

A Guide for Developing Health Research Knowledge Translation (KT) Plans

Adapted from: "A Guide for Assessing Health Research Knowledge Translation Plans" 2007

"A Guide for Assessing Health Research Knowledge Translation Plans" (2007) was developed by Suzanne Ross, Health Policy Strategies and McMaster University; Paula Goering, Nora Jacobson and Dale Butterill, Health Systems Research and Consulting Unit, Centre for Addiction and Mental Health. The research team acknowledges the support of the following funding bodies: Canadian Health Research Foundation (CHSRF), the Canadian Institutes for Health Research (CIHR), National Institute for Health Research Service Delivery and Organization (SDO) Research and Development Programme, and the Netherlands Organization for Health Research and Development (ZonMw).

Introduction

The guide has four parts:

- 1. Foundations: Defining knowledge translation (KT) describes the model of knowledge translation that was used to develop the guide and suggests ways in which knowledge translation plans should be linked to the goals of a specific research project.
- 2. Considerations for assessing a KT plan summarizes (in table format) key factors (KT goals, collaboration, research stage, participants, methods, and resources and implementation) that need to be taken into account when assessing a research grant's KT plan.
- 3. Examples provides two examples of assessor comments to hypothetical KT plans. This section enables researchers to see how their KT plans might be viewed from the perspective of an assessor.
- 4. A checklist of key questions the researchers can use to review their KT plans.

The parts of the guide are interrelated so it is most helpful to review the full guide before considering how any one area might apply to a particular plan. is included at the end.

1. <u>Foundations: Defining Knowledge Translation</u>

Knowledge translation can be defined quite broadly as those activities that help the creation of new knowledge translate into beneficial applications. This guide focuses on knowledge translation activities conducted as part of the research process but acknowledges that knowledge translation activities linked directly to the research process cannot be the sole means of promoting beneficial research applications.

The guide assumes that knowledge translation activities need to be considered across the full research continuum and may include many possible goals, participants, and methods. In this respect, researchers ¹ need to be highly strategic in formulating a knowledge translation plan that is logically linked to the type of research and the specific research context. Considering a research initiative in relation to its potential application and the nature of the needs it aims to address can help researchers identify the most appropriate KT goals around which to shape the KT plan. Where research falls on the application continuum between exploratory or developed, for example, will, in part, determine the appropriate KT goals. Similarly, how it might inform in the short or long term, broadly to contribute to conceptual understanding or more directly to determine procedural action, and whether it needs to be

¹ By "researchers" we mean producers of research knowledge whether or not they would describe themselves as researchers in the context of their primary work role.

supplemented or considered in relation to a broader range of knowledge to fully realize its potential application, will also help shape KT goals.

2. Factors and Considerations for Assessing a Knowledge Translation Plan

The following table outlines different factors or components of a plan. For each factor, the table summarizes its key characteristics ('factor' column); considerations for selecting or developing different approaches to this component of the plan ('considerations' column); and questions for researchers to use when developing this component of a plan ('researcher questions' column).

Factor	Considerations	Researcher Questions
KT Goals • To generate: ○ Awareness ○ Interest ○ Action - Practice change - Product Development • To gain: ○ Knowledge about research setting or system context ○ A stakeholder perspective ○ Support for conducting the research	 KT goal(s) are developed in relation to the nature of the research. A single research project may suggest multiple possible goals. In circumstances of limited resources, researchers will have to prioritize among these goals Particularly when research is focused on external needs (versus researcher driven needs), plans usually include not only goals to <i>generate</i> outcomes but also goals to <i>gain knowledge or support</i> Goals to generate outcomes range from seeking less targeted/defined responses (awareness) to more targeted/defined responses (creating interest) to very targeted/defined responses (promoting action) Stakeholders may provide valuable perspectives throughout a research project; for example, when prioritizing research questions and interpreting the findings. Support may include activities such as gaining access to research settings or providing assistance with data collection. 	 Does the plan identify clear goals? Are the KT goals well justified in relation to the nature of the research?

Factor	Considerations	Researcher Questions
Collaboration Extent of Collaboration: Completely participatory Partial collaboration Control over decisions: Shared equally among team members Rests primarily with researchers Relationship dynamics: Trust and respect Reciprocity	More highly collaborative research may be suitable in situations where non-researchers need	 Is the approach to collaboration consistent with the stated goals? Do all proposed parties have the capabilities and competencies to carry out the collaboration? Is the decision making structure appropriate for the collaboration approach? Do the letters of support and other application materials demonstrate a sound base for project collaboration? For example, do they speak to a prior history of working together and do they reflect a specific understanding of the current project?

Factor	Considerations	Researcher Questions
Research Stage Research initiation (prioritizing, defining, and proposing research) Conducting research (data collection and analysis, interpreting research outcomes) Research outcomes (interpreting research implications, message development, disseminating and communicating research outcomes)	 When developing a KT plan it is useful to think about needs and opportunities according to stages of the research process. For example, in order to gain knowledge about the clinical "realities" of the area under investigation, it may be appropriate to involve selected providers when prioritizing research questions or interpreting results. Or, as another example, having the support of health system decision-makers responsible for a particular delivery setting may help shape and facilitate data collection activities. Each stage of the project has the potential to generate useful products. For example a literature review might lead to fact sheets, annotated reference list or might point to resources for best practice development. KT plans may not involve every stage of the research 	Does the plan consider the stages of the research necessary to achieving the stated goals?
Participants • Defined by sector role —e.g., policy decision-maker, health services planner, clinician, biomedical researcher, client, patient advocate, public • Defined by KT role —e.g., partner, research team member, advisor, intermediary, or audience.	 The selection of who is involved in a project should be driven by the goals of the plan and the collaboration approach. A single health research project may involve participants from several different sectors Different KT participants may be involved in different stages of the research in order to address different goals. For example, clinical researchers may begin a research project at the behest of a consumer group that has noted a gap in practice. In order to gain interest in addressing the gap, researchers may need to involve not only clients and providers, but also health care decision-makers in conducting the research and promoting research outcomes. A single health research project may have participants from the same sector serving different roles such as an identified group of clinical providers as a target audience, an individual clinician as a research team member, and a clinical professional body as an intermediary for reaching the target audience. 	 Does the plan clearly identify the sector(s) from which participants will be drawn? Does the plan clearly identify the role(s) participants will play? Are strategies for accessing potential participants knowledgeably and realistically described, e.g., using established contacts, identified intermediaries, or networks? Does the plan consider the involvement of all participants necessary to achieving the stated goals?

Factor	Considerations	Researcher Questions
Methods Interactive engagement and linkage and exchange (e.g., project advisory committee, stakeholder meetings to review findings) Dissemination and communication (e.g., website, brochure, presentation to practitioners)	 Methods are determined by the plan's goals and participants. For example, a goal such as generating awareness for providers will require different methods than one oriented to promoting action by families and consumers. Methods for more collaborative approaches involve interactive engagement with participants and are most appropriate when project goals seek particular stakeholder responses and expertise (e.g. defining research questions, considering research implications, gaining support from sector representatives for promoting research application). Methods for engaging participants may take different forms and occur at different stages of the research process. For example, it may be useful to establish a project advisory committee (ongoing engagement) or there may be a need for other interactive strategies such as holding targeted meetings of selected stakeholders to discuss research implications before the completion of the project, or organizing face-to-face meetings for the sharing of results (targeted engagement). Less collaborative approaches to generate awareness or gain interest may focus only on dissemination and communication directed to identified audiences Methods should draw upon existing evidence of effectiveness Methods for disseminating/communicating findings should consider the need to: Identify and segment target audiences Choose the most appropriate media/channels, venues and formats for the communication of results Tailor the content for the target audience and formulate findings from the target audience perspective Use plain language Develop main messages, executive summary, provide a synthesis Decide on timing (e.g., throughout, at the end) Choose credible messengers 	 Are the methods identified appropriate to achieving the plan's goals? Are the methods appropriate to the chosen collaboration approach? Does the plan demonstrate a balance between evidence and innovation?

Factor	Considerations	Researcher Questions
Resources and Implementation	 The research team should be composed of individuals with the appropriate skills, experience, credibility, and protected time to carry out the plan If there are partners, commitment and ability to participate needs to be demonstrated. Some plans may require a budget to support personnel, supplies, travel and other expenses associated with implementation of the plan There are services and supports that can be drawn upon within some research institutes and universities to support and complement the activities of the research team (e.g. KT or liaison staff, communication department). Having access to these kinds of supports will make a difference in the type of plan that is feasible. Similarly for some research areas there are important external supports and system KT capacity that allow researchers to leverage their KT activities. This is true, for example, in many clinical areas where networks and organizing agencies have been established to provide a more cohesive, integrated approach to application development. Researchers can and should capitalize on these supports in their KT plans when they are available. Tradeoffs between reach and feasibility are inevitable. 	 Is there sufficient description of past knowledge translation activities to identify the experience and skill level of the research team and, where appropriate, other KT participants? Are knowledge translation activities included in the description of investigators' and other participants' roles and responsibilities? Is the budget for KT activities convincingly justified? Does it include an appropriate level of financial support to implement the plan? Does the plan take organizational and/or external system supports into consideration? If so, does it provide evidence for these supports (e.g. sufficiently specific letter of support from the sponsoring and partnering organizational supports or developed system supports, is the plan feasible and strategically focused on areas where limited efforts can achieve useful outcomes?

Factor	Considerations	Researcher Questions

Overall

- Is the plan appropriate? Do the identified KT goals and collaboration approach make sense in relation to the research?
- Is the plan coherent? Do the identified activities make sense in relation to the research context and KT goals?
- Is the plan feasible? Does it identify the resources necessary to carry out the proposed activities?

3. Examples

The two examples illustrate how an assessor might apply the KT plan development conceptual framework outlined above to the review of a KT plan.

EXAMPLE 1: Examining Hemoglobin Markers for Paris Medley Disease		
KT Goals		
FACTORS	ASSESSOR QUESTIONS	
 To generate: Awareness Interest Action Practice change Product development To gain: Knowledge about research setting or system context A stakeholder perspective Support for conducting the research 	 Does the plan identify clear goals? Are the KT goals well justified in relation to the nature of the research? 	

The applicant provides a *clear description of the nature of the research in relation to identified KT goals*. This 'basic' research continues and builds upon exploratory investigations into physiological conditions associated with a particular disease process. Based on their work, investigators have a growing interest in the potential development of a new diagnostic tool (possibly able to identify the disease at an earlier and more treatable stage than current tests). For this reason they want to seek the expertise of clinical researchers in the area and generate interest in further research work.

Collaboration		
FACTORS	ASSESSOR QUESTIONS	
 Extent of collaboration: Completely participatory Partial Collaboration Control over decisions: Shared equally among team members Rests primarily with researchers Relationship dynamics Trust and respect Reciprocity 	 Is the approach to collaboration consistent with the stated goals? Does the research team have the capabilities and competencies to carry out the collaboration? Is the decision making structure appropriate for the collaboration approach? Do the letters of support and other application materials demonstrate a sound base for project collaboration? For example, do they speak to a prior history of working together and do they reflect a specific understanding of the current project? 	

Comments:

This *partial collaboration* focuses on decisions that will be made at the end of the project. Others will be asked for advice but the decisions about future research development will rest primarily in the research team.

Research Stage	
FACTORS	ASSESSOR QUESTIONS

- · Research initiation (prioritizing, defining, and proposing research)
- · Conducting research (data collection and analysis, interpreting research outcomes)
- Research outcomes (interpreting research implications, message development, disseminating and communicating research outcomes)
- Does the plan consider the stages of the research necessary to achieving the stated goals?

Participants

Applicants plan to *seek input from targeted clinical researchers after study results are established but before publication*. This makes sense. The current research is well defined – clinical researcher input will be useful for further research development not for helping to shape research activities for this study. The input will also be useful for considering whether to target at least one publication from the study to the translation research section of one of the clinical journals for the disease area.

FACTORS • Defined by *sector role* – e.g., policy decision-

Defined by sector role – e.g., policy decisionmaker, health services planner, clinician, biomedical researcher, client, patient advocate, public

• Defined by *KT role* – e.g., partner, research team member, intermediary, or audience

ASSESSOR QUESTIONS

- Does the applicant clearly identify the sector(s) from which participants will be drawn?
- Does the applicant clearly identify the role(s) participants will play?
- Are strategies for accessing potential participants knowledgeably and realistically described, e.g., using established contacts, identified intermediaries, or networks?
- Does the plan consider the involvement of all participants necessary to achieving the stated goals?

KT participants are clearly identified. The PI consulted with a clinical colleague in her university who in turn linked the PI to a clinical research specialist in the US who is conducting research in a related area. This specialist was able to advise the PI about the most relevant professional clinical research group and the timing of future meetings and conferences. The identified professional clinical research group is a North American expert body and appears to be a highly appropriate group to serve as KT participants for this study.

Methods

Methous		
FACTORS	ASSESSOR QUESTIONS	
 Interactive engagement and linkage and exchange (e.g., project advisory committee, stakeholder meetings to review findings) Dissemination and communication (e.g., website, brochure, presentation to practitioners 	 Are the methods identified appropriate to achieving the plan's goals? Are the methods appropriate to the chosen collaboration approach? Does the plan demonstrate a balance between evidence and innovation? 	

Comments:

Again, *KT methods are clearly defined and appropriate*. To gain clinical research expertise, applicants plan to do two things: 1) present the results of previous related research and this study at a meeting of the targeted clinical research body; 2) host a dinner meeting, in conjunction with the same event, with interested clinical researchers to identify future research needs for assessing the feasibility of the development of a clinical diagnostic tool using the identified physiological markers.

To generate interest in further research (which will also result from the interactive methods described above), applicants will *target a publication* (if applicable based on study results and clinical researcher

Resources and Implementation

FACTORS ASSESSOR QUESTIONS

input) to the translational research section of one of the clinical journals for the disease area.

- · Human
- · Financial
- · Organizational and external supports
- Is there sufficient description of past knowledge translation activities to appraise the experience and skill level of the research team and, where appropriate, other KT participants?
- Are knowledge translation activities included in the description of investigators' and other participants' roles and responsibilities?
- Is the budget for KT activities convincingly justified? Does it include an appropriate level of financial support to implement the plan?
- Does the plan take organizational and/or external system supports into consideration? If so, does it provide evidence for these supports (e.g. sufficiently specific letter of support from the sponsoring and partnering organizations)?
- If there are no organizational supports or developed system supports, is the plan feasible and strategically focused on areas where limited efforts can achieve useful outcomes?

KT plans are modest and *feasible*. Requested resources for KT activities (conference travel and dinner meeting) are reasonable and appropriate.

Overall

ASSESSOR QUESTIONS

- · Is the plan appropriate? Do the identified KT goals make sense in relation to the research?
- · Is the plan coherent? Do the identified activities make sense in relation to the research context and KT goals?
- · Is the plan feasible? Does it identify the resources necessary to carry out the stated activities?

Comments:

The KT plan is *appropriate for the nature of the research* (makes an explicit effort to consider the next steps in the application process beyond investigators' immediate research area), *coherent* (linked to well justified KT goals), and *feasible* (limited, well targeted informed activities)

EXAMPLE TWO:

Clinicians' perspectives of the relocation of a regional child and adolescent mental health service from co-located to stand alone premises

KT Goals		
FACTORS	ASSESSOR QUESTIONS	
 To generate: Awareness Interest Action Practice change Product Development To gain: Knowledge about research setting or system context 	 Does the plan identify clear goals? Are the KT goals well justified in relation to the nature of the research? 	
A stakeholder perspectiveSupport for conducting the research		

Due to the lack of previous research in this area this research uses an exploratory interviewing methodology to study clinican perspectives on the effects of re-location on staff and families of a child and adolescent mental health service from co-located to stand alone premises.

This is the first known study of its kind and, as such, the applicants rightly characterize their health services research as being more exploratory than developed. Their overall KT goal, however, to "promote action to implement current child and adolescent mental health policy in rural settings" seems prematurely expansive. Even assuming their findings lend support to the benefits of stand alone premises for this population it would be premature to act on these findings until they had been replicated and the research base more fully developed.

Collaboration	
FACTORS	ASSESSOR QUESTIONS
 Extent of collaboration: Completely participatory Partial Collaboration Control over decisions: Shared equally among team members Rests primarily with researchers Relationship dynamics Trust and respect Reciprocity 	 Is the approach to collaboration consistent with the stated goals? Do all proposed parties have the capabilities and competencies to carry out the collaboration? Is the decision making structure appropriate for the collaboration approach? Do the letters of support and other application materials demonstrate a sound base for project collaboration? For example, do they speak to a prior history of working together and do they reflect a specific understanding of the current project?

The applicants will analyse the data using interpretive phenomenological techniques, thematic analysis and peer debriefing to enhance validity. There are *no plans for the involvement of relevant stakeholders during the research process*. This omission compromises the ability of the research team to enhance the likelihood of this research being seen as relevant to the field and as serving as a catalyst for further research. Letters of support come from a narrow base, namely the facility involved in the study. Similarly there is no evidence of stakeholders being involved in the preparation of the application.

Research Stage			
FACTORS	ASSESSOR QUESTIONS		
 Research initiation (prioritizing, defining, and proposing research) Conducting research (data collection and analysis, interpreting research outcomes) Research outcomes (interpreting research implications, message development, disseminating and communicating research outcomes) 	Does the plan consider the stages of the research necessary to achieving the stated goals?		

Comments:

The applicants have proposed a limited role for stakeholders that only takes place at the end of the research and once the final interpretive analysis is completed. Although they propose holding a series of interactive workshops, *there is no stated objective* for these other than to convene stakeholders to learn about the research. It is not clear how this will add to the process apart from serving as a venue outside of academia for the dissemination of results. A more effective use of such a group would be to convene it at an earlier stage to discuss to review the findings and broaden the interpretive base of these and the implications of the research.

The applicants also propose to involve what they term "designated opinion leaders" in the research communication stage to help promote change but because *what* change they aspire to is problematic due to the lack of a research base this seems an unnecessary make-work project.

In short, the applicants have only considered the last stage and they have not done so with clear useful purpose.

Participants

FACTORS	ASSESSOR QUESTIONS	
 Defined by <i>sector role</i> – e.g., policy decision-maker, health services planner, clinician, biomedical researcher, client, patient advocate, public Defined by <i>KT role</i> – e.g., partner, research team member, intermediary, or audience 	 Does the applicant clearly identify the sector(s) from which participants will be drawn? Does the applicant clearly identify the role(s) participants will play? Are strategies for accessing potential participants knowledgeably and realistically described, e.g., using established contacts, identified intermediaries, or networks? Does the plan consider the involvement of all participants necessary to achieving the stated goals? 	

KT participants are not well defined. Applicants indicate they will include policy makers and families in a series of interactive workshops but make no mention of including other children's mental health service providers in their region. This omission is significant as these are the very groups that will be directly impacted around any significant findings and will be needed for the conduct of further research. The applicants also do not relate appropriate preparatory work to demonstrate their knowledge and ability to access the right people and engage their interest and participation.

Methods	
FACTORS	ASSESSOR QUESTIONS
 Interactive engagement and linkage and exchange (e.g., project advisory committee, stakeholder meetings to review findings) Dissemination and communication (e.g., website, brochure, presentation to practitioners 	 Are the methods identified appropriate to achieving the plan's goals? Are the methods appropriate to the chosen collaboration approach? Does the plan demonstrate a balance between evidence and innovation?

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The comments in the "research stage" section are applicable here. *Methods are not thought out or convincingly strategic*. The applicants do include a reasonable dissemination strategy that appropriately draws on product development and distribution support through the KT office of their research organization, and applicants supply appropriate documentation of this support.

As previously discussed, however, the interactive workshops are less convincing. The assessor's sense is that *a single interactive meeting* with well-chosen participants to discuss the implications and feasibility of potential changes and consider next steps for possible pilot experiments would be a feasible and useful KT plan. Depending on the results of this engagement, and the research itself, consideration could be given to applying for special funds to host a larger interactive workshop (for the region) to review research findings and practice experiences and engage participants in further deliberation around delivery opportunities and challenges of stand alone location.

Resources and Implementation

FACTORS ASSESSOR QUESTIONS

- · Human
- · Financial
- · Organizational and external supports
- Is there sufficient description of past knowledge translation activities to appraise the experience and skill level of the research team and, where appropriate, other KT participants?
- Are knowledge translation activities included in the description of investigators' and other participants' roles and responsibilities?
- Is the budget for KT activities convincingly justified? Does it include an appropriate level of financial support to implement the plan?
- Does the plan take organizational and/or external system supports into consideration? If so, does it provide evidence for these supports (e.g. sufficiently specific letter of support from the sponsoring and partnering organizations)?
- If there are no organizational supports or developed system supports, is the plan feasible and strategically focused on areas where limited efforts can achieve useful outcomes?

Problems with feasibility and implementation have already been noted. The budget should be reconsidered and downsized. The largest budget item is related to the opinion leader strategy that is unwarranted. If this project is funded, final budget allocations for the KT component should be confirmed only after a re-worked KT plan and budget is re-submitted.

Research KT Plan Overall

ASSESSOR QUESTIONS

- · Is the plan appropriate? Do the identified KT goals make sense in relation to the research?
- · Is the plan coherent? Do the identified activities make sense in relation to the research context and KT goals?
- · Is the plan feasible? Does it identify the resources necessary to carry out the stated activities?

Comments:

This inappropriate plan is not coherent or feasible as proposed.

4. <u>Checklist of Key Questions for Developing Health Research Knowledge</u> Translation Plans

A Guide for Developing Health Research Knowledge Translation Plans

KT Goals	 Does the plan identify clear goals? Are the KT goals well justified in relation to the nature of the research?
Collaboration	· Is the approach to collaboration consistent with the stated goals of the project?
Research Stage	 Does the plan consider the stages of the research necessary to achieving the stated goals?
Participants	 Is the sector(s) from which participants will be drawn clearly identified? Are the role(s) participants will play clearly identified? Does the plan consider the involvement of all participants necessary to achieving the stated goals?
Methods	 Are the methods identified appropriate to achieving the plan's goals? Are the methods appropriate to the chosen collaboration approach?
Resources and Implementation	 Does the description of investigators' and other participants' roles and responsibilities include reference to knowledge translation activities? Is the budget for KT activities convincingly justified? Does it include an appropriate level of financial support to implement the plan?