An Introduction to Knowledge Translation

Presentation to the University of Victoria
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Overview

- What is KT?
- Why KT matters
- When is KT relevant?
- End of Grant KT
- Integrated KT
- CIHR KT Funding
- Open Access / PubMed Central Canada
- Resources
The concept of “Knowledge Translation”

Source: Concept paper & Case studies: Expanding our understanding of K*
Knowledge Translation (KT) at CIHR

CIHR’s definition:

Knowledge translation is a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system.

This process takes place within a system of interactions between researchers and knowledge users that may vary in intensity, complexity and level of engagement depending on the nature of the research and the findings as well as the needs of the particular knowledge user.
What is KT?

- Methods used to find, assess and summarize available literature on a given topic.
- Provides unbiased information on what is known on a given topic, and informs where there are knowledge gaps.
- Researchers share findings; the message and methods used are tailored to a specific audience.
- Researchers and knowledge users work together to find answers to research questions of mutual interest.
- Involves moving research findings into action (e.g., practice, policy).
- Must take into account ethical, social and legal considerations.

Knowledge synthesis

Dissemination

Knowledge exchange

Ethically-sound application of knowledge
What is KT?

What this definition means:

• KT is about engaging and sharing research findings with those individuals who can use them.*

• Selecting appropriate KT approaches and activities depends on the type of research being conducted and the resulting findings.

*A knowledge user is someone who is likely to be able to use research results to make informed decisions about health policies, programs and/or practices.
Why KT Matters

KT is the mechanism through which research can have an impact.
Why KT Matters

KT is about...

- Bringing the creators and users of knowledge together;
- Making users aware of research evidence AND researchers aware of information needs of society;
- Increasing relevance and application of research findings;
- Closing the gap between what we know and what we do.

KT is essential for accelerating transformative changes in health and the health care system.
When is KT relevant?

• Selecting a KT approach or activity should be a conscious decision.

• All researchers should consider:
  1. The potential use of their work; and
  2. How their results could have a wider impact if they were jointly produced, shared, discussed and understood by appropriate knowledge users.

**Common sense** should play an important role when deciding on the degree and intensity of KT.
Two broad types of KT at CIHR

- **End-of-grant KT**
  - Researcher develops and implements a plan for making knowledge users aware of research findings.

- **Integrated KT**
  - Researchers and knowledge users co-lead the research project.
  - Knowledge users are engaged throughout the process.
  - Projects consider the quality of *science* and potential *impact*.
  - Findings are more likely to be relevant to and therefore used.
End-of-Grant (EofG) KT at CIHR

• **EofG KT:**
  • Any activity aimed at sharing or applying the results of a research project.
  • Ensures findings will be made available and accessible to appropriate audiences.

• **Activities:**
  • Range from standard dissemination (e.g., publications, presentations, patents) to more intensive application efforts (e.g., workshops, tool development).
The following five factors should be addressed in EofG KT plans:

1. Goals
2. Knowledge-User Audience
3. Strategies
4. Expertise
5. Resources

These factors are the same regardless of the domain of research, though how they apply will vary.
## EofG KT: Factors for Consideration

<table>
<thead>
<tr>
<th>Factor</th>
<th>Key question</th>
<th>Options</th>
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| Goals  | • Are the KT goals clear, concrete and well justified?  
• Are the KT goals appropriate to the potential research findings and the target knowledge-user audiences? | KT goals could include:  
• Increase knowledge/awareness  
• Inform future research  
• Inform/change attitudes  
• Inform/change behaviour  
• Inform/change policy  
• Inform/change practice  
• Inform/change technology |
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| Strategies | • Are the key messages clearly identified?  
• Are the KT strategies appropriate to achieve the KT goals?  
• Does the plan take into consideration the context in which the knowledge is to be used? | KT strategies could include:  
Diffusion  
• Conference presentations  
• Web-based activities (e.g. postings, wikis)  
Dissemination  
• Interactive small group meeting  
• Summary briefings to stakeholders  
Application  
• Commercialize  
• Evaluate outcomes |
Tips for EofG KT

• Ensure there is a match between the expected research findings, the targeted knowledge user audience and the EofG KT activities selected.
• Identify your target audience up front.
• Tailor KT activities/messages to the particular needs of the audience.
• Explain how you selected your EofG KT strategy.
• Ensure EofG KT activities are thought of in advance and therefore sufficiently budgeted for.
• Revisit the EofG KT plan throughout the research project and adjust as necessary.
Integrated KT (iKT)

- **iKT:**
  - Co-production of knowledge;
  - Knowledge users engaged and integrated throughout;
  - Requires additional time and commitment;
  - Shown to improve research relevance and uptake.

- Knowledge users can be:
  - Policy makers, decision makers, clinicians, health professionals, caregivers, patients, industry, not-for-profit, etc.
  - Other researchers from different disciplines, teams or countries.
iKT: Factors for Consideration

- Proposals should demonstrate that the project has been shaped by participating knowledge users and responds to their needs.
- The following four factors should be considered when doing iKT:
  1. Research Question
  2. Research Approach
  3. Feasibility
  4. Outcomes
### iKT: Factors for Consideration

<table>
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<tr>
<th>Factor</th>
<th>What is it?</th>
<th>Key questions</th>
<th>What does this really mean?</th>
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| Research Question     | An explanation of what the research project is aiming to achieve and a justification for the need to conduct the research (i.e. how/why was this topic chosen? What gap does it fill?) | To what extent does the research question respond to an important need identified by the knowledge users on the research team? | • Be clear about the origin of the research question.  
• Why is it interesting?  
• Who is interested in it?  
• How do the knowledge users’ partners view it?  
• What potential benefit does it bring to the knowledge users? |
# iKT: Factors for Consideration

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| Research Approach       | A detailed description of the research approach and a justification for the proposed methods/strategies | To what extent are the knowledge users meaningfully engaged in informing the research plan? To what extent does the research team have the appropriate expertise to utilize the best methodologies | • Be clear and specific about the proposed methods  
• Demonstrate the participation of the commitment to the project by the knowledge user – this can be written in text or shown throughout letters of support |
Tips for iKT

- iKT and EofG KT are not mutually exclusive; research that uses an iKT approach should still include an EofG KT plan.
- Distinguish between knowledge users engaged in the project (iKT) and other target audiences that will be reached through a dissemination plan (EofG KT) and what their roles and responsibilities are.
CIHR KT Funding

• CIHR’s current open KT and commercialization funding opportunities will be integrated into the Project Scheme in 2015.

• The last launch of these programs will occur June 2015:
  • Knowledge Synthesis
  • Knowledge to Action
  • Partnerships for Health System Improvement (PHSI)
  • Proof of Principle I & II
  • Industry Partnered Collaborative Research (IPCR)

• In turn, CIHR is broadening opportunities for KT and commercialization through its priority-driven and investigator-initiated programs.
Objective

To increase the uptake/application of synthesized knowledge in decision-making by supporting partnerships between researchers and knowledge users to produce scoping reviews and syntheses that respond to the information needs of knowledge users in all areas of health.

A Snapshot

**Maximum amount per grant:** $100,000 for a synthesis / $50,000 for a scoping review, for up to 1 year

**Eligibility:** The team must include both an independent researcher and a knowledge user listed as a Principal Application/Investigator.
Objectives

1. Accelerate the translation of knowledge by linking researchers and knowledge-users to move knowledge into action, and;
2. Increase the understanding of knowledge application through the process.

A Snapshot

**Funding**: The maximum amount per grant is $100,000 per annum for up to 2 years.

**Eligibility**: The team must include both an independent researcher and a knowledge user listed as a Principal Applicant/Investigator.
Objective

Aims to support teams of researchers and decision makers interested in conducting applied health research useful to health system managers and/or policy makers and strengthens the Canadian health care system.

A Snapshot

**Funding:** A mix of CIHR and partnership support – CIHR provides most of the funding (up to $400K) and partners provide the rest (20% of the total grant budget)

**Length of grant:** up to 3 years

**Eligibility:** The team must include both an independent researcher and a knowledge user (decision maker) listed as a Principal Applicant/Investigator.
Objective

The goal of the Proof of Principle program is to facilitate and improve the translation of knowledge and technology resulting from academic health research for the benefit of Canadians.

A Snapshot

**Funding**: POP I maximum amount per grant is $160,000 and POP II maximum amount per grant is $300,000, with matched 1:1 funding from a partner (1:1 ratio to the amount requested from CIHR)

**Length of grant**: up to 1 year
Objectives

• encourage and facilitate mutually beneficial university*-industry collaborations in health research;
• stimulate the health research activities of private sector companies in Canada;
• build capacity of researchers and trainees through interaction with industry;
• enhance communications between industry and universities;
• foster an entrepreneurial culture within and around the health research community in Canada;
• promote economic development through health research in Canada;
• support the application of health research results to improve the health of Canadians.

A Snapshot

Funding: Up to $250,000 per year
Length of grant: up to 5 years
Eligibility: An application partner is required on each application and the required level of partner contribution must be secured from an eligible company at the time the application is submitted.
KT within CIHR’s Project Scheme

- Support **ideas** across the spectrum of research and **KT**.
- Minimum threshold of funded iKT/partnered applications.
- KT can be integrated throughout; however, it should be particularly addressed in certain sections.

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<td>Quality of the Idea</td>
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<td>Concept</td>
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<td>Importance of the Idea</td>
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<td>Feasibility</td>
<td>Approach</td>
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<td>Expertise, Experience and Resources</td>
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Based on Interpretation Guidelines: Project Scheme Pilots Adjudication Criteria; subject to change
Importance of the Idea: *iKT

- Should address the significance of the proposed work and value of any potential gaps (i.e., potential impact).
- For proposals using an iKT or partnered approach, should describe how the research question will address an identified need.

“In cases where projects have a primary implementation, or knowledge translation (application and uptake of research findings) focus, the **importance of the idea should be validated as being substantive and relevant to stakeholders** (i.e., those who could directly benefit from, or make use of, the project outputs).”
Approach: *EofG KT and iKT

- Projects may have a research and/or KT focus.
- Research and/or KT approaches, methods, and/or strategies are well-defined and justified as appropriate.
- All projects should include a KT approach that is appropriate to the nature of the project outputs.
- Where appropriate, knowledge users should be involved in developing the research plan.

Based on Interpretation Guidelines: Project Scheme Pilots Adjudication Criteria; subject to change
KT within CIHR’s Project Scheme

• **Expertise, Experience and Resources: *iKT**
  
  • Reviewers will assess whether the right experts are engaged to maximize likelihood of success and impact.
  
  • Knowledge users involved should be positioned at appropriate levels of decision making or influence.
  
  • Letters of support from knowledge users/partners should highlight roles, capabilities, time/financial/in-kind commitments, similar work, and how they will use the results.
  
  • Expenses associated with dissemination will remain eligible.

*Based on Interpretation Guidelines: Project Scheme Pilots Adjudication Criteria; subject to change*
KT within CIHR’s Foundation Scheme

- Long-term support for innovative, high-impact research programs.

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<td>Stage 1</td>
<td>Caliber of the Applicant</td>
<td>Leadership</td>
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<td>Significant of Contributions</td>
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<td>Productivity</td>
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<td>Vision and Program Direction</td>
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<td>Stage 2</td>
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<td>Quality of the Program</td>
<td>Research Concept</td>
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<td>Research Approach</td>
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<td>Quality of the Expertise,</td>
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<td>Experience and Resources</td>
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<td>Quality of the Support Environment</td>
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Stage 1: Caliber of the Applicant

• **Significance of the Contributions:**
  - Highlight the *impact* of prior contributions on health and health research.

• **Vision and Program Direction:**
  - Include expected outputs/contributions and the significance the program will have if the objectives are met.
Stage 2: Proposed Program of Research

• **Research Concept:**
  • Importance of anticipated outputs, as they relate to the likelihood of significantly advancing outcomes.

• **Research Approach:**
  • KT strategies will vary by field, but should be relevant to the context of the proposed research program.

• **Expertise:**
  • For any KT approach, relevant knowledge users should be identified.
  • An iKT approach is appropriate when knowledge users are critical to achieving the desired impact.
CIHR’s Open Access Policy

Know your Journal!
- Is the journal open access?
- Does the journal permit archiving?

Deposit in Open Access Archive
- PubMed Central Canada or Institutional repository

Publish in an Open Access Journal
- Fees are an eligible expense
Guide to KT at CIHR

- CIHR’s guide to help researchers incorporate knowledge translation approaches into their grant proposals

Guide to Knowledge Translation at CIHR: Integrated and End-of-Grant Approaches

http://www.cihr-irsc.gc.ca/e/45321.html
CIHR KT Resources

Educational modules / guides:

1. Guide to Knowledge Translation Planning at CIHR: Integrated and End-of-Grant Approaches
2. A Guide to Evaluation in Health Research
4. Introduction to Evidence-Informed Decision Making
5. A Guide to Knowledge Synthesis
6. Knowledge Translation in Health Care: Moving from Evidence to Practice
7. Knowledge Translation in Low & Middle-Income Countries

Available at:
www.cihr-irsc.gc.ca/e/39128.html
CIHR KT Resources

KT Casebooks
www.cihr-irsc.gc.ca/e/29484.html

Writing Letters of Support
www.cihr-irsc.gc.ca/e/45246.html

Applying to Integrated Knowledge Translation Funding Opportunities at CIHR: Tips for Success
ktclearinghouse.ca/ktcanada/education/seminarseries/2011/20110908
My question is: Are we making an impact?
For information on KT at CIHR, please contact:

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