Insights from the Evidence Commission:

How can we engage citizens, policymakers, funders and others in strengthening the global evidence architecture in ways that support the production and use of high-quality guidelines

23 September 2022 | 11:30am-12:15pm

Gillan Leng  Jeremy Grimshaw  Julian Elliott  Maureen Smith  Ivan Florez
The Evidence Commission report

• Two main goals of the report
  o Provide the context, concepts and vocabulary that underpin work in this area
  o Provide recommendations about how we can and must improve the use of evidence, both in routine times and in future global crises

• Available in Arabic, Chinese, English, French, Portuguese, Russian and Spanish → evidencecommission.org

• Versions available now
  o Online executive summary
  o Online full report
  o Online chapters and sections (or infographics)
  o Print-on-demand full report (at cost through Amazon)

• Current implementation priorities
  o Formalizing and strengthening domestic evidence-support systems
  o Enhancing and leveraging the global evidence architecture
  o Putting evidence at the centre of everyday life for citizens
Four types of decision-makers and how each may approach decisions

**Government policymakers**
Need to be convinced there’s a compelling problem, a viable policy and conducive politics

**Organizational leaders**
(e.g., business and non-governmental organization leaders)
Need a business case to offer goods and services

**Professionals**
(e.g., doctors, engineers, police officers, social workers and teachers)
Need the opportunity, motivation and capability to make a professional decision or to work with individual clients to make shared decisions

**Citizens**
(e.g., patients, service users, voters and community leaders)
Need the opportunity, motivation and capability to make a personal decision, take local action or build a social movement

*Note: full version available as PDF – section 3.2*
Forms in which **evidence** is typically encountered in decision-making

- Behavioural / implementation research
- Evaluation
- Modelling
- Data analytics
- Qualitative insights
- Evidence synthesis
- Technology assessment/cost-effectiveness analysis
- Guidelines

**Note:** full version available as PDF – section 4.1
Addressing **societal challenges** – beyond COVID

**Level (and sector) at which a challenge is typically addressed**

**Domestic sectoral**
- Health systems failing to improve health outcomes and care experiences
- Schools struggling with virtual instruction
- Declining living standards

**Domestic cross-sectoral**
- Antimicrobial resistance
- Gender-based violence
- Growing levels of inequality
- Lack of trust in institutions
- Missed targets for the Sustainable Development Goals

**Global (or regional) coordination**
- Inequitable patterns in COVID-19 vaccination
- Climate change

*Note: full version available as PDF – section 2.1*
In this session…

• What have we learned in the COVID-era about…
  
  • the future of evidence-support systems to support decision makers of all types (Jeremy)
  
  • guidelines and the opportunities ahead for better collaboration amongst clinicians+ (Julian)
  
  • the opportunities for better collaboration with patients and citizens (Maureen)
  
  • Respondent (Ivan)

• Q&A
The future of evidence-support systems to support decision makers of all types

Jeremy Grimshaw
Impetus for the Evidence Commission came from 12+ (now 28+) months of supporting decision-making about COVID-19 public-health measures, clinical management, health-system arrangements, and economic and social responses.

COVID-19 Evidence Network to support Decision-making (COVID-END), a partnership of:

- **55 global partners**: world-leading evidence synthesis, technology assessment and guideline groups, many of which act as an ‘umbrella’ for many other partners
- **40+ Canadian teams**

- **Africa Centre for Evidence**, which supports the Africa Evidence Network in bringing together more than 3,000 people from across Africa to support evidence-informed decision-making
- **Campbell Collaboration**, which supports teams around the world to prepare and support the use of evidence syntheses in areas like business and management, climate solutions, crime and justice, disability, education, international development, and social welfare
- **Cochrane**, which includes review groups around the world that prepare evidence syntheses, and geographic groups in 45 countries and thematic networks in 13 domains that support evidence-informed decision-making on health-related topics
- **Evidence Synthesis International**, which supports evidence-synthesis organizations around the world that produce, support, and use evidence syntheses
- **Guidelines International Network**, which supports 130 organizations around the world that develop and implement evidence-based guidelines.
Two examples of COVID-END’s achievements

- **Ultra-rapid and living evidence syntheses** (some contextualized, and others global public goods)
  - Supported by evidence demand and supply coordination (and by monthly horizon scanning)
  - 150+ products by month 17
  - Examples
    - Living evidence profiles on LTC crisis management, vaccine roll-out, and COVID-19 lessons learned
    - Three living evidence syntheses about vaccine effectiveness (adults, children, and waning immunity)

- **COVID-END inventory of evidence syntheses** (to improve the signal-to-noise ratio)
  - 13,288 syntheses from high-quality/high-yield sources (of which 96 are living evidence syntheses) by month 25
  - 9,427 non-duplicate syntheses
  - 6,657 decision-relevant syntheses assessed and included in the database
  - 652 ‘best’ evidence syntheses included in the inventory
We need to formalize and strengthen the **evidence-support system** alongside the research system and the innovation system

**Evidence-support system** – Grounded in an understanding of a national context (including time constraints), demand-driven, and focused on contextualizing the evidence for a given decision in an equity-sensitive way

Examples of infrastructure:
- evidence-support units that can combine the power of national evidence and the power of global evidence
- expert panels that include people with methods expertise and lived experience, pre-circulate evidence summaries, and clarify what evidence and experiences underpin the recommendations, as well as citizen- and stakeholder-engagement processes that provide ways in for evidence
- government science advisors who speak in a way that makes it possible to judge their accuracy
- processes to:
  1) elicit and prioritize evidence needs
  2) find and package evidence that meets these needs within set time constraints
     (and build additional evidence as part of ongoing evaluations)
  3) strengthen capacity for evidence use (e.g., evidence-use workshops and handbook)
  4) incorporate evidence use into routine processes (e.g., memoranda to cabinet, budget proposals, spending plans)

**Note:** full version available as PDF – section 4.14
Robust prioritization (goods 1-3), coordination (goods 4-6) and registration processes (good 7) to ensure that the right globally relevant evidence, such as evidence syntheses, is produced and that wasted effort is avoided.

Rigorous standards to ensure that the best evidence is available for use in decision-making (good 8), such as a body of evidence that has been graded for the certainty of the evidence it provides.

Open-science publications (good 9) to ensure that the best evidence can be freely accessed when needed.

Robust prioritization of efforts to support evidence intermediaries in using global public goods to support decision-making (good 10).

Note: full version available as PDF – section 6.1
Equitably distributed capacities needed to support evidence use

Global hybrid decision-makers and intermediaries
(e.g., global commissions and technical units within the global, regional, and country offices of multilateral organizations that support member states)

Global level

- Decision-makers
- Intermediaries
- Producers

Global hybrid evidence intermediaries and producers
(e.g., Cochrane and Intergovernmental Panel on Climate Change (IPCC) working groups)

Local (national or sub-national) level

- Decision-makers
- Intermediaries
- Producers

Local hybrid decision-makers and intermediaries
(e.g., domestic commissions, government advisory bodies, government science advice, and government evidence support)

Local hybrid evidence intermediaries and producers
(e.g., local impact-oriented units)

Hybrid

Normative guidance

Technical assistance

Evidence-related global public goods

Local evidence intermediaries
(e.g., fact-checking organizations, science academies, think tanks, and knowledge-translation platforms)

Note: full version available as PDF – section 6.2
Guidelines and the opportunities ahead for better collaboration amongst clinicians

Julian Elliott
### 4.2 Definitions of forms in which evidence is typically encountered

<table>
<thead>
<tr>
<th>Forms of evidence</th>
<th>Definitions</th>
<th>Steps where it add the greatest value</th>
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<tbody>
<tr>
<td><strong>Data analytics</strong></td>
<td>Systematic analysis of raw data to make conclusions about that information</td>
<td><img src="chart.png" alt="Chart showing steps" /></td>
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<tr>
<td><strong>Modelling</strong></td>
<td>Use of mathematical equations to simulate real-world scenarios (i.e., what is likely to happen if we don’t intervene) and options (i.e., what happens if we intervene) in a virtual environment</td>
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<tr>
<td><strong>Evaluation</strong></td>
<td>Systematic assessment of the implementation (monitoring) and impacts (evaluation) of an initiative for the purposes of learning or decision-making</td>
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<td><strong>Behavioural / implementation research</strong></td>
<td>Study of methods to promote the systematic uptake of effective approaches into routine practices at the personal, professional, organization and government levels (implementation research) Systematic examination of what people (citizens and professionals) do, what drives them to do it, and what can sustain or change what they do (behavioural research)</td>
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<td><strong>Qualitative insights</strong></td>
<td>Study of (typically non-numerical) data – obtained from interviews, focus groups, open-ended questionnaires, first-hand observation, participant-observation, recordings made in natural settings, documents, and artifacts – to understand how individuals and groups view and experience problems, options, implementation considerations (barriers, facilitators and strategies), and metrics</td>
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<tr>
<td><strong>Evidence synthesis</strong></td>
<td>Systematic process of identifying, selecting, appraising and synthesizing the findings from all studies that have addressed the same question in order to arrive at 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)</td>
<td><img src="chart.png" alt="Chart showing steps" /></td>
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<tr>
<td><strong>Technology assessment/ cost-effectiveness analysis</strong></td>
<td>Assessment of all relevant aspects of a ‘technology’ (e.g., a product or service), including safety, effectiveness, and economic, social and ethical implications (technology assessment), with an evidence synthesis often contributing to the assessment of effectiveness Comparison of the relative outcomes (effectiveness) and costs of two or more options, again with an evidence synthesis often contributing to the assessment of effectiveness</td>
<td><img src="chart.png" alt="Chart showing steps" /></td>
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<tr>
<td><strong>Guidelines</strong></td>
<td>Systematically developed statements that recommend a particular course of action, often for citizens and professional and sometimes for organizations and governments, with one or more evidence syntheses contributing to the assessment of effectiveness, values and preferences, and other factors</td>
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*Adds the greatest value in this step but can add value in other steps

**Note:** full version available as PDF

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4.13 Weaknesses in many COVID-19 evidence-support systems

Forms of evidence that were more typically encountered by COVID-19 decision-makers

- Single study
- Expert opinion
- Expert panel
- Jurisdictional scan
- Best evidence

'Other things' than best evidence that were more typically encountered by COVID-19 decision-makers (& potential risk)

- Risk of 'hubcap chasing' unless each study was quality assessed and then either considered as local (national or sub-national) evidence or put in the context of a living (global) evidence synthesis
- Risk of 'squeaky wheel getting the grease' unless the expert was asked to share the quality-assessed evidence syntheses on which their opinion was based or to focus on what specific evidence syntheses mean for a given jurisdiction
- Risk of GOBSATT (or 'good old boys sitting around the table') unless the panel members were asked to share their evidence (as above) or were supported by a robust guideline-development process
- Risk of 'group think' unless jurisdictions shared their supporting evidence or plans for generating it

Risk of 'group think' unless jurisdictions shared their supporting evidence or plans for generating it

Note: full version available as PDF
### 4.7 Living evidence products

<table>
<thead>
<tr>
<th>Forms of evidence</th>
<th>Examples of living evidence products</th>
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<tbody>
<tr>
<td><strong>Data analytics</strong></td>
<td>• The WHO COVID-19 Dashboard provides a set of data analytics about the stringency of public-health measures being taken to address COVID-19, the UK Health Security Agency surveillance reports (<a href="https://bit.ly/3DeaSlc">bit.ly/3DeaSlc</a>) provide a set of data analytics about COVID-19 in the UK, and Opportunity Insights’ Economic Tracker provides a set of data analytics about COVID-19 impacts on the economic prospects of people, businesses and communities in the US</td>
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<td>• The Organisation for Economic Co-operation and Development (OECD) Weekly Tracker of Economic Activity provides a set of data analytics about economic activity for most OECD and G20 countries</td>
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<td><strong>Modeling</strong></td>
<td>• The European COVID-19 Forecast Hub presents every week a forecast of cases and deaths per week per 100,000 people – both overall and by country – based on an ensemble of models, while the Institute for Health Metrics and Evaluation COVID-19 Projections updates every two weeks a model of projected deaths from COVID-19, both those reported as COVID-19 and those attributed to COVID-19, that could be used to explore a range of scenarios (e.g., about mask use and vaccine uptake) in specific countries</td>
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<td>• The Intergovernmental Panel on Climate Change presents every five-to-seven years an assessment report that draws on modeling of human-induced climate change, its impacts, and possible response options, although strictly speaking this is a synthesis of findings from models (which may or may not be living) informed by a robust process of inter-model comparisons (which is undertaken by different scientists for each assessment report – see <a href="https://bit.ly/3wKQy8D">bit.ly/3wKQy8D</a> for an example)</td>
</tr>
<tr>
<td><strong>Evidence syntheses</strong></td>
<td>• COVID-END living evidence synthesis #6 provides updates every two weeks about COVID-19 vaccine effectiveness against variants, and COVID-NMA updates weekly evidence syntheses about all drug treatments for COVID-19 (and later added preventive therapies and vaccines)</td>
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<td>• The Global Carbon Project updates annually, based on modeling and empirical studies, estimates of the five major components of the global carbon budget (anthropogenic carbon-dioxide emissions and their redistribution among the atmosphere, ocean and terrestrial biosphere in a changing climate) and their associated uncertainties</td>
</tr>
<tr>
<td><strong>Guidelines</strong></td>
<td>• The Living WHO Guideline on Drugs for COVID-19 provides updates every one-to-four months about COVID-19 drug treatments, and the National COVID-19 Clinical Evidence Task Force updates weekly evidence-based COVID-19 guidelines for Australian health professionals</td>
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<td>• The Education Endowment Foundation maintains living guidance for schools as part of their Teaching and Learning Toolkit, such as the one addressing teaching-assistant interventions</td>
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HOW COVID BROKE THE EVIDENCE PIPELINE

The pandemic stress-tested the way the world produces evidence — and revealed all the flaws. By Helen Pearson
The opportunities for better collaboration with patients and citizens
Respondent

Ivan Florez
Q&A

Gillan Leng  Jeremy Grimshaw  Julian Elliott  Maureen Smith  Ivan Florez