

Roundtable on Models of Care for Post–COVID–19 Condition: Summary Report

Key Messages

- Recognizing a need to support health system decision-makers around the development of post–COVID-19 models of care, CADTH held a roundtable discussion with key stakeholders and senior decision-makers from all provinces and territories (apart from 1) as well as from federal programs. Participants discussed the potential impact of post–COVID-19 condition to our health care system, as well as barriers and opportunities for developing accessible patient-centred models of care for post–COVID-19 condition.
- Despite increasing awareness in Canada about post–COVID-19 condition, the condition may not always be recognized by health care providers, which can lead to frustration, delays in access to care, and a lack of coordination of care.
- There is great variation across Canada in the availability and development of models of care for post–COVID-19 condition. It is recognized that jurisdictional variation, funding models, and resources all influence the availability and development of post–COVID-19 condition programs.
- Roundtable participants agreed that the development of programs to serve people living with post–COVID-19 is a pan-Canadian priority. There was a strong desire for a pan-Canadian approach, with collaboration at the federal, provincial, and territorial levels. Participants indicated that this is an opportunity for our health care system to be innovative and collaboratively address the needs for data, information, and sustainable funding, as well as resources required to develop accessible and patient-centred models of care across the jurisdictions.

Background

Post–COVID-19 condition, also known as long COVID, is a condition where people experience new or persisting symptoms for more than 12 weeks after an initial COVID-19 illness. People with post–COVID-19 condition may experience a range of symptoms including, but not limited to, fatigue, shortness of breath, muscle aches, and cognitive and mental health challenges.

Current estimates suggest that post–COVID-19 condition may affect as many as [30% to 40% of people who have had COVID-19](#). To date, Canada has seen more than 3.9 million confirmed cases of COVID-19, which suggests that more than 1 million people in Canada may have post–COVID-19 condition. With a great deal of uncertainty about the condition and its management, there are important implications for delivering patient-centred and equitable health services in every province and territory in Canada.

In response to this important health system challenge, CADTH hosted a virtual roundtable on June 1, 2022, to convene and connect pan-Canadian stakeholders on post–COVID-19 condition models of care. At the roundtable, there was representation from all provinces and territories (apart from 1) as well as from federal programs, including Health Canada, the Public Health Agency of Canada, and the Canadian Institutes of Health Research. Participants included deputy ministers of health, and assistant and associate deputy



ministers of health, chief public health officers, and chief medical officers and advisors, as well as specialty physicians, academics, COVID-19 experts, and people with lived experience. In total, 41 participants external to CADTH attended the roundtable.

Roundtable participants heard presentations on emerging evidence and early learnings in developing and implementing patient-centred models of care for post–COVID-19 condition. The clinician perspective and that of a person with lived experience were also presented at the roundtable. Using breakout sessions throughout the day, participants shared their own experiences, challenges, and opportunities for collaboration and future work. Highlights from these presentations, key themes from the discussion groups, and future considerations are presented in the following summary.

Roundtable Objectives

- To increase awareness and understanding of evidence about post–COVID-19 condition models of care and service delivery.
- To increase awareness of pan-Canadian initiatives related to the planning, development, and implementation of service delivery and models of care for the post–COVID-19 condition patient population.
- To facilitate connections among those currently working on the funding, planning, development, implementation, and/or evaluation of service delivery and models of care for the post–COVID-19 condition patient population across Canadian jurisdictions .
- To create opportunities for identification of emerging evidence needs related to post–COVID-19 condition models of care and service delivery and/or other post–COVID-19 evidence topics.

Summary

Presentations

During the roundtable meeting, attendees heard from several experts who provided overviews of post–COVID-19 condition, models of care, and the early experiences of a few jurisdictions developing and implementing models of care for post–COVID-19 condition. Brief key messages from each presentation are summarized in the following.

Post–COVID–19 Condition in Canada – Dr. Angela Cheung

- Post–COVID-19 condition is a major public health issue in Canada, and the impact on Canadians is and will be significant.
- There is a need to find treatments to manage post–COVID-19.
- We are beginning to understand more about the pathophysiology of post–COVID-19 condition.
- There is an urgent need for coordinated care for people with post–COVID-19 condition, where research and patient care are integrated.

Post–COVID–19 Condition Perspectives and Experience – Dr. Anne Bhéreur

- Post–COVID-19 condition is complex, and health systems are not currently prepared to address all aspects of this condition.

- Appropriate care should be accessible to all people in Canada.
- Research can build on current knowledge of post-viral illnesses.
- There is a need for comprehensive standardized assessments for people with post–COVID-19 condition.
- There is a unique opportunity to build sustainable health care for complex chronic conditions, with collaboration among clinicians, health care systems, patients, and researchers.
- Infection prevention remains a key part of reducing the burden of post–COVID-19 condition.

Models of Care Related to Post–COVID–19 Condition — Dr. Simon Décarý

- Even with vaccines, there will be new cases of post–COVID-19 condition each year. Health systems will need to be prepared to manage the increasing number of people who could be affected.
- Dr. Décarý's [living systematic review](#) on models of care for post–COVID-19 condition highlighted the need for multidisciplinary teams, integrated care, and continuity or coordination of care.
- There are many learnings from early care models and ongoing research on this topic. While there are still many challenges to face, real-time sharing of jurisdictions' successes and failures can aid in developing models of care to address post–COVID-19 and possibly other complex conditions.

Early Experiences Developing and Implementing Models of Care for Post–COVID–19 Condition — Dr. Adeera Levin (British Columbia) and Dr. Chester Ho (Alberta)

- British Columbia's model (Post–COVID-19 Interdisciplinary Clinical Care Network) emphasizes continuous learning and engaging patients. Components of the model include regional services, research, clinical care, and education and resources for patients and providers. Online tools and materials are available through the [Post–COVID-19 Interdisciplinary Clinical Care Network](#). At the centre of the model is a focus on patients being supported with primary care. A central triage process and standardized patient questionnaire were developed to provide access to a Post–COVID-19 Recovery Clinic, for anyone who is eligible across the province. There has also been a focus on building primary care capacity, with 1-hour virtual education sessions to support family physicians caring for persons with post–COVID-19, the RACE program (Rapid Access to Consultative Expertise), and updated decision tools and recovery pathways.
- In Alberta, there are 2 main models of care. The Post–COVID-19 Provincial Rehabilitation framework uses a standardized, streamlined screening and assessment approach to direct patients for self-management, or to use health services. The rehabilitation framework focuses on a person's specific needs, from universal rehabilitation (services available to all Albertans), targeted rehabilitation (group programs), or personalized rehabilitation. Alberta has also created a rehabilitation advice line, the first of its kind in Canada. The Inter-Professional Outpatient Program provides coverage across the province with specialized multidisciplinary clinics in Edmonton and Calgary. This program requires referral from a family physician and provides care for people with complex or severe post–COVID-19 condition. The program is led by a nurse practitioner, and supported by allied health professionals and general internal medicine.

Discussion Groups

Participants discussed various aspects of initiating, developing, and implementing different models of care across Canada. The following section highlights key themes discussed among participants.

Limited Recognition of the Condition, Challenges in Diagnosis, and the Need for Patient–Centred Models

- Although there has been increasing awareness in Canada about post–COVID–19 condition, several participants, including patient partners, emphasized that limited recognition by health care professionals, and the health care system, remains a challenge for people living with the condition.
- Limited diagnostic criteria, an evolving evidence base, and a lack of clinical guidelines has created uncertainty for health care professionals about how to identify and provide care for people with the condition. Participants from some jurisdictions shared their experiences about developing health care provider resources such as trainings, guides, and webinars, which were reported to help improve awareness and knowledge about the condition. Jurisdictions further along in developing models of care, also reported building and enhancing partnerships with patient led organizations.
- Participants emphasized a need to further engage post–COVID–19 patient groups, including social media support groups, to help develop programs and resources, and to broker existing resources to decision-makers, health care providers, and those living with post–COVID–19 condition.

The Need for Pan–Canadian Coordination

- As jurisdictions are at different stages of health services development for post–COVID–19, participants highlighted the need, value, and desire for jurisdictions to collaborate, share learnings, seek opportunities for coordination, and reduce duplication of efforts.
- Several participants suggested that a pan-Canadian “Call for Action” for federal, provincial, and territorial health system partners to prioritize models of care for post–COVID–19 condition may help raise the issue on the public agenda, increase awareness, and encourage a more focused and collaborative approach to addressing post–COVID–19 condition in Canada.
- There was a general recognition that a standardized model of care will not be feasible across Canada due to jurisdictional variation. Smaller jurisdictions and places with reduced access to certain treatments, specialists, or health services may require additional contextualization, innovations, and collaboration with jurisdictional partners.

The Need for Sustainable Funding and Resources

- Identifying sustainable funding for program development, allocation of human resources, and health services delivery has been a challenge in many jurisdictions. Although different initiatives are underway across the country, many programs are being developed at a grassroots level in larger urban centres, but not consistently across jurisdictions or regions.
- Evidence and information about the potential return on investment (for example, cost-effectiveness of various models of care, implications of post–COVID–19 on labour shortage, and the impact on longer-term health care costs) could help emphasize the need for sustained funding.
- In an environment of health human resource pressures, it was noted that health care professionals were drawn to permanent positions, which to date are rare in the context of post–COVID–19 condition. Therefore, staffing for existing short-term post–COVID–19 programs has been a challenge.
- Participants stated that existing physician remuneration structures may also be a barrier as they may not encourage health care providers to address complex care needs, which many people with post–COVID–19 condition may have.

The Need for Data and Information to Support Decision-Making

- Data and information about prevalence, volume of patients receiving care within hospitals and primary care, the availability of post-COVID-19 specialty clinics, and other aspects of care are currently fragmented, not collected, or not accessible to others. A collective approach to collecting and reporting data is needed to help assess gaps and improve care.
- Participants described a desire to have a central repository of data but also of the leading evidence resources, real-world evidence, and resources for health care professionals. An environmental scan of jurisdictional programs could also help facilitate learning and support planning for services. A central repository would help reduce duplication of effort.

Optimizing Approaches for Models of Care

- Participants recognized that a standard model of care across the country would be challenging due to both the heterogeneity of post-COVID-19 condition and jurisdictional differences. However, many stated that there is an opportunity for health care systems to develop a novel approach that includes patients and providers in the process, explores the use of emerging technologies (e.g., artificial intelligence, virtual care), and builds on community supports.
- Participants were clear that any model of care would need to be multidisciplinary and require some stratification based on patient needs to receive self-management, community or group support, specialist care, or a combination. They indicated that many supports for patients with post-COVID-19 condition could be provided through primary care services. However, they also cautioned that not all patients would have access to primary care and, as such, appropriate education, resources, and developing pathways for equitable access would be required.
- Participants stated that resources, training, and education for health care providers about approaches for the diagnosis, treatment, and management of post-COVID-19 condition were needed to guide health care professionals and reduce diagnostic ambiguity. Although jurisdictions may adopt different models based on their local needs, having a common set of resources and evidence to guide decision-making would be essential for delivering high-quality care across the country.

Future Considerations

As jurisdictions continue planning, assessing, and implementing different models of care for post-COVID-19 condition, attendees highlighted several future considerations.

- Participants emphasized that health equity, person-centred care, and high-quality patients' experience will need to be kept at the forefront to ensure care is accessible and can help improve outcomes for people across Canada.
- While there remains uncertainty about the scale of impact post-COVID-19 condition may have in jurisdictions, data emerging from the [population-based survey](#) led by the Public Health Agency of Canada and Statistics Canada will help to estimate the prevalence of post-COVID-19 condition in Canada, assess its effects on people's daily activities, and understand other features about the condition over time. In addition, ongoing research to understand the condition's pathophysiology and initiatives to develop clinical guidelines by jurisdictions and federal partners will help inform planning and developing effective models of care.
- Should some aspects of care for post-COVID-19 condition be delivered through virtual care, jurisdictions would need to consider frameworks for coordination among jurisdictions. Moreover, having an information hub that can disseminate emerging research, reduce duplication of effort, and provide a platform to share resources among stakeholders could help with health systems planning.



- Attendees highlighted a need for continuing engagement and connection with experts and patient partners across jurisdictions to foster collaboration. A list of roundtable participants and their contact information has been shared with all participants to facilitate this continued engagement.

Next Steps for CADTH

CADTH hosted the roundtable in response to an identified need to convene stakeholders responsible for funding, planning, developing, and implementing post–COVID-19 condition models of care. CADTH also approached the roundtable and discussion with a lens to learn what CADTH can do to support stakeholders in this effort. Through the discussion, several initiatives emerged that fit within CADTH's mandate and expertise.

- CADTH will launch an online portal that hosts descriptions and appraisals of all post–COVID-19 condition clinical practice guidelines. Where feasible, CADTH will also help connect jurisdictions to share information and evidence resources that can support health systems planning related to post–COVID-19 condition and reduce duplication of effort.
- CADTH will also begin to explore other opportunities and mechanisms for information-sharing to support decision-maker needs. CADTH remains committed to supporting the jurisdictions through the synthesis and assessment of the evolving evidence base of post–COVID-19 condition. To find out more about CADTH, or to submit a request for evidence synthesis, talk to a [Liaison Officer in your region](#).

CADTH is committed to continuing collaborations with stakeholders at different levels of government and relevant pan-Canadian health and health research organizations to navigate the research and evidence landscape and support jurisdictions as they develop and implement models of care for post–COVID-19 condition.