Why did we develop PKT?
Today’s Roadmap

• Knowledge translation
  o Activity: Dissemination or Implementation
• Bringing research into practice
• Using evidence to get outcomes
• KT Theories and frameworks
• PKT Course
• Group discussion
What is Knowledge Translation?

St. Michael's
Inspired Care. Inspiring Science.
What is Knowledge Translation?

Knowledge translation:

- dynamic and iterative process includes **synthesis**, **dissemination**, **exchange** and ethically sound **application of knowledge**

- improves health services and products, and strengthen the health care system

- takes place within a **complex system of interaction**

CIHR definition ([www.cihr-irsc.gc.ca/e/29418.html](http://www.cihr-irsc.gc.ca/e/29418.html))
Why does KT matter?

Why does KT matter?

- It is estimated that approximately 85% of research resources are wasted
  - Low priority questions addressed
  - Important outcomes not assessed
  - For every 100 projects:
    - 50 not published
    - 25 not usable or replicable
    - 12.5 have serious design flaws
  = 87.5% wasted

Chalmers & Glasziuo (2009) Avoidable waste in the production and reporting of research evidence.
Different Terms for KT

Knowledge Transfer
Research Utilization
Research Use
Knowledge Exchange
Implementation Science
Knowledge Translation
Knowledge Mobilization
Knowledge Uptake
Dissemination and Diffusion
**KT: Dissemination and Implementation**

**Knowledge Translation**

Dissemination

- **Dissemination Practice**
  Purposive distribution of information and intervention materials to a specific audience. The intent is to spread information. (NIH)

- **Dissemination Science**
  The scientific study of processes and variables that determine and/or influence the spread/sharing of knowledge to various stakeholders. (NIH)

Implementation

- **Implementation Practice**
  The use of strategies to adopt and integrate evidence-based interventions and change practice within specific settings. (NIH)

- **Implementation Science**
  The scientific study of the methods to promote the uptake of research findings in clinical, organizational, or policy contexts. (Implementation Science journal)

Activity#1: Dissemination or Implementation

Read the following examples of projects and determine whether they constitute dissemination, implementation (i.e., KT practice), or dissemination science or implementation science (i.e., KT science).

Response options:
- Dissemination Practice;
- Implementation Practice;
- Dissemination Science;
- Implementation Science.
1. A research network developed and distributed summaries of their research findings to policy makers and clinicians.

**Knowledge Translation**

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2. A group evaluated whether leadership buy-in affects the sustainability of a program.

Knowledge Translation

Dissemination

Implementation

### Dissemination Practice
Purposive distribution of information and intervention materials to a specific audience. The intent is to spread information. (NIH)

### Implementation Practice
The use of strategies to adopt and integrate evidence-based interventions and change practice within specific settings. (NIH)

### Dissemination Science
The scientific study of processes and variables that determine and/or influence the spread/sharing of knowledge to various stakeholders.

### Implementation Science
The scientific study of the methods to promote the uptake of research findings in clinical, organizational, or policy contexts. (Implementation Science journal)
3. A journal is comparing two different guideline formats to determine which format clinicians find more helpful.

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Knowledge Translation

Practice

Science
4. Health facilities received tools, training and support to decrease staff practices that were associated with hospital-acquired infections.

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How do we bring research to practice?
The Knowledge to Action Model

Knowledge Creation Funnel

The **knowledge creation funnel** conveys the idea that knowledge needs to be increasingly distilled before it is ready for application.

- **Knowledge Inquiry:**
  First generation knowledge (e.g., broad base primary studies or information)

- **Knowledge Synthesis:** Methodologies for determining what is known in a given area or field and what the knowledge gaps are (e.g., systematic reviews)

- **Knowledge Tools/Products:**
  Refined knowledge for decision-making (e.g., guidelines, decision aids, algorithms)

The **action cycle** emphasizes the **dynamic action steps** needed to apply the knowledge created (in any sequence). It is intended to **deliberately** cause change.

Knowledge creation, distillation and dissemination are not sufficient to ensure behaviour change...

We need to effectively implement!
How do we use evidence to get outcomes?
What are we going to implement?

- Practice change must have high-quality research evidence of effectiveness that it can achieve desired outcomes
- Implementation strategies must be supported by implementation research evidence
- Implementation strategies must be linked to practice change through behaviour change theory
Operationalizing the KTA: Developing an ETP

LEGEND

A. Identify knowledge to action gaps
1. Describe your program’s long-term goal
2. Identify and consult with key stakeholders for your program
3. Define the practice change
4. Define the gap

B. Adapt knowledge to local context
5. Adapt the practice change

C. Assess barriers and facilitators to knowledge use
6. Identify barriers and facilitators
7. Organize barriers and facilitators to select individual barriers to the practice change
8. Map barriers and facilitators to a behaviour change framework

D. Select, tailor, implement interventions
9. Map barriers and facilitators to a behaviour change theory and implementation strategy
10. Select implementation strategies
11. Identify relevant barriers and facilitators for each implementation strategy
12. Develop key messages/actions for each selected strategy considering the relevant barriers and facilitators
13. Describe implementation strategy elements
14. Operationalize each implementation strategy

E. Bringing it all together
15. Develop a logic model
KT is the key to the black box of “what happened”
“ISLAGIATT” principle

"The Far Side" by Gary Larson.
Consider the evidence for implementation strategies

How confident are we that this activity is a good use of our resources AND improves outcomes?

Bumbarger & Rhoades, 2012
What are KT frameworks & theories and how do we use them?
Frameworks

To understand and/or explain influences on implementation and outcomes

Consolidated Framework for Implementation Research (CFIR)


Theoretical Domains Framework

Michie et al 2005 Qual Saf Health Care
Cane, O'Connor, Michie, 2012 Implementation Science
Theories

Prediction and causal mechanisms

**Diffusion of Innovations**


**Transtheoretical Model**


**Behaviour Change Wheel**
# PKT Course Components

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<th>Reading</th>
<th>Workshop</th>
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<td>Participants complete assigned readings on specific topic areas before each session, and may bring notes (e.g., observations, thoughts, questions) to each session.</td>
<td>Participants will take part in a 3-day in-person workshop which will cover the core modules of the course in detail.</td>
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<td>Participants will receive continued KT skill-building learning opportunities as they present their KT projects and receive feedback.</td>
<td>Participants will take part in interactive activities and contribute to group discussions. (e.g. group assignments, case examples, mock scenarios).</td>
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<td>Participants receive 3 hours of coaching support to discuss their project and get feedback from instructor.</td>
<td>Participants will receive take-home resources to facilitate KT capacity building at their home organizations.</td>
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Questions

1. Is KT relevant to your work? If so, how?

2. Is your organization interested in building KT capacity?

3. Are you familiar with any KT frameworks or theories? If so what?

4. Is the PKT course something that could assist you in your work? Could it assist projects that your colleagues are working on?
Today’s Roadmap Recap

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For more information about PKT

http://knowledgetranslation.net/capacity-building/our-courses/pkt

Are you interested in learning how to implement practices using comprehensive methods and the best available evidence?
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