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Knowledge Translation at CIHR

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Learning Objectives

- Describe knowledge translation (KT)
  - What is KT and why is it important
  - Distinguish between Integrated KT and end-of-grant KT
  - Barriers and facilitators to KT approaches

- KT at CIHR
  - Funding Opportunities
  - KT resources

What is Knowledge Translation?

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 complex 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.

KT definition components

Knowledge synthesis

- The **contextualization and integration of research findings** individual research studies within the larger body of knowledge on the topic
- Synthesis is a family of methodologies for determining what is known in a given area or field and what the knowledge gaps are

Dissemination

- Involves **identifying the appropriate audience** for the research findings, and tailoring the message and medium to the audience

Knowledge exchange

- Refers to the **interaction between the knowledge user and the researcher** resulting in mutual learning
- Encompasses the concept of **collaborative or participatory, action-oriented research** where researchers and knowledge users work together as partners to conduct research to solve knowledge users' problems (Integrated KT, AKA co-production of knowledge, Mode 2)

Ethically-sound application of knowledge

- The iterative process by which knowledge is actually considered, put into practice or used to improve health and the health system
- KT activities must be consistent with **ethical principles and norms, social values** as well as legal and other regulatory frameworks

Two broad types of KT at CIHR

End-of-grant KT

- The researcher develops and implements a plan for making knowledge users aware of the knowledge generated through a research project

Integrated KT

- Research approaches that engage potential knowledge users as partners in the research process
- Requires a collaborative or participatory approach to research that is action oriented and is solutions and impact focused
- Should produce research findings that are more likely to be relevant to and used by the end users

CIHR KT Funding Opportunities

KT Focus	Funding mechanisms
Planning	• Planning Grants
Integrated KT	• Knowledge Synthesis • Knowledge to Action • Partnerships for Health System Improvement (PHSI)
Science of KT	• Operating Grant: KT Priority Announcement
End-of-Grant KT	• Dissemination Events
Building Capacity	• Doctoral, Fellowship, New Investigator Awards • Health Research Communications Award • Journalism Award • Science to Business (S2B) MBA Scholarship • Science Policy Fellowships

Planning Grants

Purpose:

To support planning activities, partnership development and/or increasing the team's understanding of the health research landscape that will contribute to the advancement of research

Examples:

- Strengthening Partnerships for Community-Based Primary Health Care Initiatives in Rural Zambia
- A workshop to develop a research proposal to evaluate pharmacist prescribing for older persons

Available funds:

- Up to $25,000 for up to 1 year

Applications accepted 3 times per year in October, February and June

Knowledge Synthesis

Purpose:

To map the state of knowledge on a topic…

- Inform knowledge users about existing or lack of evidence to inform their decisions
- Guide researchers to new avenues for primary research

Examples:

- Pain in people with development disabilities: a scoping review
- Realist Synthesis of Self-Management Interventions for Disadvantaged Populations with Chronic Conditions

Available funds:

- Synthesis: $100,000 for up to 1 year
- Scoping review: $50,000 for up to 1 year

Applications accepted 2 times per year in October and April

Knowledge to Action

Purpose:

To accelerate KT by linking researchers and knowledge-users to move knowledge into action ***and*** to learn about knowledge application through the process

Examples:

- Bridging the Knowledge-to-Action Gap in Primary Care for Eating Disorders: Implementing and Evaluating a Training Program for Health Care Professionals
- Participatory Policy Intervention to Promote School-Based Physical Activity

Available funds:

$200,000 over 2 years

Applications accepted annually in October

Partnerships for Health System Improvement (PHSI)

Purpose:

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

Examples:

- Reducing inequities in access to and use of prenatal care in the Winnipeg Health Region through health system improvement
- Injecting Evidence into Health Policy Coverage: Working with the Media

Available funds:

$600,000 over 3 years from CIHR (applicants find a minimum of 20% of total grant budget from other partners, financial or in-kind contributions)

Applications accepted annually in November

Open Operating Grants Program

Purpose:

To contribute to the creation, dissemination and use of health-related knowledge, and to help develop and maintain Canadian health research capacity, by supporting original, high quality projects or teams/programs of research

Eligibility:

Applicants must be independent researchers holding an academic or research appointment at an eligible institution

Available funds:

- No individual grant application can exceed a total of $12.5M
- Applications accepted 2 times per year in September and March (Registrations due in August and February)

Operating Grant: KT Priority Announcement

Purpose:

Reviewed by the open grants competition KTR panel in the following research priority areas:

- KT Science (the determinants of knowledge use and effective methods of promoting the uptake of knowledge)
- KT Practice (moving research into action)

Examples:

- Exploring mentorship as a strategy to build capacity for knowledge translation research and practice
- Exploring the Long-term Impact of a Cancer Treatment Decision Aid

Available Funds:

- $100,000 per one year bridging grant

Dissemination Events

Purpose:

To support events that contribute to the dissemination, exchange and uptake of research evidence

Examples:

- International Scientific Conference on Mild Cognitive Impairment
- Bringing Best Evidence to Front-line Clinicians

Available funds:

- Up to $25,000 for up to 1 year
- Applications accepted 3 times per year in October, February and June

On-line Learning Modules

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
3. Guide to Researcher and Knowledge-User Collaboration in
4. Introduction to Evidence-Informed Decision Making
5. Critical Appraisal of Intervention Studies
6. A Guide to Knowledge Synthesis
7. Deliberative Priority Setting
8. Knowledge Translation in Health Care: Moving from Evidence to Practice
9. Knowledge Translation in Low & Middle-Income Countries

Available at:

www.cihr-irsc.gc.ca/e/39128.html

Other 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

Operating Grant: Knowledge to Action - Tips from the Chair and Reviewers

www.cihr-irsc.gc.ca/e/44246.html

Top 10 Tips for PHSI Success

www.cihr-irsc.gc.ca/e/38778.html

KT in Health Care - Moving from Evidence to Practice: A KT Handbook

Chapters cover:

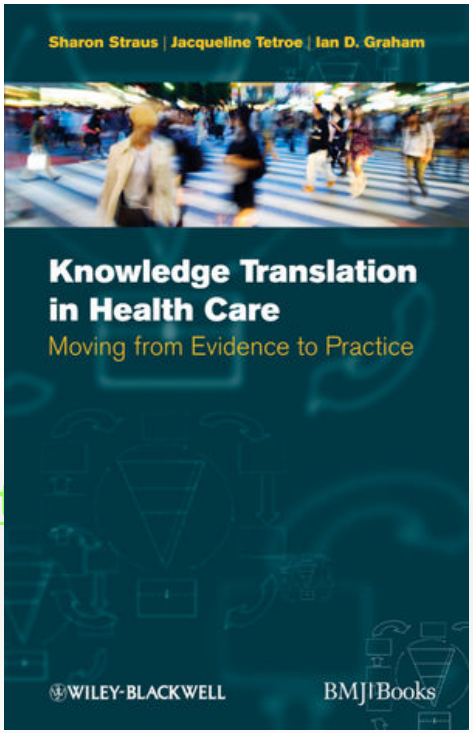
Knowledge creation

Knowledge-to-Action cycle

Theories and Models of Knowledge-to-Action

Knowledge exchange

Evaluation of Knowledge-to-Action



Available at:

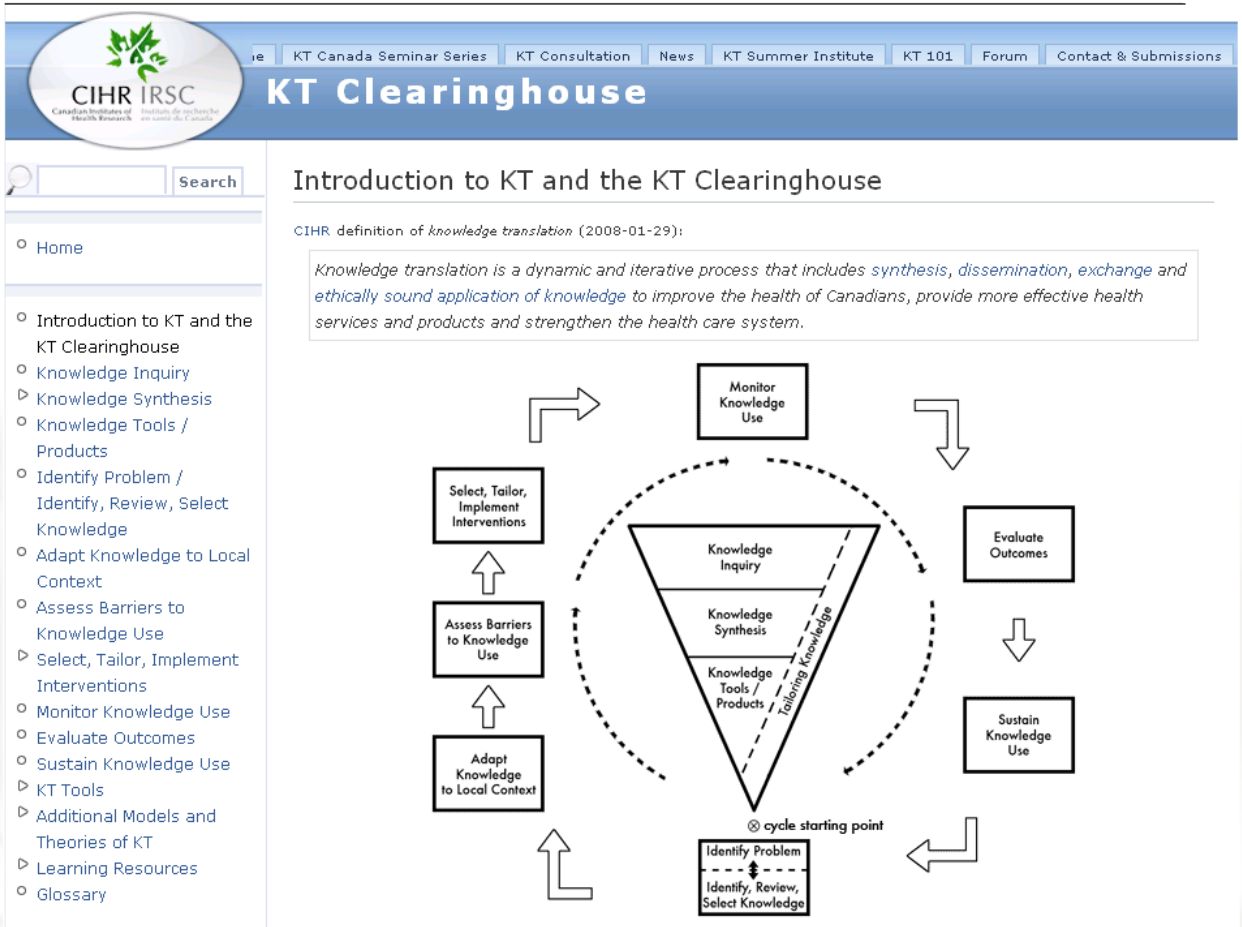
http://ca.wiley.com/WileyCDA/WileyTitle/product
Cd-1405181060,descCd-description.html

Presentations based on chapters available at:

http://www.cihr-irsc.gc.ca/e/40618.html

KT Clearinghouse

Funded by CIHR to serve as the repository of KT resources for individuals who want to learn about the science and practice of KT, and access tools that facilitate their own KT research and practices.



ktclearinghouse.ca

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How to apply for integrated Knowledge Translation funding opportunities

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Integrated KT (iKT)

- Researchers should demonstrate that the project has been shaped by the participating knowledge users and responds to their knowledge needs
- The following four factors should be considered when developing a research project with an iKT approach:

1. Research Question
2. Research Approach
3. Feasibility
4. Outcomes

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Research Question

Explanation of the research project and justification for the need to conduct the research:

To what extent does the project respond to the objective(s) of the Funding Opportunity?

To what extent does the research question respond to an important need identified by the knowledge-user(s) on the research team?

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Research Question Criterion: What this means for you

Be clear about what the question is right away

Be clear about the origin of the research question: why it is interesting, who is interested in it and what the knowledge-user partners think about it

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Research Approach

Detailed description of the research approach and justification for the proposed methods/strategies:

To what extent is it likely that the proposed methods will address the research question(s)?

To what extent is the study design appropriate and rigorous?

To what extent are the knowledge-user team members meaningfully engaged where appropriate (e.g. in defining the research questions, informing the research plan, interpreting the findings, informing the end-of-grant KT plan)?

To what extent does the end-of-grant KT plan detail strategies appropriate for its goals and target audiences?

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Research Approach Criterion: What this means for you

- Be clear and specific about your proposed methods – the reviewers need to know that you know what you are doing
- Demonstrate the participation of and commitment to the project by the decision-makers – this can be written into the text or shown through letters of support
  - these letters are important – they need to show true iKT-style collaboration
  - they should not be “cookie cutter” – ensure that they are unique, and specific about what the knowledge user is expecting

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Feasibility

Demonstration that the researcher-knowledge-user team has the requisite skills, experience and resources to complete the project in the proposed time frame:

To what extent are the knowledge-users on the team committed to applying the findings when they become available and is their application achievable in the particular practice, program and/or policy context?

To what extent does the researcher-knowledge-user team have the necessary expertise and track record to deliver on the project's objective(s), including the objectives of the end-of-grant KT plan?

To what extent is the project accomplishable in the given timeframe with the resources available/described?

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Feasibility Criterion: What this means for you

- Be sure to demonstrate a “pull” for the results of this study on the part of your knowledge-user co-applicants
- Document the expertise of each team member and their role in the proposed study
- Demonstrate that this is a “doable” study – from both a scientific and a practical perspective
- Demonstrate willingness of the knowledge-user partner to use the results of the study

Outcomes

Results expected from the successful uptake of project findings:

To what extent will the project have a substantive and sustainable impact on health outcomes, practice, programs and/or policy in the study context?

To what extent will the project's findings be transferable to other practice, programs and/or policy contexts?

To what extent is the evaluation plan appropriate to assess the project's impact?

Outcomes Criterion: What this means for you

Consider the potential impact of your study and its generalizability

If it is not generalizable, acknowledge and justify this

Develop a reasonable evaluation plan to be able to measure the outcomes and impacts of your study

Tips for iKT

- iKT programs also require a dissemination plan (end-of-grant KT)
- Research team should distinguish between the knowledge-users participating in the project and other target audiences that will be reached by the dissemination plan
- Research team should demonstrate that the knowledge users are the right participants to inform the project and act on the findings and that they understand their roles

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How to write an end of grant KT plan

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Components of an end of grant KT plan

- Goals
- Audience
- Strategies
- Expertise
- Resources

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End-of-Grant KT Factors: Goals

1. Goals – There are two broad goals typical of end-of-grant KT activities: raising awareness and promoting action.

    whether goals are modest or ambitious, they must be appropriate to the nature of the research findings and the target audience(s).

Bottom line: clearly state and justify your proposed KT goals.

Appendix A: End of Grant Knowledge Translation Plan Worksheet

Factor	Key Questions	Options
Goals	• Are the KT goals clear, concrete and well justified? • Are your KT goals appropriate to the potential research findings and target audience(s)?	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 ☐ other:
Audience	• Does the plan consider all potentially relevant audiences? • Are the audiences precisely defined in terms of their sector, roles, responsibilities and decision-making needs/opportunities • Does the plan demonstrate a thorough understanding of the proposed target audience(s), including the current state of their knowledge in the research area and their needs and preferences for using knowledge?	Target audiences could include: ☐ general public ☐ community-based and not-for-profit organizations ☐ healthcare professionals/service provider ☐ health system administrators/managers ☐ industry/venture capital group ☐ media (print, TV, etc.) ☐ patients/consumers ☐ policy-makers/legislators ☐ private sector ☐ research funders ☐ researchers ☐ other:

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End-of-Grant KT Factors: Audience

2. Audience – Applicants should identify the individual(s) and/or group(s) who should know about the research findings.
    - demonstrate a detailed understanding of knowledge-user audience(s)
    - be aware of the current state of the audience's knowledge, how they tend to use knowledge and the formats in which they prefer to receive their information.

Bottom line: clearly identify and justify your target audience(s).

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End-of-Grant KT Factors: Strategies

3. Strategies – Applicants should choose methods to reach the identified audience(s) and deliver on the KT goal(s) that are appropriate to the nature of the research results.

   End-of-grant KT strategies broadly fall into three categories - diffusion, dissemination, application.

   The nature of the target audience(s) and the type(s) of evidence will determine which strategies are appropriate.

Bottom line: present strategies that support your KT goals and adapt the knowledge to your audience's needs and context of use

Factor	Key Questions	Options
Strategies	• Are the strategies appropriate to achieve the knowledge translation goals? • Does the plan take into consideration the context in which the knowledge is to be used? • If appropriate, is there a plan to adapt the knowledge for each specific audience? • Have mitigating factors been considered that might affect the applicability of the research findings or the effectiveness of the planned KT activities? • Does the plan consider barriers and facilitators to knowledge use? • Are key messages clearly identified?	Strategies could include: <u>Diffusion</u> ☐ conference presentations ☐ non-peer reviewed publications ☐ peer reviewed publications (open access journal/archive) ☐ technological provision/upgrade ☐ web-based activities (postings, wikis, blogs, podcasts, etc.) ☐ other: <u>Dissemination</u> ☐ arts-based KT activity ☐ audit and feedback ☐ communities of practice ☐ decision-supports (*e.g.,* web-based) ☐ develop new educational materials/ sessions ☐ dissemination events/courses (*e.g.,* conference, symposium, CME) ☐ engage champion(s)/opinion leader(s) ☐ financial intervention or incentive ☐ interactive small group meeting/workshop ☐ knowledge broker involvement ☐ media release/outreach campaign ☐ networks/networking ☐ patient-mediated intervention ☐ performance feedback ☐ plain language summaries ☐ reminders ☐ social marketing ☐ summary briefings to stakeholders ☐ other: <u>Application</u> Working with knowledge-user(s) to: ☐ adapt knowledge for use ☐ commercialize ☐ identify barriers to the use of findings ☐ tailor messages and interventions to promote use ☐ other:

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End-of-Grant KT Factors: Expertise

4. Expertise – Specific expertise might be required to deliver on the identified strategies.

    e.g., development of specialized products such as DVDs or films might require IT experts

    e.g., reaching audiences that are difficult to engage might require intermediaries such as knowledge brokers

    expertise represented should be driven by the KT goals, audiences and strategies

Bottom line: demonstrate that your team includes the appropriate level of expertise to complete the end-of-grant KT plan

		☐ other:
Expertise	• Are all necessary participants involved to achieve the stated goals? • Is there sufficient description of participants' KT expertise and/or past activities to assess the team's ability to execute the proposed strategies? • Where appropriate, does the team plan to collaborate with members of its target audience(s)?	Expertise required could include individuals in the following roles: ☐ knowledge broker ☐ community leader ☐ KT specialist ☐ management ☐ public relations ☐ volunteer ☐ website developer/IT expert ☐ writer/editor/copy editor ☐ other:
Resources	• Does the budget allocate adequate financial support to implement the plan?	Necessary resources could include: <u>Human Resources</u> ☐ design/layout ☐ fees for professional expertise (e.g. knowledge broker, KT specialist, IT expert, writer/editor) <u>Consumables</u> ☐ mailing and postage ☐ media development and release ☐ open access publication fees ☐ production/printing ☐ teleconferences/travel ☐ web-related costs (blogs, podcasts, wikis, website development/maintenance) ☐ workshops/meetings/networking costs ☐ other:

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End-of-Grant KT Factors: Resources

5. Resources – Applicants should demonstrate that the proposed knowledge translation activities can be delivered.

   Financial resources, human resources, and/or access to resources should be considered

Bottom line: demonstrate the end-of-grant knowledge translation plan can be accomplished with the resources available

		☐ other:
Expertise	• Are all necessary participants involved to achieve the stated goals? • Is there sufficient description of participants' KT expertise and/or past activities to assess the team's ability to execute the proposed strategies? • Where appropriate, does the team plan to collaborate with members of its target audience(s)?	Expertise required could include individuals in the following roles: ☐ knowledge broker ☐ community leader ☐ KT specialist ☐ management ☐ public relations ☐ volunteer ☐ website developer/IT expert ☐ writer/editor/copy editor ☐ other:
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Tips for end-of-grant KT

- Ensure there is a match between the expected research findings, the targeted knowledge-user audience and the KT strategies selected
- Tailor your KT activities/messages to the particular needs of your audience
- Revisit the KT plan throughout and upon completion of the project and adjust, as necessary, as results evolve