

**Program in Policy Decision-Making**

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# **How Can Research Organizations More Effectively Transfer Research Knowledge to Decision-Makers?**

World Health Organization  
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# Overview



**Knowledge loop**

**Three models of knowledge transfer and uptake**

**Producer-push model (model 1)**

**Knowledge exchange model (model 3)**

**Take-home messages**

**Follow-up e-resources**

# Knowledge Loop



**Research funders fund research organizations (and researchers)**

**Research organizations produce research knowledge and transfer it to their peers (and hopefully to decision-makers)**

**Knowledge brokers transfer research knowledge to decision-makers and contextual knowledge to research organizations**

**Decision-makers make decisions that could be informed by research knowledge and often act as research funders**

# Knowledge Loop (2)



**Research knowledge can inform the decisions made by funders, research organizations, and knowledge brokers too**

**My focus here is how we can help research organizations (and to a lesser extent funders and knowledge brokers) more effectively transfer and facilitate the uptake of research knowledge**

**By focusing on what can be done better, I focus on the modifiable aspects of complex knowledge transfer and exchange processes and complex decision-making processes**

# Three Models of Knowledge Transfer and Uptake



**Researchers are responsible for transferring and facilitating the uptake of research knowledge (producer-push model)**

**Decision-makers are responsible for identifying and making use of research knowledge (user-pull model)**

**Researchers and decision-makers are jointly responsible for the uptake of research knowledge (exchange model)**

# Producer-Push Model



**Why is the issue of producer-push important?**

**What does the research evidence tell us about this issue?**

- Methods
- Findings

**Do we know whether current decision-making differs from informed decision-making?**

- Methods
- Findings

**Who should act and what should be done?**

# Why is this Issue Important?



**Lots of time and money are spent on the production of research knowledge**

**More value for money could be obtained by helping research organizations and knowledge brokers transfer research knowledge in ways consistent with our evolving understanding about how best to undertake knowledge transfer**

# What Does the Research Evidence Tell Us About this Issue?



## Methods

- Review conceptual frameworks for the transfer of research knowledge from a range of disciplinary and methodological perspectives
- Review empirical studies of the transfer and uptake of research knowledge from a range of disciplinary and methodological perspectives



# What Does the Research Evidence Tell Us About this Issue? (2)



## Findings

- What should be transferred? (1)
  - Transfer actionable messages based on bodies of research knowledge (create music, not noise)
- To whom should it be transferred and with what investments in targeting them? (2)
  - Fine-tune message and approach to knowledge transfer for each target audience and assist them in developing the skills to identify and use research knowledge
    - Possible target audiences include:
      - general public, patients/consumers, clinicians, health-system managers, R&D officers, and public policy-makers

# What Does the Research Evidence Tell Us About this Issue? (3)



## Findings (continued)

- By whom should it be transferred and with what investments in supporting them? (3)
  - Identify and work with or through the most credible messenger for each target audience
- How should it be transferred? (4)
  - Employ interactive processes
- With what effect should it be transferred? (5)
  - Measure success against achievable objectives
    - e.g., changing clinical practice, informing political debate

# Does Current Decision-Making Differ from Informed Decision-Making?



## Methods

- We surveyed 259 Canadian research-unit directors about their knowledge-transfer practices (roughly half in the health sector and half in the economic and social policy sector)
- Follow-up protocol included a post-card reminder, follow-up letter along with another copy of the survey instrument, second follow-up letter along with an endorsement letter (for health research organizations only), and a telephone reminder
- Response rates were 66% overall and 77% in the health sector
- Analyses include t-tests and ANOVA

**Principal caveat = social desirability bias**

# Does Current Decision-Making Differ from Informed Decision-Making? (2)



## Findings

- What is transferred? (1)
  - Only 30% of research organizations frequently or always develop actionable messages for decision-makers
- To whom is it transferred and with what investments? (2)
  - 60% tailor their approach to specific target audiences BUT
  - Only 20% of research organizations invest in developing knowledge-uptake skills among their target audiences
- By whom is it transferred and with what investments? (3)
  - 63% employ dedicated staff with KT duties BUT
  - Only 22% of research organizations invest in developing knowledge-transfer skills within their own organizations

# Does Current Decision-Making Differ from Informed Decision-Making? (3)



## Findings (continued)

- How is it transferred? (4)
  - Many research organizations engage representatives of their target audiences in each stage of the research process
    - 60% in knowledge-transfer stage
    - 42% in interpreting the research findings
- With what effect is it transferred? (5)
  - Only 8-12% of research organizations employ output measures (e.g., awareness, knowledge, attitudes, and use of research knowledge) to evaluate the impact of their knowledge-transfer efforts

# Who Should Act and What Should be Done?



## **Research organizations could enhance their approach to knowledge transfer**

- Develop actionable messages based on bodies of research knowledge (not only based on single research projects)
- Employ interactive processes to transfer these messages
- Conduct small-scale evaluations of the impact of their research and knowledge-transfer efforts, keeping in mind that there are different ways in which research knowledge can be used
  - Instrumental uses (sometimes called problem-solving uses)
  - Conceptual uses (sometimes called enlightenment)
  - Symbolic uses (sometimes called political or tactical uses)

**(Research funders also have a role to play)**

# References



**Lavis JN, Robertson D, Woodside JM, McLeod CB, Abelson J and the Knowledge Transfer Study Group (Brenneman Gibson J, Clarke K, Dobbins M). How can research organizations more effectively transfer research knowledge to decision-makers? The Milbank Quarterly, in press.**

**Lavis JN. Ideas at the margin or marginalized ideas? Non-medical determinants of health in Canada. Health Affairs 2002;21(2):107-112.**

**Lavis JN, Ross SE, Stoddart GL, McLeod CB, Evans RG. Do Canadian civil servants care about the health of populations? American Journal of Public Health, in press.**

# Exchange Model



**Why is the issue of exchange important?**

**What does the research evidence tell us about this issue?**

- Methods
- Findings

**Do we know whether current decision-making differs from informed decision-making?**

- Methods
- Findings

**Who should act and what should be done?**



# Why is this Issue Important?



**Only so much can be accomplished with the producer-push model for two reasons**

- only one “side” is learning (i.e., decision-makers)
- the learning material they are given is determined by the other “side” (i.e., researchers)

**Some people call this the “two communities” problem**

# What Does the Research Evidence Tell Us About this Issue?



## Methods

- Review conceptual frameworks for the uptake of research knowledge from a range of disciplinary and methodological perspectives
- Review empirical studies of the transfer and uptake of research knowledge from a range of disciplinary and methodological perspectives

# What Does the Research Evidence Tell Us About this Issue? (2)



## Findings

- Exchange relationships can bring about a cultural shift that facilitates the on-going use of research knowledge to inform decision-making, not just a one-off use of research knowledge
- Examples of such cultural shifts include the creation of a more decision-relevant culture among researchers and a more research-attuned culture among decision-makers

# Does Current Decision-Making Differ from Informed Decision-Making?



## Methods

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- Response rates were 66% overall and 77% in the health sector
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**Principal caveat = social desirability bias**

# Does Current Decision-Making Differ from Informed Decision-Making? (2)



## Findings

- 56% of research organizations engage their target audiences in establishing the overall direction of the research organization
- We don't know:
  - How much these target audiences were involved
  - Whether the involvement was perceived to be helpful by either researchers or decision-makers
  - Whether the involvement was a one-off initiative or part of an on-going exchange relationship
  - Whether the involvement has begun to translate into a cultural shift among researchers and decision-makers

# Who Should Act and What Should be Done?



**Research organizations could increase the chances that research knowledge will be used in future by investing in the development of an exchange relationship with a decision-maker partner**

**(Research funders could help to fund this investment)**

# References



**Lavis JN, Ross SE, McLeod CB, Gildiner A. Measuring the impact of health research. Journal of Health Services Research and Policy, in press.**

**Lavis JN, Ross SE, Hurley JE, Hohenadel JM, Stoddart GL, Woodward CA, Abelson J. Examining the role of health services research in public policymaking. The Milbank Quarterly 2002;80(1):125-154.**

# Take-Home Messages



## **Decide if you WANT to transfer and facilitate the uptake of research knowledge**

- If the answer is yes, employ the producer-push model, and especially:
  - Develop actionable messages based on bodies of research knowledge (not only based on single research projects)
  - Employ interactive processes to transfer these messages

## **Decide if you and a decision-maker partner WANT to take joint responsibility for the uptake of research knowledge**

- If the answer is yes, employ an exchange model (and be very patient, and listen more than you speak)



# Take-Home Messages (2)



## **Decide if you WANT research funders to play a leadership role in this area**

- If the answer is yes, ask the nay-sayers what they mean when they say
  - Don't "professionalize" knowledge transfer
  - Knowledge transfer will compete with knowledge production
  - Researchers are already accountable for knowledge transfer
  - Knowledge transfer is just too complex to undertake
  - Users of research won't ask the right questions
  - Knowledge transfer will privilege some research over others
  - Isn't this what textbooks are for?



## **Networking opportunities for knowledge brokers in Canada**

- Canadian Research Transfer Network
  - [www.research-transfer.org](http://www.research-transfer.org)

## **Training opportunities for knowledge brokers in Canada**

- Centre for Knowledge Transfer
  - [www.nursing.ualberta.ca/knowledgetransfer](http://www.nursing.ualberta.ca/knowledgetransfer)

## **Research funders who are pioneering new approaches**

- Canadian Health Services Research Foundation
  - [www.chsrf.ca](http://www.chsrf.ca)
- Agency for Healthcare Research and Quality
  - [www.ahrq.gov](http://www.ahrq.gov)

# Follow-Up e-Resources (2)



## Researchers who are studying the issues in Canada

- From a patient/consumer perspective
  - Program in e-Health Innovation, University of Toronto
    - Alex Jadad and colleagues
    - [www.uhnres.utoronto.ca/ehealth](http://www.uhnres.utoronto.ca/ehealth)
- From a clinician perspective
  - Knowledge Utilization Studies in Practice, University of Alberta
    - Carole Estabrooks and colleagues
    - [www.nursing.ualberta.ca/estabrooks/kusp/index.htm](http://www.nursing.ualberta.ca/estabrooks/kusp/index.htm)
  - Ottawa Health Research Institute, University of Ottawa
    - Jeremy Grimshaw and colleagues
    - [www.ohri.ca/profiles/grimshaw.asp](http://www.ohri.ca/profiles/grimshaw.asp)

# Follow-Up e-Resources (3)



## Researchers who are studying the issues in Canada (continued)

- From both a health-system manager and an R&D officer perspective, as well as other perspectives
  - Chair in Knowledge Transfer and Innovation, Universite Laval
    - Rejean Landry and colleagues
    - [www.kuuc.chair.ulaval.ca](http://www.kuuc.chair.ulaval.ca)
- From a public policy-maker perspective
  - Program in Policy Decision-Making, McMaster University
    - John Lavis and colleagues
    - [www.researchtopolicy.ca](http://www.researchtopolicy.ca)
    - [lavisj@mcmaster.ca](mailto:lavisj@mcmaster.ca)