SUPPORT Tools for evidence-informed health Policymaking (STP)

1. What is evidence-informed policymaking?

Andrew D Oxman¹ John N Lavis² Simon Lewin³ Atle Fretheim⁴

- 1. Norwegian Knowledge Centre for the Health Services, P.O. Box 7004, St. Olavs plass, N-0130 Oslo, Norway. Email: <u>oxman@online.no</u>
- 2. Centre for Health Economics and Policy Analysis, Department of Clinical Epidemiology and Biostatistics, and Department of Political Science, McMaster University, 1200 Main St. West, HSC-2D3, Hamilton, ON, Canada, L8N 3Z5. Email: lavisj@mcmaster.ca
- Norwegian Knowledge Centre for the Health Services, P.O. Box 7004, St. Olavs plass, N-0130 Oslo, Norway and Health Systems Research Unit, Medical Research Council of South Africa. Email: <u>simon.lewin@nokc.no</u>
- 4. Norwegian Knowledge Centre for the Health Services, P.O. Box 7004, St. Olavs plass, N-0130 Oslo, Norway. Email: <u>atle.fretheim@nokc.no</u>

Corresponding author: Dr Andy Oxman Norwegian Knowledge Centre for the Health Services P.O. Box 7004, St. Olavs plass N-0130 Oslo, Norway

Email: <u>oxman@online.no</u>

Abstract

Background: The SUPporting POlicy relevant Reviews and Trials (SUPPORT) project is an international collaboration funded by the European Commission's 6th Framework. As part of this project, we have produced the SUPPORT Tools for evidence-informed health Policymaking (STP). This article is the first in a series describing these tools which are designed to help policymakers and those who support them. Their purpose is to assist in making well-informed decisions about policies or actions that are used to address health problems and achieve health goals. The tools are also relevant for managers. Our aim is to improve the effectiveness, efficiency and equity of health policies through better use of research evidence to inform decisions.

Objectives: In this article we provide an overview of the SUPPORT Tools for Policymakers and describe how the tools have been developed, what we mean by 'evidence-informed health policymaking' and why it is important.

Key messages:

- Evidence-informed health policymaking is an approach to policy decisions that is intended to ensure that decision making is well-informed by the best available research evidence.
- Evidence-informed policymaking is characterised by the systematic and transparent *access* to and *appraisal* of evidence as an input into the policymaking process
- The overall process of policymaking is not assumed to be systematic and transparent. However, within the overall process of policymaking, systematic processes are used to ensure that relevant research is identified, appraised and used appropriately. These processes are transparent in order to ensure that others can examine what research evidence was used to inform policy decisions, and the judgements made about the evidence and its implications
- Evidence-informed policymaking helps policymakers attain an understanding of the systematic processes that are used to ensure that relevant research is identified, appraised and used appropriately
- STP provides a series of checklists for policymakers that address key considerations in prioritising, defining and diagnosing problems; identifying potential policy and programmatic options and finding evidence of their impacts; appraising the impacts and costs of potential policy and programme options; planning implementation, scaling up, monitoring and evaluation strategies; making decisions and involving stakeholders in these decisions; and developing organisational capacity and arrangements for evidence-informed policymaking

Background

An evidence-informed approach to policymaking has a number of advantages for policymakers. Firstly, it allows politicians to acknowledge that policies can be informed by imperfect information. This recognition reduces political risk because it sets in motion ways to alter course if policies do not work as expected. There is a far greater risk to politicians when policies are advocated without acknowledging the limitations of the available evidence and which are then adhered to regardless of the results. This renders politicians subject to political criticism for failures related and unrelated to the policy itself.

An evidence-informed approach to policymaking can also better enable politicians to manage researchers who act as advocates, as well as lobbyists who may misuse research evidence. An evidence-based approach to policymaking allows policymakers to:

- Ask critical questions about the research informing policies that are being advocated
- Demonstrate that they are using good information on which to base their decisions, and
- Ensure that research evaluating their initiatives is appropriate and that the outcomes being measured are realistic and agreed in advance

This approach puts policymakers in a politically more attractive position by enabling continuous policy improvement and gives them greater standing in the research process that might otherwise not have been possible.

In this series of articles, which has been written for health policymakers and their support staff, we will describe a set of tools, which we refer to as the SUPPORT Tools for evidence-informed health Policymaking (STP). These tools have been developed by the SUPporting POlicy relevant Reviews and Trials (SUPPORT) project, an international collaboration funded by the European Commission's 6th Framework (www.support-collaboration.org). STP is intended to help policymakers, and those who support them, to make well-informed decisions about policies or actions that are used to address health problems and achieve health goals. Much of what STP addresses is also relevant to those managers responsible for making decisions about policies or actions.

Our aim is to improve the effectiveness, efficiency and equity of health policies through better use of research evidence to inform decisions. Our focus is on decisions about how best to organise health systems, including delivery arrangements, financial arrangements, governance arrangements, and strategies for bringing about change [1-3]. In this series, we use these types of decisions as examples to illustrate the ways in which the extent to which decision making can be well-informed by research evidence can be improved. Similar approaches can be used to inform decisions about which programmes, services or drugs are provided [4].

Resources for health are always limited. In low- and middle-income countries, where there are often severe constraints on resources, it is especially important to make the best use of those that are available, to address important problems and achieving health goals, such as the Millennium Development Goals (MDGs). Using research evidence to inform decisions, far from being a luxury, is crucial. As Hassan Mshinda, the Director General of the Commission for Science and Technology in Tanzania, has said: "*If you are poor, actually you need more evidence before you invest, rather than if you are rich*" [5].

In this article we provide an overview of the SUPPORT Tools for evidence-informed health Policymaking and describe how these tools have been developed, what we mean by 'evidence-informed health policymaking' and why such an approach is important.

Overview of STP

To help policymakers and others to make better use of available evidence to inform decisions, we describe a series of steps to help them address key considerations in:

- Prioritising, defining and diagnosing problems
- Identifying potential policy and programme options and finding evidence of their impacts
- Appraising the impacts and costs of potential policy and programme options
- Planning implementation, scaling up, monitoring and evaluation strategies
- Making decisions and involving stakeholders in these decisions, and
- Developing organisational capacity and arrangements for evidence-informed policymaking

There are 21 articles in this series. Each article includes a checklist of questions addressing key considerations, and contains explanatory text, illustrative examples and resources (including references to useful documents, recommended further reading and links to websites).

STP is structured as follows, with each number corresponding to an article in this series:

Introduction

1. What is evidence-informed policymaking?

Prioritising and defining problems

- Setting priorities How to decide which issues warrant more attention
 Defining the problem
 - How to identify a problem and characterise its features

Identifying potential policy and programme options and finding evidence about them

- 4. **Framing options to address a problem** How to identify options and approach the characterisation of their costs and consequences
- 5. **Finding systematic reviews** How to find systematic reviews about potential policy and programme options, particularly their impacts
- 6. **Finding and using local evidence** How to find, assess and incorporate local evidence

Characterising the costs and consequences of potential policy and programme options

- 7. Assessing the reliability of systematic reviews How to critically appraise the reliability of systematic reviews
- 8. Assessing the applicability of systematic reviews How to assess the applicability of the findings from systematic reviews to specific settings
- 9. **Incorporating equity considerations** How to identify and incorporate equity considerations

10. Incorporating economic evidence

How to identify and incorporate considerations of resource use (costs)

- 11. Using balance sheets
 How to use balance sheets that summarise evidence on the most important outcomes
- 12. **Dealing with insufficient evidence** How to respond when there is no systematic review or there is insufficient evidence

Planning implementation, scaling up, and monitoring and evaluation strategies

- 13. Scaling up policies and programmes How to identify and address issues that can arise in scaling up policies and programmes
- 14. **Implementing policies and programmes** How to identify potential barriers to implementation and select implementation strategies
- 15. Monitoring and evaluating policies and programmes How to monitor the implementation of policies and programmes and evaluate their impacts

Making decisions and involving stakeholders in decisions

- 16. Going from the evidence to a decision How to formulate a recommendation or reach a decision
- 17. Preparing and using policy briefs How to prepare and use policy briefs as an input to the policymaking process
- 18. Organising and using policy dialogues
 How to organise and use deliberative dialogues as an input to the policymaking process
 10. Local data data data
- 19. **Involving the public** How to work with the mass media, civil society organisations and the general public

Developing organisational capacity and structures for evidence-informed policymaking 20. **Conducting an organisational self-assessment**

- How to assess an organisation's capacity to find and use evidence
- 21. Designing organisational arrangements for supporting evidence-informed policymaking

How to design organisational arrangements that support evidence-informed policymaking

How STP was developed

The structure of STP, as outlined above, was developed through discussions at SUPPORT collaboration meetings (for further details of the contributors, please see the 'Acknowledgements' section [to be added]). It is also based, in large part, on experience gained from conducting workshops on evidence-informed health policy for policymakers in low and middle-income countries (including SUPPORT and EVIPNet [6, 7] workshops), and high-income countries (including EXTRA workshops in Canada (www.chsrf.ca/extra) and Rocky Mountain Evidence-Based Health Care workshops in the United States [8, 9] (http://ebhc.uchsc.edu/)). Some of the material included has been adapted from those workshops and supplemented with materials adapted from other evidence-based healthcare resources. Additional resources have been identified through searches of relevant databases (primarily PubMed), websites and personal contacts.

Each section was drafted by the lead author with subsequent revisions based on feedback from the other authors, others in the SUPPORT collaboration, members of the Evidence-

Informed Policy Network (EVIPNet) and external reviewers, including policymakers and researchers.

What is evidence?

Discussions of evidence-based practice and evidence-informed policymaking can generate debate about what exactly constitutes 'evidence'. A common understanding is that "evidence concerns facts (actual or asserted) intended for use in support of a conclusion" [10]. A fact, in turn, is something known by experience or observation. An important implication of this understanding is that evidence can be used to support a conclusion but it is not the same as a conclusion. Evidence alone does not make decisions.

This understanding of what evidence is has a number of implications. Firstly, expert opinion is more than just evidence. Instead, it is the combination of facts, the interpretation of those facts, and of conclusions. Evidence always informs expert opinions. And the appropriate use of that evidence requires the identification of those facts (experience or observations) that form the basis of the opinions, as well as an appraisal of the extent to which the facts support the conclusions [11].

Secondly, not all evidence is equally convincing. How convincing evidence is depends on what sorts of observations were made and how well they were made. Research evidence is generally more convincing than haphazard observations because it uses systematic methods to collect and analyse observations. Similarly, well-designed and executed research is more convincing than poorly designed and executed research.

Thirdly, judgements about how much confidence can be placed in different types of evidence (the 'quality' of the evidence) are made either implicitly or explicitly. It is better to make these judgements systematically and explicitly in order to prevent errors, resolve disagreements, facilitate critical appraisal, and communicate information. This, in turn, requires explicit decisions about the actual types of evidence that need to be considered.

Fourthly, all evidence is context-sensitive, given that all observations are necessarily contextspecific. Judgements always need to be made therefore about the applicability of evidence beyond its original context or setting. It is best to make judgements about the applicability of this evidence systematically and explicitly, for the same reasons that it is best to make judgements about the quality of the evidence in a systematic and explicit way.

Fifthly, 'global evidence' – i.e. the best evidence available from around the world – is the best starting point for judgements about the impacts of policies. Although all evidence is context-sensitive, decisions based on a subset of observations that are presumed to be more directly relevant to a specific context (such as those undertaken in a particular country or population group), can be misleading [12]. Judgements about whether to base a conclusion on a subset of observations are better informed if made in the context of all relevant evidence [13].

Finally, local evidence (from the specific setting in which decisions and actions will be taken) is necessary in order to inform most other judgements about what to do, including: the presence of modifying factors in specific settings, the degree of need (e.g. the prevalence of disease or risk factors or problems with delivery, financial or governance arrangements), values, costs and the availability of resources.

The role of research evidence in informing health policy decisions

Universal and equitable access to healthcare, health-related MDGs and other health goals are more likely to be achieved by well-informed health policies and actions [1, 14-16]. Unfortunately, the reality is that health policies are often not well-informed by research evidence [16-19]. Poorly informed decision making is one of the reasons why services sometimes fail to reach those most in need, why health indicators are off track and why many countries are unlikely to meet the health MDGs [20]. It is also one of the explanations for problems with the effectiveness, efficiency and equity of health systems. Policies are frequently not informed by research evidence due to problems with the production and accessibility of relevant research, as well as problems with the use of research evidence by policymakers [16-19].

Sub-Saharan Africa spends, on average, approximately 80 per person on healthcare, while Asia spends 190 compared to 2,700 for OECD high-income countries [21]. With limited resources and a substantial healthcare burden, it is vital that low- and middle-income countries spend their healthcare budgets wisely.

High-income countries, too, face similar resource limits due to growing healthcare demands and costs. Access to health services is often not equitable and may be frustrated by inefficient health systems [22]. Once individuals do gain access, care may be substandard or expensive. Effective and cheap interventions, such as magnesium sulphate for eclampsia and preeclampsia, are sometimes not used, or are simply unavailable [23]. Ineffective or unnecessarily expensive interventions (such as routine episiotomies, and the provision of intravenous fluids rather than oral rehydration solutions for diarrhoea in children) are sometimes still used. Better use of research evidence for selecting and promoting interventions and deciding on delivery, financial and governance arrangements for these, can help to reduce these problems (see Box 1).

To make well-informed decisions regarding how best to provide universal and equitable access to healthcare, policymakers need access to robust evidence. This includes evidence about interventions and strategies that work, about those that may be potentially useful, and about health system arrangements that support their cost-effective provision. They need, too, to understand how to fit these into complex health systems. Evidence is needed to clarify what services and programmes to offer or cover, how to deliver those services, financial arrangements, governance arrangements, and how to implement change [1]. Systematic reviews can be used to inform decisions for key questions within each of these domains [15-17].

Policy decisions are always influenced by factors other than evidence. These include political, economic, cultural and social factors. Research evidence is also not the only type of information needed to inform the judgements necessary for policy decision making. Nonetheless, strengthening the use of research evidence, and the ability of policymakers to make appropriate judgements about its relevance and quality, is a critical challenge that holds the promise of helping to achieve significant health gains and better use of resources.

What is evidence-informed policymaking?

For health policy decision making to be well-informed rather than misinformed, it is essential that more systematic and transparent processes are applied when accessing and appraising research evidence. Evidence-informed health policymaking is an approach to policy decisions intended to ensure that decision making is well-informed by the best available research evidence. How this is done may vary, depending on the type of decisions being made and their context. Nonetheless, evidence-informed policymaking is characterised by the fact that its access and appraisal of evidence as an input into the policymaking process is both systematic and transparent. This does not imply that the overall process of policymaking, systematic processes are used to ensure that relevant research is identified, appraised and used appropriately. These processes are transparent so that others can examine what research evidence has been used to inform policy decisions and the judgements made regarding the evidence and its implications.

Different types of evidence are relevant to different questions, and legitimate differences of opinion may exist as to what constitutes the "best available evidence" for particular questions [24]. However, evidence-informed health policymaking aims to ensure that relevant evidence is identified and that judgements about issues such as what evidence is relevant, the risk of bias and the applicability of identified evidence are made systematically and transparently. Evidence-informed health policymaking also aims to ensure that conflicts of interest do not influence such judgements or any new research that is undertaken in support of policymaking.

Another essential characteristic of evidence-informed policymaking is that policymakers understand the systematic processes that are used to ensure that relevant research is identified, appraised and used appropriately, as well as the potential uses of such processes. This series of articles is aimed at helping policymakers attain such an understanding.

Since the beginning of the 1990s, there has been a drive towards evidence-based medicine (EBM), which focused initially on decision making by physicians [25, 26]. This drive has been extended to other health professionals and consumers, and referred to as 'evidence-based healthcare' or 'evidence-based practice' as a way of reflecting its broader scope. In the context of management and policymaking, to which this approach has also been extended, it is referred to as "evidence-based policy" [27]. In all of these arenas, debate has focused on what exactly is meant by an evidence-based approach, and how this differs from usual practices, as well the relative benefits and risks of such approaches. Both EBM and evidence-based policymaking have been criticised for assuming that practice or policy decisions are largely determined by research evidence [15, 28-30]. This criticism is largely a misperception of what has been advocated. Neither decisions about individual patients nor policy decisions are determined by evidence alone. Judgements, values, and other factors, always play a role.

Although the terms 'evidence-based' and 'evidence-informed' can be used interchangeably, we have elected to use the term 'evidence-informed' because it better describes the role of evidence in policymaking and the aspiration of improving the extent to which decisions are well-informed by research evidence [15, 31].

Promoting evidence-informed policymaking

There is growing interest globally in making better use of research evidence in decisions related to health. In 2004, for example, the World Health Organization issued the World Report on Knowledge for Better Health, which included a chapter devoted to linking research to action [32]. The Ministerial Summit on Health Research held that year in Mexico City, issued a statement on the importance of research for better health and for strengthening health systems [33]. In May 2005, the 58th World Health Assembly passed a resolution acknowledging the Mexico Statement on Health Research, urging member states "to establish or strengthen mechanisms to transfer knowledge in support of evidence-based public health and health-care delivery systems, and evidence-based health-related policies" [34]. The need to continue to build on the progress made since the Mexico Ministerial Summit was reflected too in the 2008 Bamako Statement issued by the Ministers of Health, Ministers of Science and Technology, Ministers of Education, and other ministerial representatives of 53 countries [35]. A first step towards doing this is to ensure that policymakers and researchers have a shared understanding of what research evidence is and of the role of research evidence in helping to inform policy decisions (see Box 2).

Resources

Useful documents and further reading

- Evidence-informed health policy video documentaries http://www.kunnskapssenteret.no/Artikler/2061.cms

These compelling video documentaries are part of a report on more than 150 organisations, particularly in LMICs, that are building bridges between evidence and policy (<u>http://www.nchs.no/Publikasjoner/469.cms</u>). The video documentaries tell the stories of eight case studies across six continents, where people are trying to improve health systems by using research evidence to inform decision making

- The Mexico statement on health research, 2004. http://www.who.int/rpc/summit/agenda/Mexico_Statement-English.pdf
- World Health Assembly. Resolution on health research, 2005. http://www.who.int/rpc/meetings/58th_WHA_resolution.pdf
- The Bamako call to action on research for health, 2008. http://www.who.int/rpc/news/BAMAKOCALLTOACTIONFinalNov24.pdf
- Chalmers I. If evidence-informed policy works in practice, does it matter if it doesn't work in theory? Evidence & Policy 2005; 1:227-42.
 http://www.ingentaconnect.com/content/tpp/ep/2005/00000001/0000002/art00006
- Isaacs D, Fitzgerald D. Seven alternatives to evidence-based medicine. BMJ 1999; 319:1618. <u>http://www.bmj.com/cgi/content/full/319/7225/1618</u>
- Macintyre S, Petticrew M. Good intentions and received wisdom are not enough. Journal of Epidemiology and Community Health 2000; 54:802-3. <u>http://jech.bmj.com/cgi/content/full/54/11/802</u>
- Moynihan R. Using health research in policy and practice: Case studies from nine countries. Milbank Memorial Fund report, 2004. <u>http://www.milbank.org/reports/0409Moynihan/0409Moynihan.html</u>
- Moynihan R. Evaluating health services: A reporter covers the science of research synthesis. Milbank Memorial Fund Report, 2004. <u>http://www.milbank.org/reports/2004Moynihan/040330Moynihan.html</u>
- Sweet M, Moynihan R. Improving population health: The use of systematic reviews. Milbank Memorial Fund Report, 2008. http://www.milbank.org/reports/0712populationhealth/0712populationhealth.html

Links to websites

Evidence-Informed Policy Network (EVIPNet). <u>http://www.who.int/rpc/evipnet/en/, http://evipnet.bvsalud.org/php/index.php</u>
 EVIPNet is an initiative to promote the systematic use of health research evidence in policymaking. Focusing on low and middle-income countries, EVIPNet promotes partnerships at the country level between policymakers, researchers and civil society in order to facilitate both policy development and policy implementation through the use of the best scientific evidence available.

- Alliance for Health Policy and Systems Research. <u>http://www.who.int/alliance-hpsr/en/</u> The Alliance HPSR is an international collaboration housed in the World Health Organization (WHO). It aims to promote the generation and use of health policy and systems research as a means to improve the health systems of developing countries.
- Canadian Health Services Research Foundation. <u>http://www.chsrf.ca/home_e.php</u> This Foundation promotes and funds management and policy research in health services and nursing to increase the quality, relevance and usefulness of this research for healthsystem policy makers and managers. In addition, the foundation works with these healthsystem decision makers to support and enhance their use of research evidence when addressing health management and policy challenges.

Box 1. Examples of the use of research evidence in policymaking

Magnesium sulphate for the treatment of eclampsia and pre-eclampsia – an example of inadequate health system arrangements for an inexpensive and effective intervention

There is high-quality evidence showing that magnesium sulphate, a low-cost drug, is effective for the treatment of eclampsia and pre-eclampsia [36, 37]. However, the drug, like many other effective treatments in low- and middle-income countries, is still not yet widely available [23, 38]. Failures in the registration, procurement, and distribution mechanisms for magnesium sulphate have contributed to its poor availability in countries such as Mozambique and Zimbabwe [23]. In other countries, problems include a lack of guidelines mandating the use of magnesium sulphate, the failure to include it on lists of essential drugs, a failure to implement existing guidelines, and restrictions on which facilities and health workers are authorised to administer it [38]. Although eclampsia and severe pre-eclampsia affect few women relative to the number of people affected by other health-care problems, approximately 63,000 women worldwide die from these conditions every year. These conditions are also associated with neonatal deaths.

Paying for performance – an example of the widespread use of a health system arrangement with uncertain effects and inadequate impact evaluation

Paying for performance (P4P) refers to transferring money or material goods conditional on people taking a measurable action or achieving a predetermined performance target. P4P is widely advocated and used with the aim of improving healthcare quality and utilisation, and achieving other health goals, including the MDGs. An overview of the effects of any type of P4P in the health sector targeted at patients, providers, organisations or governments found 12 systematic reviews [39]. The results indicated that financial incentives targeting recipients of healthcare and individual healthcare professionals appear to be effective in the short run for simple and distinct, well-defined behavioural goals. However, there is limited evidence that financial incentives can sustain long-term changes. There is also limited evidence of the effects of P4P targeted at organisations; or of the effects of P4P in LMICs. In LMICs, P4P schemes have generally included ancillary components, such as increased resources, training and technical support. Evaluations of these schemes have rarely assessed the effects of conditionality per se. There is almost no evidence of the cost-effectiveness of P4P. Moreover, P4P can have undesirable effects, including motivating unintended behaviours, distortions (ignoring important tasks that are not rewarded with incentives), gaming (improving or cheating on reporting rather than improving performance), cherry picking (selecting or avoiding patients based on how easy it is to achieve performance targets), the widening of the resource gap between rich and poor, and greater dependence on financial incentives.

Reference pricing in British Columbia – an example of an evidence-informed approach to more efficient drug policies

Since 1995, the province of British Columbia (BC) in Canada has operated a Reference Drug Program (RDP) and several related policies have attracted both praise and criticism as strategies for cost containment [40]. The policies were introduced by Pharmacare, the publicly funded drug insurance programme operated by the provincial Ministry of Health. Pharmacare had been struggling for years with double-digit growth in annual drug costs and the aim of the RDP was to provide similar insurance coverage for similar drugs without increasing other health service costs or incurring adverse health events. RDP was challenged by the pharmaceutical industry as being hazardous to patients but was defended by the Ministry of Health as being evidence-based. The degree to which RDP had achieved its goals was evaluated by independent researchers, and this provided the basis for the Ministry of Health to defend and sustain the programme. Researchers needed to adapt to the policymakers' context, which included competing definitions of medical necessity and a policy cycle that accelerated and decelerated rapidly [41-44]. The sustained involvement of researchers in an advisory committee on policy implementation built mutual respect and understanding between researchers and decision makers, and the smooth implementation of a randomised policy trial. However, the personal collaborative relationships established between the policymakers and researchers were not easily transferable to new staff who did not share the history.

Seguro Popular in Mexico – an example of an evidence-informed approach to extending health insurance coverage

In 2004 Mexico's national government rolled out a new system of health insurance called the Seguro Popular, or the Popular Health Insurance scheme, with the aim of extending coverage to the approximately 50 million Mexicans not covered by existing programmes [5, 45, 46]. The scheme was progressively introduced across Mexico, starting with the poorest communities first, and offered a defined package of health services. According to Julio Frenk, Mexico's Secretary of Health during this time: "This is almost a textbook case of how evidence really first of all changed public perceptions, then informed the debate, and then got translated into legislation" [5]. One of the key pieces of initial evidence that sparked widespread debate about the need for reform was the finding that Mexico's old health system, contrary to popular belief, was funded largely regressively through private out-of-pocket contributions. Having informed the debate and the development of the scheme, evidence has also played a role in evaluation. Taking advantage of the timetable of the progressive rollout, the government set up a controlled trial that compared the outcomes for those communities receiving the scheme, and those still waiting for it. In Mexico, evidence that flows from evaluative research, such as the controlled study of the Seguro Popular, is seen as central to the nation's reinvigorated democracy. In 2004, recognising its political and ethical obligation to evaluate the impact of policy decisions, the government of Mexico passed legislation requiring that impact evaluations be conducted for a variety of public programmes, explicitly recognising the value of learning what works – and why – as a guide for future budget decisions [47, 48].

Box 2. Case studies of evidence-informed health policymaking

Policymakers and researchers from six countries met in Cape Town, South Africa, in 2000 to discuss the use of research to inform health policy decisions [40]. They described and assessed six cases: the use of evidence in drug selection by the Australian Pharmaceutical Benefits Scheme; implementing and evaluating evidence-informed drug policies in British Columbia; Kaiser Permanente's Integrated Diabetes Care Program; the evaluation of new drugs for healthcare insurance reimbursement in Norway; health technology assessment by the United Kingdom National Institute for Clinical Excellence; and reducing mother-to-child HIV infection transmission in South Africa.

The context and content of each case were noticeably different. For example, some cases were long-standing and relatively well-financed collaborations between researchers and policymakers. Other collaborations had only just started. Despite these and other differences, the participants noted that their experiences shared many similarities and that there was much they could learn from one another. The stories that were presented resonated across widely differing political environments.

The discussion of their experiences led to an overriding generalisation: "*The proper purpose* of collaboration between researchers and policymakers is to use evidence from research to inform judgements for which policymakers are accountable".

This generalisation has three implications for people in all countries who do research – or aspire to do research – that informs policy, who act to translate research in a way that is most useful to policymakers, and who make policy that is grounded in the best available evidence. The first implication is that policymakers alone are accountable for decisions related to policy. The people to whom they are accountable include more senior officials, voters, and the media. They are also accountable to their own sense of right and wrong. Policymakers, moreover, make judgements using a variety of information, of which research evidence is just one type. This other information includes evidence, for example, about financial feasibility and voters' preferences, as well as information related to the wider political culture, to interest groups, advocates and opinion makers, and to the media. It is important that policymakers and researchers have a common appreciation of these different types of evidence and the role each plays in informing judgements about health policies.

The second implication is that researchers are accountable in different ways to policymakers. Researchers are accountable both to their scientific colleagues *and* to their policymaking collaborators. They are accountable for providing the best available evidence that can be derived from the methods used in their work.

Thirdly, researchers can help to inform the judgements of policymakers. Researchers and policymakers can sustain a mutually productive relationship if they are explicit about how each will carry out their distinct roles. Most importantly, it is useful to regulate this process by formal and informal agreements. These contracts should, for instance, describe mutually agreed rules about matters such as confidentiality, communication, and the practice of collegiality. As one policymaker stated: "The clearer the rules [are] the better." Decision making processes should be transparent to those involved in them as well as to others. At the same time, the policymakers and researchers who attended the meeting in Cape Town agreed that it is also often important to have opportunities during which they can reflect candidly without risking premature public disclosures.

The final implication from the discussion of the cases listed above was that both policymakers and researchers must continue struggling to ensure that judgements about health policies are well-informed by research evidence. The alternative is to acquiesce to poorly informed health policies.

References

- 1. Lavis JN. SUPPORT Tools for evidence-informed health policymaking (STP). 3. Defining the problem. Res Policy Syst, In press.
- 2. Lavis JN, Posada FB, Haines A, Osei E: Use of research to inform public policymaking. *Lancet* 2004, **364:** 1615-21.
- 3. Lavis JN, Hammill A, Wilson M, Boyko J, Grimshaw J, Oxman A *et al.*. Systematic reviews that can inform health systems management and policymaking. 2009.
- 4. Guyatt G, Rennie D, Meade MO, Cook DJ: Users' Guides to the Medical Literature. A Manual for Evidence-Based Clinical Practice, Second edn. New York: McGraw Hill; 2008.
- Moynihan R, Oxman A, Lavis JN, Paulsen E. Evidence-Informed Health Policy: Using Research to Make Health Systems Healthier. Rapport nr. 1-2008. 2008. Oslo, Nasjonalt kunnskapssenter for helsetjenesten.
- 6. Hamid M, Bustamante-Manaog T, Dung TV, Akkhavong K, Fu H, Ma Y *et al.*: **EVIPNet:** translating the spirit of Mexico. *Lancet* 2005, **366:** 1758-9.
- 7. EVIPNet Americas Secretariat: EVIPNet Americas: informing policies with evidence. *Lancet* 2008, **372:** 1130-1.
- 8. Fox DM, Greenfield L: Helping public officials use research evaluating healthcare. *J Law Policy* 2006, **14:** 531-50.
- Jewell CJ, Bero LA: "Developing good taste in evidence": Facilitators of and hindrances to evidence-informed health policymaking in state government. *Milbank Quarterly* 2008, 86: 177-208.
- 10. Lomas J, Culver T, McCutcheon C, McAuley L, Law S. Conceptualizing and Combining evidence for health system guidance. 2005. Ottawa, Canadian Health Services Research Foundation.
- 11. Schuneman HJ, Fretheim A, Oxman A: Improving the Use of Research Evidence in Guideline Development: 9. Grading evidence and recommendations. *Health Res Policy Syst* 2006, 4: 12.
- 12. Counsell CE, Clarke MJ, Slattery J, Sandercock PA: The miracle of DICE therapy for acute stroke: fact or fictional product of subgroup analysis? *BMJ* 1994, **309**: 1677-81.
- Guyatt G, Wyer P, Ioannidis J: When to believe a subgroup analysis. In Users' Guide to the Medical Literature. A Manual for Evidence-Based Clinical Practice. Edited by Guyatt G, Rennie D, Meade MO, Cook DJ. New York: McGraw Hill; 2008:571-93.
- 14. Task Force on Health Systems Research: Informed choices for attaining the millennium development goals: towards an international cooperative agenda for health systems research. *Lancet* 2004, **364:** 997-1003.
- 15. Chalmers I: If evidence-informed policy works in practice, does it matter if it doesn't work in theory? *Evidence & Policy* 2005, 1: 227-42.
- 16. Oxman A, Lavis JN, Fretheim A: **The use of evidence in WHO recommendations.** *Lancet* 2007, **369:** 1883-9.
- 17. Lavis JN, Davies HTO, Oxman A, Denis JL, Golden-Biddle K, Ferlie E: **Towards systematic** reviews that inform healthcare management and policymaking. *J Health Serv Res Policy* 2005, **10:** 35-48.

- 18. Innvaer S, Vist G, Trommald M, Oxman A: Health policy-makers' perceptions of their use of evidence: a systematic review. J Health Serv Res Policy 2002, 7: 239-44.
- 19. Lavis JN, Ross SE, Hurley JE, et al: **Examining the role of health services research in public policymaking.** *Milbank Quarterly* 2002, **80:** 125-54.
- 20. United Nations. The Millennium Development Goals Report 2007. 2007.
- 21. United Nations Development Programme. Human Development Report 2006. 2006.
- 22. Victora CG, Wagstaff A, Schellenberg JA, Gwatkin D, Claeson M, Habicth JP: **Applying an** equity lens to child health and mortality: more of the same is not enough. *Lancet* 2003, 362: 233-41.
- Sevene E, Lewin S, Marino A, Woelk G, Oxman A, Matinhure S *et al.*: Can a drug be too cheap? The unavailability of magnesium sulphate for the treatment of eclampsia and preeclampsia in Mozambique and Zimbabwe: systems and market failures. *BMJ* 2005, 331: 765.
- Oxman A, Fretheim A, Schuneman HJ: Improving the Use of Research Evidence in Guideline Development: 7. Deciding what evidence to include. *Health Res Policy Syst* 2006, 4: 19.
- 25. Evidence-Based Medicine Working Group: Evidence-based medicine. A new approach to teaching the practice of medicine. *JAMA* 1992, **268**: 2420-5.
- 26. Oxman A, Sacket DL, Guyatt G, for the Evidence-Based Medicine Working Group: Users' guides to the medical literature, I. how to get started. 270 1993, 5.
- 27. Packwood A: Evidence-based policy: rhetoric and reality. Social Policy and Society 2002, 1: 267-72.
- 28. Straus SE, McAlister FA: Evidence-based medicine: a commentary on common criticisms. *CMAJ* 2000, **163**: 837-841.
- 29. Clarence E: **Technocracy reinvented: the new evidence based policy movement.** *Public Policy and Administration* 2002, **17:** 1-11.
- 30. Parsons W: From muddling through to muddling up evidence based policy making and the modernisation of British Government. *Public Policy and Administration* 2002, **17:** 43-60.
- 31. Nutley S. Bridging the policy/research divide: reflections and lessons from the UK. 2003. St. Andrews, University of St. Andrews.
- 32. WHO. World report on knowledge for better health. 2004. Geneva, World Health Organization.
- 33. WHO. The Mexico statement on health research. 2004. Geneva, World Health Organization.
- 34. World Health Assembly. Resolution on health research. 2005.
- 35. WHO. The Bamako call to action on research for health. 2008. Geneva, World Health Organization.
- 36. Duley L, Henderson-Smart D: Magnesium sulphate versus diazepam for eclampsia. *Cochrane Database Syst Rev* 2003, CD000127.
- 37. Duley L, Gulmezoglu AM, Henderson-Smart DJ: Magnesium sulphate and other anticonvulsants for women with pre-eclampsia. *Cochrane Database Syst Rev* 2003, CD000025.

- 38. Langer A, Villar J, Tell K, Kim T, Kennedy S: Reducing eclampsia-related deaths--a call to action. *Lancet* 2008, **371:** 705-706.
- 39. Oxman A, Fretheim A. An overview of research on the effects of results-based financing. Report Nr 16-2008. 2008. Oslo, Nasjonalt kunnskapssenter for helsetjenesten.
- 40. Fox DM, Oxman A: Informing Judgment: Case Studies of Health Policy and Research in Six Countries. New York: Milbank Memorial Fund; 2001.
- 41. Maclure M, Carleton B, Schneeweiss S: Designed delays versus rigorous pragmatic trials: lower carat gold standards can produce relevant drug evaluations. *Med Care* 2007, 45: S44-S49.
- 42. Schneeweiss S, Patrick AR, Sturmer T, Brookhart MA, Avorn J, Maclure M *et al.*: Increasing levels of restriction in pharmacoepidemiologic database studies of elderly and comparison with randomized trial results. *Med Care* 2007, **45**: S131-S142.
- 43. Maclure M, Nguyen A, Carney G, Dormuth C, Roelants H, Ho K *et al.*: **Measuring prescribing improvements in pragmatic trials of educational tools for general practitioners.** *Basic Clin Pharmacol Toxicol* 2006, **98**: 243-252.
- 44. Schneeweiss S, Maclure M, Carleton B, Glynn RJ, Avorn J: Clinical and economic consequences of a reimbursement restriction of nebulised respiratory therapy in adults: direct comparison of randomised and observational evaluations. *BMJ* 2004, **328**: 560.
- 45. Frenk J, Gonzalez-Pier E, Gomez-Dantes O, Lezana MA, Knaul FM: **Comprehensive reform to improve health system performance in Mexico.** *Lancet* 2006, **368**: 1524-1534.
- 46. Frenk J: Bridging the divide: global lessons from evidence-based health policy in Mexico. *Lancet* 2006, **368**: 954-961.
- 47. Savedoff WD, Levine R, Birdsall N. When will we ever learn? Improving lives through impact evaluation. 2006. Washington DC, Center for Global Development.
- 48. Congress of the United Mexican States.General Law of Social Development. Title V. Evaluation of the Social Development Policy. [Ley General de Desarrollo Social. Publicado en el Diario Oficial de la Federación 20 de enero de 2004. Título quinto "De la Evaluación de la Política de Desarrollo Social".]. New Law DOF 20-01-2004. 2004. Center for Documentation, Information and Analysis.