



COVID-END global horizon-scanning panel April briefing note (Last updated 26 April 2021)

Current pandemic context

Confirmed COVID-19 cases are now over 145 million worldwide and COVID-19-attributed deaths have surpassed 3.1 million. The number of new cases being identified daily is trending upward again, and we are seeing the highest daily number of new cases since the pandemic began. Approximately 975 million vaccination doses have been administered thus far and approximately 3% of the world's population is fully vaccinated.

Potential issues for consideration from the scan

To inform panelists' deliberations about emergent issues (or previously missed long-term and recurring issues) that may need to be prioritized, the COVID-END team has prepared the following bulleted summary of issues identified through available documents (e.g., academic journals and magazines), websites (e.g., international organizations and traditional media), and social media (e.g., Twitter), which are organized using the four parts of the COVID-END taxonomy of decisions related to COVID-19.

1) Public-health measures

- No new issues identified (but escalating concern about variants, the effectiveness of vaccines against variants, and the implications of variants for public-health measures)

2) Clinical management of COVID-19 and pandemic-related conditions

- Growing concern about the interrupted management of other conditions and increasing recognition of the need to scale up regular services while continuing to address the pandemic

3) Health-system arrangements

- Understanding religious and cultural concerns that are contributing to vaccine hesitancy (and hence limiting vaccine roll-out)
- Increasing concerns about the development and use of vaccine passports and the lack of a standardized, acceptable approach
- Improving the messaging supporting vaccine roll-out requires faster decision-making, scientific consensus, and better coordination

4) Economic and social responses

- Combining widespread rapid-testing programs with appropriate economic and social responses to maximize their effectiveness and enable returns to normality
- Using more broad-based social mechanisms to strengthen scientific communication and literacy to combat misinformation and boost public support for the most effective public-health measures

The team has also prepared a more detailed appendix containing lists of hyperlinked descriptors of the issues addressed in identified documents, websites and social media (Appendix 1).

Potential top priorities for 'living' evidence syntheses where they are currently lacking

To inform panelists' deliberations about top priorities for 'living' evidence syntheses, we are sharing topics prioritized at the February 2021 panel meeting. 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	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
2	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 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>
3	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, and border closures) and for health-system arrangements (e.g., capacity planning, PPE, cohorting, and HVAC systems)
4	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
5	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
6	Integrating data systems and monitoring and evaluation mechanisms to support pandemic response
New	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	
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), optimizing public messaging about individual- and household-level measures (and using creative formats to convey these messages), and using appropriate behavioural interventions
2	Building rapid-response mechanisms to support interdisciplinary outbreak studies (and addressing litigation and other concerns related to sharing information about outbreaks) and to support timely study appraisals and interpretation (and finding other ways to avoid preprints inappropriately driving action before their quality has been determined)
3	Adapting strategies for testing that optimize the use of existing capacity and incorporating neighbourhood-based approaches like sewage testing to identify outbreaks
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
Clinical management of COVID-19 and pandemic-related conditions	
1	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
2	Documenting and addressing long-haul symptoms of COVID (also known as ‘long COVID’) among people without severe COVID and/or long-term sequelae of severe COVID
3	Screening for and managing emergent mental health and substance use issues and understanding the links with between substance use and pandemic-related increases in domestic violence and suicide
4	Understanding the protective effects of antibodies (e.g., duration of protection) and the role of auto-antibodies in more severe illness

Rank	Prioritized topics from panel
New	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, and surveillance, monitoring and evaluation, and reporting (including the documentation of vaccination status and adverse events)
2	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
3	Addressing in an agile way health worker shortages, motivation and wellbeing, including strategies to build resilience, manage burnout, and recruit and retain staff
4	Leveraging primary care as the foundation for the health-system response to COVID-19
5	Consolidating and optimizing the value achieved through shifts in virtual care (including developing or updating of legal frameworks and policies)
6	Strategic purchasing of supplies and equipment (e.g., personal protective equipment and liquid nitrogen for vaccine storage)
7	Strengthening health-system governance (including by addressing corruption and avoiding the politicization of decision-making processes)
Economic and social responses	
1	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 as well as private businesses)
2	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
3	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
4	Food safety and security – Addressing food supply-chain challenges and food insecurity , including both community-based and nationally led actions
5	Community and social services - Promoting children’s resilience and recovery via social policy
6	Citizenship - Linking citizen and community participation in pandemic planning, policymaking and response with outcomes and capturing innovations in government approaches
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	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
9	Climate action – Maximizing the opportunity for synergies between the COVID-19 response and climate action , including exploring a ‘green recovery’
10	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)
New	Culture and gender – Confronting pandemic-induced or pandemic-exacerbated racism

Citation: Bullock HL, Sharma K, MacLean A, Al-Khateeb, Lavis JN. Potential issues for consideration and top priorities for living evidence syntheses where they are currently lacking. Hamilton, Canada: COVID-19 Evidence Network to support Decision-making about COVID-19 (COVID-END); 23 April 2021.

Appendix 1: Emergent issues (or previously missed long-term and recurring issues) for consideration, as identified from the monthly scan

1) Public-health measures

[See vaccine roll-out below]

2) Clinical management of COVID-19 and pandemic-related conditions

Theme	Combatting the pandemic while transitioning to regular operations <ul style="list-style-type: none"> • New issue
Taxonomy component	Interrupted management of other conditions
Source(s)	<ul style="list-style-type: none"> • As vaccination numbers soar in USA, health system faces management of both COVID-19 outbreaks and a return to pre-pandemic levels of illness and resulting care Link (News – Medscape) • As the vaccine slows in the UK, the NHS struggles to return to normalcy and there is no real plan to deal with the backlog of surgeries, screening Link (News – the Guardian) • Delhi has commandeered most of the beds in private hospitals for COVID-19 patients, leaving patients with other conditions with nowhere to go Link (News – the Guardian) • In the UK, US, and Canada, cancer screening rates reduced during the pandemic now returning to previous levels, but diagnoses in more advanced cancers increasing Link (News – the Guardian)

3) Health-system arrangements

Theme	Cultural considerations related to vaccine hesitancy <ul style="list-style-type: none"> • New issue
Taxonomy component	Approach to COVID-19 vaccine roll-out
Source(s)	<ul style="list-style-type: none"> • Experts remind patients that getting the COVID-19 vaccine does not break the Ramadan fast; recommend extending vaccine clinics hours past sunset Link (Correspondence – the Lancet) • Vaccine hesitancy is high among Indigenous peoples of Canada given past history of medical experimentation Link (Journal – CMAJ) • Malawians slow to get vaccinated, fearing authorities are using donated expired doses Link (News – the Guardian) • American Black and Hispanic health care workers more likely to say they will wait to see how vaccine works before getting; Black health care workers distrust the government to ensure safety/effectiveness Link (Survey – Washington Post)

Theme	Challenges of countries' vaccine passports <ul style="list-style-type: none"> • Elaboration on a current issue
Taxonomy component	Approach to COVID-19 vaccine roll-out
Source(s)	<ul style="list-style-type: none"> • Support for vaccine passports in United Kingdom is not shared among young people, ethnic minorities and those living in poor areas as it may further social division, inequality and alienation; community engagement is key to moving forward. Link (Magazine – The Atlantic) • WHO urges countries not to use vaccine passports that are being set up by individual countries for international use. Link (Magazine – Maclean's)

Theme	Transparency and coordination in vaccine messaging <ul style="list-style-type: none"> • New issue
Taxonomy component	Approach to COVID-19 vaccine roll-out
Source(s)	<ul style="list-style-type: none"> • Mixed messaging with certain vaccines such as AstraZeneca can be harmful and requires a need for faster decision-making, scientific consensus and better coordination. Link (News – National Post)

4) Economic and social responses

Theme	Combining economic and social responses with rapid testing <ul style="list-style-type: none"> • New issue
Taxonomy component	Education – Service planning for 'return to normal' Employment – Service planning for 'return to normal'
Source(s)	<ul style="list-style-type: none"> • Rapid testing will be most effective when used in combination with other interventions that incentivize people to routinely use these tests, support people to isolate when they test positive, and encourage vaccine uptake. Link (Twitter) • Lateral flow tests, whose use has been misunderstood over the course the pandemic, combined with the right supportive measures can aid in pandemic control and a return to normality. Link (News – The Guardian) • The United States should adopt a widespread rapid home testing program, as has been launched in the United Kingdom, to cut infection transmission and enable a return to normality. Link (News – Forbes)

Theme	Science communication and literacy <ul style="list-style-type: none"> • New issue
Taxonomy component	Citizenship – Community engagement Education
Source(s)	<ul style="list-style-type: none"> • Effective science communication requires appeals to logic, emotion, and credibility, but the science communication response to the issue of rare blood clots associated with vaccination has focused almost exclusively on logic. Link (Twitter) • Given the evidence regarding indoor and outdoor virus transmission, outdoor mask mandates risk obscuring the public understanding of virus transmission and miscommunicate the most important risk factors. Link (Blog – NEJM HIV and ID Observations) • Conspiracy theories (often propagated on social media), political polarization, and distrust in institutions threaten vaccination efforts and public health measures; educational responses that bolster critical thinking and media literacy are needed to combat these threats. Link (News – PBS)