



COVID-END global horizon-scanning panel Insights from panelists from the panel meeting on 26 May 2021 (Last updated on 10 June 2021)

Over the course of two meetings (one for participants in eastern provinces and territories and one for participants in western provinces and territories), panelists identified a number of emergent issues (or previously missed long-term and recurring issues and/or elaborations on these issues) related to COVID-19 for which evidence syntheses are or will be needed. The points raised for consideration spanned all four areas of the COVID-END taxonomy and are listed below.

Panelists also reviewed a list of priority topics for 'living' evidence syntheses that was developed by identifying when issues they had identified in past calls were not addressed by high quality, recently updated evidence syntheses included in the COVID-END [inventory of 'best' evidence syntheses](#). They provided feedback about how these topics can be framed in ways that are optimal to support decision-making and completed an online poll that allowed them to re-order the topics to reflect their urgency or importance (within each of the four parts of the COVID-END taxonomy and cross-cutting themes).

This summary of insights is divided into two sections to reflect these separate, but linked, discussions.

Emergent issues (and previously missed long-term and recurring issues and/or elaborations on these issues)

Cross-cutting

No new cross-cutting themes emerged

Public-health measures

- 1) Understanding how best to **phase out/de-implement** public-health measures over time while continuing to maximize their benefits
- 2) Clarifying **vaccine effectiveness** with respect to mixing vaccines, dosing, variants and for particular groups such as those with auto-immune conditions for whom vaccines do not trigger the same antibody response

Clinical management of COVID-19 and pandemic-related conditions

- 1) Optimizing the restoration of **non-COVID care** while simultaneously working with the increased demand for health services due to service backlogs
- 2) Addressing large increases in trauma/**occupational-stress injuries** for healthcare workers

Health-system arrangements

- 1) Understanding the experiences and outcomes of **non-traditional deployments** of healthcare and non-healthcare personnel (i.e., military, first responders, etc.) and what can be learned regarding professional training and education paradigms
- 2) Monitoring health human resource capacity and anticipated higher-than-normal levels of **workforce departures** and related implications on training or re-training professionals to fill gaps
- 3) Developing or refreshing **the leadership competencies** needed for the health workforce in future
- 4) Identifying strategies to address the large amounts of **waste** being produced from the pandemic response, (i.e., PPE, equipment related to injectables, etc.) toward creating a greener health system in future
- 5) Exploring the potential role of **vaccine incentives**, such as lotteries, including the types of incentives, their effectiveness, public perceptions, and other risks and benefits of this approach
- 6) Unpacking the roots of **vaccine hesitancy for specific groups** (such as Indigenous peoples and their lack of trust in government based on their past treatment, as well as others who face barriers to equity) and developing tailored strategies to address them

- Identifying the **long-standing gaps** in Canada’s health system that COVID has laid bare, such as digital infrastructure and information-technology solutions, and lessons learned from other jurisdictions about how to address them, and taking actions to address these gaps and further innovations that promote equity and integration

Economic and social responses

- Understanding the role of **vaccine passports** in restricting or enabling a broad range of activities (such as workplaces, travel, large crowd events, etc.) and the related ethical, legal and equity considerations

Considerations raised related to the evidence ecosystem

- Capitalizing on the opportunity to use the Canadian experience as a **national laboratory** to compare pandemic responses across provinces and territories

Priority topics for living evidence syntheses

The following list reflects the re-ordering of topics by panelists, changes to the wording of topics by panelists (highlighted in yellow), and the addition of new topics by panelists (with these new rows added to the bottom of each part of the list and with a blue row header). Topics for which at least some evidence syntheses are available have a light-green row header, and topics for which we are aware of existing or planned living evidence syntheses have a dark-green row header.

Rank	Prioritized topics from panel
Cross-cutting	
1	Understanding real-world comparative vaccine effectiveness (in addition to trials data about safety and efficacy), including in relation to variants of concern, and the implications for public-health measures (e.g., vaccine substitution, mixing of doses and timing for second dose; changes to infection prevention and control measures; and when herd immunity will be reached) and health-system arrangements (e.g., PPE, cohorting, and HVAC) <i>*** see health-system arrangements for vaccine roll-out ***</i>
2	Engaging vulnerable groups in society to develop and customize packages of public-health measures, clinical-management approaches, health-system arrangements, and economic and social responses that are sensitive to equity, diversity and inclusion considerations and that address inequalities in COVID-19 burden
3	Integrating data systems and monitoring and evaluation mechanisms to support pandemic response
4	Supporting coordination across government sectors and across non-governmental organizations, citizen groups, academia, and others, including ‘non-typical’ stakeholders (both in general and specifically to avoid future cycles of lockdowns and re-openings) and increasing capacity for policy learning across jurisdictions
5	Understanding the impact of global health inequities in the pandemic response (e.g., effects of vaccine nationalism, distribution of supplies, and variable government support for response) and the long-term global consequences
6	Understanding the ‘pipeline’ of SARS-CoV-2 variants , the conditions under which they become ‘variants of concern,’ their transmission characteristics, and their implications for public-health measures (e.g., vaccine choice and sequencing, double masking, quarantine length, border closures, and other risk-mitigation strategies) and for health-system arrangements (e.g., capacity planning, PPE, cohorting, and HVAC systems)
7	Documenting and addressing the long-term impacts of the pandemic on children (e.g., nutrition, obesity, sport participation rates, education, employment prospects , and social impacts)
8	Optimizing packages of responses (public-health measures, health-system arrangements, and economic and social responses), including combinations of centralized and decentralized approaches, in terms of both their health benefits and their economic and social costs
9	Capturing lessons learned from this pandemic from the perspective of individual citizens/households in clear and concise ways in order to effectively apply them in future
Public-health measures	

Rank	Prioritized topics from panel
1	Supporting adherence to public-health measures , including addressing barriers to adherence (e.g., safe transportation to testing and vaccination sites, paid time off work, and publicly funded isolation facilities), recognizing pandemic fatigue, optimizing public messaging about individual- and household-level measures (and using creative formats to convey these messages), and using appropriate behavioural interventions to overcome vaccine hesitancy
2	Adapting strategies for testing that optimize the use of existing capacity and incorporating neighbourhood-based approaches like sewage testing to identify outbreaks
3	Evaluating the use of self-testing kits as they become more publicly available and monitoring for fraudulent testing sites
4	Understanding patterns in and consequences of the greater geographic dispersion of infections, including the role of internal and international migration and of tourism in transmission, and of case fatality rates
5	Building rapid-response mechanisms to support interdisciplinary outbreak studies (and addressing litigation and other concerns related to sharing information about outbreaks), to avoid duplication of work , and to support timely study appraisals and interpretation (and finding other ways to avoid preprints inappropriately driving action before their quality has been determined)
New	Communicating and supporting adherence to public health measures for those who have received at least one dose of vaccine
Clinical management of COVID-19 and pandemic-related conditions	
1	Documenting and addressing long-haul symptoms of COVID (also known as 'long COVID'), among people without severe COVID (including the long-term effects of COVID-19 on the body) and/or long-term sequelae of severe COVID , and refining treatment and support strategies based on the benefits for patients and in relation to other health-system needs
2	Screening for and managing emergent mental health and substance use issues, including trauma, for the general population, and for specific population groups (health care workers in particular) , and understanding the links between substance use and pandemic-related increases in domestic violence and suicide
3	Understanding the protective effects of antibodies (e.g., duration of protection) and the role of auto-antibodies in more severe illness
4	Understanding COVID-19 as a ' syndemic ' that co-occurs with a range of other communicable and non-communicable diseases that differentially affect population groups, and adjusting supports accordingly
5	Optimizing packages of COVID-19 treatments including drug treatments, respiratory support (including pulse oximetry), and physical interventions such as proning
Health-system arrangements	
1	Optimizing vaccine roll-out , including securing and distributing a reliable supply of vaccines and ancillary supplies, allocating vaccines and ancillary supplies equitably, communicating vaccine-allocation plans and the safety and effectiveness of vaccines (and addressing the factors that contribute to vaccine hesitancy in particular population groups), administering vaccines in ways that optimize timely uptake (including tailoring vaccine messaging appropriately to racialized and vulnerable groups and considering incentives to encourage vaccine uptake), adapting vaccine-dosing strategies in response to variants of concern and surveillance, monitoring and evaluation, and reporting (including the documentation of vaccination status and adverse events)
2	Addressing in an agile way health worker shortages, motivation and wellbeing, including strategies to build resilience, manage burnout, and recruit and retrain staff
3	Leveraging primary care as the foundation for the health-system response to COVID-19
4	Restoring non-COVID services after surges (including prioritizing and sequencing service restoration based on risk) and addressing the effects of interrupted care on people with chronic conditions, including those with rare diseases
5	Consolidating and optimizing the value achieved through shifts in virtual care (including developing or updating of legal frameworks and policies)
6	Strengthening health-system governance (including by addressing corruption and avoiding the politicization of decision-making processes and developing adaptive governance and learning capacity)

Rank	Prioritized topics from panel
7	Strategic purchasing of supplies and equipment (e.g., personal protective equipment and liquid nitrogen for vaccine storage) made with environmental considerations in mind, as well as respectful and environmentally considerate disposal of supplies and equipment
Economic and social responses	
1	Economic development and growth – Embracing new approaches to public financing that support fairness and equity (especially for women and other vulnerable populations) while avoiding fiscal cliffs (expiring tax cuts and government spending cuts) and debt traps
2	Education - Benefits and risks to students, educators and families arising from school closures, re-openings, changes to operations (e.g., school-year adjustments) and pedagogical innovations (e.g., e-learning) that can support ongoing education
3	Financial protection – Enhancing economic security by addressing pandemic-related job losses and adjusting ‘safety nets’ (and keeping in mind differential impacts on women and other vulnerable populations) and enhancing workforce development (in healthcare, charities and private businesses)
4	Citizenship - Linking citizen and community participation in pandemic planning, policymaking and response with outcomes and capturing innovations in government approaches
5	Food safety and security – Addressing food supply-chain challenges and food insecurity , including both community-based and nationally led actions
6	Community and social services - Promoting children’s resilience and recovery via social policy
7	Culture and gender – Understanding the additional risks of gender-based and domestic violence arising from restrictions and identifying appropriate ways to address such violence
8	Culture and gender – Confronting pandemic-induced or pandemic-exacerbated racism
9	Transportation - Safely re-opening the tourism and travel industry and managing the related risks (e.g., through testing protocols) and spill-over effects on other countries (e.g., testing requirements before travel)
10	Climate action – Maximizing the opportunity for synergies between the COVID-19 response and climate action , including exploring a ‘green recovery’
11	Economic development and growth – Understanding and addressing the impacts of the abrupt shift toward nationalism as a governing strategy for the economy and of the ‘new economy’ imposed on many countries by COVID-19
New	Understanding the role of vaccine passports in restricting or enabling a broad range of activities (such as use in workplaces, travel, large crowd events, etc.) and the related ethical, legal and equity considerations

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