and dissemination. Further, this exercise was a proof-of-concept in piloting the first iteration of the CHSPRA Impact Narrative tool/template and, as such, highlighted areas of potential improvement to the template. For instance, the voluminous amount of impact data submitted presented limits in terms of accessibility to disseminate to the general public. As such, we propose minor adjustments to the template, including: 1) abbreviating the template and limiting the contents to ensure high-quality impact data is submitted, particularly in the Impact Summary section; 2) providing clear instructions to ensure the CHSPRA's impact categories are clearly and concisely captured; and, 3) suggesting a clear order to submit Narratives such that all impact stories consistently first outline their impact goals, followed by their approach used (e.g., methodologies), and to conclude with the impacts, and deliverables, outcomes and outputs of their research.

Overall Value of the CHSPRA Framework

Overall, the HSI Fellowship program logic aligns with the CHSPRA's theories of change on how research achieves impact through embedded research capacity, commitment, and partnership from health system leadership for research, and skilled researchers who are adept at working within health system organizations. The CHSPRA Framework was instrumental in informing the end-of-grant reporting and impact analysis of the Fellowship program, including developing an Impact Casebook, a knowledge translation product that features some of the diverse impacts stemming from the fellowship. As outlined above, the CHSPRA Framework quided the development of the Casebook, as follows: 1) the development of the Impact Narrative template/tool; 2) the Fellows' training and development of compelling Narratives; and, 3) the analysis of impact data in a systematic approach and grounded in a theoretical framework. To analyse the impact data submitted through the Narratives, we applied the CHSPRA theories of change and categorized the impacts and outcomes based on the appropriate CHSPRA components (i.e., capacity-building, informing decision making, producing evidence) and their related indicators.

The CHSPRA Framework was instrumental in informing the end-of-grant reporting and impact analysis of the Fellowship program, including developing an Impact Casebook, a knowledge translation product that features some of the diverse impacts stemming from the fellowship.

PREPARED BY THE IMPACT ANALYSIS WORKING GROUP OF THE CANADIAN HEALTH SERVICES AND POLICY RESEARCH ALLIANCE (CHSPRA)

