Knowledge Translation by Research Theme

It’s important to describe the potential impact of your research in your funding application; it’s equally important to ask yourself – and tell the peer reviewers - ‘How am I going to help get my research used?’ You can help by embedding knowledge translation (KT) throughout your funding application. KT is the broad range of activities aimed at increasing the use of health research evidence; **KT can look different at different stages of research and across different pillars.**

Below are a few examples of KT activities and resources to explore as you consider what KT activities make sense - and are doable - within the context of your research project/program. You may even want to look at what other research pillars are doing around KT to give you additional ideas or speak with your colleagues to see what KT activities they have found successful in their research work.

For those who want a better understanding of how to increase value and reduce waste in research check out this series of papers in the *Lancet*.

Theme 1- Biomedical Research

**No researcher wants to see their work sit on a shelf and not be used by those who could benefit from it.** Unfortunately, that’s exactly what happens in most cases. An estimated 85% of research relevant to clinicians and patients is **wasted** and 30%-45% of patients don’t receive **optimal care**.

Knowledge translation (KT) is a *process* comprised of activities aimed at increasing the use of health research evidence. It differs from translational research which is *research* that aims to understand how to move research evidence through to practice or policy. If you were looking at the pathway from basic scientific discovery to population and public health, translational research would include potential application, efficacy, effectiveness and **impact studies**. In biomedical research the primary goal of translational research is to integrate advancements in biomedical science with clinical trials, taking research from the “bench-to-bedside”.

Evidence shows that passive forms of dissemination, such as scholarly publications, have only **limited impact**. While not all biomedical research is ready to be applied, a good knowledge translation plan increases the chance that discoveries are taken up in further research or to eventually to improve health care. The key questions are: who are the individuals/groups who will potentially use my research to advance it to the next level? When is the best time(s) during my research to engage them and how?

Examples of KT in biomedical research:

- Identifying and communicating with research users
\begin{itemize}
\item Reaching out to academics in other fields
\item Sharing discoveries with industry
\item Engaging in collaboration with clinical researchers
\item Disseminating research through academic presentations and conferences
\item Plain language summaries
\end{itemize}

This research paper, \textit{Lost in translation: the valley of death across preclinical and clinical divide – identification of problems and overcoming obstacles}, discusses issues and obstacles moving from preclinical to clinical research.

This research paper \textit{Translational research from bench to bedside} discusses strategies for bridging the gap between basic and clinical research.

This article, \textit{From bench to bedside: the growing use of translational research in cancer medicine}, highlights the importance of moving biomedical research to therapeutic strategies.

This report, \textit{Translational Research: An Emerging Trend in Biomedical Science}, presents ideas for how translational research can be implemented within various human disease models in order to find better therapy for patients.

**Theme 2- Clinical Research**

\textbf{No researcher wants to see their work sit on a shelf and not be used by those who could benefit from it.} Unfortunately, that’s exactly what happens in most cases. An estimated 85% of research relevant to clinicians and patients is \textit{wasted} and 30%-45% of patients don’t receive \textit{optimal care}.

A good knowledge translation (KT) plan for clinical research can involve both the translation of clinical knowledge into improved health practice/policy as well as communication with biomedical researchers regarding the outcomes of clinical trials in order to advance their discoveries. Clinical researchers are well placed to provide evidence to patients, clinicians, regulatory bodies and policy makers about the benefits or harms of medications and interventions through KT products targeted to each audiences’ unique context (e.g., guidelines, decision aid tools, briefing notes, presentations).

Examples of KT in clinical research:

\begin{itemize}
\item Creating up-to-date systematic reviews or other syntheses of global evidence
\item Communications/collaborations with researchers in other disciplines and pillars
\item Consultation with biomedical researchers about the results of clinical trials
\item Plain language summaries directed at mainstream media
\item Consultation/collaboration with patients in the development of research questions
\end{itemize}
This article, Knowledge translation of research findings, summarizes the five key questions to frame KT planning.

This clinical guideline on reducing pain during vaccine injections that was designed by a multi-disciplinary team of clinical researchers and clinicians.

This article, Translating research findings to clinical nursing practice, interprets KT literature for translating clinical research into practice.

This report fully reviews terminology, frameworks and processes involved with knowledge translation.

**Theme 3: Health Services Research**

No researcher wants to see their work sit on a shelf and not be used by those who could benefit from it. Unfortunately, that’s exactly what happens in most cases. An estimated 85% of research relevant to clinicians and patients is wasted and 30%-45% of patients don’t receive optimal care.

Evidence suggests that research is more likely to be applied when it is done in consultation or collaboration with those who will use it. Research users may include, for example, policy makers, practitioners, patients, the public or other researchers. Health services researchers are well placed to engage in integrated KT, engaging research users as research team members.

Examples of KT in Health Services Research:

- Engaging research users in the planning, implementation and evaluation of research
- Connecting with policy makers
- Creating media releases
- Co-creating with research users KT products (videos, articles, reports, websites) designed to engage the public in the research products or results.

This article, Achieving Research Impact Through Co-creation in Community-Based Health Services, discusses strategies for community/academic partnerships.

Lost in translation, It’s Time for a Map is a review of the terms and definitions used to describe the concept of moving knowledge into action.

This manual, a Guide to Knowledge Translation Planning at CIHR: Integrated and End-of-Grant Approaches, provides instruction and case examples.

This is a KT Planning template designed to guide researchers through embedding knowledge translation into a research project.
This new article, IKT Guiding Principles, was co-created by researchers, knowledge users and individuals with lived experience of spinal cord injury. MSFHR was part of this study as a partner organization supporting researchers to do IKT.

**Theme 4: Social, Cultural, Environmental, and Population Health Research**

No researcher wants to see their work sit on a shelf and not be used by those who could benefit from it. Unfortunately, that’s exactly what happens in most cases. An estimated 85% of research relevant to clinicians and patients is wasted and 30%-45% of patients don’t receive optimal care.

Knowledge translation encompasses all the activities that aim to increase the impact of research evidence on policy, practice and further research.

Evidence suggests that research is more likely to be applied when it is done in consultation or collaboration with those who will use the findings. Research users may include, for example, policy makers, practitioners, patients, the public or other researchers. Population Health researchers are well placed to engage in integrated KT, engaging research users as research team members.

Examples of KT in Population Health Research

- Engaging research users in the planning, implementation and evaluation of research
- Connecting with policy makers
- Creating media releases
- Co-creating with research users KT products (e.g. videos, articles, reports, websites) designed to engage the public in the research products or results.

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This manual, a Guide to Knowledge Translation Planning at CIHR: Integrated and End-of-Grant Approaches, provides instruction and case examples.

This is a KT Planning template designed to guide researchers through embedding knowledge translation into a research project.

This blog post looks at the importance of integrating of indigenous ways of knowing and health equity into KT approaches.
This new article, IKT Guiding Principles, was co-created by researchers, knowledge users and individuals with lived experience of spinal cord injury. MSFHR was part of this study as a partner organization supporting researchers to do IKT.