



## Chapter 6. Need for global public goods and equitably distributed capacities

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*This chapter is the second of two chapters exploring how we can systematize the use of evidence, by the full range of decision-makers, in addressing societal challenges. Here we focus on global public goods and equitably distributed capacities. Chapter 5 focuses on evidence intermediaries.*

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## 6.1 Global public goods needed to support evidence use

A paradox keenly felt by those supporting the use of evidence to address societal challenges is that there are both significant gaps in the global public goods that evidence intermediaries rely on, and significant waste arising from how these global public goods are produced and how their use is supported.

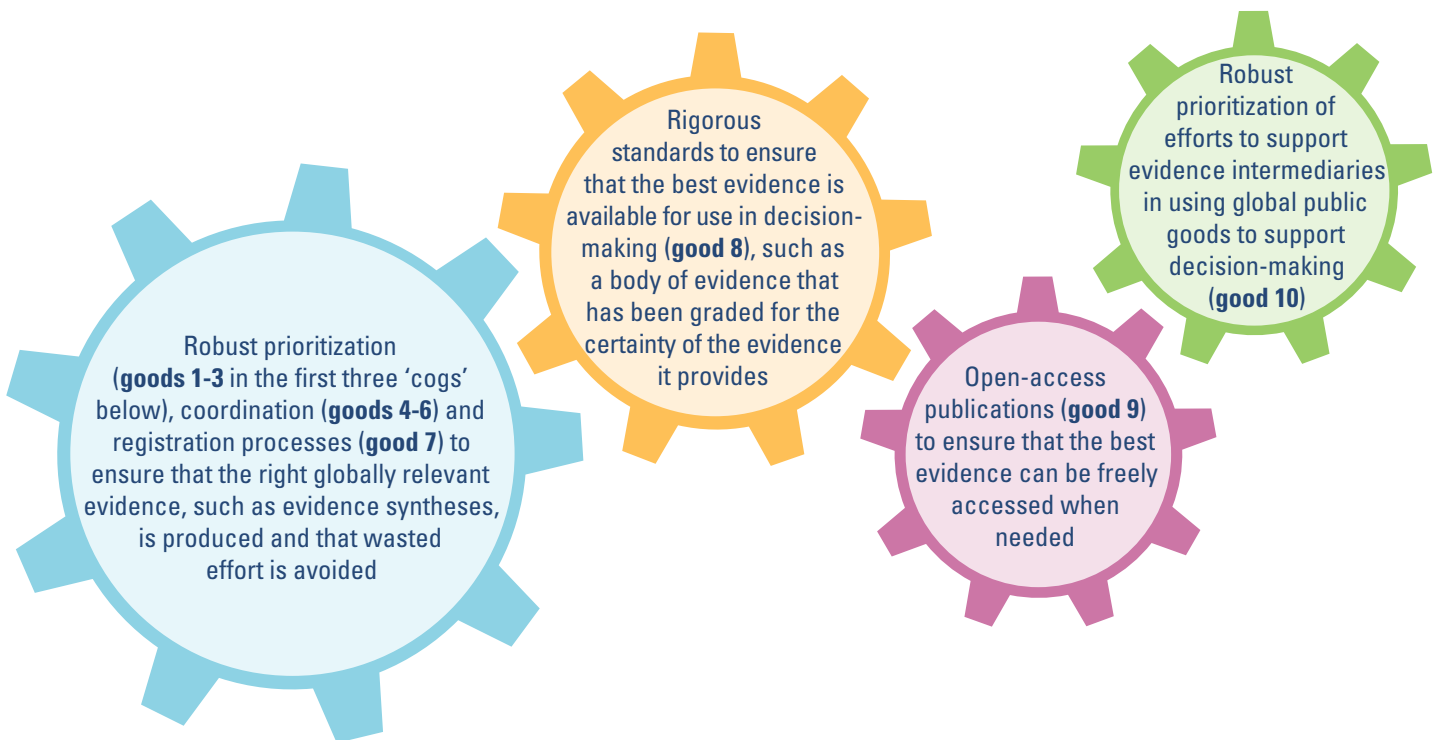
A global public good is:

- non-rival – one person ‘consuming’ it does not reduce its availability to others
- non-excludable – no one can be denied access.

Reading a Cochrane or Campbell evidence synthesis – with its bottom-line statements about what is known, based on all critically appraised studies that have addressed the same question, including how this may vary by groups and contexts – does not make the synthesis any less available to others. Anyone can access PROSPERO to see if others have already registered a protocol for an evidence synthesis on a specific topic and, if not, to register a protocol to fill this gap.

Some leaders in international development have called for expanding the notion of global public good to include global public functions (e.g., cross-national coordination) that support the type of international collective actions needed to address supranational societal challenges.(1) This broader definition includes global convening to support prioritization and other processes that underpin the efficient production of global public goods. We adopt this broader framing here.

Evidence-related global public goods and related functions include:



Yet purveyors of global public goods like Cochrane and Campbell have not been supported at a proper scale, leaving many gaps in the global evidence base. The PROSPERO synthesis-registration platform did not have the resources to follow up with the 138 teams that registered a COVID-19 topic already registered by one of 57 other teams, especially the 14 teams addressing hydroxychloroquine and seven addressing tocilizumab. As a result, as many as 138 syntheses of the best global evidence about COVID-19 were duplicated work in the September 2020 to August 2021 period. And since only a small fraction of protocols are ever registered, this is a significant undercount of the waste in the COVID-19 evidence response.

At least 10 types of global public goods and related functions are needed to support the use of evidence to address societal challenges. These are listed below, along with examples drawn from the health sector and (where possible) from other sectors. It is critically important that international organizations like the World Bank, UNICEF, WHO and other funders invest in these global public goods and related functions within their own agencies and with key external partners. It is also critically important that national government policymakers and other funders invest in local (national or sub-national) efforts to adapt these global public goods to their context and to complement them with the best local evidence. Without such investment, the cost of ‘free riding’ will continue to be significant gaps and significant waste.



**1** Harmonization of evidence requirements for regulatory and other assessments globally *(to streamline evidence needs)*

- International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH) for evidence required to ensure the safety, effectiveness and high quality of prescription drugs
- Independent Panel on Climate Change for evidence required for its periodic assessment reports about human-induced climate change, its impacts, and possible response options



**2** Listening and foresight *(to anticipate and make sense of emerging issues for which evidence may be needed globally)*

- The COVID-19 Evidence Network to support Decision-making (COVID-END) global horizon-scanning panel for emerging issues related to COVID-19-related public-health measures, clinical management, health-system arrangements, and economic and social responses, as well as international HealthTechScan (i-HTS) for emerging issues related to health technologies



**3** Prioritization of globally needed evidence *(to ensure pressing evidence needs are recognized)*

- James Lind Alliance for patients, carers and clinicians to prioritize the top 10 unanswered questions or evidence uncertainties
- An application of the same approach for students, parents and teachers to prioritize the top 10 unanswered questions in the field of English as an additional language (2)



**4** Coordination of syntheses of the best evidence globally *(to fill gaps while avoiding duplication, as with cogs 5 and 6)*

- Cochrane’s COVID reviews for the production and editorial review of a set of rapid syntheses addressing prioritized COVID-19 questions



**5** Coordination of other types of evidence that is best produced globally or at least regionally

- Coalition for Epidemic Preparedness Innovations (CEPI) for vaccine development and Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) for a One Health approach to antimicrobial resistance



**6** Coordination of globally relevant living evidence products that can be used or adapted locally

- COVID-NMA for living meta-analyses of drug treatments, prophylaxis and vaccines for COVID-19 (and it had some success in sharing data with other groups attempting something similar)



**7** Registration of plans to produce or synthesize evidence *(to avoid duplication in evidence production and minimize reporting bias)*

- International Clinical Trials Registry Platform for the prospective registration of one type of health evaluation (randomized clinical trials) and PROSPERO for the prospective registration of health evidence syntheses
- PROCEED (in development by the Collaboration for Environmental Evidence) for the prospective registration of evidence syntheses of environmental evidence



**8** Standards setting and support *(to ensure quality of evidence)*

- PRISMA and AGREE Enterprise standards for the transparent reporting of health evidence syntheses and guidelines, respectively, as well as Cochrane for methods development, capacity building and rigorous editorial processes for health evidence syntheses
- Campbell Collaboration and Collaboration for Environmental Evidence for methods development, capacity building and rigorous editorial processes for evidence syntheses in other sectors



**9** Open science, including open publications, data, physical samples, and software *(to ensure access to evidence)*

- Open-access publications like those supported by the Public Library of Science (PLOS), Empirical Software Engineering (which encourages the submission of a replication package), and Open Library of Humanities
- Open-data platforms like Vivli
- Open-access software like the Open Source Framework ([osf.io](https://osf.io))



**10** Coordination of efforts to support evidence intermediaries in using global public goods to support local (national or sub-national) decision-making *(to ensure quality in and timeliness of evidence support)*

- Cochrane ‘plain-language summaries,’ which are translated into multiple languages (as an example of coordinating efforts to package evidence in ways that can be used or adapted locally)
- What Works Clearinghouse for US educators and Evidence Aid for humanitarian-aid providers (as examples of one-stop evidence shops that are optimized for decision-makers’ needs)
- Evidence-Informed Policy Networks (EVIPNet) for groups supporting evidence use by health policymakers with a rapid-evidence service, by building their capacity to find and use evidence, and by convening deliberative dialogues

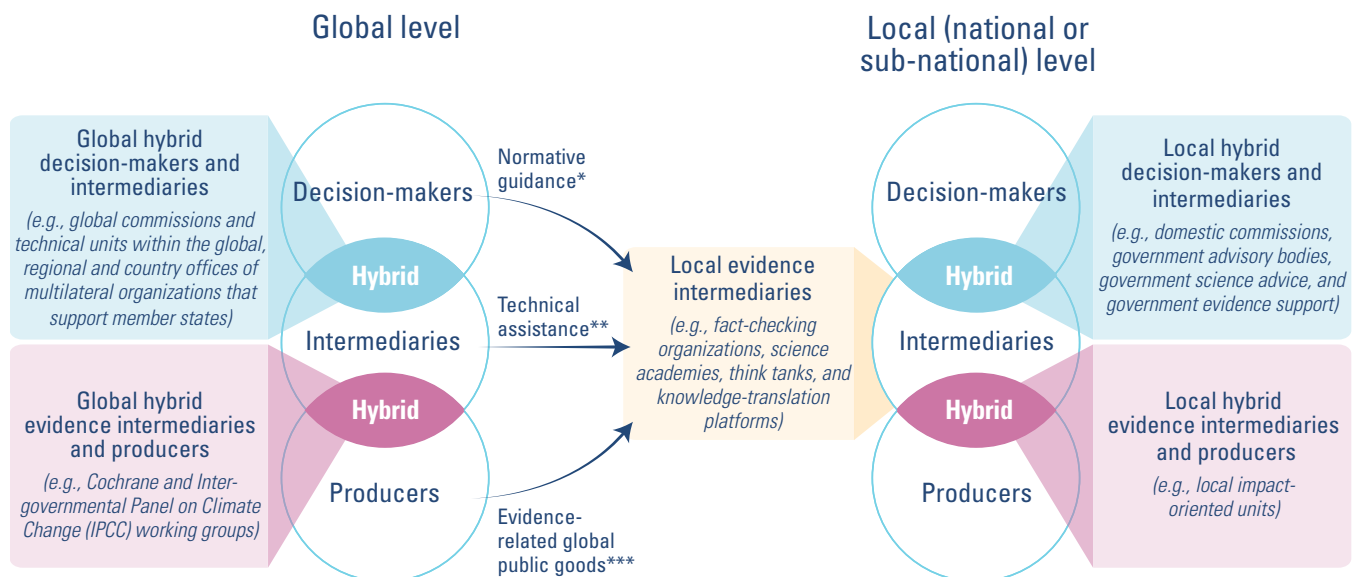
The ‘quintet of change’ meant to support the UN’s transformation from 2021 to 2025 explicitly includes data analytics and behavioural / implementation research, and implicitly includes evaluation (under performance and results orientation). While it is silent on the other needed forms of evidence, it also explicitly includes strategic foresight and innovation (and digital transformation), which are two powerful complements to evidence and which also have features of global public goods depending on how they are operationalized.

## 6.2 Equitably distributed capacities needed to support evidence use

The capacities needed to support evidence use should be distributed across four dimensions:

- vertically across levels (global and local, where local can mean national, state or provincial, and municipal jurisdictions, as well as large organizations), with capacities concentrated globally where they involve evidence-related global public goods (e.g., syntheses of the best evidence globally) or there are strong arguments about economies of scale
- functionally across domains (decision-makers who use evidence, evidence intermediaries who support the use of evidence, and producers of the eight forms of evidence), with capacities concentrated wherever there are comparative advantages
- horizontally across local jurisdictions, with capacities for using and supporting the use of evidence equitably distributed across all jurisdictions (regardless of whether they are high- or low- and middle-income countries)
- substantively across societal challenges (or Sustainable Development Goals, such as 2 – Zero hunger, 4 – Quality education, and 6 – Clean water and sanitation).

We illustrate the first and second of these dimensions below.



\* e.g., UN Assembly resolutions and UN agency guidelines

\*\* e.g., capacity to respond to questions with best evidence

\*\*\* e.g., Cochrane evidence syntheses and IPCC modeling

Below we expand upon these two dimensions, and to do so we draw on **section 6.1** (about global public goods) to inform the vertical distribution of capacities, and on **section 5.4** (about capacity, opportunity and motivation in different domains) to inform the functional distribution of capacities. Further details about the strategies that evidence intermediaries can use are provided in **section 5.3**.

Level and domain	Capacities needed
<p><b>Global hybrid decision-makers and intermediaries</b> <i>(e.g., global commissions and technical units within the global, regional and country offices of multilateral organizations that support member states)</i></p>	<ul style="list-style-type: none"> <li>• Acquiring, assessing, adapting and applying evidence in their own efforts to address societal challenges, as well as ensuring that staff have the:               <ul style="list-style-type: none"> <li>◦ Capacity to distinguish high- from low-quality evidence and to judge, with humility and empathy, what the evidence means in a particular context</li> <li>◦ Opportunity to use evidence (e.g., supportive structures and processes)</li> <li>◦ Motivation to use evidence (e.g., hiring those who are intrinsically motivated or incentivizing them)</li> </ul> </li> <li>• Responding to decision-makers’ needs with best evidence (in this case for commission target audiences and in member states), a function with distinct capacity, opportunity and motivation (COM) requirements (see ‘Interface between supply and demand in a status-quo environment’ in <b>section 5.4</b>)</li> <li>• Building the case for greater evidence use and optimizing supportive structures, processes and incentives, which also has distinct COM requirements (see ‘Interface between supply and demand in a changing environment’ in <b>section 5.4</b>)</li> <li>• As part of the above optimization, securing funding for and promoting the use of key global public goods:               <ul style="list-style-type: none"> <li>◦ Harmonization of evidence requirements for regulatory and other assessments globally</li> <li>◦ Listening and foresight</li> <li>◦ Prioritization of globally needed evidence</li> <li>◦ Open science (e.g., publications, data, physical samples, and software)</li> <li>◦ Coordinated efforts to support evidence intermediaries in using global public goods to support local (national or sub-national) decision-making (e.g., one-stop evidence shops and EVIPNet)</li> </ul> </li> <li>• Also as part of the above optimization, working with global evidence producers to secure funding for and promote additional key global public goods listed in the circle below</li> </ul>
<p><b>Global hybrid evidence intermediaries and producers</b></p>	<ul style="list-style-type: none"> <li>• Coordinating and ensuring the timely and high-quality production of:               <ul style="list-style-type: none"> <li>◦ Syntheses of the best evidence globally</li> <li>◦ Other types of evidence that is best produced globally or at least regionally</li> <li>◦ Globally relevant living evidence products that can be used or adapted locally</li> </ul> </li> <li>• Registering plans to produce or synthesize evidence</li> <li>• Setting standards for evidence production and supporting their use, which includes the distinct capacity, opportunity and motivation (COM) requirements (see ‘Supply of evidence’ in <b>section 5.4</b>)</li> </ul>
<p><b>Local hybrid decision-makers and intermediaries</b> <i>(e.g., national commissions, government advisory bodies, government science advice, and government evidence support)</i></p>	<ul style="list-style-type: none"> <li>• Similar to global hybrid decision-makers and intermediaries               <ul style="list-style-type: none"> <li>◦ Acquiring, assessing, adapting and applying evidence in their own efforts to address societal challenges</li> <li>◦ Responding to local decision-makers’ needs with best evidence</li> <li>◦ Building the case for greater local evidence use and optimizing supportive local structures, processes and incentives</li> </ul> </li> <li>• As part of the above optimization               <ul style="list-style-type: none"> <li>◦ Contributing to funding for, promoting the use of, and using global public goods (e.g., syntheses of the best evidence globally, other types of evidence that is best produced globally, globally relevant living evidence products, and one-stop evidence shops</li> <li>◦ Complementing these global public goods with funding for, promotion of and use of local work where appropriate, such as:                   <ul style="list-style-type: none"> <li>◦ Listening and foresight</li> <li>◦ Prioritization of locally needed evidence</li> <li>◦ Co-production of local evidence (e.g., data analytics, modeling, evaluations, behavioural implementation research, and qualitative insights)</li> </ul> </li> <li>◦ Integration of different forms of evidence into innovative types of evidence products</li> </ul> </li> </ul>

<p><b>Local evidence intermediaries</b> <i>(e.g., national fact-checking organizations, science academies, think tanks, and knowledge-translation platforms)</i></p>	<ul style="list-style-type: none"> <li>• Responding to local decision-makers' needs with best evidence, which has distinct COM requirements (see 'Interface between supply and demand in a status-quo environment' in <b>section 5.4</b> and, in the case of those supporting policymakers, the text below <b>section 5.4</b>, as well as additional details in <b>section 5.3</b>)</li> <li>• Building the case for greater local evidence use and optimizing supportive local structures, processes and incentives, which also has distinct COM requirements (see 'Interface between supply and demand in a changing environment' in <b>section 5.4</b>)</li> </ul>
<p><b>Local hybrid evidence intermediaries and producers</b> <i>(e.g., national impact-oriented units)</i></p>	<ul style="list-style-type: none"> <li>• Responding to local decision-makers' and intermediaries' needs for new local best evidence (e.g., data analytics, modeling, evaluation, behavioural / implementation research, qualitative insights, evidence synthesis, technology assessment, and guidelines), which also has distinct COM requirements (see 'Supply of evidence' in <b>section 5.4</b>)</li> </ul>

Turning to the third and fourth dimensions – local jurisdictions and societal challenges (or Sustainable Development Goals (SDG) – consider the case of a Nigerian non-governmental organization focused on SDG4 – Quality education. This organization may be both a 'decision-maker' and an intermediary that supports the use of evidence by government policymakers, school leaders, teachers, and parents. Ideally the organization would have the capacity, opportunity and motivation to:

- acquire, assess, adapt and apply evidence in their own efforts to support quality education
- respond to Nigerian decision-makers' needs with best evidence
- build the case for greater local evidence use and for optimizing supportive local structures, processes and incentives.

For the first two points the organization may:

- keep abreast of evidence needs through its own 'rapid evidence service' request process and by tapping into a Nigerian initiative that supports listening and foresight, as well as the prioritization of locally needed evidence, in the education sector
- begin any response by searching the best one-stop evidence shops focused on education (e.g., [Education Endowment Foundation](#) in the UK and [What Works Clearinghouse](#) in the US) and judging what they mean for Nigeria
- lead the co-production of one type of local evidence (e.g., parent and teacher assessments that can feed into Nigeria-specific data analytics and evaluations)
- partner with other applied local evidence groups that are co-producing Nigeria-specific evidence (e.g., data analytics, modeling, evaluations, behavioural/implementation research, and qualitative insights)
- contribute to one or two syntheses of the global evidence through ongoing involvement in a Campbell review group
- pilot the integration of these different forms of evidence into innovative types of evidence products and scale up the products that an evaluation suggests are most highly valued and used by decision-makers.

For the third bullet point ('build the case for greater local evidence use ...'), the organization may start by describing the current 'system' supporting educational decision-making. For a comprehensive example of a jurisdiction-specific evidence-support system covering a broad set of societal challenges, see the Alliance for Useful Evidence's UK evidence ecosystem for social policy (from 2015).

## 6.3 References

1. Yamey G, Ogbuonji O, Kennedy McDade K. We need a consensus on the definition of ‘global public goods for health’. Washington: Brookings Institution Press; 2018. <https://www.brookings.edu/blog/future-development/2018/11/20/we-need-a-consensus-on-the-definition-of-global-public-goods-for-health/> (accessed 28 October 2021).
2. Chalmers H, Faitaki F, Murphy V. Setting research priorities for English as an additional language: What do stakeholders want from EAL research? 2021. <https://ealpsp.wordpress.com/2021/09/08/setting-research-priorities-for-english-as-an-additional-language-what-do-stakeholders-want-from-eal-research/> (accessed 30 November 2021).



**Citizen, Maureen Smith** — Citizen leader championing the meaningful engagement of patients and citizens in conducting research and using it in their decision-making



**Citizen, Hadiqa Bashir** — Young leader advocating for girls’ rights and gender equality in male-dominated environments

As two of the three ‘citizens’ contributing to the Evidence Commission, we have concluded that we need to set higher expectations about how citizens are engaged in the production, sharing and use of evidence to address societal challenges. Our fellow citizen commissioner, Daniel Iberê Alves da Silva, brought his experience as a young Indigenous leader to the creation of **section 4.10** (Indigenous rights and ways of knowing). We need to ensure that Indigenous peoples control their data and that we honour the diversity and complexity of Indigenous approaches to learning and teaching. Here one of us (Maureen) draws on her experiences as a long-standing ‘patient partner’ in research and more recently as a leader of COVID-END’s citizen-engagement in COVID-19 evidence syntheses. The second of us (Hadiqa) draws on her experiences bringing evidence to her advocacy work in Pakistan.

Communicating evidence to citizens has been particularly challenging during the COVID-19 pandemic for many reasons:

- many decisions were made and much guidance was issued – about public-health measures, clinical management, health-system arrangements, and economic and social responses – and then adjusted over time as the pandemic evolved and the evidence accumulated, often without adequately explaining why decisions and guidance changed
- many forms of evidence were generated, and there were significant problems with the amount of ‘noise’ created by the high volumes of evidence and its uneven quality, which often resulted in citizens questioning which evidence to rely on for their decision-making
- citizens and citizen leaders from different groups and contexts were often not involved in producing and sharing the evidence, and the resulting evidence then didn’t ‘speak to’ many citizens
- many news and social-media platforms – actively or passively – enabled misinformation efforts (as discussed in **section 4.11**).

We think that we need to ‘up our game’ in engaging citizens in the production, sharing and use of evidence to address societal challenges. Key to realizing these objectives and fostering a culture of evidence for all of society is awareness of, and access to, evidence in terms that are understandable and relevant to citizens, as well as the ability to determine what constitutes reliable evidence. We’ve shown with COVID-END that a diverse pool of citizens can be meaningfully engaged in preparing rapid evidence syntheses in timelines of one-to-10 days, in regularly updating living guidelines on a weekly or monthly basis, and in preparing plain-language summaries of evidence syntheses and guidelines. Over time, these evidence products can become citizens’ evidence products as much as they are researchers’ evidence products. We’ve seen that citizen leaders are key intermediaries and should be actively engaged in sharing evidence within their communities. We’ve also been reminded that citizens are decision-makers in their own right, and their evidence needs should be met, just as government policymakers’ needs are met.

Meaningful citizen engagement must underpin efforts to address all societal challenges. The pandemic exacerbated a number of ‘shadow pandemics,’ such as gender-based violence, growing levels of mistrust in government, racial and social inequities, and more. If we are to get to the root of these societal challenges, then we need to create space for meaningful citizen engagement and leadership in evidence-creation processes as well as in policy-change initiatives.

It’s telling that the Evidence Commission’s analysis of global commissions found such limited engagement of citizens in all aspects of their work. Citizens were the least-frequent target audience, commission members, and focus of broader engagement. Citizens need to be equitably engaged in charting paths forward for using evidence to address societal challenges.

