Lost in knowledge translation: Introduction to KT

Objectives

- To define knowledge translation
- To outline end-of-grant KT versus integrated KT
- To provide a framework for knowledge translation
- To describe KT Canada

Care Gaps

- 1/3 patients do not get treatments of proven effectiveness
- 1/4 patients get care that is not needed or potentially harmful
- Up to 3/4 of patients don’t get the information they need for decision making
- Up to 1/2 of clinicians don’t get the information they need for decision making
Care gaps

- Gaps between research evidence and clinical practice leads to practice variation
- Knowledge creation, distillation and dissemination are not sufficient to ensure implementation

“Evidence based medicine should be complemented by evidence based implementation”

Confusion about what KT is

- Transforming health research into action
- Commercialisation
- Bench to bedside
- Translational research
- Continuing education
- Continuing professional development
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.

- CIHR
- Adopted by WHO

**KT definition components**

- **Knowledge synthesis**: The contextualization and integration of research findings of 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) or 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.
Confusion about what it’s called

- Applied dissemination
- Research utilisation
- Implementation
- Evidence uptake
- Effective dissemination
- Diffusion
- Information dissemination and utilisation
- Knowledge adoption
- Knowledge synthesis, transfer and exchange
- Knowledge linkage and exchange
- Research into action/practice
- Translating research into practice

It is in the CIHR mandate:

OBJECTIVE

4. The objective of the CIHR is to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system, by...

Science of Knowledge Translation
Practice of Knowledge Translation
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.
  - 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.

- **Integrated KT**

End-of-grant KT

- Typical dissemination and communication activities undertaken by most researchers:
  - KT to peers such as conference presentations and publications in peer-reviewed journals.
- End of grant KT can involve
  - More intensive dissemination activities that tailor the message and medium to a specific audience.
  - More interactive approaches such as educational sessions with patients, practitioners and/or policy makers.

Framework for more interactive dissemination:

- Who are the end users of the research and who will be interested in knowing the results?
- What are the key messages?
- Who are the principal target audiences for each of these messages?
- Who is the most credible messenger for these messages and how do we engage them in communicating these messages?
- What KT strategy will we use?
An example

- Project to explore impact of mentorship for clinician scientists
  - Completed systematic reviews of mentorship interventions and of factors influencing academic career choice, and a qualitative study of mentorship
- Who would be interested in these results?
  - Funders, Department Chairs, University Admin, Researchers, Trainees

What are the key messages?

- We brought together a stakeholder group to discuss the results of the research and develop key messages
- 1.5 day workshop with funders, university administrators, clinician scientists at various stages of their career, experts in mentorship
- Discussion groups focused on contextualising the evidence and discussing barriers to use in the local setting

Key messages

- Mentorship strategies
  - Academic institutions need to establish a format to find a mentor
  - Department Chairs should create mentorship facilitators
  - Team mentorship should be considered
- Educational interventions
  - For mentors and mentees to be implemented by facilitators
- Role of AHFMR
  - Should enhance accountability of ‘mentoring’ component of the career awards
  - Should include mentorship in all career awards
Who are the principal target audiences for each message?

- Administrators at Universities, VP Research
- Department Chairs
- Researchers (mentors and mentees)
- Chairs of Research Institutes
- AHFMR

Who is the most credible messenger for each message?

- University administrators – we had a Vice Dean in our group who tackled this
- 2 of us also met regularly with the VP Research
- Department chairs – we identified local champions for mentorship amongst department chairs
- AHFMR assisted with this process and worked to engage administrators

Examples of our strategies
Consider:

- Your research team has recently completed a systematic review of the effect of case management on quality of life, mortality, admissions to hospital, and other clinical outcomes
  - OR, what is your end of grant KT plan?
- OR, consider your own research project:
  - What is your end of grant KT plan?
  - What are some of the challenges to this plan?

KT Canada

- Creating new knowledge about how best to achieve KT across different decision maker groups;
- Advancing the theory and methods of KT;
- Developing, testing, and commercialising tools and services aimed at sustaining KT; and
- Working with partners across the continuum of care to effect KT.

KT Canada

- 4 interlinked research programs that are directly aligned with the knowledge-to-action loop
  - Knowledge distillation
  - Determinants of knowledge use
  - Selecting, tailoring and evaluating effectiveness and efficiency of KT interventions, and
  - Sustaining KT
- Targeting 3 key stakeholder groups
Training Initiative

- Provide outstanding, innovative training centres and laboratories for trainees from various research disciplines to develop skills in KT and KT research;
- Link trainees and mentors to collaboratively advance the science and practice of KT; and,
- Partner with other national and international research groups to promote KT research and training.

Training Initiative

- **Stream 1.** graduate (MSc and PhD) and advanced (post-doctoral) training in the science of KT research;
- **Stream 2.** training in the basic principles of KT and KT research for researchers from other areas; and,
- **Stream 3.** basic training in KT for any knowledge users interested in enhancing their knowledge and skills for practising KT.

Warning: Beware the KT Imperative

- The “KT imperative” is the perceived need to do **everything** to encourage **everyone** to apply their research findings.
- Results from a single research study should be contextualized within a synthesis of global research results before **extra-ordinary** dissemination or implementation efforts.
- We need to bring common sense as well as academic rigour to bear on our decisions about the degree and intensity of KT activities warranted by a single research study – i.e. judicious KT.
Resources

- National KT Seminar Series: May 14, 2009
- http://ktclearinghouse.ca
- KT Consultation Service
  - This service will serve 3 different categories of participants:
    - Decision makers and knowledge users who are interested in enhancing their knowledge and skills for practising KT;
    - Researchers interested in developing a KT research project that is focused on advancing the science of KT; and,
    - Researchers from other fields who are interested in learning how to apply the basic principles of the practice of KT to their own work.
  - Submit your name and a description of the KT question you are trying to tackle including the rationale for this question.