

Riding the Knowledge Translation Roundabout:

Lessons learned from the Canadian Institutes of Health Research Summer Institute in Knowledge Translation

¹Michelle E. Kho, BHSc(PT), MSc, ^{2,3}Elizabeth A. Estey, BA, MA, ⁴Ryan T. DeForge, MSc, ⁵Leanne Mak, BA, MA, and ⁶Brandi L. Bell, BA, MA

¹Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, ON, Canada

²Centre for Aboriginal Health Research, University of Victoria, Victoria, BC, Canada

³Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON, Canada

⁴Department of Health and Rehabilitation Sciences, The University of Western Ontario, London, ON, Canada

⁵Department of Psychology, University of Manitoba, Winnipeg, MB, Canada

⁶Comprehensive School of Health Research, University of Prince Edward Island, Charlottetown, PEI, Canada

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Corresponding author for the group:

Michelle E. Kho
McMaster University
1200 Main Street West
MDCL 3200
Hamilton, ON
L8N 3Z5
Canada
Phone: (905) 525-9140 x22012
Fax: (905) 526-6775
e-mail: khome@mcmaster.ca

Abstract

Background: Funding the education and training of the next generation of health researchers is a key mandate of the Canadian Institutes of Health Research (CIHR) knowledge translation (KT) portfolio. The field of KT is growing daily; thus, the training and development of a new generation of KT researchers is essential.

Methods: Using curriculum documents, participant evaluations, and self-reflection, this paper describes a unique Summer Institute hosted by the CIHR in Cornwall, Ontario, Canada. We outline the key aspects of a successful training initiative that could inform organizations and agencies worldwide with an interest in or who have a mandate for KT.

Results: This work provides potential funders, faculty and students with an inside look into the purpose, process, and outcomes of such training initiatives.

Conclusions: National and international KT organizations, research institutions, and funding agencies are encouraged to consider replicating the training model employed here, as investment into KT personnel will foster the advancement of the field within and beyond local borders.

To the individual who devotes his/her life to science, nothing can give more happiness than when the results immediately find practical application. There are not two sciences. There is science and the application of science, and these two are linked as the fruit is to the tree.

- Louis Pasteur, 1871 (from presentation by Ian Graham, 2008 CIHR Knowledge Translation Summer Institute)

Introduction

Knowledge translation (KT) is a young field that is grappling with its definition, terminology, and methodologies ^{1 2}. At the most basic level, however, KT is about putting knowledge into action. In this paper, we use the Canadian Institutes of Health Research (CIHR) definition of KT: *“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”* ³. With a legal mandate for KT, the CIHR has made significant contributions that are recognized ⁴ both nationally and internationally ⁴. Funding education and training of the next generation of Canadian health researchers in KT is an important part of the CIHR’s KT portfolio; formal opportunities to develop and train new KT researchers and experts are needed by health care systems to ensure that a mandate for knowledge translation is sustained within the research and decision making communities ³.

One example of a training initiative is the CIHR’s Innovation in Knowledge Translation Research and Knowledge Translation Summer Institute (KTSI), which occurred from June 22-25, 2008 in Cornwall, Ontario, Canada. This intensive, 4-day strategic capacity-building institute was funded by the CIHR’s Institutes of Health Services and Policy Research (IHSPR), Population and Public Health (IPPH), and the

Knowledge Synthesis and Exchange Branch. Dr. Jeremy Grimshaw of the CIHR funded KT-ICEBERG (Improving Clinical Effectiveness through Behavioural Research Group) ⁵ and the Clinical Epidemiology Program of the Ottawa Hospital Research Institute (OHRI) was the host. Through faculty engagement and a variety of different teaching methods, 30 Canadian trainees actively learned about the science of KT.

The KTSI had three specific aims, focusing on Health Services and Policy or Population and Public Health areas:

1. Explore the challenges of planning and carrying out Knowledge Translation Research and Knowledge Translation involving and/or engaging different stakeholder groups;
2. Increase the understanding of concepts, methods and theories relevant to Knowledge Translation Research, including
 - a. Learning about the concepts that underlie the evidentiary base for effective KT targeting different decision making groups
 - b. Investigating the contribution of different disciplinary and methodological approaches;
3. Explore ethical issues associated with knowledge Translation Research and Knowledge Translation

In contrast to a meeting report written by course tutors, we are five of the meeting participants (brought together through small group work during the KTSI) and present an end user perspective of this training initiative. Using curriculum documents, participant evaluations, and self-reflection, we use this paper to share the teaching model of the KTSI curriculum, document our experiences, and present some of the key

lessons learned. We believe that the KTSI model is a helpful starting point to inform other funding agencies or research groups who wish to develop new researchers and experts in the KT field.

The KTSI Structure and Curriculum

The application process

Over 150 trainees applied to fill the 30 spots available for the KTSI through a competitive process. The CIHR encouraged applications from different disciplines; however, applicants must have had research interests in KT research or in integrating KT into their research. The selection committee assessed each application based on the candidate's academic status (5 points, preference to PhD students or post-Doctoral fellows), research awards held (5 points, preference to those holding research awards) and written responses to 3 essay questions (40 points; Table 1 outlines the KTSI questions applicants completed). Two independent reviewers assessed each application using a block design so that each reviewer was also paired with every other reviewer for at least 5 applications. The a-priori cutoff score for inclusion was 80% (40/50).

Almost all successful applicants (97%) were enrolled in doctoral studies or held post-doctoral fellowships focused on KT, and 80% held CIHR awards. Participants represented 16 different Canadian institutions, and a variety of faculties and departments, including communications, engineering, health promotion, and political science. Appendix A outlines the research projects and interests of the authors (Question 1 answer).

Curriculum

Twelve faculty with KT expertise representing Canada, the United States, and the United Kingdom, shared their knowledge and experience with trainees. Faculty purposefully designed the curriculum to expose participants to basic research methodology in KT, varied areas of KT research and applications of KT targeted towards different stakeholder groups (e.g., public, clinicians, and policy makers), international perspectives of KT, and ethics of KT research. The KTSI included plenary presentations, concurrent sessions aimed at skill building in methods and/or research techniques and interactive case studies. A small group activity focused on developing, implementing, and evaluating a KT strategy encouraged students to collaborate together to prepare a presentation on the final day of the Institute. Faculty mentors acted as guides and facilitated the small group meetings to ensure that the students understood the task requirements. (Table 2 outlines the KTSI faculty, Table 3 describes the daily program and curriculum, and Table 4 outlines the small group project).

Among trainees, there was a sense that the mix of different learning forums informed by educational theories about adult learning factored greatly into the success of the KTSI. For example, didactic lectures from faculty, one-on-one meetings between trainees and faculty, and active learning sessions where we worked through a “real” KT problem in small groups enabled an effective learning environment. From our perspective, the small group work provided the most useful opportunity to apply our new and existing knowledge of KT because it gave us time and space to interact with our peers and to learn by doing. Thus, we had the freedom to learn as we worked, the

chance to turn to faculty mentors when we needed them, and the opportunity to see first-hand the complexity, confusion, and multiple stages required in developing a KT strategy.

In our small group task, we developed a KT strategy to reduce inappropriate antibiotic use in primary care (Table 4, task 5; Appendix B). As a diverse multidisciplinary group, we struggled with our different (and sometimes conflicting) perspectives, which varied from perceptions of health care terminology (e.g., definition of primary care) to different conceptual approaches to problem-solving (e.g., use of logic models). Our facilitators helped us constructively negotiate our differences by enabling group synergy, reinforcing trust and respect among team members, and creating a safe space for diverse voices. We found that working through the task was an important part of experiencing how to “do” KT research. Thus, our group work informs our lessons presented herein. Appendix C outlines our slide deck from our final presentation.

Key Lessons Learned

Because the KTSI provided us with many diverse opportunities to learn and share knowledge, we all continuously drew our own lessons and ideas. However, there were some key lessons that resonated within our small group. We share these lessons here because we think they highlight the essence of our experience and demonstrate how education and training can facilitate a deeper understanding and passion for KT. Our discussion will also highlight the implications of these lessons for future training initiatives.

1. KT is interdisciplinary and collaborative

Because the goal of KT is to use research in health care practice, it inherently involves partnership. Therefore, researchers from various disciplines (e.g., sociology, medicine, psychology, nursing, nutrition, engineering, etc.) engage in KT research and we need different people to fill many roles within the context of the research. The CIHR distinguishes between end of grant KT and integrated KT (IKT) ³⁶. In the former case, this partnership may extend beyond the core research team at the end of the project to include communications experts to help with the dissemination of findings. In the latter, partners are engaged throughout the research process, from the development of the research question to its dissemination. Thus, IKT is often likened to participatory action research (PAR), which includes similar principles of engagement, partnership, and reciprocity in research ⁷⁸.

2. Negotiation skills are integral

We learned that because KT is interactive and collaborative, good negotiation skills and an effective mediation strategy are necessary to keep a large-scale research project, including its multiple researchers, partners, and support staff, on track. Through our group work, we identified the importance of negotiation and found that even in this brief time, creating a safe space to allow team members to express ideas, and finding ways to manage our differences in opinions and perspectives were keys to our success. We appreciated our assigned faculty members who acted as facilitators and content experts.

3. The KT process is complex, confusing, and multifaceted

The plenary sessions, and particularly our small group work, taught us that having negotiation strategies and supports are essential in the “real world” of KT.

While this means that KT research is often “messy” it also means that it is interesting, engaging, and can be an incredible learning experience for the research team. For example, although the small group work was complex and frustrating at times, we ultimately connected as a team, learned a lot about ourselves and about each other, and gained valuable real-world experience.

4. Use the most rigorous methods of inquiry to answer different research questions

Although most of the research presentations at the KTSI focused on quantitative methods, participants expressed interest in hearing about research utilizing qualitative and/or mixed methods to understand and evaluate KT. We were reminded at the KTSI to be cautious not to fall into an “us vs. them” (i.e., qualitative vs. quantitative methodologies) quagmire in doing KT research, but instead to foster interdisciplinary research and evaluation in addition to ensuring interdisciplinary care provision in health care.

The lessons described above exemplify the breadth and depth of the information gathered by participants at the KTSI. We received a sound understanding of the theory and practice of KT and had a healthy discussion about the benefits of qualitative and quantitative methods. We believe, however, that the overall success of the Institute was due to the adult-centered education techniques and opportunities to actively apply our knowledge in the small group project. Opportunities like the KTSI, and the lessons they provide trainees are truly enriching and will have a long-lasting effect on the discipline of KT.

Riding the KT Roundabout – Reflections on the KTSI

For our group, Dr. Melissa Brouwers's presentation and her metaphor of a traffic roundabout helped us make sense of the lessons we learned and experiences we had at the KTSI. As Dr. Brouwers explained, in KT, the continuous stream of traffic around the central island represents the core research team in a KT project: this group has a constant presence and is engaged throughout the project. The vehicles entering in and out of the roundabout represent the various partners and stakeholders (e.g., community members, content experts, service delivery personnel, methodological experts, policy makers, users, evaluators, etc.) who provide input and expertise along the way. Engaging people at the right time and the right place is essential for ensuring that there are no KT accidents!

While the roundabout metaphor presented by Dr. Brouwers was useful for understanding the process of KT research, we also found that it spoke to our group's experiences at the KTSI. In essence, we, the participants, are the next generation of KT researchers and the KTSI taught us the initial "rules of the road." For instance, the activities of the Institute helped us learn how to negotiate the complexities of the field and understand its multiple dimensions. Both formal and informal mentorship provided by the faculty supported and encouraged us to chart a path of our own, learn from our own mistakes, and reach our own conclusions. By way of modeling and actively engaging in mentorship, the KTSI faculty members helped trainees realize how and when to utilize each other's strengths to overcome our individual and collective weaknesses.

KTSI Workshop outcomes

The KTSI facilitated many invaluable opportunities for its participants, and we suggest this model may be helpful to inform future training initiatives internationally. The KTSI formed an international network of participants with interests in KT and facilitated important interpersonal relationships between trainees and faculty. All attendees expressed interest in maintaining relationships, keeping abreast of each other's work, and participating in future KT training opportunities. Post-KTSI, the faculty initiated the development of an electronic mailing list and website informing participants of upcoming international KT opportunities for training and funding (<http://kclearinghouse.ca/home>). This paper is just one example of the many outcomes that have arisen from the KTSI's network and faculty-trainee mentorship relationships. In another example, electronic communication between KTSI participants and faculty helped inform the curriculum for a conference workshop on KT; one participant secured a job following the KTSI. The variety of outcomes from the KTSI (e.g., newly formed relationships, sharing of ideas and resources, active scholarship) are a testament to the success of the workshop.

Strengths and limitations of the KTSI

Participant feedback identified the following strengths of the workshop: the breadth and variety of workshop content, enthusiasm of faculty members, opportunities to interact with faculty members, and career planning and mentorship discussions. Suggestions for improvement included allowing more time for informal discussions and

networking among participants and faculty, more discussion on use of qualitative methods and health economics in KT, and discussions of additional applications of KT in other aspects of health (e.g., organizational, social, educational).

From our perspective, key strengths of the KTSI included the interdisciplinary backgrounds of the participants, use of adult-centered educational learning techniques, and opportunities for active learning through small group projects. Suggestions for improvement include providing more information on the complementary nature of qualitative and quantitative methods, more opportunities to interact with faculty, and more detailed discussion of career options. We suggest that considerations for future initiatives include facilitating ongoing communication between participants and faculty, and offering future opportunities for in-person interactions between participants and faculty.

Conclusions

We take away from our first traffic lesson provided at the KTSI insight about the importance of relationships, the complexity of interactions, the significance of timing, and the potential for ingenuity and innovation in the field of KT. These lessons are important for us as we strive to situate ourselves within the field of KT research, and for others interested in and/or already engaged in the field. Because of our positive experiences at the KTSI and the proven benefits of mentorship and training, we advocate for a continued focus on the next generation of KT researchers. We encourage other national and international KT organizations and funding agencies to consider replicating the training model employed here, as investment into KT personnel

will foster the advancement of the field within and beyond local borders.

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Table 1: Applicant questions

1. Write a brief description describing your current research project or plans, and how KT and/or KT research is embedded within them (maximum 300 words).
 2. Write a brief description of your expectations of the Summer Institute on Knowledge Translation and Knowledge Translation Research and how the Summer Institute experience fits with the direction of your studies or career path (maximum 500 words).
 3. Please outline here any voluntary, work or practice experience that you have that would be relevant for understanding why you wish to attend our Summer Institute and the experience that you bring with you (maximum of 500 words).
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Table 2: Faculty members at the 2008 Canadian Institutes of Health Research Summer Institute

Name	Title(s)	Affiliation(s)
Laurie M. Anderson, PhD	Health Scientist	US Centres for Disease Control and Prevention
Richard Baker, MD	Professor of Quality Health Care Head, Department of Health Sciences	University of Leicester, United Kingdom
Melissa C. Brouwers, PhD	Associate Professor Provincial Director, Program in Evidence-based Care Project Lead, Capacity Enhancement Project	Department of Clinical Epidemiology and Biostatistics, McMaster University, Canada Cancer Care Ontario Canadian Partnership Against Cancer Corporation
Donna Ciliska, RN, PhD	Professor, School of Nursing Scientific Director	McMaster University, Canada National Collaborating Centre for Methods and Tools
Jill J. Francis, PhD	Health Psychology Lead, Health Services Research Unit	University of Aberdeen, United Kingdom
Ian D. Graham, PhD	Vice-President of Knowledge Translation	Canadian Institutes of Health Research
Jeremy M. Grimshaw, MD, PhD	Director, Clinical Epidemiology Program Canada Research Chair in Knowledge Transfer and Uptake	Ottawa Health Research Institute, Canada University of Ottawa, Canada
John N. Lavis, MD, PhD	Director and Investigator Canada Research Chair in Knowledge Transfer and Exchange	Program in Policy Decision-Making McMaster University, Canada
Doug G. Manuel	Senior Scientist Associate Professor	Institute of Clinical Evaluative Sciences, University of Toronto, Canada Department of Public Health Sciences, University of Toronto

Name	Title(s)	Affiliation(s)
		Canada
Craig R. Ramsay	Programme Director Senior Statistician	Health Care Assessment Program of the Health Services Research Unit, Aberdeen, United Kingdom
Jon Salsberg, MA	Research Manager	Department of Family Medicine McGill University, Canada
Sharon E. Straus, MD, FRCPC, MSc	Associate Professor Canada Research Chair in Knowledge Translation	Department of Medicine, University of Calgary, Canada Department of Medicine, University of Toronto, Canada Li Ka Shing Knowledge Institute, University of Toronto, Canada
Charles Weijer, MD, PhD	Canada Research Chair in Bioethics	University of Western Ontario, Canada

Table 3: Curriculum at the 2008 Canadian Institutes of Health Research Summer Institute

Activity	Presenter	Topic
Day 1		
Welcome	Jeremy Grimshaw	
Plenary	Ian D. Graham	Knowledge translation at CIHR <ul style="list-style-type: none"> • CIHR’s conceptualization of KT • Presentation of CIHR’s definition of KT (integrated and end of grant) and CIHR’s KT strategy³ • Overview of CIHR’s KT funding opportunities
	Laurie M. Anderson	Knowledge for knowledge translation <ul style="list-style-type: none"> • Overview of the challenges faced in utilizing systematic reviews for policy-making purposes
Plenary	John N. Lavis	Knowledge translation for policy makers <ul style="list-style-type: none"> • Presentation on KT in policy contexts, and the similarities and differences between policy and clinical KT practices
In the spotlight	Ian D. Graham	Overview of his academic and career path from graduate school to current professional position.
Day 2		
Plenary	Jon Salsberg	Integrated knowledge translation (IKT) <ul style="list-style-type: none"> • Overview of IKT in contrast to end-of-grant KT: Emphasis of IKT on researcher-participant collaboration throughout the entire research

Activity	Presenter	Topic
		process ⁷
Introduction to group work	Jeremy Grimshaw	
Group work		
KT in Action	Melissa C. Brouwers	<p>Advancing the quality of cancer care: An intersection between KT/KTE research, a Health Service, and a Health Care System</p> <ul style="list-style-type: none"> • Knowledge translation described as a traffic roundabout and the need to carefully engage different stakeholders at the right time, optimizing their expertise. • Discussion of the role of knowledge transfer techniques in helping health care providers, administrators, and government make better decisions. • Description of Cancer Care Ontario's Program in Evidence-Based Care evidence-based advice incorporating stakeholders' perspectives in evidence production and review.
Plenary	Sharon E. Straus	<p>Knowledge translation targeting health care professionals</p> <ul style="list-style-type: none"> • Outline of different means of assessing practitioner needs, emphasizing the importance of local context • Discussion of barriers to knowledge-to-action (e.g., time, skepticism, accessibility of evidence, etc.) • Overview of strategies for assessing and evaluating KT interventions
Plenary	Jill Francis	<p>Behavioural approaches to knowledge translation</p> <ul style="list-style-type: none"> • Consideration of the usefulness and application of theories (i.e., theory of planned behaviour) in shaping a KT strategy.⁹

Activity	Presenter	Topic
		<ul style="list-style-type: none"> • Discussion of some factors involved in behaviour change when considering the effects of a KT intervention.
Group work		
Plenary	Jill Francis and Jeremy Grimshaw	Developing knowledge translation interventions <ul style="list-style-type: none"> • Discussion of behaviourally-focused approach to informing knowledge translation interventions • Use of intervention mapping and matching intervention techniques to theoretical constructs to strategically design studies¹⁰
Discussion / Group task	Sharon E. Straus	Mentorship ¹¹
Day 3		
Plenary	Jeremy Grimshaw	Knowledge translation research <ul style="list-style-type: none"> • Overview of the inherently interdisciplinary nature of KT research as a relatively new and broad field • Current evidence base provides little practical guidance for health care systems about which interventions are best • An emerging body of evidence shows that it is possible to change stakeholder decisions and behaviours
Group work		
KT in Action	Doug Manuel	KT in action: Population benefit of Canadian Lipid Guidelines <ul style="list-style-type: none"> • Overview of a data-driven approach to estimate the population impact of

Activity	Presenter	Topic
		implementing Canadian lipid guidelines ¹² <ul style="list-style-type: none"> • Describes <i>synthesis, partnerships, & evaluation</i> as three fundamentally important components of successful KT
Plenary	Craig Ramsay	Evaluating knowledge translation interventions <ul style="list-style-type: none"> • Cluster Randomized Trials (RCT) as the 'gold standard' for evaluating KT • Advantages of using RCT: evidence that the effects of the KT intervention are attributable to the intervention, i.e., higher internal validity. Challenges of using RCT: must be cautious of inter-cluster effects; need large sample sizes • Interrupted Time Series design an alternative if a RCT is not possible; this mitigates some of the error inherent in simple pre-post designs
Group work		
Plenary	Donna Ciliska	Knowledge translation in public health <ul style="list-style-type: none"> • Overview of the National Collaborating Centre for Methods and Tools, which focuses on methods and tools for knowledge synthesis, translation, and exchange • The Center conducts KT in public health, evaluation studies, and capacity development and provides tools such as PublicHealth+, health-evidence.ca, etc. • Outlined one particular study on the use of a knowledge broker in moving evidence into practice for obesity prevention
Plenary	Richard Baker	United Kingdom perspectives <ul style="list-style-type: none"> • Provided an overview of the national improvement program and pay for performance scheme in the UK

Activity	Presenter	Topic
Faculty and student interaction		<ul style="list-style-type: none"> • Described the impact of the 1997 election of the New Labour Party in the UK, thus providing a historical context to the progress of KT in the UK <p>Trainees had opportunities to book 15-minute one-on-one meetings with faculty members of their choice to discuss career plans or research.</p>
Day 4		
Plenary	Charles Weijer	<p>Ethics of knowledge translation and knowledge translation research</p> <ul style="list-style-type: none"> • Provided an overview of research ethics and implications for knowledge translation research • Initiated a healthy discussion of differences between quality assurance initiatives and research using a current exemplar
Group presentations	Trainees	

Table 4: Small Group Task

1. Tasks

1. Design a knowledge translation strategy for CHSRF *Evidence Boost* – Allow midwives to participate as full members of the healthcare team.
 2. Design a knowledge translation strategy for CHSRF *Mythbusters* – The risks of immunizing children often outweigh the benefits.
 3. Design a knowledge translation strategy for CHSRF *Mythbusters* – Direct-to-consumer advertising is educational for patients.
 4. Design a knowledge translation strategy for the Capacity Enhancement Program of the Cancer Guidelines Action Group of the Canadian Partnership Against Cancer Corporation.
 5. Design a knowledge translation strategy to reduce inappropriate use of antibiotics for upper respiratory tract infections in primary care settings.
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2. Design and evaluation considerations

1. What should be transferred? To whom should research knowledge be transferred? With what effect should research knowledge be transferred?
 2. What are the likely determinants (barriers and facilitators) of knowledge translation?
 3. By whom should research knowledge be transferred? How should research knowledge be transferred?
 4. How will you know whether the KT strategy was effective? How will you know why your KT strategy was/ was not effective?
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Legend for Table 4: In this table, we outline the 5 different KT challenges taken on in the small group work as well as the design and evaluation considerations for the small group tasks. Acronyms: CHSRF – Canadian Health Services Research Foundation.

Appendix A: Authors’ research and relationship to KT and/or KT research (Essay question 1)

Author	Write a brief description describing your current research project or plans, and how KT and/or KT research is embedded within them.
Bell	<p>Knowledge translation issues have become important in my current studies and work. I am completing my doctoral dissertation on Canadian youth as participatory citizens and my present employment as a researcher with the CIHR-funded Atlantic Networks for Prevention Research (ANPR), presents a strong emphasis on KT issues.</p> <p>Concerning my own research, I am eager to better understand how to translate my findings beyond an academic environment in order to influence youth-focused policy and community-level change. My doctoral research and thesis writing have helped me to develop a number of important skills; however, KT beyond academia is rarely addressed. I welcome the opportunity to develop my understanding of KT in order to apply it effectively in the future development of my own research, perhaps as a post-doctoral fellow.</p> <p>In my capacity as a researcher with the ANPR, KT is at the core of the project goals, particularly developing ways to facilitate meaningful communication between the stakeholders involved at the micro and macro levels of school health: students, parents, teachers, administrators, community organizations, and policy makers. It is a challenge to effectively communicate research goals and findings among these groups, particularly considering differing language capacity, diverse backgrounds, and existing inequalities. In addition, KT forms the basis of successful collaboration with these groups towards developing and implementing participatory research projects. Sound KT research is fundamental to the health of communities, schools, and youth yet there are many gaps in the understanding and development of means for collaboratively working towards school health goals in Atlantic Canadian communities.</p>
DeForge	<p>I plan to examine and further develop the Promoting Action on Research Implementation in Health Services (PARHIS) framework developed by Kitson and colleagues (1998, 2008), whereby the Successful Implementation of change is deemed a function of the Evidence being introduced, the Context into which it is being introduced, and the way in which change is Facilitated.</p> <p>Such an endeavor will be underpinned by a critical realist philosophy. I mention this as it has important ramifications in terms of how Evidence is conceived. Specifically, “evidence” will be considered along a continuum rather than a hierarchy, affording equal privilege to quantitative, qualitative, and experiential knowledge. This is consistent with a critical realist approach to inquiry in that it attends to ontological, epistemological, practical, as well as relational dialectical dialogue.</p> <p>Methodologically, critical ethnography will be layered upon my philosophical underpinnings as a means of examining the values, beliefs and behaviours that exist within the healthcare setting I engage with. In doing so, I and my participants will sensitize ourselves to the Contextual nuances of the setting, particularly with regards to where power (disparity) lies, which will be essential to Successful Implementation.</p> <p>My Facilitation strategy will draw on theories of social change and of health promotion, with a particular focus on empowerment. This too remains consistent with critical realism as I seek to provide space and/or voice for that which is (or those who are) key mechanism(s) for triggering desired changes.</p> <p>Finally, as a means of both Facilitating change and measuring Successful Implementation, I will adapt an existing goal attainment metric to my research, affording me a tool that: enables users to individualize goals within a specific setting; individualizes the scale on which attainment is measured; accommodates</p>

Author	Write a brief description describing your current research project or plans, and how KT and/or KT research is embedded within them.
	multiple goals; and permits calculation of an overall score than enables comparisons between and within settings.
Estey	<p>Exposure to documentation of the disproportionate burden of ill health faced by Aboriginal Peoples in Canada through my academic and work experiences has raised questions for me about the gap between what is known and what action is being taken to improve Aboriginal health in Canada. I have most actively explored this puzzle of knowledge translation (KT) through my Interdisciplinary (by special arrangement) Master’s degree at the University of Victoria (UVIC). My thesis was grounded by a conceptual framework, which synthesized the KT literature with the Aboriginal health research literature. Using this framework as a guide, this study explored the idea of KT within one Aboriginal health research context – the Network Environments for Aboriginal Research British Columbia (NEARBC). Concepts, ideas, and patterns drawn from the systematic thematic analysis of semi-structured qualitative interviews highlighted the complexity of Aboriginal KT and the challenges that lie ahead.</p> <p>In order to build on the lessons learned from this work and further engage with the topic of Aboriginal KT, I will continue my research as a Doctoral student in the Political Science department at UVIC in September. The broad research question driving my PhD will be: “what are the theoretical and practical components of knowledge translation in Aboriginal health?” Through qualitative research methods, such as semi-structured interviews and open-ended questionnaires, researchers, Aboriginal communities, policy-makers, and practitioners will be asked to comment on what knowledge they think should be translated, why this knowledge should be translated, and how this knowledge should be translated. While seemingly straightforward, these questions touch on deep philosophical issues related to KT, such as the classification of knowledge, the purpose of knowledge, and the reasons why knowledge should be transformed into action.</p>
Kho	<p>Can Knowledge Translation (KT) happen too soon? The evolution of an evidentiary base of new healthcare technologies (HT) often unfolds with contradictory information of variable quantity and quality. However, policy decisions, health care resource allocation and implementation in clinical settings often occur before the evidence matures with definitive results. Consider trastuzumab (Herceptin) for early stage breast cancer. Initial data were only publicly available as a conference presentation, and, based on these data alone, patients and clinicians immediately demanded access to the HT. Canadian policymakers, faced with incomplete information, were forced to make a funding decision, balancing promising initial results, no survival data, cardiac side effects, and tremendous costs. With an aging population and limited resources, the Canadian healthcare system is vulnerable to making HT decisions in this suboptimal manner. The purpose of my research program will address these limitations by developing, applying, evaluating and refining 2 new methodological approaches to evaluate new HTs, specifically: 1. To examine the completeness of reporting and natural history of scientific abstracts; and 2. To characterize the quantity, quality, and consistency of data through a new methodology named the Systematic Bibliometric Review (SBR).</p> <p>My research program will utilize new methodologies and tools to objectively examine information on new HTs. Scientific abstracts will be critically assessed. The proposed new SBR methodology will describe the chronology of benefit and harm disclosure, incorporate quality assessment and temporal analysis to examine the susceptibility of citations to bias and change over time, and provide a comprehensive profile of an emerging technology, including initial, non-randomized data. Rituximab for non-Hodgkin’s Lymphoma is a compelling example to</p>

Author	Write a brief description describing your current research project or plans, and how KT and/or KT research is embedded within them.
	demonstrate the value of these combined approaches for patients, clinicians, researchers, and policy makers.
Mak	My research focuses on knowledge translation by examining parents' desire for involvement in decision making concerning treatment, what information they wish to have concerning various treatments for child anxiety, what information is important in their decision making, and how they wish to receive the information. Our team will use the findings of this research to develop knowledge translation information for parents of anxious children and for clinicians providing information to parents. One type of knowledge translation product will be decision aids for parents to facilitate informed decision-making.

Additional files provided with this submission:

Additional file 1: revised_cihr-ktsi (may-06-2009)_track.doc, 179K

<http://www.implementationscience.com/imedia/1741663808273883/supp1.doc>

Additional file 2: appendix b (word 2003).doc, 35K

<http://www.implementationscience.com/imedia/1457886002738844/supp2.doc>

Additional file 3: appendix c.pdf, 1427K

<http://www.implementationscience.com/imedia/1218418192738845/supp3.pdf>