

Knowledge Translation Research Update

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NATIONAL CENTRE OF
IMPLEMENTATION SCIENCE



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Terminology

KT: synthesis, exchange, and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health.

Knowledge Translation



Dissemination

Implementation



Practice



Science

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)



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A series of studies to inform the science

1. Researcher Survey

- Understand the type of KT strategies used and explore which strategies were associated with impact

2. Scoping Review

- Identify and describe the literature examining strategies to improve the dissemination of public health research for the prevention of non-communicable disease

3. Policymaker/Practitioner Survey

- To describe preferences for how evidence is presented among policy makers and practitioners



Research survey

- Survey of international authors who had published the results of a settings-based preventive health intervention (e.g. nutrition, PA) between 2007-2017
- Reported research impact on public health policy and practice e.g.
 - cited in policy docs, govt reports, guidelines or education materials
 - endorsement of intervention by govt/NGOs
 - use of program by policymaker/practitioner
- KT strategy domains linked to Knowledge to Action Framework



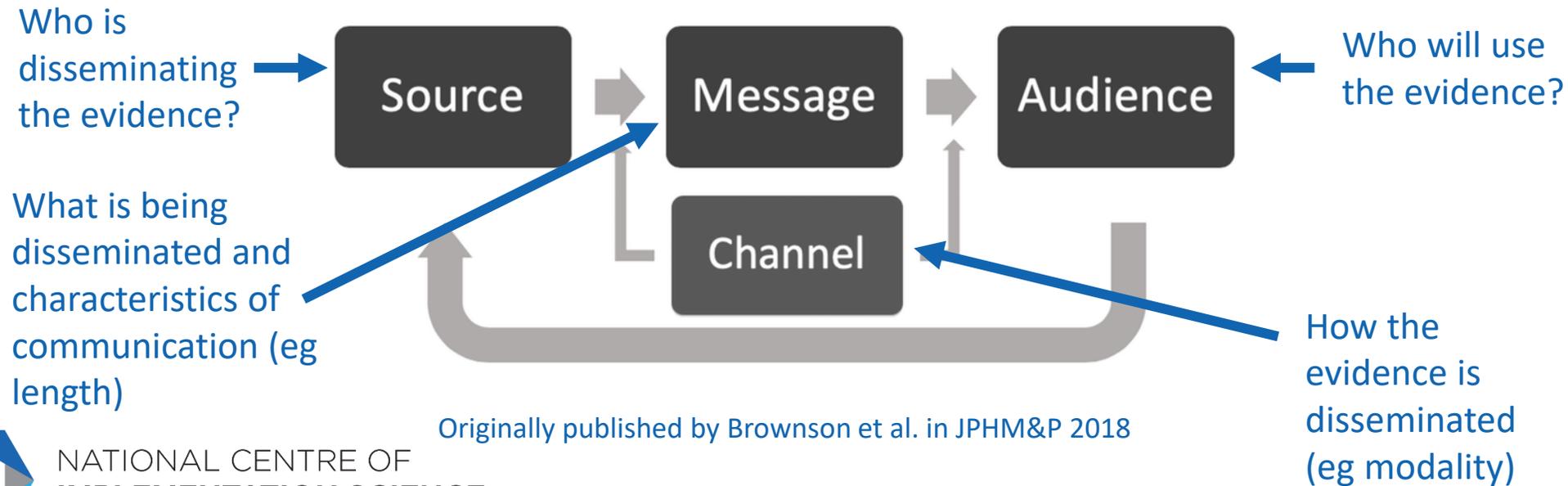
Main Findings

- 104 trials were included (50% response rate)
- 65% of trials reported 1+ research impact (range 1-8)
 - Most common impact was citation in policy document
- Most commonly used KT strategy was “support to tailor and implement interventions”
- Trials that had greater amounts of KT activity had greater odds of achieving policy and/or practice impact (OR = 1.30, 95% CI: 1.02, 1.66; $p = 0.031$).
- Among the KT strategies found to be most influential, **tools to disseminate findings to end users** was associated with impact (OR = 1.05, 95% CI: 1.02, 1.08; $p < 0.001$)



Dissemination scoping review

- Mapping the literature examining dissemination of public health/NCD prevention evidence
- Brownson's Dissemination of Research Framework



Originally published by Brownson et al. in JPHM&P 2018

Inclusion Criteria

- Population: Practitioners, policymakers, public health managers and workers, government and NGOs, advocacy bodies
- Intervention: information, intervention, guidelines or general preferences/experiences of dissemination
- Design: any type of study reporting data
- Outcomes: Dissemination outcomes (awareness, attitudes, knowledge, behavioural intentions) + adoption + barriers to dissemination



Breadth of scoping review

- >20,000 papers screened (600+ at full text)
- **118 papers included in scoping review**
- About 25% of papers were qualitative studies, 15% quantitative, 15% mixed methods
- <10% of studies were RCTs



Respondents

- Most studies (n=55) reported responses from multiple groups (eg practitioners and public health managers)
- Bulk of studies conducted in Canada and US



Outcomes assessed

- Over half of the studies reported adoption/uptake as an outcome
- Of the dissemination specific measures:
 - Attitudes, preferences and barriers to dissemination reported by about 1/3 of studies
 - Awareness and knowledge the least commonly reported (about 20%)



Components of Dissemination



Source

- Typically the knowledge generators (eg researchers, guideline developers, or professional bodies)
- Lack of evidence regarding impact of different sources



Channel

- most common component manipulated (n=14)
- broad range of channels used eg publications, briefs, conferences, webinars, and face-to-face meetings



Message

- Some recommendations for how information should be communicated
 - eg cost effectiveness, incorporate local data, provide recommendations



The role of the audience

- We are currently synthesizing the data based on the intended audience -> tailoring and targeting is key
- About 50% identified practitioners as a target audience group, policy makers and public health managers target audience for about 25% of studies
- **Significant scope for well designed experimental studies testing effectiveness of different dissemination strategies**



Policymaker/Practitioner Survey

- 90 Policymakers and 95 Practitioners surveyed about preferences for receiving information to aid in decision making
- Most common areas of PH experience (could select multiple):
 - Policymakers
 - Tobacco, alcohol or other drugs (51%)
 - Overweight and obesity (49%)
 - Practitioners
 - Nutrition and dietetics (53%)
 - Overweight and obesity (48%)



What types of information were most influential for decision making?

Source

- Researchers
- Government departments/ agencies

Message

- A simple summary with key findings/ implications
- Evidence-based recommendations
- Statistics of evidence to support impact of health issue or intervention

Channel

- Peer reviewed publications
- Reports
- Plain language summaries
- Policy briefs



Next Steps

- Development of specific systematic review questions
- Planned experimental RCT to test components of dissemination
- Development of evidence-based guide to disseminating public health research (CERI)
- Continue to collaborate with end-users – Cochrane Public Health/CERI



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