Reviewer’s report

Title: Evidence map of knowledge translation strategies, outcomes, facilitators and barriers in African health systems

Version: 0 Date: 27 Nov 2018

Reviewer: Sara Kreindler

Reviewer's report:

I can see the value of mapping the literature on KT in African health systems. However, it is not clear to me what the takeaway messages of this review are. What are the key implications for health researchers and policymakers who are interested in engaging KT in an African health system? What issues or findings related to KT are distinctive to Africa, or seem more likely to emerge in African contexts than in other parts of the world? What are the main things we know from this review that we didn't know before? What should be our priorities among the seemingly unlimited possible questions for future research? Addressing these questions will require a deeper level of analysis and interpretation, going beyond mere listing and counting.

Other, more minor comments:

1. There is a need for more clarity about how you are thinking about traditional vs. integrated approaches to KT. In the second paragraph, you present the CIHR definition of KT (which includes "synthesis, dissemination, exchange, and...application") but then state: "Critics consider this too limited a definition for modern conceptualizations of knowledge, preferring knowledge exchange, knowledge interaction, or more recently, integrated knowledge translation...". I'm not certain what you mean here. The CIHR definition does include knowledge exchange, and CIHR is an advocate of integrated knowledge translation, so it's unclear why the CIHR definition would be considered too narrow to accommodate these ideas. Also, the "Critics..." sentence seems to imply that "knowledge exchange," "integrated KT," etc. are definitions or conceptualizations of KT in general, whereas in fact some if not all of them refer to only a subset of KT. The rest of the paper touches on traditional and integrated KT in a way that seems a little haphazard, without clearly differentiating between the two or commenting on the implications of pursuing one or the other. To me, the finding that lack of high-quality, locally-relevant evidence constitutes the #1 barrier for policymakers suggests that integrated KT would be the most appropriate approach, as the problem is one of knowledge production rather than knowledge translation (see Van de Ven & Johnson on engaged scholarship). However, the paper doesn't really draw forth (this or other) implications for KT practice.
2. The background section has many other problems of clarity, and needs to be extensively edited. Sentences like, "Thus, the optimal choice of KT mechanisms as they vary by context remains unclear" seem to be composed of parts of 2 or 3 other sentences, and the end product is not intelligible. Anytime "they" or "this" is used, please check to make sure that its referent is clear and correct.

3. The term "mechanism" is confusing, because in the evaluation field it's frequently used as a technical term with a different meaning. Unless you mean "the 'active ingredient' that explains why Intervention X causes Outcome Y" please use a different term, such as "activity," "intervention," or "strategy."

4. "Evidence mapping is distinguished from scoping review methodology in the level of stakeholder involvement...rigor in the search strategy, and the nature or usability of the final product or map." In what way specifically do these things differ between the two methodologies?

5. Regarding the literature search, please justify the use of the "best match" function in PubMed - is this accepted practice for evidence mapping, and what is the risk of missing relevant articles? Also, please note that searches of databases or Google Scholar are not "hand searches" - hand searching means reading through a journal issue from cover to cover in order to look for relevant content.

6. It would be helpful to spell out the definitions of the four types of KT mechanisms/strategies in Lavis' framework; in particular, the distinction between "exchange" and "integrated" approaches may not be familiar to readers.

7. What did the 9 studies that categorized types of knowledge use find in each category - to what extent did they find that symbolic, conceptual, and/or instrumental use occurred? Can you use this typology to describe the findings of the other studies, even if they did not use these terms themselves? Note also that these are three types of knowledge use, but not all of the observed outcomes are types of knowledge use (e.g., creation of a database of researchers and policymakers is not a type of use of research findings, nor is change in intergroup attitudes, etc.)

8. It is only useful to know about context factors if we can attach them to causal statements in order to understand what works/doesn't work in what context (e.g., Intervention X can cause Outcome Y, but Context Factor Z prevents this from happening - see Pawson & Tilley on realistic evaluation). Was there any insight of this nature in the literature?
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