

Knowledge Transfer and Exchange in Research: A Guide for Applicants and Reviewers

*Working Draft
Updated November 2009*



HEART &
STROKE
FOUNDATION
OF CANADA

Finding answers. For life.

Table of Contents

| | |
|---|---|
| About this Guide | 3 |
| Introduction | 3 |
| HSFC's Managed Research Cycle | 4 |
| What is a KTE Plan? | 6 |
| How are KTE plans assessed? | 6 |
| KTE Plan Checklist | 7 |
| Summary and Where to Find Additional Information..... | 8 |

About this Guide

The Heart and Stroke Foundation of Canada (HSFC) has developed this guide to outline our approach to Knowledge Transfer and Exchange (KTE). The Guide is a working draft and will evolve with our understanding of how best to integrate KTE in our research programs. The Guide outlines:

- HSFC's definition of KTE;
- requirements for KTE plans within grant applications for strategic initiatives;
- key factors that reviewers may consider when assessing KTE plans; and
- additional KTE-related resources.

The information provided in this Guide is meant to give an overview of KTE, from an HSFC perspective, and provide some helpful hints and additional resources related to KTE.

Although the focus of this Guide is on KTE within HSFC strategic funding initiatives, we encourage KTE in all research supported by the Foundation.

Introduction

The Heart and Stroke Foundation, a volunteer-based charity, leads in eliminating heart disease and stroke and reducing their impact through the advancement of research and its application, the promotion of healthy living, and advocacy.

—Heart and Stroke Foundation Mission Statement

Everything HSFC does is ultimately aimed at improving the cardiovascular and cerebrovascular health of Canadians. That's why we emphasize the role of KTE within all our research programs across Canada. This Guide focuses for the most part on the strategic research initiatives, funded through the Federation Research Fund, which are aimed at improving heart and stroke policy and practice directly relevant to our strategic mission priorities.

A key issue for advancing heart and stroke health in Canada is the lag between research breakthroughs and practice on the one hand, and a lack of policy and practice-relevant evidence on the other. For example, we know that physical inactivity and obesity substantially increase the risk of cardiovascular disease, yet Canadians continue to have unacceptably high rates of these risk factors¹. While there is a recognized need for interventions to reduce these risk factors at the population level, there is a shortage of relevant evidence about which interventions would be most effective. Similarly, we know that CPR saves lives and we know what the optimal CPR techniques are, based on available research evidence. Yet there are huge disparities across Canada in bystander CPR rates: a gap between knowledge and practice².

¹Heart and Stroke Foundation of Canada. Tipping the Scales of Progress: Heart Disease and Stroke in Canada. 2006. Available at http://www.heartandstroke.com/atf/cf/%7B99452D8B-E7F1-4BD6-A57D-B136CE6C95BF%7D/Tipping_the_Scales_new.pdf.

² Nichol, G. et al. Regional Variation in Out-of-Hospital Cardiac Arrest Incidence and Outcome. JAMA; 2008;300(12): 1423-31.

KTE is aimed at closing these critical gaps by supporting the development and application of policy- and practice-relevant research, in a way that draws on the contributions of both researchers and knowledge users.

HSFC defines KTE as follows:

Knowledge Transfer and Exchange is the dynamic, collaborative process of creating, sharing and acting upon research and other knowledge to eliminate heart disease and stroke and reduce their impact.

A knowledge user's engagement in the KTE process may vary in intensity and complexity, depending on the nature of the research as well as the knowledge user's particular needs for information.

HSFC adopts the Canadian Institutes of Health Research (CIHR) definition of *knowledge user* as follows:

A knowledge user is an individual who is likely to be able to use the knowledge generated through research to make informed decisions about health policies, programs and/or practices.

A knowledge user can be, but is not limited to, a practitioner, policy maker, educator, decision maker, health care administrator, community leader, or an individual in a health charity, patient group, private sector organization, or media outlet. CIHR November 2009

HSFC's Managed Research Cycle

The "Managed Research Cycle", developed by HSFC, provides a framework for strategic initiatives that encourages collaboration and the exchange of knowledge between researchers and knowledge users (Fig. 1). Its aim is to encourage highly relevant research with strong potential for the application of results in critical areas of policy and practice in HSFC's priority areas. The Managed Research Cycle does this by:

- targeting Requests for Applications (RFAs) to areas that are relevant to the strategic mission priorities of the Foundation;
- involving knowledge users as well as researchers in the development of RFAs through workshops, think tanks, etc., to ensure the initiative focuses on important and relevant research gaps and opportunities that are likely to have the greatest possible impact;
- encouraging researcher and knowledge user collaboration throughout the research process (from framing research questions through to interpreting and disseminating results);
- requiring KTE plans within grant applications for all strategic RFAs.

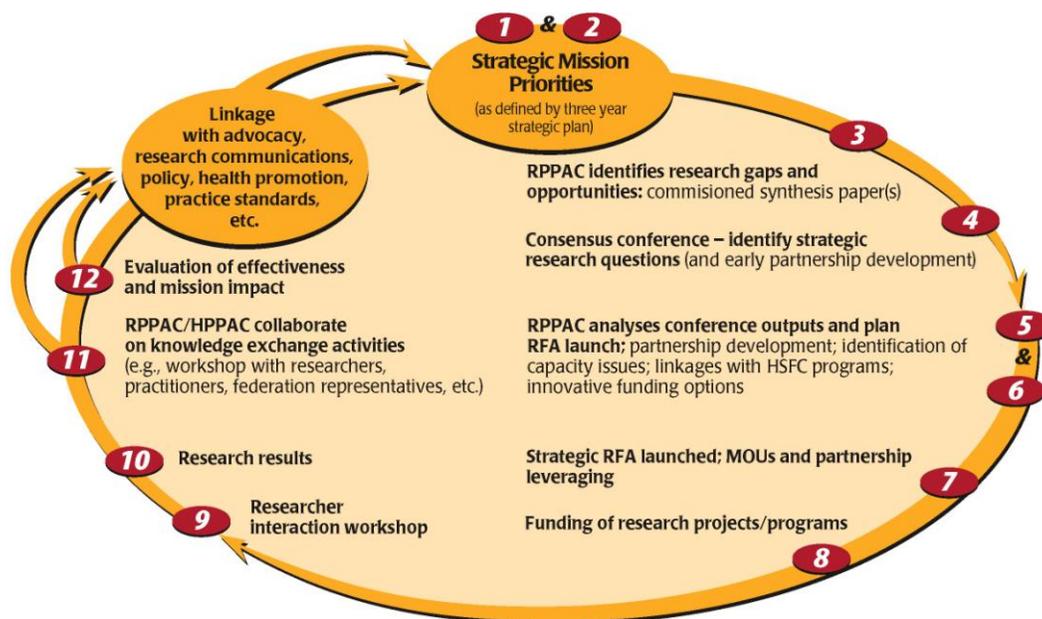


Figure 1. HSFC Managed Research Cycle

The steps of the Managed Research Cycle are described below:

Steps 1 & 2 - Mission priorities for the Foundation (presently obesity, stroke and resuscitation) are determined by the HSFC Board of Directors through its strategic planning process.

Step 3 - The Research Policy and Planning Advisory Committee (RPPAC), a volunteer committee which oversees the entire research enterprise, works to identify research gaps and opportunities; at this point in the cycle, synthesis papers may be commissioned.

Step 4 - A consensus conference/workshop involving researchers, knowledge users, potential partners and others is convened to help shape the RFAs.

Step 5 & 6 - With the outcomes of the consensus conference in mind, RPPAC works with other funding partners to develop and launch an RFA that appropriately addresses the research and capacity building needs in the priority area.

Step 7 - The RFA is launched and communicated widely. Typically, a detailed KTE plan that outlines both “integrated” KTE and “end of project” KTE is a required section of the application. As well, knowledge user representation on the research team is required.

Step 8 - Funding begins; research projects get underway including integrated KTE activities.

Step 9 - Researcher Interaction Workshop. HSFC and partners bring together funded researchers, knowledge users, and other stakeholders to share information on KTE strategies. Workshop participants and the research teams engage in a dialogue to identify opportunities related to the potential/eventual transfer of scientific findings into practice or policy.

Step 10 - Results of the research are available; “end of project” KTE activities are undertaken. Research teams submit an end of project report to HSFC (both a scientific summary of the research as well as a lay language summary).

Step 11 - RPPAC and HSFC’s Health Policy and Promotion Advisory Committee (HPPAC) collaborate with research teams to facilitate “end of project” KTE, as appropriate. This may involve targeted communication strategies. Where appropriate, linkage is made across all HSFC departments (communications, health policy, advocacy) so that the new knowledge influences HSFC activities and priorities.

Step 12 - The process is evaluated, including impact of the research results.

What is a KTE Plan?

A KTE Plan is a required component of grant applications submitted in response to strategic RFAs. In the KTE plan, applicants are asked to outline how they will involve knowledge users throughout the project (“integrated” KTE) as well as their strategy for disseminating results (“end of project” KTE)³. The description should demonstrate how the planned KTE activities contribute to the relevance, feasibility and anticipated application of the research results to improve heart and stroke related policy, practice and health outcomes.

The main requirements for KTE plans are outlined in the Heart and Stroke Foundation [Guidelines for Strategic Research Initiatives](#). All RFAs led by HSFC require that at least one Co-Applicant be a knowledge user, according to the above definition. Some RFAs have additional KTE requirements that need to be addressed in the plan.

How are KTE plans assessed?

Currently, KTE plans are evaluated within HSFC’s peer review process. The plan’s clarity, comprehensiveness, appropriateness, and quality will have an impact on the overall score assigned to the grant application.

Research teams funded through strategic initiatives will have an opportunity to discuss their KTE strategies at the Researcher Interaction Workshop at the start of the grant. This Workshop is step 9 of the Managed Research Cycle and brings together funded researchers, knowledge users, and a reference panel who provides expert advice and constructive feedback. The Workshop also provides an opportunity to create synergies,

³ The Canadian Institutes of Health Research uses the terms “integrated KT” and “end of grant KT”. “With end of grant KT, the researcher develops and implements a plan for making knowledge users aware of the knowledge that had been gained from the project; in integrated KT, stakeholders or potential research knowledge users are engaged in the entire research process”. <http://www.cihr-irsc.gc.ca/e/29418.html>

identify overlaps, if any, in KTE strategies among the different teams, and to facilitate the sharing of expertise and resources among the teams, as appropriate.

KTE Plan Checklist

Based on a review of best practices as reflected in relevant guides and documents of leading research organizations, HSFC has developed a checklist of key considerations for KTE plans. This checklist is designed as both an information tool for applicants and a guide for reviewers in assessing KTE plans within grant applications.

Does the KTE plan demonstrate the project's relevance (i.e. the relevance of the research to knowledge users) and the potential impact?

- Research objectives were developed with input from knowledge users (integrated KTE).
- Research results could be used to improve decision making and outcomes in health-related policy and/or practice. The potential impact that this could have is specified in the KTE plan.

Do the applicants detail and justify the chosen approach(es) to KTE?

- The choice of KTE methods is clearly specified.
- Appropriate information and evidence were considered in developing the KTE methods (e.g. evidence about the relative effectiveness of different KTE techniques for the knowledge user groups).
- Potential barriers to effective KTE are anticipated and the plan specifies how these will be addressed.
- The KTE methods are likely to increase the potential for the use and application of the research results.

Does the KTE plan describe ongoing collaboration with knowledge users?

- The researchers will be collaborating with individual(s) (e.g. a practitioner, policy maker, educator, decision maker, health care administrator, community leader, or an individual in a health charity, patient group, private sector organization, or media outlet) who are able to use the knowledge generated through research to make informed decisions about health policies, programs and/or practices.
- Effective linkages are in place or planned to facilitate this collaboration. For example, a project advisory committee that includes knowledge users that will meet during the project; planned stakeholder consultations; knowledge users as co-applicants and active members of the research team.
- As appropriate, knowledge users are actively engaged at different stages of the research cycle. This could include some or all of the following: framing research problem/questions, designing research methodology, collecting data, interpreting findings, disseminating findings, tailoring key/actionable messages to user audiences, facilitating implementation, etc.

Are steps set out to appropriately disseminate research results (end of project KTE)?

- The dissemination plan specifies audiences that should be engaged and informed of the research results (e.g. other researchers; health care managers, federal/provincial representatives; community/municipal organizations).
 - It is clear how and when each key audience will be involved/targeted.
 - Appropriate techniques (e.g. lay summaries, conference presentations, peer reviewed publications, non-peer reviewed publications, technical support, media releases, website postings, knowledge brokers, practical tools, etc.) will be used to disseminate results (in consideration of each target audience).
 - Knowledge users will actively participate in planning and facilitating dissemination of results, where appropriate.
- Are sufficient and appropriate KTE resources available to the team?**
- Eligible costs of KTE activities are specified in the budget and/or funded by an alternate source, as appropriate.
 - The KTE roles and time commitments of research team members and other knowledge user partners are specified.
 - Research team and knowledge user partners have requisite KTE-related experience and expertise to deliver KTE strategies described.
 - The team has confirmed access to the resources (e.g. funds, equipment, personnel, technical capacity, communications and/or knowledge brokering expertise) needed to carry out the planned KTE activities effectively.
 - Knowledge user support and participation is confirmed in a manner that demonstrates an understanding of their role, activities and time commitment. This could include (in descending order of preference): active engagement of knowledge users on the research team; co-funding support; commitment of in-kind resources and letter of support.

Summary and Where to Find Additional Information

The information provided in this Guide is meant to give an overview of KTE, from an HSFC perspective. There is no *one size fits all* when it comes to KTE. Each research project could have a very different approach, depending on the topic, the stage of the research and the complex dynamics of the knowledge user communities. Many different factors must be taken into consideration when piecing together a tailored KTE plan.

There are many resources available to provide more in depth information about KTE theories and practice, as well as case studies of successful (and not-so-successful) KTE.

Further resources

KTE guides, planning tools and links

[About Knowledge Translation](#)

(Canadian Institutes of Health Research)

[Knowledge Translation Planning Tools for Stroke Researchers](#)

(Atlantic Health Promotion Research Centre and Laval University Chair on Knowledge Translation)

[Knowledge Exchange Guide for Women's Health Researchers](#)

(Women's College Research Institute)

[From Research to Practice: A Knowledge Transfer Planning Guide](#)

(Institute for Work and Health)

[Knowledge Exchange Resources](#)

(Canadian Health Services Research Foundation)

[What is Knowledge Transfer and Exchange? How IWH Gets Research to Decision Makers](#)

(Institute for Work and Health)

[KTE Resources](#)

(Nova Scotia Health Research Foundation)

Case examples of KTE

[Moving Population and Public Health Knowledge Into Action](#)

(CIHR Institute of Population and Public Health and the Canadian Population Health Initiative)

[Evidence in Action, Acting on Evidence](#)

(CIHR Institute of Health Services and Policy Research)

KTE theory and frameworks

[Demystifying Knowledge Translation for Stroke Researchers: A Primer on Theory and Praxis](#)

(Atlantic Health Promotion Research Centre and Laval University Chair on Knowledge Translation)

[Using "Linkage and Exchange" to Move Research into Policy at a Canadian Foundation](#)

(Lomas J. *Grant Watch* 19(3): 236-240)

[Lost In Knowledge Translation: Time For A Map?](#)

(Ian D. Graham, Jo Logan, Margaret B. Harrison, Sharon E. Straus, Jacqueline Tetroe, Wenda Caswell, Nicole Robinson)

[Knowledge Translation: Introduction to Models, Strategies, and Measures](#)

(Sudsawad, P. (2007). Austin, TX: Southwest Educational Development Laboratory, The National Centre for the Dissemination for Disability Research)