

Chapter 3. Decisions and decision-makers: Demand for evidence

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This chapter is the second of three chapters exploring the issue at the heart of this report: what is involved in systematizing the use of evidence, by the full range of decision-makers, in addressing societal challenges? Here we focus on decisions and decision-makers, or the demand for evidence. Chapter 2 focuses on the nature of societal challenges. Chapter 4 focuses on studies, syntheses and guidelines, or the supply of evidence.

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Acting on behalf of the Evidence Commission, the McMaster Health Forum welcomes feedback about the report, as well as suggestions about pathways to influence for the report's recommendations. Please send your comments to evidencecommission@mcmaster.ca.

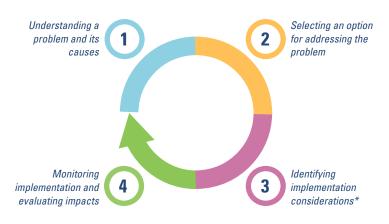
The appropriate citation for this report is: Global Commission on Evidence to Address Societal Challenges. Chapter 3. Decisions and decision-makers: Demand for evidence. The Evidence Commission report: A wake-up call and path forward for decision-makers, evidence intermediaries, and impact-oriented evidence producers. Hamilton: McMaster Health Forum, 2022; p. 29-42.

ISBN 978-1-927565-31-5 (Online) ISBN 978-1-927565-30-8 (Print)



3.1 Steps in deciding whether and how to take action

People can decide whether and how to take action on impulse (often as part of a habit-driven, non-conscious process) or after reflection (as part of a deliberative, conscious process that can include finding and using evidence).(1) For the latter, approaching decision-making as a series of steps can help to make explicit the questions that may be asked and the nature of the decisions, even if many people don't follow steps at all or don't follow them in order. Here we introduce two of the four types of decision-makers who are the focus of this chapter (government policymakers and citizens, in this case those acting as community leaders), and we foreshadow the types of questions that can be answered with the evidence that is the focus of the next chapter (see **sections 4.2** and **4.3**). For decision-makers like government policymakers, **section 2.4** can also help in step 1.



*or ensuring the chosen option makes an optimal impact at acceptable cost

Steps	Related questions	Decisions for a government policymaker	Decisions for a citizen or community leader	
1	How big is the problem?	Should we pay attention to this problem given all the others we face as a government?	Should I pay attention to this problem given all the others that the	
	Is the problem getting worse or is it bigger here than elsewhere?		people and community I care about face?	
	How do different people describe or experience the problem and its causes?			
2	What good might come of it?	Should we take any action to address this problem and, if yes, which option should we select?	Should I take any action to address this problem and, if yes, what action (e.g., talk to others about changing their behaviour, work with fellow community members on local solutions, or contact elected officials)?	
	What could go wrong?			
	Does one option achieve more for the same investment?			
	Can we adapt something that worked elsewhere while still getting the benefits?			
	Which groups support which option?			
3	What will get in the way or help us in reaching and achieving desired impacts among the right people?	Should we take any additional steps to increase the chance that the selected option does what we intend it to do?	Should I work with fellow community members and encourage elected officials to take steps to ensure the	
	What strategies should we use to reach and achieve desired impacts among the right people?		selected option reaches the people and community I care about?	
4	Is the chosen option reaching those who can benefit from it?	Should we take any additional steps to give us the numbers we need to tell a success story or to correct our course if need be?	to give us the numbers we need to numbers we need to know who	[As above] to ensure we have the numbers we need to know whether
	Is the chosen option achieving desired impacts?		we're succeeding or failing?	

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3.2 Four types of decision-maker and how each may approach decisions

The Evidence Commission focuses on four types of decision-makers. Each type of decision-maker may approach decisions in different ways. Here we provide an example of an approach used by each type, recognizing that this approach may be complemented by others (e.g., government policymakers also play a role in supporting decision-making by others, including by funding or 'building' the evidence used by them).



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

People wear multiple 'hats' and may have experience in multiple roles. For example, a government policymaker is also a citizen, may have trained in the past as a doctor or teacher, and may have led a non-governmental organization before being elected or appointed to government.

As we'll come to in chapter 4, using evidence is not 'rocket science.' Two randomized-controlled trials in Uganda showed that school children (ages 10 to 12 years) and their parents can be taught to assess the reliability of health-treatment claims and make well-informed decisions.(2; 3)

3.3 Government policymakers and the context for their use of evidence



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Government policymakers are one of four key types of decision-makers. They also shape the scope and supports for decision-making by organizational leaders, professionals and citizens, just as organizational leaders can do this for professionals and citizens, and professionals can do it for citizens. Citizen leaders, like the young Swedish environmental activist Greta Thunberg, can seemingly also shape the scope for decision-making by government policymakers, organizational leaders and others. Here we provide context for how government policymakers make decisions, using questions likely to elicit factors that could support (or discourage) their use of evidence. Given the array of policy, system and political analysis skills required to answer these questions, some evidence intermediaries focus exclusively on government policymakers.

Questions	Prompts
What types of decisions do they make?	 Domestic sectoral, domestic cross-sectoral or global (e.g., as a member state in the UN system) One-off versus on-going process with defined re-assessment points Routinized versus ad hoc (e.g., adding a product or service to an existing benefits package using established procedures versus creating a new benefits package) Products and services versus the governance, financial and delivery arrangements that determine whether the right mix of products and services get to those who need them One policy instrument versus another (see section 7.1 for examples of information/education, voluntary, economic and legal policy instruments)
Where and how are decisions made?	 National, provincial/state or local level of government Executive, legislative or judicial* branch of government If executive: cabinet or other cross-government entity, minister or secretary (and their political staff), and public servants in central agencies, ministries or departments, government agencies, and regulatory bodies Personal decision (command), consult, consensus or vote Time constraint
What factors may influence decision-making?	 Need a compelling problem, a viable policy and conducive politics to get an issue onto the decision agenda Make decisions within institutional constraints (e.g., veto points and legacies of past policies), contending with interest-group pressure (e.g., support or opposition from those who will gain or lose a lot), considering both 'what is' (e.g., data analytics) and 'what should be' (values), and in light of external events (e.g., economic crisis)
What 'structures' may provide a way in for evidence (and for institutionalizing evidence support)?**	 Internal evidence-support coordination unit and contributing data-analytics, evaluation, behavioural-insights, and other units Internal government science advisor units External evidence support from advisory groups, assessment panels, independent commissions, monitoring boards, review committees, and technical task forces Internal units for budgeting and planning, monitoring, auditing, and complaints investigation (e.g., ombudsperson) External support from management-consulting firms External support from normative-guidance and technical-assistance units in the UN system and other multilateral organizations External support from global public-good producers
What 'processes' may provide a way in for evidence?**	 Budgeting, planning and monitoring Policies, procedures, handbooks and other tools to support workflows Hiring criteria, performance-review criteria, promotion criteria, turn-over rate, and professional development for policy, program, technical and library staff Stakeholder, public and media engagement, as well as public-opinion polling Legislative debate and committee meetings Elections and political-party platforms Global and regional programs of action and accountability frameworks

^{*} The judicial branch of government considers evidence as conceived in this report as something introduced by expert witnesses and as something to be considered alongside other testimonial evidence as well as physical evidence (e.g., fingerprints and DNA), demonstrative evidence (e.g., maps and photos), and documentary evidence (e.g., contracts and diary entries).

^{**} Some of these structures and processes are explicitly evidence-related while others can be considered 'mainstream' structures and processes where evidence can be a helpful input.

Many evidence syntheses address the factors that influence the use of evidence in government and the strategies that increase the appropriate use of evidence in government, while others examine similar issues for decision-making in governments and organizations without explicitly differentiating the two. Many of the evidence syntheses addressing the factors that influence the use of evidence are of medium quality and focus on the health sector, although some address many sectors.(4; 5) The evidence syntheses addressing strategies tend to be of higher quality and focused on the health sector.(6-9) The studies included in these evidence syntheses are challenging to conduct for many reasons, including the difficulty of identifying the individuals involved in high-level behind-the-scenes decision-making, the difficulty of securing their participation given the confidentiality and time constraints that many work under, the complexity of the competing political forces at play, and the lack of simple measures of evidence use that reflect an understanding of political environments and can be applied at scale. Randomized-controlled trials are very infrequent, with only a few notable exceptions like the SPIRIT trial,(10) and natural experiments are very difficult to evaluate in ways that make causal statements possible. Medium-quality evidence syntheses also address complementary issues, such as evidence intermediaries' use of a range of strategies to support evidence use in policymaking in the health sector, technical-advisory groups' support for policymaking and program decision-making specifically about immunization, and cultures of evidence use in a range of non-health sectors.(11-14)

More operationally, many governments have developed handbooks to assist their staff in using evidence,(15-17) some audits of government documents have provided a window into at least the citation practices of many departments,(18) and some rich descriptions of evidence use in a single government have shed light on what this can look like 'on the ground.'(19)



Organizational leader, Asma Al Mannaei

Experienced public servant leading quality improvement and stewarding research and innovation across a health system

I work in a very fast-paced environment where decisions must be made based on the best available evidence, ideally presented in formats appropriate to busy executives. So the parts of the Evidence Commission report that are most important for me are the ones that could help our authorities develop the types of ultra-rapid evidence-support system that we need in Abu Dhabi. Some examples include **section 2.4** (examples of approaches to prioritizing challenges to address, especially the final column about COVID-END's approaches), **section 4.7** (living evidence products, especially living evidence syntheses that we can keep returning to), **section 5.3** (strategies used by evidence intermediaries, especially rapid-evidence services), and **section 6.2** (equitably distributed capacities, especially how our own internal processes can better intersect with the norms and guidance, technical assistance and global public goods). If we can create 'wins' that meet our current needs better, then I'm hopeful we can introduce the need to be working on multiple time horizons. No doubt we can better anticipate challenges in advance and help to build a local evidence base while we also look at what has been learned in the Gulf Cooperation Council countries, in our region and globally.

3.4 Organizational leaders and the context for their use of evidence



Organizational leaders include both business and non-governmental organizational leaders. They make decisions in their own right, and can shape the scope and supports for decision-making by the professionals who work for them and the citizens they serve. Here we provide context for how organizational leaders make decisions using questions likely to elicit factors that could support (or discourage) their use of evidence.

Questions	Prompts		
What types of decisions do they make?	Strategic, tactical and operational If operational: programmed (routine) versus non-programmed		
Where and how are decisions made?	 Head office, country office or local office Chief executive, other C-suite leader, manager, employee or volunteer Personal decision (command), consult, consensus or vote Time constraint 		
What factors may influence decision-making?	 Need a business case to offer goods and services Make decisions within regulatory and organizational constraints and market opportunities, contending with shareholder or stakeholder pressure, considering both 'what is' (e.g., data analytics) and 'what should be' (e.g., corporate values and sales targets), and in light of external events (e.g., economic crisis) 		
What 'structures' may provide a way in for evidence (and for institutionalizing evidence support)?	 Internal evidence-support units, including data-analytics and evaluation (e.g., A/B testing where commercial pressures encourage the use of randomized-controlled trials) Internal units for knowledge management, research and development (R&D), budgeting and planning, marketing, monitoring, auditing, and risk management External support from advisory groups, management-consulting firms, and the financial-services sector (e.g., financing) and authorities (e.g., externality pricing) External support from global technical-standard setters 		
What 'processes' may provide a way in for evidence?	 Budgeting, planning and monitoring Workplace policies, procedures, handbooks and other tools to support workflows Hiring criteria, performance-review criteria, promotion criteria, turn-over rate, and professional development for staff Organizational accreditation Quality assurance Government, stakeholder relations, public and media relations Philanthropic giving Environmental, social and corporate governance (ESG) principles UN Global Compact principles and UN Guiding Principles on Business and Human Rights 		

Evidence syntheses that address the factors that influence the use of evidence in organizations and the strategies that increase the appropriate use of evidence in organizations are harder to come by (than those focused on governments), usually focused on the health sector, and typically of low- and medium-quality.(20-22) Many evidence syntheses will likely be needed in future given the heterogeneity of this category, which comprises both the full array of businesses and the full array of non-governmental organizations. Ideally these evidence syntheses will be undertaken using a common framework, such as one proposed in the Effective Altruism Forum, to permit comparisons across types of organizations.(23) One of the commissioners regularly reminds us that many successful businesses – from the credit card company Capital One and the supermarket chain Coles, to Amazon, Google and Netflix – do randomized-controlled trials all the time.(24)

3.5 Professionals and the context for their use of evidence



Professionals include doctors, engineers, police officers, social workers and teachers, among others. What typically unites members of some professions is that they have acquired formal qualifications through specialized training, have been admitted and are subject to discipline by a regulatory body, provide objective counsel and service in the interest of their client and the public, and have been given some degree of monopoly rights to do so. Membership in other professions may be much less formalized. Countries differ significantly in which categories of workers are considered professionals. Here we provide context for how professionals make decisions using questions likely to elicit factors that could support (or discourage) their use of evidence.

Questions	Prompts		
What types of decisions do they make?	Provide counsel or service		
Where and how are decisions made?	Can decide whether and how to take action independently — on impulse, often as part of a learned, non-conscious process, or after reflection, as part of a deliberative, conscious process that can include finding and using evidence(1) — versus in a workplace with policies and procedures set by others		
What factors may influence decision-making?	 Need the capability, opportunity and motivation to make a professional decision or to work with individual clients to make shared decisions Some profession-specific frameworks exist, such as the evidence-based medicine 'triangle' of clinical context (patient's condition and clinician's expertise), patient values and preferences, and evidence 		
What 'structures' may provide a way in for evidence (and for institutionalizing evidence support)?	 Workplace units providing decision support, knowledge management, research and development (R&D), budgeting and planning, marketing, monitoring, auditing, and risk management External workplace support from evidence-support initiatives (e.g., Education Endowment Foundation for teachers) External workplace support from management-consulting firms, financial-services sector (e.g., financing) and financial authorities (e.g., externality pricing), and global technical-standard setters 		
What 'processes' may provide a way in for evidence?	 Code of professional conduct Continuing professional development Maintenance of licensure (e.g., minimum amount continuing professional development in a defined period; periodic peer and practice assessment) Other regulatory requirements Practice-based research opportunities Workplace processes such as budgeting, planning and monitoring as well as policies, procedures, handbooks and other tools to support workflows (see <u>section 3.4</u> for the full list) 		

Well over 1,000 evidence syntheses address the effectiveness of strategies to support the use of evidence by health professionals, especially physicians, and many of these syntheses are of high quality. Overviews of such syntheses exist, including one focused on low-and middle-income countries.(25) Some evidence syntheses address the factors the influence the use of evidence by other professionals, such as teachers and school principals.(26)

More operationally, select governments have invested in evidence syntheses, guidelines and toolkits to support evidence use by professionals. For example, the UK government has invested in a set of What Works Centres, such as the ones hosted by the College of Policing and the Education Endowment Foundation that support police officers and teachers, respectively.

3.6 Citizens and the context for their use of evidence



Citizens include all of us as members of society. We use the term 'citizen' to keep the focus on the individual, and not to imply formal citizenship status as determined by a government. For example, we include undocumented individuals and we recognize that Indigenous peoples were sometimes forced to decline their Indigenous status to achieve citizenship of a country that now includes their traditional lands. Alternative terms like 'public' or 'publics' are often considered a group, not individuals. More specific terms are often sector-specific, such as consumers (consumer protection), parents (education), patients and caregivers (healthcare), residents (housing), service users (child, community and social services), taxpayers (economic development and growth), voters (citizenship), and workers (employment). Here we provide context for how citizens make decisions using questions likely to elicit factors that could support (or discourage) their use of evidence.

Questions	Prompts		
What types of decisions do they make?	 Making decisions about their and their family's well-being Spending their money on products and services Volunteering their time and donating money to initiatives Supporting politicians charged with addressing societal challenges Advancing a narrow public interest, such as seeking a product recall for a product they purchased, better schooling for the type of school their children attend, and public payment for an expensive prescription drug for which a family member is now paying out-of-pocket Advancing a broad public interest, such as improving consumer protection, education and healthcare 		
Where and how are decisions made?	Can decide whether and how to take action on impulse, often as part of a learned, non-conscious process, or after reflection, as part of a deliberative, conscious process that can include finding and using evidence (1)		
What factors may influence decision-making?	 Need the opportunity, motivation and capability* to make a personal decision, take local action or build a social movement Motivation and capability can be influenced by family and friends, social-media influencers, community leaders, and others Some citizen-specific frameworks exist, such as the 'Ottawa decision-support framework' for patients, which includes decisional needs, decisional outcomes, and decision support that meets decisional needs and achieves decisional outcomes 		
What 'structures' may provide a way in for evidence?*	 Regulatory frameworks that protect citizens from false or misleading advertising of products that claim to prevent, diagnose, cure, treat or mitigate Social-accountability requirements such as citizen report cards, community monitoring, social audits, participatory budgeting, and citizen charters Organizational and professional requirements to ensure citizens are provided with objective counsel and service in their interest and have access to an independent mechanism to address complaints (e.g., ombudsperson) 		
What 'processes' may provide a way in for evidence?	 Decision aids Open-access publications Citizen-targeted plain-language communication of evidence Fact-checking services and misinformation trackers Media and information (including numeric) literacy training Trust-in-science initiatives Citizen-science initiatives Co-design and co-production processes Citizen panels and other deliberative processes Public consultation and engagement Media, social media (including algorithms), and podcasts Labels (called kitemarks in the UK) that signal the safety, quality or provenance of products and services (e.g., safe bicycle helmets or fair-trade coffee) Websites that provide reviews of products and services (organized by product or service category to enable 'comparison shopping') Websites that support 'effective altruism'** Social movements 		

^{*} Other behaviour-science frameworks also can be used, such as the attention, belief formation, choice and determination (ABCD) framework.(27)

^{**} Websites like 80,000 hours and GiveWell are pioneers in making it easy for people to volunteer their time and donate money to initiatives that use evidence to make decisions about what they do and how they do it.

Evidence syntheses address the factors and strategies that influence the use of evidence by citizens, however, many are low quality and highly specific in their focus. Some exceptions exist, such as a medium-quality scoping review of science-communication strategies. (28) We address the available evidence about responses to misinformation in **section 4.11**.

Mistrust of elites has emerged as a significant concern recently. However, many evidence intermediaries consider it generally good that citizens are less deferential to experts and prepared to ask them difficult questions. Achieving some degree of trust in decision-makers like government policymakers isn't just about making the 'right' decisions; it's about making decisions that most citizens perceive to be right. One of the benefits of some types of evidence, like evaluations that use a randomized-controlled-trial design, is that they can be explained in ways that may make it more likely for citizens to accept the findings.



Organizational leader, Modupe Adefeso-Olateju

Non-governmental organization leader pioneering the use of citizen-led assessments and publicprivate partnerships to improve educational outcomes for children

It's critical that we capitalize on this once-in-a-generation opportunity to improve the evidence-support system for educational decision-makers, including government policymakers, school-board officials, school principals, teachers and parents. I wholeheartedly embrace the idea in **section 6.2** about this evidence-support system needing to be grounded in an understanding of local context (including time constraints), demand-driven, and focused on contextualizing the evidence for a given decision in an equity-sensitive way. Through the Evidence Commission, I've learned a lot about how we can complement our local educational evidence from Nigeria, including the citizen-led assessments we implement, with other forms of evidence specific to Nigeria, as well as with the best evidence regionally and globally. I see the UK's Education Endowment Foundation evidence resources and the US Department of Education's What Works Clearinghouse, and can immediately see the value in similar services being initiated in Nigeria and other low- and middle-income countries. Repositories like the ESSA African Education Research Database need to be strengthened and supported to become even more useful. We need to work at this.

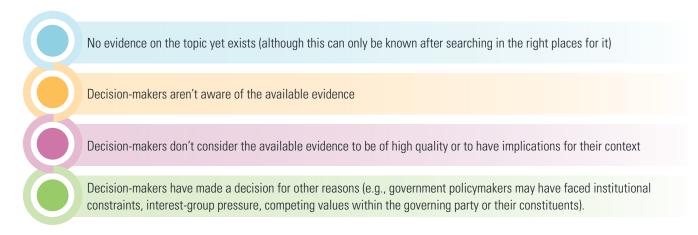
3.7 Ways that evidence can be used in decision-making

Evidence can be used in at least four different ways, (29) each of which can be illustrated with an example drawn from the COVID-19 pandemic and from another sector. The Evidence Commission is primarily focused on supporting the first two ways that evidence can be used, while recognizing that transparent deliberative processes and other approaches can be used to address (at least in part) the second two ways.

Ways that evidence can be used	Explanation	Examples drawn from the COVID-19 pandemic and one other sector
Conceptual or 'enlightenment'	Evidence changes the way we think about a problem, option(s) to address it and/or implementation consideration(s)	 Ten different types of 'indirect' evidence* (bit.ly/3w09DH5) were marshalled to collectively support the hypothesis that SARS-CoV-2 is transmitted primarily by aerosols rather than by large respiratory droplets and hence that additional options (like masks and ventilation systems) need to be pursued to reduce the spread of COVID-19 Behavioural research over the last decade has shown that 'defaults' can have larger effects than financial incentives in pension policy and other types of policy
Instrumental	Evidence directly informs a specific decision about a problem, option or implementation consideration	 The findings from the RECOVERY randomized-controlled trial, alongside six other smaller trials analyzed in an evidence synthesis, led to the widespread prescribing of dexamethasone in COVID-19 patients needing oxygen or ventilation (bit.ly/30IZsgA), and an estimated saving of one million lives worldwide within nine months (bit.ly/3F9JJAy) The findings from an Educational Endowment Foundation evidence synthesis led the UK government to re-direct funding and activity to tutoring to help students 'catch up' after COVID-related school disruptions
Symbolic	Evidence is selectively cited (or 'cherry picked') or new research is selectively commissioned to justify a decision made for reasons other than that evidence**	 The US government's purchase and stockpiling of 29 million hydroxychloroquine pills was justified using a single non-randomized study involving only 26 hospitalized patients (six of whom were lost during follow-up) and the 'gut instinct' of a US president (bit.ly/3DbFtzZ) Many governments and organizations supported the Scared Straight crime-prevention program based on low-quality evaluations (yet the evidence syntheses described in section 4.8 found evidence of harm and no evidence of benefit)
Tactical	Lack of evidence is used to justify action or inaction	 Lack of evidence about the transmission of SARS-CoV-2 by aerosols (as opposed to heavier droplets) was used by event organizers to argue that they could continue convening crowded indoor events without limiting the number of attendees or mandating the wearing of masks (rather than heeding the precautionary principle***) Lack of evidence about early-childhood programs was used by government policymakers to justify decisions to not make investments in this age group (and the Perry Preschool Project described in section 1.6 helped to build the case for action)

- * Direct evidence comes from research that directly compares the interventions that decision-makers are interested in, can be applied to the people who they are considering targeting, and measures outcomes that are important to them. Evidence can be indirect because it involves related but different types of interventions, people or outcomes, or because the interventions that can be chosen have not been tested in head-to-head comparisons (for more, see bit.ly/3CnKGnf). As we address in section 4.7, direct evidence is considered to be higher quality than indirect evidence.
- ** Some people use the term 'policy-based evidence' to contrast such symbolic uses of evidence with evidence-based (or evidence-informed) policymaking.
- *** The Wingspread Statement on the Precautionary Principle (1998) states that: "When an activity raises the threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not established scientifically. In this context the proponent of an activity [e.g., the event convenor], rather than the public, should bear the burden of proof." It is the seriousness of the threat of harm that justifies in the absence of sufficient evidence the use of precautionary measures that are likely to have greater benefit, fewer harms, and/or lower costs.

There can be many reasons why evidence is not used to address the many questions that can be asked when making a decision, including:



We return to matching forms of evidence to decision-related questions in section 4.6.



Professional, Julian Elliott

Clinician researcher leveraging technology for efficiently preparing and maintaining 'living' evidence syntheses and guidelines to inform decision-making

I come away from my work with the Evidence Commission even more convinced that we need to find ways to systematize the many aspects of the COVID-19 evidence response that went well, and address the many things that went poorly. This includes the incredible work many have undertaken to establish living evidence projects, which we now see being adopted beyond COVID-19. There has also been significant progress in clinical research with the widespread, successful implementation of 'platform trials,' and in publishing with the adoption of preprints. I also note with dismay the uneven coverage of key questions, particularly the unconscionably low level of funding for high-quality studies of non-drug interventions (e.g., behavioural, environmental, social and systems interventions), the low quality and out-datedness of evidence syntheses, and the heart-breaking amounts of wasteful duplication.

3.8 Global-commission reports by decision-maker type

Global-commission reports may target, involve directly or engage more generally any of the four types of decision-makers that are the focus of the Evidence Commission report. Government policymakers were the most frequent target audience for the 70 commission reports published since 2016 that we analyzed. Commission members were also most frequently described as government policymakers, and this type of decision-maker was also the focus of broader engagement of the commission reports we analyzed. Citizens were the least-frequent target audience, commission members, and focus of broader engagement. Many commission reports (52) did not single out any types of decision-makers as the basis for describing their commissioners.







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3.9 References

- 1. Kahneman D. Thinking, fast and slow. New York: Farrar, Straus and Giroux; 2011.
- Nsangi A, Semakula D, Oxman AD, et al. Effects of the Informed Health Choices primary school intervention on the ability of children in Uganda to assess the reliability of claims about treatment effects: A cluster-randomised controlled trial. *The Lancet* 2017; 390(10092): 374-388.
- 3. Semakula D, Nsangi A, Oxman AD, et al. Effects of the Informed Health Choices podcast on the ability of parents of primary school children in Uganda to assess claims about treatment effects: A randomised controlled trial. *The Lancet* 2017; 390(10092): 389-398.
- 4. Langer L, Tripney J, Gough D. The science of using science: Researching the use of research evidence in decision-making. London: EPPI-Centre, UCL Institute of Education; 2016.
- 5. Oliver K, Innvar S, Lorenc T, Woodman J, Thomas J. A systematic review of barriers to and facilitators of the use of evidence by policymakers. BMC Health Services Research 2014; 14: 2.
- Murthy L, Shepperd S, Clarke MJ, et al. Interventions to improve the use of systematic reviews in decision-making by health system
 managers, policy makers and clinicians. Cochrane Database of Systematic Reviews 2012; (9): 1-67.
- 7. Perrier L, Mrklas K, Lavis JN, Straus SE. Interventions encouraging the use of systematic reviews by health policymakers and managers: A systematic review. *Implementation Science* 2011; 6: 43.
- 8. Wallace J, Byrne C, Clarke M. Improving the uptake of systematic reviews: A systematic review of intervention effectiveness and relevance. *BMJ Open* 2014; 4(10): e005834.
- 9. Sarkies MN, Bowles K-A, Skinner EH, Haas R, Lane H, Haines TP. The effectiveness of research implementation strategies for promoting evidence-informed policy and management decisions in healthcare: A systematic review. *Implementation Science* 2017; 12(1): 132.
- 10. Williamson A, Barker D, Green S, et al. Increasing the capacity of policy agencies to use research findings: A stepped-wedge trial. *Health Research Policy and Systems* 2019; 17(14).
- 11. Partridge ACR, Mansilla C, Randhawa H, Lavis JN, El-Jardali F, Sewankambo NK. Lessons learned from descriptions and evaluations of knowledge translation platforms supporting evidence-informed policy-making in low- and middle-income countries: A systematic review. *Health Research Policy and Systems* 2020; 18(1): 127.
- 12. Ricciardi GW, Toumi M, Weil-Olivier C, et al. Comparison of NITAG policies and working processes in selected developed countries. *Vaccine* 2015; 33(1): 3-11.
- 13. Bell S, Blanchard L, Walls H, Mounier-Jack S, Howard N. Value and effectiveness of national immunization technical advisory groups in low- and middle-income countries: A qualitative study of global and national perspectives. *Health Policy and Planning* 2019; 34(4): 271-281
- 14. Tyner E, Lorenc T, Petticrew M, et al. Cultures of evidence among decision makers in non-health sectors: Systematic review of qualitative evidence. *The Lancet* 2013; 382(S3).
- 15. Government of Kenya, Guidelines for evidence use in policy-making. Nairobi: Government of Kenya, Ministry of Health; 2016.
- 16. HM Treasury. The green book: Central government guidance on appraisal and evaluation. London: UK Government, HM Treasury; 2018.
- 17. Sucha V, Sienkiewicz M. Science for policy handbook. Brussels: European Commission Joint Research Centre; 2020.
- 18. Sense About Science. Transparency of evidence: An assessment of government policy proposals May 2015 to May 2016. London: Sense About Science; 2016.
- 19. Haskins R, Margolis G. Show me the evidence: Obama's fight for rigor and results in social policy. Washington: Brookings Institution Press; 2014.
- 20. Tate K, Hewko S, McLane P, et al. Learning to lead: A review and synthesis of literature examining health care managers' use of knowledge. *Journal of Health Services Research & Policy* 2019; 24(1): 57-70.
- 21. Shafaghat T, Imani-Nasab MH, Bahrami MA, et al. A mapping of facilitators and barriers to evidence-based management in health systems: A scoping review study. *Systematic Reviews* 2021; 10(1): 42.

- 22. Roshanghalb A, Lettieri E, Aloini D, Cannavacciuolo L, Gitto S, Visintin F. What evidence on evidence-based management in healthcare? *Management Decision* 2018; 56(10): 2069-2084.
- 23. Moss I. Improving institutional decision-making: Which institutions? A framework. 2021. https://forum.effectivealtruism.org/posts/ttpSEgE3by7AAh07w/improving-institutional-decision-making-which-institutions-a (accessed 9 September 2021).
- 24. Leigh A. Randomistas: How radical researchers changed our world. Carlton: La Trobe University Press in conjunction with Black Inc.; 2018.
- 25. Pantoja T, Opiyo N, Lewin S, et al. Implementation strategies for health systems in low-income countries: An overview of systematic reviews. *Cochrane Database of Systematic Reviews* 2017; 9(9).
- 26. Dagenais C, Lysenko L, Abrami PC, Bernard RM, Ramde J, Janosz M. Use of research-based information by school practitioners and determinants of use: A review of empirical research. *Evidence & Policy: A Journal of Research, Debate and Practice* 2012; 8(3): 285-309.
- 27. Organisation for Economic Co-operation and Development. Behavioural insights and organisations: Fostering safety culture. Paris: OECD; 2020.
- 28. Fontaine G, Maheu-Cadotte MA, Lavallée A, et al. Communicating science in the digital and social media ecosystem: Scoping review and typology of strategies used by health scientists. *JMIR Public Health and Surveillance* 2019; 5(3): e14447.
- 29. Weiss CH. The many meanings of research utilization. Public Administration Review 1979; 39(5): 426-431.