

Systematic Reviews and Evidence-Informed Policy: Overview

This note provides an overview of systematic reviews, including how reviews contribute to evidence-informed policy and an overview of DFID's systematic review program. The note also makes clear the limitations of systematic reviews and provides links to systematic reviews and resources to learn more.

What is Evidence Informed Policy?

Evidence-informed policy is about decisions based on the careful use of the most up-to-date evidence. Making policies and decisions in this way increases the success of policies, their value for money and their impact by basing decisions on what we know. This is important in development, where limited funds are targeted at some of the world's most pressing problems.

What is the Issue?

There is currently an obstacle to developing evidence informed policy in international development. While there is a lot of primary evidence, this is not being systematically and neutrally laid out and mediated to decision makers. The fact is: policy makers and practitioners do not have the time to assess the evidence base for each policy or practice questions, so they rely on single studies, well-placed experts or traditional and unsystematic scoping studies or literature reviews.

But individual studies, no matter how rigorous or scientific, are not a sufficient evidence base from which to make informed policy and practice decisions. There is a clear gap in the provision of a systematic and unbiased assessment of development evidence.

What is a systematic review?

Systematic reviewing describes an approach to methodologically mapping out the available evidence, critically appraising the evidence and synthesising the results. Systematic reviews are explicitly different from traditional literature reviews or expert commentaries in that they are transparent, rigorous and replicable.¹

Systematic reviews are increasingly being used in disciplines using both quantitative and qualitative methods. There are many review methods, including meta-ethnography, narrative synthesis, realist synthesis and qualitative meta-summary for quantitative data as well as the meta-analysis approach to statistical data.

The key element of a systematic review is the **process**, rather than the specific method used to aggregate and interpret data. The process involves developing a published and peer-reviewed protocol that includes:

1. A relevant research question developed in consultation with users.
2. A search strategy to find **all** the available studies, including journals, grey literature and unpublished studies.
3. A set of inclusion and exclusion criteria to select the studies for review (for example only studies of adolescents in South Asia).
4. A quality appraisal strategy that is relevant to the review question and the types of studies under review.
5. Methods for synthesising the studies, according to the type of data available.

¹ D. Badger, J. Nursten, P. Williams and M. Woodward "Should All Literature Reviews be Systematic?" Evaluation and Research in Education, v14 n3&4 p220-30 2000

Developing and publishing the protocol and carefully documenting the progress of the review means that a systematic review is more transparent than literature reviews as it is easier to scrutinize the methods and audit the process. A systematic review is also more rigorous than a literature review as anyone could follow the review protocol and arrive at similar conclusions.

Furthermore, systematic reviews reduce bias by systematically searching all of the literature and extracting relevant evidence. Reviews are often conducted by teams, which further helps to reduce the bias a single reviewer might introduce.

Finally, a systematic review should become a public good because of the steps taken to reduce bias and increase rigour and transparency. Systematic reviews produce authoritative assessments of the evidence base that should be relevant to all decision makers.

How does this contribute to evidence-informed policy?

As stated above, systematic reviews provide an assessment of the evidence base that is critical to developing evidence-informed policy. As Badger et al argue “it is irresponsible to interfere in the lives of other people on the basis of theories unsupported by reliable empirical evidence”. In sum, systematic reviews are about “avoiding biases in assessing the effects of policies and practices”.²

Systematic reviews and review-products also help to package evidence in a more accessible way. There are often a bewildering amount of primary studies: policy makers have neither the time nor the expertise to separate the quality from the questionable. Systematic reviews overcome this by presenting a clearer and more consistent picture of the body of evidence. And because they are summary conclusions they are presented in a way that is accessible and easily understandable to non-experts.

Additionally, good systematic reviews identify gaps in the knowledge to help shape future research agendas and reduce duplication of research by making it clear what we do know and what we need to know. And because they are widely published and accessible, they become an authoritative summary of the body of evidence thereby reducing the need for traditional narrative reviews that tend to be produced over and over again.

What is systematic review NOT?

A systematic review is not a mechanical process whereby a policy prescription that is applicable in any setting will emerge from the review process. A review of a complex intervention should make clear the barriers and levers to the success of a particular intervention. It is this summary of ‘what works, where and for whom’ that makes a review valuable to policy makers and practitioners and the evidence should be used by them to inform the development of their policy or project.

Systematic reviews do not replace or supplant the role of other factors that influence policy making, including public opinion and expert advice. Instead, they aim to ensure that the best available evidence is ready for policy makers and practitioners of all kinds. This aim should be the ultimate goal of policy-relevant research.

² Iain Chalmers “If evidence-informed policy works in practice, does it matter if it doesn't work in theory?” *Evidence & Policy: A Journal of Research, Debate and Practice*, Volume 1, Number 2, May 2005, pp. 227-242(16).

How could this work in development?

The Department for International Development is developing a program to develop and disseminate systematic reviews in international development that will neutrally map out the evidence in international development, apply quality criteria to the available evidence and synthesise it. There are four main aims of the program:

1. To create widespread understanding of and support for the use of systematic reviews for evidence informed decision making in international development.
2. To support the development of a system or institution to manage the creation and dissemination of systematic reviews in international development as public goods.
3. To make it easier for policy makers and practitioners to understand the evidence base and use this to inform their policy and practice decisions by using systematic reviews.
4. To increase the value for money of policy by basing decisions on a rigorous understanding of what works.

A pilot is running from January-September 2010 that will test the approach by developing 25 systematic reviews. If successful, DFID will be supporting the creation of an independent and international collaboration to oversee the creation and dissemination of systematic reviews and derived products that will focus on creating public good outputs to the highest academic standard.

Examples of systematic reviews

1. [Behavioural interventions to reduce risk for sexual transmission of HIV among men who have sex with men](#)
2. Water, Sanitation and Hygiene Interventions to Combat Child Diarrhoea [full report](#)
3. [Young people, pregnancy and social exclusion](#)
4. The Efficacy of School Feeding Programs [full review/analysis of review](#)
5. [Interventions to Promote Social Cohesion in Sub-Saharan Africa](#) (Protocol Only)
6. [Impact of Micro-Credit](#) (Protocol Only)

Resources to learn more about systematic reviews

1. [EPPI Centre](#)- An Institute of Education centre focusing on systematic reviews in education, health and social policy
2. [Campbell Collaboration](#)- Independent organization producing systematic reviews on what works for education, health and social policy to build healthy and stable societies.
3. [Cochrane Collaboration](#)- Independent organizations producing systematic reviews for health interventions.