Policy analysis (and finding and using research evidence to inform a policy analysis)
Summary sheet

Matching the 'policy analysis' question to the right form of evidence

Understanding a problem and its causes 1

Selecting an option for addressing a problem 2

Monitoring implementation and evaluating impacts (and then learning and improving) 4

Identifying implementation considerations 3

Steps	Related questions	Examples of helpful forms of evidence
1	**Indicators** – How big is the problem?	Data analytics
	Comparisons – Is the problem getting worse or is it bigger here than elsewhere?	Data analytics (*e.g., using administrative databases or community surveys*)
	Framing – How do different people describe or experience the problem and its causes?	Qualitative studies (*e.g., using interviews and focus groups*)
2	**Benefits** – What good might come of it?	Evaluations (*e.g., effectiveness studies like random controlled trials*)
	Harms – What could go wrong?	Evaluations (*e.g., observational studies*)
	Cost-effectiveness – Does one option achieve more for the same investment?	Technology assessment / cost-effectiveness evaluation
	Adaptations – Can we adapt something that worked elsewhere while still getting the benefits?	Evaluations (*e.g., process evaluations that examine how and why an option worked*)
	Stakeholders' views and experiences – Which groups support which option?	Qualitative studies (*e.g., using interviews and focus groups to understand what is important to citizens*)
3	**Barriers and facilitators** – What (and who) will get in the way or help us in reaching and achieving desired impacts among the right people?	Qualitative studies (*e.g., using interviews and focus groups to understand barriers and facilitators*)
	Benefits, harms, cost-effectiveness, etc. of implementation strategies – What strategies should we used to reach and achieve desired impacts among the right people?	Behavioural / implementation research See also 'selecting an option'
4	Is the chosen option reaching those who can benefit from it?	Data analytics
	Is the chosen option achieving desired impacts at sufficient scale?	Evaluations

Looking in the right places for the right form of evidence

		About clinical & public health issues	About health and social system issues
Clarifying a problem	1	What is the **problem (and its causes)**? • A risk factor or condition • A program, service or product being used • Current health- and social-system (governance, financial and delivery) arrangements within which programs, services and products are provided • Current degree of implementation of an agreed course of action	
	2	How did the problem come to **attention** and has this process influenced the prospect of it being addressed?	• e.g., for Canada www.cihi.ca for national health and healthcare utilization databases • e.g., for all countries www.lexisnexis.com/hottopics/lnacademic/ for media coverage of health and social issues
	3	What **indicators** can be used, or collected, to establish the magnitude of the problem and to measure progress in addressing it?	
	4	What **comparisons** can be made to establish the magnitude of the problem and to measure progress in addressing it?	**PubMed HSR Queries** www.nlm.nih.gov/nichsr/hedges/search.html → Process assessment → Outcomes assessment	**Health Systems Evidence** for health-system arrangements www.healthsystemsevidence.org
	5	How can a problem be **framed** (or described) in a way that will motivate different groups?	**PubMed HSR Queries** www.nlm.nih.gov/nichsr/hedges/ search.html → Qualitative research	**Social Systems Evidence** for social challenges and social-system arrangements www.socialsystemsevidence.org

			About clinical & public health issues	About health and social system issues
Framing options	1	Has an appropriate set of **options** been identified to address the problem (within one or more of the areas where problems were identified)? • Introducing, changing or discontinuing a program, service or product • Introducing, changing or discontinuing a health- or social-system arrangement that contributes to whether the right mix of programs, services and products get to those who need them • Implementing an agreed course of action		
	2	What **benefits** are important to those who will be affected and which benefits are likely to be achieved with each option?	**ACCESSSS (or Cochrane Library)** for clinical programs, services and drugs www.accessss.org (or www.cochranelibrary.com) **Health Evidence** for public health programs and services www.healthevidence.org	**Health Systems Evidence** for health-system arrangements www.healthsystemsevidence.org **Social Systems Evidence** for social challenges and social-system arrangements www.socialsystemsevidence.org
	3	What **harms** are important to those who will be affected and which harms are likely to arise with each option?		
	4	What are the local **costs** of each option and is there local evidence about their cost-effectiveness?	**ACCESSSS (or PubMed HSR Queries)** for economic evaluations of any option www.accessss.org (or www.nlm.nih.gov/nichsr/hedges/search.html → Costs or economics)	
	5	What **adaptations** might be made to any given option and might they alter its benefits, harms and costs?	**PubMed HSR Queries** www.nlm.nih.gov/nichsr/hedges/search.html → Qualitative research	
	6	Which stakeholders' **views and experiences** might influence the acceptability of an option and its benefits, harms and costs?		

			About clinical & public health issues	About health and social system issues
Identifying implementation considerations	1	What are the potential **barriers** to and **facilitators** of the successful implementation of the policy or program (at each of the following levels)? • Patients/citizens (e.g., awareness of the availability of a free program) • Providers (e.g., adherence to guidelines) • Organizations (e.g., performance management) • Systems (e.g., enforcement of regulations)	**PubMed HSR Queries** www.nlm.nih.gov/nichsr/hedges/search.html → Qualitative research	
	2	What strategies should be considered in order to facilitate the necessary behavioural changes among **patients/citizens**?	**Health Systems Evidence** for health-system arrangements www.healthsystemsevidence.org **Social Systems Evidence** for social challenges and social-system arrangements www.socialsystemsevidence.org	
	3	What strategies should be considered in order to facilitate the necessary behavioural changes among **providers**?		
	4	What strategies should be considered in order to facilitate the necessary **organizational changes**?		
	5	What strategies should be considered in order to facilitate the necessary **system changes**?		

Hints about searching these databases

1) use AND, OR or NOT to refine your search	
2) use quotation marks to find exact phrases	"user fees" ≠ user fees
3) use brackets to group parts of a search	(doctor AND nurse) OR pharmacist ≠ doctor AND (nurse OR pharmacist)
4) use an asterix to find a word that may have many endings	nurs* = nurse OR nurses OR nursing

Look for quality ratings (e.g., AMSTAR) or, if you're lucky, designations of the best available systematic review to address a given question. For example, the COVID-END inventory defines the 'best' (available) evidence syntheses based on the quality of the review, the recency of search, and the availability of a GRADE evidence profile.

Appendix: Matching the right form of evidence to the right step

Decision-makers need both local evidence (i.e., what has been learned in their own country, state/province or city) and global evidence (i.e., what has been learned around the world, including how it varies by groups and contexts). They also may benefit from recommendations that draw on both local and global evidence.

Vantage point	Forms of evidence	Definitions	Steps where it adds great value
Local (national or sub-national) evidence	Data analytics	Systematic analysis of raw data to make conclusions about that information	1 4
	Modeling	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	1 2
	Evaluation	Systematic assessment of the implementation (monitoring) and impacts (evaluation) of an initiative for the purposes of learning or decision-making	2 4
	Behavioural/ implementation research	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)	3
	Qualitative insights	Study of (typically non-numerical) data – obtained from interviews, focus groups, open-ended question-naires, first-hand observation, participant-observation, recordings made in natural settings, documents, and artifacts – to understand how individuals and groups view and experience problems, options, implementa-tion considerations (barriers, facilitators and strategies), and metrics	1 2 3 4
Global evidence	Evidence synthesis	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)	1 2* 3 4
Local (national or sub-national) recommendations or evidence support informed by local and global evidence	Technology assessment/ cost-effectiveness analysis	Assessment of all relevant aspects of a 'technology' (e.g., a product or service), including safety, effective-ness, 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	2* 3 4
	Guidelines	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	2

Adds the greatest value in this step but can add value in other steps.

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