

Finding 'Best Evidence' About COVID-19

CIHR COVID-19 Knowledge Mobilization Webinar

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HEALTH FORUM



The Ottawa
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Research

Agenda

- 1) Welcome and introductions
- 2) 'Best evidence' vs 'other things'
- 3) Criteria for best evidence
- 4) Sources of best evidence
- 5) Ways to keep up on best evidence
- 6) Q & A
- 7) How COVID-END can help
- 8) Q & A

Welcome and Introductions

- CIHR hosts
- COVID-END team
- Government of Canada – **Any departments (or HC branches) missing?**
 - Health Canada
 - COVID-19 Task Force
 - Controlled Substances and Cannabis Branch
 - Health Products & Food Branch
 - Healthy Environments and Consumer Safety Branch
 - Regulatory, Operations and Enforcement Branch
 - Strategic Policy Branch
 - Pest Management Regulatory Agency
 - Innovation, Science and Economic Development Canada
 - National Research Council Canada
 - Public Health Agency of Canada
 - Statistics Canada
- Government of Saskatchewan

Best Evidence Vs Other Things

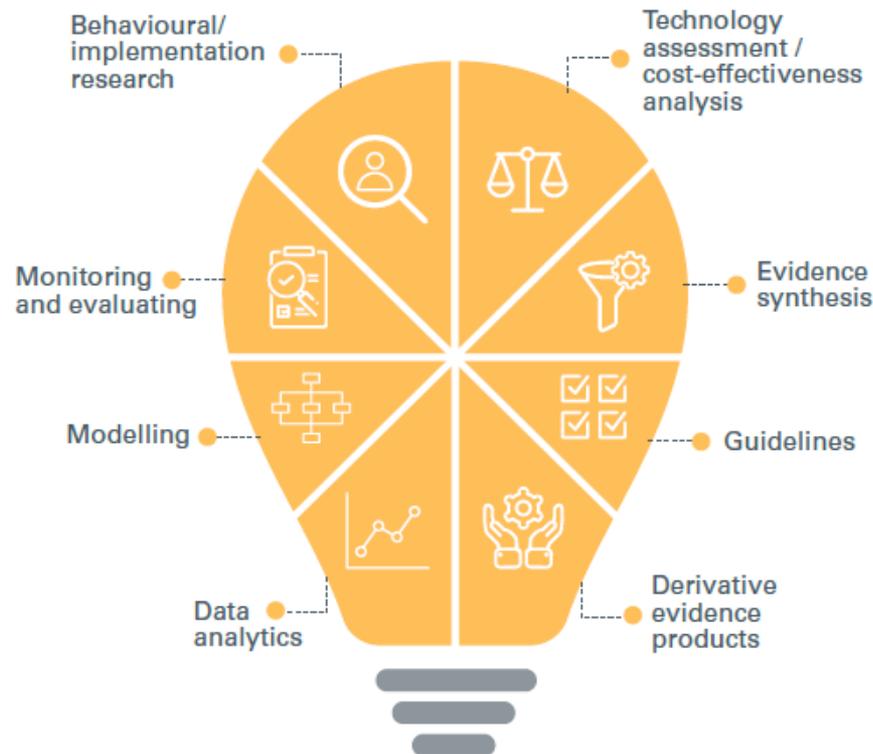
- Best evidence
 - **Evidence synthesis**: Systematic and transparent process of identifying, selecting, appraising and synthesizing the findings from all studies that have addressed the same question in order to come to an overall understanding of what is known, including how this may vary by groups (e.g., racialized communities) and contexts (e.g., low socio-economic neighbourhoods)
 - Best evidence synthesis defined by recency (of search, not publication), quality (e.g., AMSTAR), and evidence profile (e.g., GRADE) availability
- Vs **single studies** or preprints (or ‘hubcap chasing’)
- Vs **expert opinion** (or ‘talking heads’ and ‘squeaky wheels’)
- Vs **expert panels** (or GOBSATT)
- Vs **research interest groups** (or stakeholder management)
- Vs **jurisdictional scans** (or ‘who else doesn’t know what they’re doing but may be able to share some experiences and innovations?’)

Best Evidence Vs Other Things (2)

- An aside about ways to make these ‘other things’ **more credible**
 - **Single studies** → Critically appraise study (or better yet, add it to a ‘living’ evidence synthesis where it can be understood in context)
 - **Expert opinion** → Ask expert to share the evidence syntheses on which her comments are based (or better yet, ask her to focus on working through what specific evidence syntheses mean for your jurisdiction)
 - **Expert panels** → Add methods experts to the secretariat and panel, pre-circulate best evidence, support robust deliberation, and make explicit which recommendations are based on evidence vs expert opinion
 - **Research interest groups** → Encourage them to base their requests on best evidence (or treat them like any other interest group)
 - **Jurisdictional scans** → Look/ask for any available supporting evidence or plans for generating it

Best Evidence Vs Other Things (3)

- Ideally decisions are informed by syntheses of the best evidence globally (i.e., **evidence syntheses**) and local evidence (e.g., data analytics, modelling, M&E)



Criteria for Best Evidence

- Best evidence **synthesis** defined by
 - **Recency of search** → How likely is it that recently published studies were captured? (and 'living' evidence syntheses are upping our game here)
 - **Quality of synthesis** (e.g., AMSTAR) → How well was the synthesis conducted and reported? (and AGREE II can be used for guidelines)
 1. An 'a priori' **design** provided?
 2. Duplicate study selection and data extraction?
 3. **Comprehensive** literature search performed?
 4. Status of publication **NOT** used as an inclusion criterion?
 5. List of studies (included and excluded) provided?
 6. Characteristics of included studies provided?
 7. Scientific **quality** of included studies assessed?
 8. Scientific quality of included studies used appropriately in formulating conclusions?
 9. Methods used to combine study findings appropriate?
 10. Likelihood of **publication bias** assessed?
 11. **Conflict of interest** stated?
 - **Evidence profile** (e.g., GRADE) **availability** → How certain can we be about particular findings reported in a synthesis?

Sources of Best Evidence

- Syntheses of the best evidence globally
 - COVID-END inventory of best evidence syntheses (currently 435 in the global inventory) – [see the COVID-END website](#)
 - COVID-END database of evidence syntheses (currently 6,000+ in the global database) – [coming soon to the COVID-END website](#)
- Syntheses of evidence requested by Canadian decision-makers and/or contextualized to the Canadian context (with any meeting minimum standards available through the global database as well)
 - COVID-END database of domestic evidence syntheses – [ask us](#)
- COVID-END guide to key COVID-19 evidence sources
 - Searchable databases of single studies (and often syntheses) as well), such as [COVID-19+](#) and [L*VE](#)
 - Government-response trackers, such as PoliMap

Ways to Keep Up on Best Evidence

- Sign up for COVID-END's twice-a-month 'Canadian COVID-19 spotlight' emails
 - 'Twice-a-month 'Canadian spotlights''
 - Includes questions newly taken on, responses completed, new evidence syntheses (ESs) completed, and updates to living ESs by COVID-END and from any of 40+ Canadian ES teams
 - Twice-a-month 'global spotlights''
 - Includes new 'best ESs' completed and updates to living ESs from any of best ES teams globally
 - Once-a-month **horizon-scanning outputs** capturing emerging issues from across Canada and around the globe (briefing note and panel summary)
- Sign up for customizable monthly email alerts from the COVID-END database of evidence syntheses – **coming soon**
- Sign up for **COVID-19 evidence alerts from McMaster PLUS**
- Check the **COVID-END website** for new and updated profiles and syntheses

A Brief COVID-END Website Tour

- COVID-END [inventory](#) of best evidence syntheses
- COVID-END [guide](#) to key COVID-19 evidence sources
- [Sign up](#) for COVID-END's twice-a-month 'Canadian COVID-19 spotlight' emails
- Check the COVID-END [website](#) for new/updated profiles and syntheses

Q & A



COVID-END

COVID-19 Evidence Network
to support Decision-making

How COVID-END Can Help



Case for Doing Things Differently As We Transitioned from a Sprint to a Marathon

- Remarkable number of single studies being published every day 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**
- Too many key decisions have **no available evidence synthesis** (let alone a **living evidence synthesis** that is updated as new studies are published)

Funding and Organization

- **CIHR** is now supporting pan-Canadian work and Canada-relevant parts of our global work (**'COVID-END in Canada'**), which includes all types of responses
 - Public-health measures
 - Clinical management
 - Health-system arrangements
 - Economic and social responses

- Secretariat (COVID-END, SPOR EA and Cochrane Canada)
- 15-member steering committee
- **40+ evidence-synthesis teams from across the country**
- 20+ citizen partners and many dissemination partners
- Engagement plan for Indigenous peoples



Two 'Actions' on the Demand Side

- 1) Evidence-demand coordination (plus **webinars** if there's interest)
 - FPT Special Advisory Committee for COVID-19 (SAC)
 - Key decision-makers in FPT governments and affiliated agencies
 - Leaders of 'evidence synthesis and contextualization shops' in FPT governments and affiliated agencies
- 2) Horizon scanning
 - Monthly Canadian panel immediately following our global panel
 - **Monthly briefing note on emerging issues**
 - **Monthly panel summary of high-priority issues**

Two (Now Three) 'Actions' on the Supply Side

Request form → Check against domestic and global inventories and email to evidence-synthesis teams → Scoping call with requester →

0) Responses

- e.g., **Drug treatments; vaccine efficacy**

1) New or updated syntheses (profiles* in 1-3 days and syntheses in 5-10 days)

- e.g., **Lifting public-health measures** (when and in what order)?

2) Living evidence syntheses

- e.g., **Vaccine roll-out** (1X/month); **LTC crisis management and renewal** (1x/month)
- e.g., Implications of **variants** for public-health measures and health-system arrangements; effectiveness of **vaccines** against variants (1x/week)

**Rapid & living evidence profiles contain both best evidence and jurisdictional scans*

First (of Two) Enablers

1) Evidence-supply coordination

- 40+ evidence-synthesis teams across Canada
 - Proactively (twice a month) sharing topics newly taken on and syntheses completed
 - Reactively (in response to requests) sharing work underway and completed that may fully address a request or can be built upon
- Twice-a-month ‘**Canadian spotlights**’ on where evidence is being or has been synthesized

Second (of Two) Enablers

2) Inventory of 'best evidence syntheses'

- Current approach to the 'static' inventory already available online
 - 'Best' defined by recency, quality & evidence profile availability
 - Declarative title to highlight PICO & evidence certainty
 - 'Living' status, synthesis type, and synthesis question
- Current reduction in noise-to-signal ratio
 - 7,500+ syntheses from high-quality / high-yield sources
 - 6,000+ non-duplicate syntheses → 4,100 decision-relevant syntheses
 - **435 'best' evidence syntheses**
- Best way to keep up to date
 - Twice-a-month '**global spotlights**' on where evidence has shifted (either new evidence syntheses or updates to living evidence syntheses)
- Future approach
 - Searchable database and customizable evidence service
 - Additional field(s) for equity considerations

Other COVID-END Contributions

- Resources
 - For those supporting decision-making (e.g., inventory and **complementary guide**, horizon scans, community listserv, and living hub of COVID-19 knowledge hubs)
 - For evidence-synthesis teams (e.g., priorities for new evidence syntheses, resources for evidence synthesizers, and resources for guideline developers)
- Working groups
 - Four continuing: Scoping, Engaging, Recommending, Sustaining
 - Three new: Prioritizing, Accessing, Advocating
 - Three on stand-by: Digitizing, Synthesizing, Packaging
 - Two complementary task groups: Equity, Citizen partnership
- Related networks and commissions through which we can extend our impacts
 - e.g., **Canadian networks** that funded by tri-council agencies (modelers, trialists and variants researchers)
 - e.g., ACTS (implementation), BESSI (behaviours), COKA (data standardization)
 - e.g., Lancet COVID-19 Commission & **WHO Evidence Collab for COVID-19 (ECC-19)**

Potential Implications

- Submit high-priority **questions** about COVID-19 where evidence syntheses are needed (using the request form on our website)
- Sign up for twice-a-month emails containing our **'rolled-up' outputs**
 - Twice-a-month **'Canadian spotlights'**
 - Includes questions newly taken on, responses completed, new evidence syntheses (ESs) completed, and updates to living ESs by COVID-END and from any of 40+ Canadian ES teams
 - Twice-a-month **'global spotlights'**
 - Includes new 'best ESs' completed and updates to living ESs from any of best ES teams globally
 - Once-a-month horizon-scanning outputs capturing emerging issues from across Canada and around the globe (briefing note and panel summary)
- Go to our **website** (<http://www.covid-end.org>) for both Canada-specific and global content

Stay Tuned

- Upcoming training webinar for those involved in conducting evidence syntheses
 - Wednesday 30 June from 1:30-4:30 pm ET
- Global Commission on Evidence to Address Societal Challenges – **coming soon** to evidencecommission.org

Global Commission on Evidence to Address Societal Challenges



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Q & A

