



Physician
Learning
Program

Business Plan ²⁰²¹₂₀₂₄

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Message from the PLP

We are pleased to share with you the Physician Learning Program's 2021-24 Business Plan.

The rapid evolution of the science of medicine, including advances in diagnostics and therapeutics, has increased the complexity of the health care system. Add in the emergence of the COVID-19 pandemic, and we would be hard pressed to find physicians and teams that are not overwhelmed.

The Physician Learning Program (PLP) is uniquely positioned to support physicians and teams. Unlike that of any other group in Alberta, our comprehensive access to disparate health-care data, coupled with expertise in quality inquiry and implementation science, allow us to support clinicians to move evidence into practice.

Our 2021-24 business plan focuses on three strategic priorities:

- **Improving the delivery of patient care by supporting physicians and teams in data-driven quality improvement.** The PLP will work with its partners to support systems thinking on projects of significant impact, using a variety of techniques to analyze data and bridge the gap between knowledge and clinical practice.
- **Improving and supporting health system sustainability through partnerships across the care continuum.** The PLP will work with partners on projects and collaborations that span the continuum of care, thus facilitating a comprehensive approach to address clinical gaps in both primary and specialist care.
- **Responding to the health needs of Albertans as they arise.** The PLP will support Alberta's health system to address emerging health needs, building on its work to support physicians and teams during and after the COVID-19 crisis.

The plan also demonstrates our commitment to measuring our success using the Quintuple Aim – a holistic approach to the implementation of evidence-based health care – as well as other success metrics.

In closing, we want to acknowledge the talented team that supports the PLP, as well as the many health system partners and physicians who support the advancement of clinical practice. Together we contribute to the delivery of a high quality, efficient, sustainable health-care system that benefits Albertans.

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Introduction

Our health care sector is increasingly under scrutiny for many reasons, including technological change, increased spending, and the emergence of the COVID-19 pandemic, one of the greatest health crises the world has ever seen. At the same time, our understanding of the science of medicine is exploding. Our challenge is how to integrate all that knowledge – to curate and apply it to the care of people in a sustainable way.

What we need is health care based on evidence – evidence for elegant solutions that maximize the benefits of science, minimize the costs and harms, and align care with patients' values and needs.

For over a decade, the Physician Learning Program (PLP) has played a key role in improving the quality of health care, and supporting physicians in integrating the best available clinical research with their clinical experience and practice. The result is improved delivery of patient care and better patient outcomes.

In a health system that is under significant strain, the PLP's integrative, evidence-based, and collaborative approach is needed now more than ever.

What we do

The PLP enables physicians and their teams to apply practice data, explore clinical questions, and develop solutions for a more sustainable health system. The PLP fosters peer-to-peer connections through project teams that include physicians with key roles in health organizations and physician networks. We work with partners to tackle pressing problems, relying on multifaceted approaches, strong project management, and a clear arc from project consideration through knowledge transfer activities. Then the PLP facilitates the scale and spread of solutions throughout the medical community.

More specifically, using advanced data analytics, human-centred design, as well as audit and feedback, the PLP transforms highly disjointed administrative health-care data into clinically actionable information. More recently, we have deepened our expertise in the discipline known as complexity science. We craft tools and resources to support knowledge transfer, and then evaluate these interventions in real world complex adaptive systems.

A criterion for all work is supporting physicians and their teams in applying study results back to patients and practice. To achieve this, the PLP uses different methods to engage physicians and team members with aggregate or individual data. Recent examples include:

- The Calgary Audit and Feedback Framework (CAFF), which facilitates physicians' reflection on performance data around important clinical topics, and coaches them to create plans for change.¹
- The Evidence-based Practice for Improving Quality (EPIQ), which provides an effective strategy and tools to guide teams through change processes.
- Physician engagement events, now delivered as webinars, are recorded and remain available online for increased spread and scale.

By 2024, the College of Physicians and Surgeons of Alberta will introduce a new standard of practice that will require all Alberta physicians to participate in cycles of continuous quality improvement. The PLP's ability to transform data into clinically actionable information will provide opportunities for physicians to participate in Physician Practice Improvement, and our collective skills will allow us to participate in the implementation and evaluation of a new provincial network for continuing professional development.

Our Vision

By 2025, all Alberta physicians will care for patients in a supportive culture, driven by evidence-informed, reflective practice improvement.

Our Mission

The PLP creates actionable clinical information and engages with physicians, teams, partners, and patients to co-create sustainable solutions to advance practice.

Guiding Principles

The PLP is dedicated to moving evidence into practice – fostering a culture and environment where everyone works together to tackle our most pressing problems, and creates a world class, sustainable health system.

To do so, all PLP staff and projects will:

- Use the best available data and evidence-based analysis to support decision-making.
- Remain flexible in our approach to problems and solutions, responding to patients, clinicians, and health system needs.
- Work with stakeholders to co-create solutions and implement and sustain them provincially.
- Integrate and advance improvement science to address clinical gaps.

¹ Cooke, L.J., Duncan, D., Rivera, L. et al. The Calgary Audit and Feedback Framework: a practical, evidence-informed approach for the design and implementation of socially constructed learning interventions using audit and group feedback. *Implementation Sci* 13, 136 (2018). <https://doi.org/10.1186/s13012-018-0829-3>

Strategic priorities 2021–2024

Improve delivery of patient care by supporting physicians and teams in data-driven quality improvement.

It is not easy or straightforward to change or advance clinical practice. There are many barriers at the individual, group, or system level, and these can be complex and overlapping. In fact, a 2001 study by the Institute of Medicine (now known as the National Academy of Medicine) found there was a 17-year lag between when health scientists learn something significant through rigorous research and when health practitioners change their patient care as a result.² System-wide progress remains elusive, in part due to linear improvement paradigms that ignore the complexity of the health system.

To ensure physicians and their teams can adapt their practice in response to evidence, the PLP works with its partners to support systems thinking on projects of significant impact. Projects use a variety of techniques to analyze data to create useful information, bridge the gap between knowledge and practice, and improve clinical practice and patient care. The PLP makes knowledge available and easily accessible to physicians in formats they find useful.

ACTIONS

1. The PLP will use the following strategies to conduct projects and implement and advance improvement science:
 - **Advanced data analytics techniques**, including the use of Python™ coding, to convert health data that is difficult to analyze - often borderline impossible - into a format that can be readily analyzed. This enhances our ability to apply data to address clinically important questions, and to synthesize data to create clinically meaningful information.
 - **Human-centred design (HCD) approaches**, to co-create solutions that help physicians and teams advance practice, such as shared decision-making tools, decision algorithms, infographics, patient education resources, and knowledge management resources. Drawing on cognitive psychology and principles of graphic design, HCD tools and resources organize information to promote quick and accurate comprehension. In addition to ongoing innovative HCD projects, successful HCD tools and resources are included in provincial scale and spread projects.
 - **Sensemaking strategies**, to understand complex adaptive systems, as well as how people make sense of their world and experiences, and how they make decisions. We are implementing novel approaches to collect and understand data using mass sensemaking, thus advancing our ability to measure changes in attitude and behaviour and assess system impact at scale. We will continue to advance measurement in

² [J R Soc Med. 2011 Dec; 104\(12\): 510–520. doi: 10.1258/jrsm.2011.110180](#)

complex adaptive systems, recognizing there are multiple best practices to do so. We are collaborating with partners in the complexity sciences to incorporate new methods into our projects and provide more sophisticated assessments of impacts. As such, PLP has recently partnered on one large COVID-19 demonstration project that uses an anthrocomplexity approach to examine complex systems from multiple human perspectives.

- **Patient Reported Outcomes Measures (PROMs), Patient Reported Experience Measures (PREMs)**, and other evaluative tools of patient experience will enable users to determine whether interventions are positively impacting patient outcomes and can assist clinicians to efficiently monitor their patients, identify issues, and prioritize patients' needs when access is limited, such as during the COVID-19 pandemic. The PLP will expand the use of PROMs within projects and build on existing team knowledge and expertise in this area of evaluation. Connect Care enables PROMs to be built into the system, which supports the feasibility of including these measures in a wider scope of projects.
2. The PLP will explore the best means of advancing improvement science, including the use of audit and feedback and practice quality improvement. We will examine the impact of facilitation through the Calgary Audit and Feedback Framework (CAFF) and Evidence-based Practice for Improving Quality (EPIQ) data-driven quality improvement initiatives.
 3. The PLP will support initiatives to improve the health system through partnerships, like those with Choosing Wisely Alberta, the SPOR-2 platform, and the Provincial Continuing Professional Development Network. The results of these initiatives will determine the most efficient and effective means of scale and spread to achieve optimal outcomes in a learning health system.
 4. The PLP will support projects that tackle significant challenges, like those identified in the recommendations from the Alberta Health Services Review,³ and by the Partnership for Research and Innovation in the Health System. In doing so, we will support the spread and scale of innovations created in Alberta.

Improve and support health system sustainability through partnerships across the care continuum.

The PLP will undertake projects and collaborations that span the continuum of care, including projects that focus on both individual areas of the care continuum (e.g., primary care or tertiary care) and span across areas (e.g., between primary and specialist care, and acute care settings and the community). This will require inclusion of multiple physician groups to address system gaps. The PLP has ongoing collaborative relationships with family physicians and Primary Care Networks (PCNs), as well as with specialists and Strategic Clinical Networks (SCNs). These relationships can be leveraged to address these gaps.

³ A review of Alberta Health Services was conducted in 2019. It generated 57 recommendations and 72 opportunities for savings to improve the quality and long-term sustainability of Alberta's health care system.

The PLP will also focus on appropriateness, accessibility, and effectiveness as defined by the Alberta Quality Matrix for Health: appropriateness in health services are those relevant to user needs and are based on accepted or evidence-based practice; acceptability in health services are respectful and responsive to user needs, preferences, and expectations; and effectiveness in services provided are based on scientific knowledge to achieve desired outcomes.

ACTIONS

1. As part of its ongoing work in primary care, the PLP will:
 - Partner with Alberta's PCNs on a suite of projects related to improving quality of primary care in treating chronic disease, including heart disease, obesity, diabetes, chronic obstructive pulmonary disease (COPD), asthma, and the use of medications.
 - Assist the HQCA in developing Primary Care Panel Reports that provide family physicians with data on their practice and opportunities to learn about and address gaps in care.
 - Develop and engage physicians in knowledge transfer and strategies to change behaviour, such as reducing low-value lab testing, reducing low-value diagnostic imaging, increasing appropriateness of respiratory testing, and reducing polypharmacy in seniors.
2. To address priority areas related to appropriateness of interventions in acute care, the PLP will:
 - Continue to strengthen our relationship with SCNs to collaborate on initiatives related to acute care length of stay and the spread and scale of our previous work on bronchiolitis⁴ and cardiac testing (ECG).
 - Partner with the Surgery SCN on the surgical safety checklist initiative, a COVID-19 recovery project on surgery wait times in Alberta, and work to scale and spread resources developed for pre-operative antimicrobial stewardship.
 - Collaborate with recipients of Choosing Wisely Alberta grants to improve lab test utilization on general medicine and hospitalist units, appropriate utilization of blood transfusions in intensive care units, and reducing low-value endoscopies.
 - Support physician leaders and colleagues at AHS in implementing the recommendations of the Alberta Health Services Review (2019), including major projects addressing lengths of stay, surgical appropriateness, utilization of diagnostic imaging, and other priorities.
3. The PLP will address chronic diseases across the care continuum including cirrhosis, obesity, diabetes, congestive heart failure, asthma, and COPD, with projects that include:
 - Collaboration on a multipronged strategy to improve statin use and measurably reduce vascular risk.
 - A pilot program for chronic heart failure created with the Mazankowski Heart Institute and the Edmonton Southside PCN that can be expanded provincially.

⁴ Bronchiolitis is a common lung infection in young children and infants.

- Collaboration with the Calgary Zone Specialist Link to bring primary care and specialist physicians together to co-create clinical care pathways, supporting care in the community and referral to specialty care when necessary.
- Knowledge transfer events to promote alignment with new 2021 practice guidelines for COPD and asthma.

Diagram 1 - The many partners of the PLP



Respond to the health needs of Albertans as they arise

We find ourselves in a watershed moment in history, facing the ongoing threats of an unprecedented global pandemic. Scientists are just beginning to understand the vast array of health problems caused by the novel coronavirus, some of which may have lingering effects on patients and health systems for years to come. In addition, as the immediate threat of the coronavirus subsides, Alberta's health system will be challenged to catch up with delayed or deferred treatments for other illnesses and diseases. It will be imperative that programs like the PLP are able to respond to the health needs of Albertans as they arise.

In March 2020, the PLP team moved swiftly to provide physicians and allied health professionals with the information needed to navigate unknown waters. The PLP did this by:

- Gathering and evaluating rapidly evolving scientific knowledge and sharing findings with thousands of physicians and allied health professionals (see Diagram 2).
- Helping to develop training protocols on the proper use of personal protective equipment.
- Creating and disseminating clinical tools to support front-line clinicians, including infographics, cue cards, and posters.

Diagram 2 – PLP COVID-19 related activities



To support vulnerable groups, including racial and ethnic minorities at increased risk from COVID-19, the PLP partnered with the Illuminate Lab⁵ and the Multicultural Health Brokers Co-op of Edmonton.⁶ We employed “sensemaking”⁷ to help these groups assign meaning to their collective experiences related to COVID-19. The information gleaned was shared with the Government of Alberta to support its policy development.

ACTIONS

Moving forward, the PLP will:

1. Support post-pandemic health system needs, such as prioritization of higher value care, attending to wait lists, and addressing unequal access to care.
2. Develop tools to support physicians caring for patients from vulnerable communities.
3. Support the well-being and professional development of physicians and their teams, post COVID-19, by creating a safe environment to interact with, and reflect on, practice data.
4. Support the resiliency of the health system by being responsive to the post-pandemic health needs of Albertans as they arise, such as those related to mental health, addictions, long-term COVID-19 health issues, and the impact of delayed or deferred care during the pandemic.

⁵ The Illuminate Lab is a research group in the Faculty of Medicine & Dentistry at the University of Alberta. This group uses complexity science approaches as a way of understanding problems in health care and implementing evidence. The Lab is partnering on some PLP projects that will use sensemaking approaches, for project design, data collection and analysis, and data management.

⁶ Multicultural Health Brokers Co-op began 25 years ago to support Edmonton’s newcomers. Cultural Brokers are from immigrant communities and work to bridge the gap between newcomer families and Canadian society.

⁷ Researchers, human-centred designers, and multicultural health brokers worked together to collect, synthesize, and employ feedback to make sense of the urgent issues facing the community.

How will we measure success?

Using the Quintuple Aim

Any deliberate effort to change complex systems results in a myriad of foreseen, and unforeseen, impacts. To ensure we are open to these challenges, PLP frames evaluation within the lens of the “quintuple aim” – one that takes a holistic approach to the implementation of evidence-based health care. This approach allows us to mitigate negative impacts and nudge the system into a more resilient and robust state. The outcome of importance is that the health of Albertans is improved in a sustainable way – from both an economic and a care delivery perspective.

How do we do this? We practice reflexivity in all our projects, ensuring that we have considered the problems from the different perspectives of patients, health-care providers, and those funding the system. We seek to understand the multiple “whys” behind the problem, and then bring to bear our different methodological approaches to co-create solutions. We seek to achieve balance between the five aims, ensuring we are doing the best we can for physicians, patients, and the health-care system.

Diagram 3 – The Quintuple Aim



Other Measures of Success

We will be accountable for our work through regular monitoring, measurement, and reporting. In addition to using the Quintuple Aim, we will use the following success factors to track our progress:

Success Factors	Measures of Success
Impact	<ul style="list-style-type: none"> • Percentage of physicians/health care providers who feel that participation in a PLP event helped them in their practice. • Evaluation of tools and resources being used by physicians and their teams, and number of tools distributed. • Number of PLP projects that completed their planned outputs. • Project impact stories. • Changes in attitudes and behaviors over time (tool and metrics to be developed).
Value	<ul style="list-style-type: none"> • Economic analysis, as appropriate, of large scale projects in collaboration with experts in health economics. • Patient Reported Outcomes Measures (PROMs), Patient Reported Experience Measures (PREMs), or other patient experience evaluations to determine whether interventions are positively impacting patient outcomes.
Stakeholder engagement	<ul style="list-style-type: none"> • Number of stakeholders engaged in partnerships with the PLP. • Number of stakeholder partnered projects in scale and spread.
Knowledge translation (KT) and scholarship	<ul style="list-style-type: none"> • Knowledge translation and partnership activities (number of audit and feedback sessions, human centred design co-creations, co-learning sessions, quality improvement sessions, etc). • Number of participants in PLP KT events and activities, and measure of satisfaction. • Data and evidence shared with partners (number of publications, abstracts, reports, presentations).

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