COVID-END horizon-scanning global panel
Briefing note
(Last updated 23 November 2020)

Current pandemic context

Confirmed COVID-19 cases are nearing 59 million worldwide with over 600,000 cases added daily – the highest rate seen thus far (and over 200,000 more per day than last month). News regarding effective vaccine candidates and their possible approval is emerging, prompting increased discussion about allocation, distribution and vaccine hesitancy.

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

- The use of a non-vaccination-related herd-immunity approach is now not recommended based on the experiences of some countries
- Seroprevalence (i.e., the percentage of the population with antibodies against the novel coronavirus) is increasingly being explored as a mechanism to better understand spread within communities and across borders and to inform public-health guidance
- Misinformation (about COVID-19 and vaccinations to avoid it) is an increasingly visible issue and require targeted approaches and focused attention to combat it (e.g., doctors as social influencers) [as an additional frame on the existing priority of 'supporting adherence to public-health measures']
- A lack of transparency and accountability and the politicization of COVID-19 related decisions may be affecting public trust and confidence in science and government officials [as an additional frame on the existing priority of 'supporting adherence to public-health measures']

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

- The role of antibodies and their protective effects are still emerging, with pre-existing auto-antibodies now considered likely to not be protective (and to possibly be harmful) and with those with more severe COVID-19 presentations possibly being less susceptible to future infection

3) Health-system arrangements

- Questions are arising about advance purchase agreements for COVID-19 vaccines and their potential negative impacts on global welfare and the ability of low- and middle-income countries to benefit from vaccines in a timely way [as an additional frame on the existing priorities of 'managing vaccine distribution and allocation' and 'approaches to strategic purchasing of supplies and equipment']
- Effective COVID-19 vaccination efforts require a high degree of coordination, including consideration of cold storage and handling, which may be particularly challenging in rural settings [as an additional frame on the existing priority of 'managing vaccine distribution and allocation']

4) Economic and social responses

- More debt relief is likely needed for many countries to mount a sustainable recovery from the pandemic [as an additional frame on the existing priority of 'embracing new approaches to public financing that support fairness

and equity (especially for women and other vulnerable populations), avoiding fiscal cliffs (expiring tax cuts and government spending cuts), and avoiding debt traps']

- A shift away from precarious work and towards a future focussed on higher productivity and more stable work opportunities is needed to regain ground toward Sustainable Development Goal 8 (promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)
- The extraordinary measures introduced during the pandemic that have limited some individual rights and freedoms need to be explicitly reversed once the pandemic is over
- The supply chains for many minerals and metals needed for electronics and green energy production have been disrupted and action is needed to support the sustainable management of these resources

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, the COVID-END team has reviewed priorities identified by the panel in the past and compared them with the COVID-END inventory of 'best' evidence syntheses as well as other available and planned syntheses (as captured in the COVID-END database that feeds the inventory) to identify areas where evidence syntheses do and do not exist. Updates based on last month's panel meeting are highlighted in yellow.

Prioritized topics from past panel meetings	Identified available and planned syntheses
Public health	
Supporting **adherence** to measures, including better communicating rationale including trade-offs (including in politicized contexts and for politicized issues and in the face of 'pandemic fatigue')	• **One** non-living 'best evidence' synthesis addresses behaviour change support for the public regarding facial touching • **One** non-living 'best evidence' synthesis addresses behaviour change support related to infection prevention and control guidelines, but only for health care workers • **Nine** other available syntheses and **six** planned syntheses addressing communication and adherence to a range of public health measures
Strategies for testing and for test-track-trace approaches that optimize the use of existing capacity	• **One living** [synthesis 1] and **one** non-living [synthesis 2] 'best evidence' synthesis address reducing turn-around times via rapid point-of-care testing • **One** non-living 'best evidence' synthesis addresses digital contact tracing • **Fifteen** other available syntheses and **seven** planned syntheses address automation, partial automation, apps and other approaches to effective testing and contact tracing
Surveillance, analytic and synthesis **capacity and linkages** to other parts of the health system	• **One living** 'best evidence' synthesis addresses symptoms that could be used for screening in primary care and outpatient settings • **Four** other available syntheses and **no** planned syntheses address primary care and prioritizing particular groups for intervention
Outbreak **contributors** (from interdisciplinary outbreak studies)	• **One living** 'best evidence' synthesis addresses long-term care homes as an outbreak location • **Ten** other available syntheses and **three** planned syntheses address other outbreak contributors including physical

Prioritized topics from past panel meetings	Identified available and planned syntheses
	environments (e.g., prisons, congregate settings), asymptomatic spread, air quality, among others)
Understanding patterns in and consequences of the greater **geographic dispersion** of infections in the second wave of COVID-19	• No 'best evidence' syntheses were identified • **One** other available synthesis and **10** planned syntheses address potential distributors to geographic dispersion and related consequences
Clinical management of COVID-19 and pandemic-related conditions	
Long COVID (among people without severe COVID) and/or long-term sequelae of severe COVID	• **Two living** 'best evidence' syntheses address neurological events as common sequelae of COVID-19 [synthesis 1] [synthesis 2] • **Seventeen** other syntheses and **eight** planned syntheses address a range of sequelae related to COVID-19 (neurological, gastrointestinal, kidney, cardiac, stroke, Guillain-Barré syndrome, and more)
Screening for and managing emergent **mental health and substance use** issues	• **One living** 'best evidence' synthesis [synthesis 1] and **two non-living** 'best evidence syntheses address who is at risk for mental health issues and effective treatment and supports, but not how to screen them [synthesis 2] [synthesis 3] • **Two** non-living 'best evidence' syntheses address mental health concerns related to health-care workers specifically [synthesis 1] [synthesis 2] • **Sixty-one** other reviews and **26** planned synthess address mental health and substance use screening and management
Concurrent management of COVID-19 and other (seasonal) infections	• No 'best evidence' syntheses identified • **Three** other available syntheses and **five** planned syntheses address connections to, and management of other seasonal infections (mainly influenza)
Understanding COVID-19 as a **'syndemic'** that co-occurs with a range of other non-communicable diseases that differentially affect population groups, and adjusting supports accordingly	• No 'best evidence' syntheses identified • **Fourteen** other available syntheses and **three** planned syntheses address co- or multi-morbidities, including identification and management
Health-system arrangements	
Responsive and agile • Restoration of **non-COVID services** when possible (by developing or capitalizing on 'slack' within health systems) • Efforts to address **health human resource** shortages (and motivation & wellbeing)	• **One** non-living 'best evidence' synthesis addresses health human resource training for medical students in disaster preparedness • **Four** other available syntheses and **two** planned syntheses address restoration of non-COVID services • **Four** other available syntheses and **one** planned synthesis address health human resource shortages
Packages of responses (public-health / health-system) **and combinations of centralized & decentralized approaches** (from studies of variations in response to local and regional outbreaks and/or changes in incidence rates)	• No 'best evidence' syntheses identified • **One** other available synthesis and **one** planned synthesis address packages of support
Managing **vaccine** distribution and allocation, leveraging vaccine trust and addressing vaccine hesitancy, considering vaccine passports, and capturing lessons learned from roll-outs	• No 'best evidence' syntheses identified • **Four** planned syntheses address vaccine hestitancy and uptake

Prioritized topics from past panel meetings	Identified available and planned syntheses
Approaches to **strategic purchasing** of supplies and equipment (e.g., personal protective equipment and liquid nitrogen for vaccine storage) that balance accountabilities up & out	• No 'best evidence' syntheses identified • **Two** planned syntheses address approaches to resource allocation
Consolidating and optimizing the value achieved through shifts in **virtual care**	• **One living** 'best evidence' synthesis addresses virtual care for people with COVID-19 • **Two** non-living 'best evidence' syntheses address virtual care for other conditions, including urologic conditions and neurosurgical patients • **One** non-living 'best evidence' synthesis addresses virtual care to reduce loneliness in older adults • **Eight** other available syntheses and **three** planned syntheses address virtual care for a range of conditions and including apps as well as telemedicine interventions
Strengthening health-system governance (including by addressing corruption and avoiding the politicization of decision-making processes) and the role of primary care as the foundation for the health-system response to COVID-19	• No 'best evidence' syntheses identified • **Three** other available syntheses and **three** planned syntheses address the role of primary care in response to the COVID-19 pandemic
Economic and social responses	
Food safety and security – Approaches to addressing food supply-chain challenges and **food poverty**, including both community-based or nationally-led actions	• No 'best evidence' syntheses identified • **One** other available synthesis and **one** planned synthesis address food security
Financial protection – Enhancing **financial security** by adjusting 'safety nets' (and keeping in mind differential impacts on women and other vulnerable populations) and enhancing workforce training	• No 'best evidence' syntheses identified • **One** other available synthesis adderesses social protection as a tool for crisis management
Education - Benefits and risks to students, educators and families arising from **school** closures, re-openings, **operations** and pedagogical innovations that can support ongoing education	• **One** 'best evidence' synthesis (protocol only) addresses changes to classrooms and schools more generally • **Five** other available syntheses and **fourteen** planned syntheses address school-related transmission and transmission-reduction measures but no syntheses address pedgagogical innovations
Culture and gender - Additional risks of **gender-based and domestic violence** arising from restrictions, and appropriate ways to address such violence	• No 'best evidence' syntheses identified • **Five** other available syntheses and **five** planned syntheses address intimate-partner and domestic violence during COVID-19, including identification and interventions to address such violence
Citizenship - Linking **citizen and community participation** in pandemic planning, policymaking and response with outcomes and capturing innovations in government approaches	• No 'best evidence' syntheses identified • No other available or planned syntheses identified
Transportation - Managing the risks related to **tourism** and **travel**	• **One living** 'best evidence' synthesis [synthesis 1] and **one** non-living 'best evidence' synthesis [synthesis 2] address travel-related measures including screening and quarantine • **Two** other available syntheses address transportation hubs and travel-related control measures

Prioritized topics from past panel meetings	Identified available and planned syntheses
Climate action – Additional risks of **environmental crisis** and maximizing the opportunity for synergies between the COVID-19 response and climate action	• No "best evidence syntheses identified • **Three** planned syntheses address the association of climate and environmental factors with COVID-19
Community and social services - Differential impact of COVID-19 on **vulnerable populations** and increasing **inequalities**	• No 'best evidence' syntheses identified • **Six** other available syntheses and **eight** planned syntheses address different populations, vulnerability and tailored responses to COVID-19
Economic development and growth – Embracing **new approaches** to public financing that support fairness and equity (especially for women and other vulnerable populations), avoiding fiscal cliffs (expiring tax cuts and government spending cuts), and avoiding debt traps	• No 'best evidence' syntheses identified • **Three** other available syntheses and **six** planned syntheses address social and economically disadvantaged groups as well as economic responses to COVID-19

A full list of syntheses categorized by priority topic, including (when available) quality ratings, date of last search and declarative titles, is available upon request.

Tips for teams taking up priority topics for living evidence syntheses (updated)

The panel agreed that all synthesis activities should be undertaken with several key considerations in mind, including:

- an explicit commitment to:
  - foregrounding equity considerations,
  - examining benefits and harms (health outcomes but also economic and social outcomes), citizen experiences, and costs,
  - being attentive to variation in state capacity;
- interdisciplinary teams (e.g., laboratory, infection prevention and control, engineering, data modeling, outbreak studies, behavioural and social sciences, equity, science communication, citizens) alongside methodological experts; and
- committing to explicit cycles or triggers for updating living evidence syntheses (and/or at least to finding a home for an evidence synthesis when an emergent issue becomes long-term or recurring and needs to become a living evidence synthesis).

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

1) Public-health measures

Theme	**Mass vaccination to achieve herd immunity and vaccine distribution** • Elaboration on an existing issue (shifting toward the 'how' and lessons learned)
Taxonomy component	Future possible public-health measures - Vaccination
Source(s)	• Exposure to COVID-19 as an approach to achieving herd immunity is not recommended as some countries such as Sweden have previously attempted; vaccine-induced herd immunity as a tried-and-test public health measure is the only feasible solution. Link (website - The Conversation)

Theme	**Understanding spread** • Elaboration on an existing issue (understanding spread across borders and within communities using seroprevalence)
Taxonomy component	Public health measures – Infection control - Testing and susceptibility tracking
Source(s)	• Seroprevalence of COVID-19 much higher in slums than non-slums in India, with over half of those tested in slums being positive, maybe driven by density, hygiene or lower adherence to distancing. Link (journal - The Lancet) • Most Low- and Middle- Income Country-focused studies should take into consideration data obtained from using different modes of transport, particularly those from serosurveys to understand transmission and inform travel guidance in low- and middle-income countries. Link (news - Science magazine)

Theme	**Health promotion** • Additional frame on existing issue (adherence to public health measures)
Taxonomy component	Adherence to public health measures - communication and public health messaging
Source(s)	• Doctors poorly prepared to tackle disinformation, need to leverage their roles as social influencers Link (journal – CMAJ) • Study finds fewer people plan to get a vaccine than needed for herd immunity partly as a result of misinformation about the vaccine Link (news – Reuters)

Theme	**Ensuring transparency and accountability in decision making** • Elaboration on existing issue
Taxonomy component	Adherence to public health measures
Source(s)	• Serious concerns about the politicization of science, corruption, and limited transparency in government decision-making in the UK have prompted calls for greater accountability, better science communication, and other measures to ensure science and evidence serve the pubic interest. Link (BMJ) • Limited accountability for decision making and the stifling of information sharing may be hurting public trust and confidence in Ontario; greater transparency will be needed to generate buy-in for future measures. Link (News – The Toronto Star)

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

Theme	**Antibody production** • New issue
Taxonomy component	Other
Source(s)	• Patients with pre-existing autoantibodies have a much lower response to the virus, resulting in much poorer outcomes; most patients in a study with this characteristic were men, maybe explaining much higher COVID-19 death rates for men than women Link (journal – Science) • South Korean researchers believe those with more severe COVID-19 presentations may be less susceptible to future reinfection because of higher antibody production, immune system response. Link (journal – Emerging Infectious Diseases)

3) Health-system arrangements

Theme	**Global vaccine allocation and management** • Elaboration on existing issue – vaccine allocation decisions
Taxonomy component	Infrastructure planning and resource allocation
Source(s)	• Although global efforts such as GAVI and COVAX exist, many high-income countries have signed advanced purchase agreements with vaccine manufacturers, prompting question about how "vaccine nationalism" may get in the way of global welfare and the ability of frontline workers in low- and middle-income countries to receive the vaccine in a timely manner. Link (The Guardian) • A tightly coordinated and financed effort is required for vaccine cold storage and handling in rural hospitals. Link (news - STAT News)

4) Economic and social responses

Theme	**Debt relief and green recovery** • Elaboration on existing issue – embracing new approaches to public financing that support fairness and equity, avoiding fiscal cliffs and 'debt traps'
Taxonomy component	Economic development and growth - Debt relief for governments; Climate action - Climate-action focused economic stimulus
Source(s)	• Although efforts have been made to provide indebted nations with fiscal space to deal with the pandemic recovery, more debt relief from public and private creditors is needed to provide nations with the ability to undertake a recovery focused on sustainable development. Link (Report – Global Development Policy Center)

Theme	**Promoting stable labour and labour productivity** • Elaboration on an existing issue – identifying policies to maximize economic security
Taxonomy component	Employment; Economic development and growth - Economic resilience
Source(s)	• Achieving Sustainable Development Goal 8 (promote sustained, inclusive economic growth, full and productive employment and decent work for all) has been set back by COVID-19 and will require a stronger focus on promoting higher productivity and less vulnerable/precarious forms of work. Link (World Bank)

Theme	**Civil liberties and extraordinary pandemic measures** • New issue
Taxonomy component	Citizenship – Civil-rights violations
Source(s)	• Extraordinary measures to combat the COVID-19 pandemic have necessarily placed some rights and freedoms in conflict; there is a need to prevent extraordinary measures from eroding rights and freedoms during and after the pandemic. Link (The Guardian)

Theme	**Mineral and metal supply chains** • New issue
Taxonomy component	Natural resources – Distribution difficulties
Source(s)	• The pandemic has caused disruptions to supply chains of minerals and metals important for electronics and green-energy technologies and markets are likely to remain turbulent, sparking the need for action to strategically support this industry, strengthen the 'circular economy' of metals, and ensure the sustainable management of these resources. Link (Journal – Nature)

Citation: Bullock HL, Sharma K, MacLean A, Al-Khateeb S, Moat K, Mansilla C, McKinlay J, 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 November 2020.