Using Synthesized Research Evidence to Inform the COVID-19 Response

2020 National Health Research Conference, 18 November 2020

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Acknowledgements

- Funding for COVID-END
  - Government of Ontario (through a grant to Rapid-Improvement Support and Exchange, or RISE), which supports the locally focused parts of our work
  - National Institute of Health Research (Evidence Synthesis Program), UK
  - Individual donors through the Centre for Effective Altruism and Fidelity Charitable, USA, and private individual donors
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- **Time-limited network** that has come together in response to the COVID-19 pandemic to help
  - Those supporting decision-making about COVID-19 to find and use the best available scientific evidence (i.e. evidence-demand side)
  - Researchers to avoid waste by reducing duplication in and better coordinating the COVID-19 evidence syntheses, technology assessments & guidelines being produced (i.e., evidence-supply side)
- Partners include **50+** of the world’s leading evidence-synthesis, technology-assessment, and guideline **groups**
- Covers the **full spectrum** of pandemic responses
  - Public-health measures, clinical management, health-system arrangements, and economic & social responses
  - High-income and low-and-middle-income country contexts
COVID-END Resources for Those Supporting Decision-making (https://www.covid-end.org)

- Inventory of ‘best’ evidence syntheses for COVID-19 decisions
- Horizon scans for emerging issues
- Community of those supporting decision-making
- Living hub of COVID-19 knowledge hubs
- Additional supports
  - Guide to COVID-19 evidences sources
  - Evidence-packaging resources
  - Evidence-support models
  - Tips and tools
COVID-END Resources for Researchers (https://www.covid-end.org)

- Priorities for new evidence syntheses and guidelines (coming soon)
- Supports for evidence synthesizers
- Supports for guideline developers (coming soon)
Case for Doing Things Differently As We Transition from a Sprint to a Marathon

- Remarkable number of single studies being published everyday has created a very high noise-to-signal ratio;
- One-off reviews on long-term and recurring issues are quickly out of date;
- Many rapid (and full) reviews are of low quality;
- Few reviews about interventions provide a GRADE evidence profile that speaks to the level of certainty of the available evidence;
- Too many evidence syntheses address the same topic (e.g., >200 prognostic reviews and only 5 such reviews address ≥ 5 factors);
- Too many key decisions have no available evidence synthesis (let alone a living evidence synthesis that is updated as new studies are published);
- The small number of existing living evidence syntheses often address same topic (e.g., 3 living network meta-analyses of COVID-19 treatments).
Case for Doing Things Differently As We Transition from a Sprint to a Marathon (2)

- More on the high noise-to-signal ratio →
  - **Start with** recently updated, high-quality evidence syntheses, which
    - Reduce the likelihood that decision-makers will be **misled** by research (by being more systematic and transparent in the identification, selection, appraisal, and synthesis of studies)
    - Increase **confidence** among decision makers about what can be expected from an intervention (by increasing the number of units for study)
    - Allow decision makers to focus on **how findings do or don’t vary by context and population** (ideally using an explicit equity lens) and hence what the evidence means for a specific jurisdiction at a specific moment in time
    - Allow stakeholders, including public interest or civil society groups, to **constructively contest** research evidence because it is laid out for them in a more systematic and transparent way

- These evidence syntheses are distinct from **jurisdictional scans**
What Does the Marathon Look Like?

- **Inventory of best evidence syntheses** for COVID-19 decisions
  - ‘Best’ defined by recency of search, quality of review, and GRADE evidence profile availability
  - Declarative title to facilitate relevance assessments (e.g., PICO and certainty level)
  - Additional information about ‘living’ status, synthesis type, and synthesis question

- **Horizon scans** for emerging issues and topic prioritization
  - Monthly briefing note drawing on horizon scans from around the globe
  - Monthly meeting of a panel of 36+ diverse strategic and ‘out-of-the-box’ thinkers and doers (with diversity defined in relation to our taxonomy, target audiences, WHO regions, and primary languages spoken)

- **List of priority topics** for living evidence syntheses (and efforts to encourage, nudge and cajole teams to take them on)

- **Robust local efforts to contextualize** the evidence for decision-making
  - E.g., rapid-evidence profiles in 4 hours, 1 day, 2 days or 3 days (which provide both ‘best evidence’ and jurisdictional scans)
Where Are We in the Transition to Marathon?

- **Inventory of best evidence syntheses for COVID-19 decisions (as of 13/11)**
  - 3,300+ harvested (with PROSPERO protocols our only key source outstanding)
  - 2,400+ non-duplicates
  - 1,100+ decision-relevant syntheses included in database
  - 150+ included in inventory based on three criteria for ‘best’ evidence syntheses

- **Horizon scans for emerging issues and topic prioritization**
  - Four monthly panel meetings to date (with all reports available on our website)
  - Starting to use up and down voting for priority topics for evidence syntheses

- **List of priority topics for living evidence syntheses (and efforts to encourage, nudge and cajole interdisciplinary teams to take them on, plus tips for teams)**
  - First draft of the list will be posted any day and team building to begin soon
What’s on our List of Priority Topics for Living Evidence Syntheses?

- Public-health measures
  - Supporting adherence to measures, including better communicating the rationale including trade-offs (including in politicized contexts and for politicized issues)
  - Strategies for testing and for test-track-trace approaches that optimize the use of existing capacity
  - Outbreak contributors (from interdisciplinary outbreak studies)
  - Surveillance, analytic and synthesis capacity in public-health units and linkages to other parts of the health system

- Clinical management of COVID-19 and pandemic-related conditions
  - Long COVID (among people without severe COVID) and/or long-term sequelae of severe COVID
  - Screening for and managing emergent mental health and substance use issues
  - Concurrent management of COVID-19 and other (seasonal) infections
  - Emergence of endemic diseases in urban environments
What’s on our List of Priority Topics for Living Evidence Syntheses? (2)

- Health-system arrangements
  - Managing **vaccine** purchasing, allocation, ordering, distribution and inventories under shortage conditions, leveraging vaccine trust and addressing vaccine hesitancy, and capturing lessons learned from roll-outs
  - Approaches to **strategic purchasing** of supplies and equipment (e.g., personal protective equipment and liquid nitrogen for vaccine storage) that balance accountabilities up & out
  - 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)
  - Consolidating and optimizing the value achieved through shifts in **virtual care**
  - **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)
What’s on our List of Priority Topics for Living Evidence Syntheses? (3)

- Economic and social responses
  - Culture and gender - Additional risks of gender-based and domestic violence arising from restrictions and appropriate ways to address such violence
  - Education - Benefits and harms to students, educators and families arising from school closures, re-openings and operations as well as for pedagogical innovations that can support ongoing education
  - Financial protection - Enhancing financial security by adjusting ‘safety nets’ and supporting workforce (re)training
  - Food safety and security – Approaches to addressing food supply-chain challenges and food poverty
  - Climate action – Additional risks of environmental crisis and maximizing the opportunity for synergies between the COVID-19 response and climate action
  - Transportation - Managing the risks related to tourism and travel
  - Citizenship - Linking community participation in the pandemic response with outcomes and capturing innovations in participatory approaches
Tips for Teams Taking Up Priority Topics for Living Evidence Syntheses

- Consider committing to explicitly
  - Foreground **equity** considerations
  - Examine **benefits and harms** (health outcomes but also economic and social outcomes), citizen experiences, and costs
  - Acknowledge variation in **government capacity**

- Consider **interdisciplinary teams** (e.g., laboratory, IPAC, engineering, data modeling, outbreak studies, behavioural & social sciences, equity, science communication and citizens) alongside methodological experts

- Consider 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)
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