

Program in Policy Decision-Making

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Assessing Provincial or National Efforts to Link Research to Action

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Overview



Background

Framework for assessing provincial or national efforts to link research to action

An aside on systematic reviews (and actionable messages)

Conclusion



Linking research to action has captured a great deal of international attention recently (World Report on Knowledge for Better Health, Ministerial Summit on Health Research & World Health Assembly resolution)

- But statements and resolutions are easier made than acted upon

Those who want to take meaningful steps to link research to action would ideally be able to draw upon high quality, locally applicable research evidence to inform their efforts

- But research on knowledge translation (KT) is patchy

Background (2)



KT research is particularly patchy when it comes to health system managers and public policymakers, plus there are particular challenges in working with these groups

- More and different competing factors are at play
- More and different questions are asked
- More and different research paradigms are used
- BUT... the numbers are more manageable (at least compared with the general public, patients and clinicians)



Increasingly KT approaches strive to address the two factors that emerged with some consistency in a systematic review of the factors that increased the prospects for research use by policymakers

- Interactions between researchers and policymakers
 - Engage managers and policymakers in priority-setting, research and deliberative processes
- Timing / timeliness
 - Facilitate retrieval (e.g., one-stop shopping)
 - Adapt presentation (e.g., 1:3:25)



Background

- Framework evolved as a natural outgrowth of our research program
 - Development of the “push” part of the framework
 - Surveys of research-unit directors (Canada)
 - Development of the full framework
 - Surveys of researchers (China, Ghana, India, Lao PDR, Mexico, Senegal, Iran, Kazakhstan, Pakistan, and Tanzania)
 - Refinement of the full framework
 - Preliminary application of the framework (Canada)

Framework (2)



Background (2)

- Planned application of the framework (15 countries)
 - Regional East African Community Health (REACH) Policy initiative (Kenya, Tanzania, and Uganda)
 - Evidence for Policy Network (EVIPNet) Asia (China, Laos, Malaysia, Philippines, and Vietnam)
 - EVIPNet Africa (Angola, Burkina-Faso, Central African Republic, Ethiopia, Mozambique, Niger, and Zambia)



Background (3)

- Countries (or provinces) provide a natural unit for assessment given that there can be a division of labour within a country (or province)
 - But regional initiatives can provide economies of scale and global initiatives can provide support
- A framework for assessing provincial or national efforts to link research to action could inform provincial or national dialogues about the optimal mix of approaches given existing capacities and constraints

Framework (4)



Four elements

- General climate
- Production of research
- Mix of four clusters of activities for linking research to action
 - Producer/purveyor-push efforts
 - Efforts to facilitate user pull
 - User-pull efforts
 - Exchange efforts
- Approach to evaluation



General climate

- Some funders have a mandate to support KT efforts (as well as to support research) and they do so by
 - Making small-scale push efforts an allowable expense for systematic reviews (or for individual studies when a strong case can be made that they are “ready for prime time”)
 - Providing funding for proposals that involve partnerships and considering them in merit review
 - Providing funding for large-scale push efforts and efforts to facilitate user pull (i.e., KT platforms)



General climate (continued)

- Universities support faculty members' efforts by considering efforts as part of tenure and promotion processes and highlighting efforts as part of research-assessment exercises
- Some researchers, intermediary groups (e.g., media, civil society groups, and professional associations), and users of research place value on the use of research evidence and on promoting the use of research evidence



Production of research

- Some funders
 - Periodically engage the users of research in priority-setting processes
 - Commission or fund scoping reviews in priority areas
 - Place value on the use of systematic reviews to justify additional research on a topic
 - Support the production and regular updating of systematic reviews that address the full range of questions asked by the users of research



Production of research (continued)

- Ethics review boards
 - Place value on the use of systematic reviews to justify additional research on a topic
- Some researchers
 - Respond to targeted funding calls in priority areas
 - Participate in skill-development programs to develop their capacity to conduct systematic reviews

Framework – Production (3)





Push efforts

- Some funders, researchers & intermediary groups oversee large-scale efforts to regularly
 - Identify actionable messages
 - Fine-tune messages and approach to different user groups (public, patients, clinicians, managers, and public policymakers)
 - Work with and through credible messengers
 - Use evidence-informed KT strategies to encourage and support action
 - Evaluate impact

Framework – Mix of Activities (2)



Push efforts

- Some funders, researchers & intermediary groups oversee large-scale efforts to regularly develop media releases for systematic reviews
- Some researchers participate in skill-development programs to develop their capacity to develop and execute evidence-informed KT strategies



Efforts to facilitate user-pull

- Some funders, researchers & intermediary groups
 - Maintain user-group specific websites or CDs that provide one-stop shopping for optimally packaged, high quality and high relevance systematic reviews (and, as part of a national electronic library for health, databases containing health and healthcare utilization statistics)
 - Cochrane Library provides high quality reviews about “what works” (only), HTAs and economic evaluations (but the reviews are not assessed for relevance or optimally packaged)



Efforts to facilitate user-pull (continued)

- Some funders, researchers & intermediary groups
 - Maintain user-group specific websites that profile systematic reviews during “teachable moments”
 - Maintain user-group specific rapid-response units
 - Make available user-group specific self-assessment tools for users to assess their capacity to acquire, assess, adapt and apply research
 - Offer skill-development programs for users to develop their capacity to acquire, assess, adapt and apply research



User-pull efforts

- Users of research periodically employ user-group specific self-assessment tools to assess their capacity to acquire, assess, adapt and apply research
- Users of research participate in skill-development programs to develop their capacity to acquire, assess, adapt and apply research



User-pull efforts (continued)

- Users of research develop structures and processes to help them to
 - Acquire, assess, adapt and apply research evidence (e.g., purchasing licenses to the Cochrane Library), to combine research evidence with other types of evidence as inputs to decision-making (e.g., requiring clear referencing to systematic reviews in cabinet submissions), and to promote the use of research evidence in decision-making



Exchange efforts

- Some researchers and users of research develop partnerships to ask and answer locally relevant questions (through systematic reviews as well as original research)
- Some researchers and users of research develop partnerships to discuss a broad range of issues
- Some researchers and users of research participate in skill-development programs to develop their capacity to engage in mutually beneficial partnerships



Evaluation

- Some funders provide funding for rigorous evaluations of efforts to link research to action
- Funders, researchers, intermediary groups, and user groups participate in rigorous evaluations of efforts to link research to action

Framework – Again....



Four elements

- General climate
- Production of research
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In the domain of management and policy, Canada has some supportive elements in place...

- Many elements of the general climate, particularly funders, are supportive
- Exchange efforts are increasingly well established

... But other elements are lacking or nascent

- Production of research is not sufficiently oriented towards systematic reviews
- No large-scale push efforts or efforts to facilitate user-pull (i.e., KT platforms)

An Aside on Systematic Reviews



What is the place for research knowledge in management and policy?

- Helps to get problems on the agenda (i.e., what issue should I focus on?)
- Helps to think about problems and solutions differently (i.e., how should I begin to approach this issue?)
- Helps to solve particular problems at hand (i.e., what program or policy should I support?)
- Helps to justify a decision made for other reasons (i.e., how can I sell the position I've taken?)

An Aside on Systematic Reviews (2)



Systematic reviews can address many questions

- Effectiveness (does changing X change Y?)
 - Finding solutions to burdensome health problems
 - Fitting solutions into health systems
 - Bringing about change in health systems
- Cost-effectiveness (Is X_1 more cost-effective than X_2 in achieving a one-unit change in Y)
- Relationships (Is X associated with Y?)
- Mechanisms (how/why does changing X change Y?)
- Meanings (how are X or Y viewed or experienced)



Acquiring systematic reviews

- Cochrane Library (www.cochrane.org)
- PubMed clinical queries
(<http://www.ncbi.nlm.nih.gov/entrez/query/static/clinical.html>)
- PubMed coupled with the best available search terms
(<http://bmj.bmjournals.com/cgi/content/full/bmj.38336.804167.47/DC1> - for search terms)

But these approaches may not identify systematic reviews that address non-effectiveness questions



Assessing the local applicability of systematic reviews

- Commonalities in human biology mean that a prescription drug will often work the same way in different people
- Differences in health systems mean that an intervention that works in one jurisdiction may not work the same way in another jurisdiction, and systematic reviews may not contain studies that were conducted in a given jurisdiction



Assessing the local applicability of systematic reviews

- A checklist to assist in answering the question “what can be expected if same thing is done in my jurisdiction?”
 - Could it work in my jurisdiction?
 - Will it work?
 - What would it take to make it work?
 - Is it worth it?



“Science of synthesis” study

- Systematic review of studies of decision-making by health system managers and policymakers
- Interviews with a purposive sample of health system managers and policymakers in Canada and the UK (N=29)
- Websites that include health system managers and policymakers among their target audiences (N=45)



Findings – Systematic review

- Factors that increased the prospects for research use by policymakers
 - Interactions between researchers and policymakers
 - Timing / timeliness



Findings - Interviews

- Most managers and policymakers do not highly value systematic reviews as an information source
- Many have used “systematic reviews” to address many different types of questions
- Some identified that they would benefit from having contextual factors highlighted in order to inform assessments of a review’s local applicability
- All would value information about the benefits, harms (or risks), and costs of interventions, uncertainty associated with estimates & variation in estimates by subgroup (for systematic reviews about “what works”)



Findings - Interviews (2)

- Disagree about whether researchers should provide recommendations
- Almost all would value reports presented using a graded-entry format (e.g., a 1:3:25 format)
- Some identified that they would value systematic reviews being made more readily available for retrieval when they are needed



Findings - Website review

- Attributes of the context in which the research was conducted were rarely provided
- Recommendations were often provided
- Reports using a graded-entry format (e.g., 1:3:25) were rare



Researchers could make three changes to how they produce and update systematic reviews

- Involve healthcare managers and policymakers in posing questions, reviewing approach, and interpreting results
- For systematic reviews about “what works,” identify the benefits and harms (or risks) of interventions, highlight uncertainty, and describe any differential effects by sub-group
- Identify contextual factors that may affect assessments of local applicability



Research funders could support three types of local adaptation processes

- Develop more user-friendly “front ends” for reviews
- Add additional local value to systematic reviews about “what works” by describing the benefits, harms (or risks) and costs that can be reasonably expected locally and to any type of systematic review by using language that is locally applicable
- Make user-friendly “front ends” of systematic reviews available through an online database that can be linked to the full reviews through other sources, such as The Cochrane Library

An Aside on Actionable Messages



Ask the questions

- What's the issue from their perspective?
- What does your research tell them?
- What are they currently doing in this domain?
- What would they be doing (differently) if they acted on your research?

An Aside on Actionable Messages (2)



Example

- What's the issue from their perspective?
 - Forty-two countries accounted for 90% of the 10.8 million child deaths in 2000 and most of the deaths could have been prevented if effective child survival interventions had reached all children and mothers who needed them



Example (continued)

- What does your research tell them?
 - Making 15 preventive interventions and 8 treatment interventions universally available in the 42 countries with 90% of worldwide child deaths in 2000 would reduce child mortality by 63% and thereby achieve one of the eight millennium development goals

An Aside on Actionable Messages (4)



Example (continued)

- What are they currently doing in this domain?
 - Global coverage for most interventions is below 50% but universal coverage is achievable



Example (continued)

- What would they be doing (differently) if they acted on your research?
 - Public policymakers in the 42 countries should consider examining the applicability of the 15 preventive and 8 treatment interventions to their country context, tailoring delivery strategies for the interventions to their stage of health-system development in order to achieve universal coverage of the interventions, and commissioning additional research when optimal delivery strategies are not known

Conclusion



Assessing provincial or national efforts to link research to action is an important first step

The optimal climate, mix of activities, and approach to evaluation will emerge from provincial or national dialogues and will change as capacities, constraints and research evidence about KT evolve

Systematic reviews and large-scale KT platforms are a logical next step for most jurisdictions



General

- World Health Organization (2004). World Report on Knowledge for Better Health. Geneva: WHO.
- Lavis JN, Lomas J, Hamid M, Sewankambo N. Assessing country-level efforts to link research to action. Manuscript under review.



Production (priority setting)

- Lomas J, Fulop N, Gagnon D, Allen P (2003). On being a good listener: Setting priorities for applied health services research. *The Milbank Quarterly* 81(3):363-88.

Production (systematic reviews)

- Lavis JN, Becerra Posada F, Haines A, Osei E (2004). Use of research to inform public policymaking. *The Lancet* 364:1615-1621.



Production (systematic reviews)

- Lavis, J.N., H.T.O. Davies, A.D. Oxman, J.-L (2005). Denis, K. Golden-Biddle and E. Ferlie. Towards systematic reviews that inform health care management and policy-making. *Journal of Health Services Research and Policy* 10(3 Supplement): S1:35-S1:48. [and the rest of the special issue]
- Lavis JN, Davies HTO, Gruen RL, Walshe K, Farquhar CM. Working within and beyond the Cochrane Collaboration to make systematic reviews more useful to healthcare managers and policymakers. *Healthcare Policy*; in press.

References (4)



Push efforts

- Lavis JN, Robertson D, Woodside JM, McLeod CB, Abelson J and the Knowledge Transfer Study Group (2003). How can research organizations more effectively transfer research knowledge to decision-makers? *The Milbank Quarterly* 81(2):221-248.

User-pull efforts

- Canadian Health Services Research Foundation (2005). *Is Research Working for You? A Self-Assessment Tool and Discussion Guide for Health Services and Policy Organizations*. Ottawa: CHSRF.



Exchange efforts

- Lomas J. Using 'linkage and exchange' to move research into policy at a Canadian foundation: Encouraging partnerships between researchers and policymakers is the goal of a promising new Canadian initiative. *Health Affairs* 2000;19(3):236-40.
- Ross SE, Lavis JN, Rodriguez C, Woodside JM, Denis J-L (2003). Partnership experiences: Involving decision-makers in the research process. *Journal of Health Services Research and Policy* 8(suppl 2):26-34. [and the rest of the special issue]

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