COVID-19 SHORT REPORT

COVID-END: an international network to better co-ordinate and maximize the impact of the global evidence synthesis and guidance response to COVID-19

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Introduction and background

The COVID-19 pandemic is one of the greatest health and societal challenges that the world has collectively faced in many decades. Policy, public health, clinical and individual decision makers are actively seeking evidence and evidence-based guidance (e.g. health technology assessments, clinical practice guidelines) on prevention, management and mitigation of the health, social and economic impacts of COVID-19. As a result, there has been a dramatic global increase in basic and applied health (and to a lesser extent social and economic) research. Given that individual studies are rarely sufficient to guide policy, clinical and individual decisions, and the evidence base is rapidly evolving, decision makers need high-quality, context-relevant evidence syntheses and trustworthy guidance more than ever. It was heartening then, to see a dramatic increase in evidence synthesis, guidance and associated decision support activities globally to meet the needs of the pandemic during the first half of 2020.

Many of the eventual partners in COVID-END were involved in some type of evidence synthesis, guidance and support activities when COVID-19 struck. These partners rapidly pivoted to focus their work on COVID-19. We (JMG, JNL) observed that during the initial stages of the pandemic, the evidence synthesis response largely focused on rapid reviews, which were rapidly out of date despite the ongoing relevance of the review question and were of variable quality, and that guidance development largely focused on expert opinion. There was also huge duplication of effort globally, creating a major noise to signal problem. We decided to convene a series of exploratory meetings in early April of the key global evidence synthesis, guidance and decision support organizations to see whether other groups shared our concerns.

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We also explored whether there was an appetite to work together to promote collaboration, improve the efficiency of evidence synthesis and guidance production and decision support activities, and reduce inappropriate duplication of effort in order to maximize the impact of the global evidence response to COVID-19. Following these meetings, we established COVID-END: the COVID-19 Evidence Network to support Decision-making (covid-end.org/), as a time-limited network of global evidence synthesis, guidance and decision support organizations that aims better to co-ordinate their collective evidence response to the pandemic.

Key activities and strategies

We identified COVID-END partners - globally leading evidence synthesis, guidance and support organizations working on COVID-related activities (ensuring global representation) - that initially met virtually twice weekly. We established seven working groups (focusing on scoping, engaging, digitizing, synthesizing, recommending, packaging and sustaining activities) involving representatives from COVID-END partners. We rapidly established the scope of COVID-END and working principles, including the importance of global representation and equity in all aspects of our work. We recognized the need for evidence syntheses and guidance in four areas (addressing public health, clinical management, health system arrangements, and economic and social issues).

We asked the working groups to identify short-term projects that 'in weeks' could be helpful. For example, the synthesizing group created an interactive flow-chart featuring resources for groups thinking of doing evidence syntheses, encouraging them to clarify the issue or decision to be informed, check to see that other groups had not already done the evidence synthesis (or if there was an ongoing synthesis), to register any new proposed reviews, and to use state-of-the-science approaches if updating an out-of-date review or conducting a new review. The packaging group provided principles for evidence packaging, targeting different stakeholder groups. The recommending group worked to identify and share standards, methods, processes and digital platforms for developing, disseminating, adapting and implementing trustworthy, actionable and living guidance (linked to evidence). Low- and middle-income country (LMIC)-based partners highlighted the distinct challenges faced by evidence synthesis and support organisations in LMIC settings.[1] The COVID-END secretariat created a guide of key COVID-19 evidence sources, which could be rapidly scanned to identify best current evidence and an evidence-support model for producing rapid evidence profiles within four hours.

All these resources (and more) are freely available on the COVID-END website (covid-end.org; see 'Additional Resources' section for the URLs of all COVID-END resources).

By June 2020, it became obvious that COVID-19 was not going to be a sprint that would be over in months but something that is likely to be with us for the foreseeable future. Given this, we became convinced that the initial evidence synthesis, guidance and decision support response was not sustainable and that there were opportunities to rethink the model to increase the signal-to-noise ratio and improve value for decision makers, and quality and efficiency of synthesis and guidance production.

Specifically, we argue that the world will be best served by:

- better co-ordination and collaboration within the evidence eco-system;[2]
- a global stock of high-quality, open-access living systematic reviews covering (80% of) priority issues (public health measures, clinical management, health system arrangements, economic and social responses) faced by decision makers (to allow them to focus on contextualization of evidence within their setting) available in multiple languages;
- trustworthy, accessible and living guidance covering key (public health measures, clinical management, health system arrangements, economic and social responses) issues faced by decision makers;
- evidence synthesis capacity to undertake priority syntheses where high-quality, living systematic reviews are not available;
- increased exploitation of technology to increase the speed of production and to support knowledge translation;
- international, national and local decision-support initiatives that can support policy and other decision makers to find and interpret best evidence and guidance;
- global evidence eco-system infrastructure (building wherever possible on existing evidence synthesis, guidance and support initiatives, e.g., PROSPERO to register ongoing evidence syntheses) to encourage interoperability and facilitate efficient conduct and sharing of evidence syntheses, guidance and trustworthy decision support; and
- secure funding to support these activities.

Currently we are undertaking a number of projects that 'in months' could be helpful including:

- an inventory of best evidence syntheses linked to specific policy decisions, where high-quality, up-to-date (preferably living) syntheses will be identified making it even easier for decision makers to find the best evidence;
- a horizon-scanning panel of key global stakeholders that meets monthly to identify recurrent and emerging issues where syntheses would be needed in the coming months;
- a prioritisation process to identify where living systematic reviews are most needed, using gaps in the inventory and insights from the horizon-scanning panel, which can be used to encourage groups to take responsibility collectively for a full set of living reviews addressing all priority issues related to the pandemic and pandemic response; and

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- developing a virtual COVID-END community of any interested groups globally conducting evidence syntheses, guidance and decision support related to COVID-19.

We are keen to get feedback on any of these ideas and encourage readers to join the COVID-END Community if they are interested to learn more about our ongoing work and contribute to it.

Our aim was to work alongside major national and international organizations that were already established. We recognized Cochrane as the pre-eminent international health evidence synthesis organization that was conducting important COVID-19 reviews and producing valuable resources (such as the COVID-19 Register of Studies).[3] Given this, we were delighted when Cochrane was supportive of the COVID-END initiative. Senior members of Cochrane groups and secretariat have participated in all aspects of COVID-END's work. COVID-END's work has benefited from the methods, tools and approaches that Cochrane has established over the last two decades. The Cochrane Consumer group is helping COVID-END to identify individuals and groups that can support the involvement of citizens in the global evidence synthesis and guidance response for COVID-19.[4] In return, we believe COVID-END adds value by amplifying the work of Cochrane, broadening the network of evidence synthesis organizations in regular contact, and building on existing and facilitating new collaborations (including guidance organizations). Cochrane has also used COVID-END resources such as our taxonomy of decisions in its own priority-setting processes (covidreviews.cochrane.org/prioritization).[5]

Outcomes and impacts of activities

COVID-END now has 49 partners covering all geographic regions globally. It has rapidly become recognised for its co-ordinating function of the global evidence synthesis, guidance and decision support response. We are aware of many groups globally who use COVID-END resources on a daily basis to support their activities (e.g. the World Health Organization (WHO) uses the COVID-END inventory of trustworthy sources to prepare rapid evidence briefs). Over 250 individuals have joined the virtual COVID-END Community. WHO requested COVID-END and Cochrane to join its secretariat function for the WHO Evidence Collaborative for COVID-19.

Lessons for the future: sustainability and transferability

COVID-END has brought together many of the key evidence synthesis, guidance and decision support organisations globally to work together to address the evidence needs of the pandemic. Many of the challenges we identified have been exacerbated by the pandemic but are not new.[6] The need for improved global co-ordination of evidence synthesis and guidance activities has been particularly evident for some time. Whilst COVID-END is a time-limited initiative, we hope that the lessons learned from this work will lead to a better global evidence eco-system, moving to optimally co-ordinated evidence production linked to living evidence and guidance. To increase the likelihood of this happening, the sustaining working group is evaluating the processes and outcomes of COVID-END (and their implications beyond the pandemic).

Additional resources

All of COVID-END's work is available through its website (COVID-END.org). In this report, we have highlighted a number of specific resources that readers might find of interest, including the following resources.

Resources about COVID-END:

- List of COVID-END partners: mcmasterforum.org/networks/covid-end/overview/partners
- COVID-END's scope: mcmasterforum.org/networks/covid-end
- COVID-END principles: mcmasterforum.org/networks/covid-end/overview/principles
- COVID-END Community (including details of how to join): mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/covid-end-community

(Supply side) resources for groups undertaking evidence syntheses:

- Horizon-scanning panel: mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/horizon-scanning-panel
- Resources for groups planning to undertake evidence syntheses: mcmasterforum.org/networks/covid-end/resources-for-researchers/supports-for-evidence-synthesizers/interactive-flow-diagram

(Demand side) resources for groups supporting evidence use by decision makers:

- Guide to key COVID-19 evidence sources: mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/guide-to-key-covid-19-evidence-sources
- Inventory of best evidence syntheses: mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/Inventory-of-best-evidence-syntheses/context
- Evidence support models: mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/evidence-support-models
- Evidence packaging resources: mcmasterforum.org/networks/covid-end/resources-to-support-decision-makers/evidence-packaging-resources

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Declarations of interest

Jeremy Grimshaw published his first systematic review in 1993. He has been active in the Cochrane Collaboration in multiple roles since 1994 and has worked with many evidence synthesis organizations worldwide. He is currently the President of the Board of the Campbell Collaboration and Co-Chair of Evidence Synthesis International. David Tovey was the Editor in Chief of the Cochrane Library. John Lavis is a member of the Cochrane Editorial Board and the Cochrane KT Advisory Board.

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