

CIHR Guides to Knowledge Translation for Peer Reviewers

Introduction

As is clear from its mandate, CIHR's commitment to excellence applies equally to its support for research and knowledge translation. This commitment extends to the assessment of knowledge translation in the peer review process. Knowledge translation is about raising knowledge users' awareness of research findings and facilitating the use of these findings. Only a minority of researchers would call themselves experts in knowledge translation, and with KT still being a young field, we don't have the same tried and true standards of assessment that have worked so well for research. CIHR has written two guides as a first attempt to fill this knowledge gap¹, each one tailored to one of CIHR's two forms of knowledge translation — integrated and end-of-grant. We hope these guides will make the review of knowledge translation more rigorous and transparent.

How to use the guides

The guides are intended for use in all CIHR funding opportunities with knowledge translation requirements. They fall roughly into two types. Some of CIHR's strategic funding opportunities feature *integrated knowledge translation*, where it is a requirement that knowledge users be members of the research team and participate in many stages of the research process (Partnerships for Health System Improvement, Knowledge to Action, Knowledge Synthesis and Knowledge Synthesis are examples). Many other funding opportunities ask applicants to submit a plan for how they will translate their findings when the research is completed, what we at CIHR call *end-of-grant knowledge translation*. As mentioned, there is a guide specific to each approach. Integrated KT programs usually require a dissemination plan, so we encourage reviewers of integrated KT proposals to consult both guides.

Each guide begins with a description of the kind of KT to be reviewed and is followed by brief explanations of the five knowledge translation assessment factors: Goals; Audience; Expertise; Strategies; Feasibility. The last page is a worksheet with questions pertinent to each assessment factor and a space for you to make your notes. The guides are not meant to replace the review criteria or scoring system used for a funding opportunity. Use them to reach a conclusion about how well the knowledge translation criteria have been met and integrate this conclusion into your final score.

Other Resources

¹ This guide is based on work done by Suzanne Ross, Paula Goering, Nora Jacobson and Dale Butterill and commissioned by the Canadian Institutes of Health Research, the Canadian Health Services Research Foundation, the National Institute for Health Research Service Delivery and the Netherlands Organization for Health Research Development. Ross et al. developed their guide based on the current literature on knowledge translation, and they piloted it with applicants and reviewers linked to three of the four partners organizations. CIHR has adapted that guide to fit its knowledge translation framework and its strategic funding opportunities.

We have made the guides as concise as possible. You will find additional information about knowledge translation in the resources below. If after reviewing these materials you still have questions please do not hesitate to contact one of our staff in the Knowledge Synthesis and Exchange Branch ([link to contact info](#)).

- See the [About KT page](#) for more on CIHR's approach to knowledge translation
- CIHR's [Integrated KT Training Module](#) offers a detailed explanation of integrated knowledge translation and how to do it.
- Examples of both integrated and end-of-grant knowledge translation can be found in CIHR's [Knowledge Translation Casebooks](#).
- CIHR's Open Access Policy is available [here](#).
- There are also a number of free guides to doing knowledge translation available on the Web:

Landry R, Lyons R, Amara N, Warner G, Ziam S, Halilem N, Kéroack M. 2006. Knowledge Translation Planning Tools for Stroke Researchers. Available from:

http://www.chsrf.ca/knowledge_transfer/tools_apply_e.php?categoryID=3

Reardon R, Lavis J, Gibson J. 2006. From Research to Practice: A Knowledge Transfer Planning Guide. Institute for Work and Health. Available from:

<http://www.iwh.on.ca/kte/resources.php>

Health Research Council of New Zealand. 2006. Implementing Research: A guideline for researchers. Available from:

http://www.hrc.govt.nz/root/Publications/Guidelines_directories_and_handbooks.html

Guide to Integrated Knowledge Translation for Peer Reviewers

Introduction

Where most knowledge translation occurs after the research is complete, integrated knowledge translation can start before the research questions are decided, so our first guide covers integrated KT. The following pages should give you all you need to understand integrated knowledge translation and how to assess it in a grant proposal.

What is integrated knowledge translation?

Integrated knowledge translation is actually an approach to doing research, one that applies the principles of knowledge translation to the entire research process. It has a longstanding tradition in many disciplines but has usually gone by other terms, such as collaborative research, participatory action research, community-based participatory research, co-production of knowledge, or Mode 2 research. The central premise of integrated knowledge translation is that involving knowledge users (also known as decision makers or community leaders) as equal partners alongside researchers will lead to research that is more relevant to knowledge users and more likely to be used by them. Each stage in the research process is an opportunity for significant collaboration with knowledge users, including the development or refinement of the research questions, selection of the methodology, data collection and tools development, interpretation of the findings, crafting of the message and dissemination of the results.

Knowledge Translation Assessment Factors

We have identified five factors that all research proposals featuring knowledge translation should address: Goals; Audience; Expertise; Strategies; and Feasibility. These factors are the same no matter the domain of research or whether it is integrated or end-of-grant knowledge translation being evaluated, though *how* they apply can vary.

1. Goals

By their very nature integrated knowledge translation projects will have as a principal goal to incorporate the expertise of knowledge users. Knowledge users will obviously be experts on their own knowledge needs, but they can also provide insight into the knowledge needs of the rest of the knowledge users in their sector. They also have expertise on the context of implementation – the realities of their practice environments that researchers won't be able to learn about from articles. Another important goal is responding to a problem or knowledge gap identified by knowledge users. *Applicants should demonstrate that the project has been shaped by the participating knowledge users and responds to their knowledge needs.*

A Note on Appropriateness

With all forms of knowledge translation the watchword is appropriateness. Each discipline, research project, and knowledge user community is different. Sometimes – such as when there are limitations on the validity or generalizability of the results or there are few knowledge users beyond other researchers – a modest approach is the best one. Just make sure there is a match between the research findings, the knowledge users and the knowledge translation activities.

2. Audience

The primary audience for an integrated project is the knowledge user(s) participating as part of the project team. The research questions are meant to be targeted to their context and practice but the research should be generalizable enough that other, similar audiences will benefit. Other audiences become pertinent when there is the intention to disseminate the research results more broadly. The participating knowledge users should be involved in the design of the dissemination plan, especially where expert knowledge about how the audiences tend to use and prefer to receive knowledge is important. *Applicants should distinguish between the knowledge users participating in the project and other target audiences that will be reached by the dissemination plan.*

3. Expertise

Who are the knowledge users on the research team or advising the project? For an integrated KT project we expect a fair amount of detail to be provided about the knowledge users. It is usually a requirement that they submit letters of support as well as CVs. Their role in the project should be clearly stated and there should be evidence that they have agreed to fulfill their role. With integrated KT projects there is a greater expectation that the findings or recommendations will be acted on. The participating knowledge users should have enough decision-making authority to change the environment where they practice. *Applicants should demonstrate that the participating knowledge users are the right ones to inform the project and act on the findings and that they understand the roles assigned to them in the project.*

4. Strategies

There should be strategies for sustaining the meaningful engagement of knowledge users throughout the research process. The proposal should specify when, how and for what purpose the researchers and knowledge users will meet. A project has many stages and each is an opportunity for knowledge exchange between the researchers and the knowledge users. Look for signs that all of the appropriate moments for knowledge exchange are being exploited. Very strong integrated projects will demonstrate an established relationship with the participating knowledge users, one that precedes and will outlast the project. How the knowledge users will be involved in developing the research question, collecting and analysing data, interpreting results, crafting the overall message, developing recommendations, and identifying audiences for dissemination should be specified in the application. *Applicants should present realistic strategies that integrate knowledge translation into several phases of the project.*

5. Feasibility

It is very important to demonstrate that the knowledge users have the commitment and ability to participate in the project. The evidence for this is a strong letter of support from the knowledge user or her host organization. One of the biggest risks for an integrated project is that the knowledge user will change positions and leave the environment that her expertise is linked to. Evidence of ongoing commitment from the organization as well as the knowledge user is ideal. Another risk is the possibility of a dispute between the knowledge users and the researchers. A collaborative agreement outlining such things as

access to data, the timing of the release of findings, and intellectual property – or some other mechanism for resolving disputes – protects the project against such a contingency. Look for financial or in-kind support from the knowledge user’s organization; this is a good sign of engagement and commitment. *Applicants should demonstrate that the participating knowledge users are committed to the project and that any barriers to their sustained participation have been addressed.*

Integrated Knowledge Translation: Peer Review Worksheet

Factor	Assessment Questions		Notes
	Research Project	Dissemination Plan ¹	
Goals	<ul style="list-style-type: none"> • Are the research <i>and</i> knowledge translation plan tailored to the knowledge needs of the participating knowledge users? • Is there evidence that the participating knowledge users have contributed to the research question and the knowledge translation goals? 	<ul style="list-style-type: none"> • Are the knowledge translation goals clear, concrete and well justified? • Have the applicants identified a problem or knowledge gap that their plan will address? • Are the knowledge translation goals appropriate to the research findings? 	
Audience	<ul style="list-style-type: none"> • Does the plan distinguish between the participating knowledge users and other potential audiences? 	<ul style="list-style-type: none"> • Does the plan consider all potentially relevant audiences? • Are the audiences defined in precise terms? • Does the applicant demonstrate a thorough understanding of the proposed audiences, including the current state of their knowledge in the research area, and their habits or preferences for using knowledge? 	
Expertise	<ul style="list-style-type: none"> • Does the project involve knowledge users from the appropriate sector and with the necessary authority to act on the findings/recommendations? 	<ul style="list-style-type: none"> • Is there sufficient description of past knowledge translation activities to appraise the experience and skill level of the research team? • Does the plan consider the involvement of all participants necessary to achieve the stated goals (including with the participating knowledge users)? 	

¹ The dissemination plan questions are explained in detail in the end-of-grant knowledge translation guide. Integrated KT programs nearly always require dissemination plan so we have incorporated the end-of-grant assessment questions into this worksheet for reviewers' convenience.

Factor	Assessment Questions		Notes
	Research Project	Dissemination Plan	
Expertise Cont'd	<ul style="list-style-type: none"> Does the proposal make clear the roles the participating knowledge users will play <i>and</i> that these knowledge users understand their roles? 	<ul style="list-style-type: none"> Where specialized KT roles are prescribed (e.g., knowledge brokers) do the individuals filling those roles have the necessary expertise and experience? 	
Strategies	<ul style="list-style-type: none"> Does the plan consider and appropriately exploit all of the opportunities for knowledge translation that could arise throughout the life of the project? Are the strategies for engaging with the participating knowledge users appropriate and realistically described? 	<ul style="list-style-type: none"> Do the strategies draw upon existing evidence of effectiveness? Are the strategies the right ones to achieve the knowledge translation goals? Does the plan take into consideration the context in which the knowledge is to be used? 	
Feasibility	<ul style="list-style-type: none"> Is there evidence of a strong commitment and ability to participate from the knowledge users and their organizations (if appropriate)? Are there mechanisms in place to deal with potential conflict between the researchers and the participating knowledge users (e.g., a partnership agreement)? 	<ul style="list-style-type: none"> Does the budget allocate adequate financial support to implement the plan? Does the plan consider barriers and facilitators to knowledge use? Does the plan take organizational or external system supports into consideration? Is evidence of access to these supports provided? 	

Guide to End-of-Grant Knowledge Translation for Peer Reviewers

Introduction

Welcome to CIHR's peer-review guide on end-of-grant knowledge translation. This guide will assist you with the review of proposals in any competition requiring a dissemination plan. If there is a requirement for partnership-based knowledge translation we suggest that you also consult the integrated knowledge translation guide.

What is end-of-grant knowledge translation?

End-of-grant knowledge translation covers any activity aimed at communicating or applying the results of a research project. For centuries the principal mode of knowledge translation has been academic publication and this remains the best approach for much research. A growing form of publishing is open access, which has the potential to reach a much broader audience of researchers and knowledge users, thus increasing the likelihood of research uptake and application. When there are potential knowledge users beyond the research community, end-of-grant knowledge translation activities can be more intensive and emphasize non-academic modes of communication: the language of publications can be adapted to the target audience and will often be in popular formats, such as web sites; creative formats such as film or theatre may be used; popular media may be engaged; the sharing of findings may be done face-to-face, such as in a workshop setting; or an individual specializing in the delivering findings to knowledge users in their context, a knowledge broker, may be used. Any development of products based on research results, including commercialization activities, is a form of end-of-grant knowledge translation. End-of-grant knowledge translation is usually requested in proposals in the form of a dissemination plan.

Knowledge Translation Assessment Factors

We have identified five factors that all research proposals featuring knowledge translation should address: Goals; Audience; Expertise; Strategies; and Feasibility. These factors are the same no matter the domain of research or whether it is integrated or end-of-grant knowledge translation being evaluated, though *how* they apply can vary.

1. Goals

Two kinds of goals are typical of end-of-grant knowledge translation: raising awareness and promoting action. Goals can be modest or ambitious, but they must always be appropriate to the research findings and the target audience. Appropriateness includes the strength and generalizability of the research findings. Recommending action based on a single study is risky business; if the findings are a result of chance or bias then harm can result. Synthesized evidence is the most robust and the best for widespread translation. It is entirely appropriate to translate the knowledge from a single study, but the strength of the findings must be considered and the KT goals adjusted accordingly. *Applicants should clearly*

A Note on Appropriateness

With all forms of knowledge translation the watchword is appropriateness. Each discipline, research project, and knowledge user community is different. Sometimes – such as when there are limitations on the validity or generalizability of the results or there are few knowledge users beyond other researchers – a modest approach is the best one. Just make sure there is a match between the research findings, the knowledge users and the knowledge translation activities.

state and justify the knowledge translation goals.

2. Audience

Who should know about the research findings? The answer to this question should be in line with the goals. A good plan will demonstrate a rich understanding of its audiences. It will define them in precise terms, including the sector they work in and their decision-making authority. Simply mentioning clinicians, managers, policy makers etc. is not enough detail. What kind of clinician? What level of manager? Applicants should be aware of the current state of the audience's knowledge, how they tend to use knowledge and the formats in which they like to receive it. A single project can have several potential audiences. It is acceptable to prioritize, but applicants should provide the rationale for selecting one audience over another. *Applicants should identify and describe in detail the target audience(s).*

3. Expertise

Who is involved should be driven by the KT goals. Not every applicant is an expert in knowledge translation. We do not want to penalize newcomers, but at the same time applicants with track records in knowledge translation should be rewarded for their experience and expertise just as we reward researchers with extensive research track records. The more complicated the KT plan the more KT expertise will be required. If specialized products, such as DVDs films, etc. need to be produced, then the appropriate experts should be involved. When there are audiences that could be difficult to engage, knowledge brokers or other intermediaries might be involved. There should be evidence that this expertise is available to the team if it is a key component of the plan. *Applicants should demonstrate their team includes the appropriate level of knowledge translation expertise to complete the KT plan.*

4. Strategies

The methods should be appropriate (driven by the goals) and well justified. Evidence for the effectiveness of the proposed strategies should be considered. This doesn't mean that only KT activities proven to work are legitimate; it does mean that the available evidence should be taken into account. The knowledge translation plan should also consider the context in which the targeted knowledge users practice. Are there factors that mitigate the applicability of the research findings or the effectiveness of the planned KT activities? How does the knowledge need to be adapted to be useful? The process for adapting the findings should be distinguished from the strategies for disseminating them. Barriers and facilitators to knowledge use should be addressed (see also Feasibility). The dissemination plan needs to specify which of the options under **CIHR's Open Access Policy** will be used: (i) archiving research papers in open access archives or (ii) publishing in open access journals. *Applicants should present strategies that support their knowledge translation goals, consider the available evidence, and adapt knowledge to audience's needs and context of use.*

5. Feasibility

Applicants should be able to demonstrate that the proposed knowledge translation activities can be done. A good plan will take advantage of facilitators and offer possible solutions to barriers. What about the budget? Is there enough money for the knowledge translation activities? What about human resources? The capacity of the team is

addressed in “Participants” above, but other human resources may be necessary to carry out the plan. Sometimes a plan will require access to supports within an organization or among a community of knowledge users. Will the plan be successful without the level of access described? Is there sufficient evidence that the described level of access is assured? *Applicants should demonstrate the knowledge translation plan can be accomplished with the resources available*

End-of-Grant Knowledge Translation: Peer Review Worksheet

Factor	Assessment Questions	Notes
Goals	<ul style="list-style-type: none"> • Are the knowledge translation goals clear, concrete and well justified? • Have the applicants identified a problem or knowledge gap that their plan will address? • Are the knowledge translation goals appropriate to the research findings? 	
Audience	<ul style="list-style-type: none"> • Does the plan consider all potentially relevant audiences? • Are the audiences defined in precise terms? • Does the applicant demonstrate a thorough understanding of the proposed audiences, including the current state of their knowledge in the research area, and their habits or preferences for using knowledge? 	
Expertise	<ul style="list-style-type: none"> • Is there sufficient description of past knowledge translation activities to appraise the experience and skill level of the research team? • Does the plan consider the involvement of all participants necessary to achieve the stated goals? • Where specialized KT roles are prescribed (e.g., knowledge brokers) do the individuals filling those roles have the necessary expertise and experience? Where appropriate does the team collaborate with members of the target audience? 	
Strategies	<ul style="list-style-type: none"> • Do the strategies draw upon existing evidence of effectiveness? • Are the strategies the right ones to achieve the knowledge translation goals? • Does the plan take into consideration the context in which the knowledge is to be used? 	
Feasibility	<ul style="list-style-type: none"> • Does the budget allocate adequate financial support to implement the plan? • Does the plan consider barriers and facilitators to knowledge use? • Does the plan take organizational or external system supports into consideration? Is evidence of access to these supports provided? 	