

Geographic Information Systems (GIS) as a knowledge translation tool

A summary of

Driedger, S.M., Kothari, A., Graham, I.D., Cooper, E., Crighton, E.J., Zahab, M., et al. (2010). If you build it, they still may not come: Outcomes and process of implementing a community-based integrated knowledge translation mapping innovation. *Implementation Science*, 5, 47.



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How to cite this NCCMT summary:

National Collaborating Centre for Methods and Tools (2017). *Geographic Information Systems (GIS) as a knowledge translation tool*. Hamilton, ON: McMaster University. (Updated 01 September, 2017) Retrieved from <http://www.nccmt.ca/resources/search/291>.

Categories:

Tool, Implement, Communication, Knowledge dissemination, Program planning

Date posted:

August 21, 2017

Date updated:

September 1, 2017

Tool

Relevance For Public Health

In government, policy analysts evaluate and summarize policy options and research for senior bureaucrats who make decisions. At the local level, public health unit managers apply research provided by in-house data analysts or epidemiologists. These “dyads” are presented, along with their response to and the use of GIS as a KT tool for evidence-informed decision making. The GIS-based KT tool was examined among Ontario Early Years Centres (OEYCs), which provide services to parents/caregivers with children younger than six years of age as funded under the Canadian early child development strategy.

Description

The resource describes the use of geographic information systems (GIS) mapping as a knowledge translation (KT) tool for evidence-informed decision making. GIS mapping advances evidence-informed decision making by linking the producers of data with users of data who want to report on and use evidence to inform decision making. This resource describes the use of mapping software and maps by Ontario Early Years Centres (OEYCs) data analysts and managers and its impact on decision making. The authors highlight how the GIS software was implemented, the training of and use by data-analyst/manager pairs or dyads, the barriers and limitations to using a GIS-based KT tool for evidence-informed decision making, and the nature of decisions that were derived from the application of the GIS-based KT tool to the local community.

Implementing the Tool

Who is Involved?

This resource describes the use of dyads or pairs of “data producers” and “data users.” Health research users include health practitioners, administrators and policy-makers.

Steps for Using Tool

The KT intervention was supported by a number of steps, including use of a geographer who facilitated the use and supported the “producers” of evidence. The “users” of evidence (e.g., managers) also participated alongside the data analysts in expert-led tutorials that addressed GIS basics; principles of making and interpreting maps; map classification and continued barriers assessment; and self-assessment regarding system barriers and organizational capacity for GIS use. Extensive evaluation and follow-up procedures were undertaken and data analysis followed qualitative inquiry. A number of hypotheses are provided that consider why there was not greater use of mapping, including:

- The innovation
- The adopters
- The environment
- The KT intervention
- Outcome measurement

These summaries are written by the NCCMT to condense and to provide an overview of the resources listed in the [Registry of Methods and Tools](#) and to give suggestions for their use in a public health context. For more information on individual methods and tools included in the review, please consult the authors/developers of the original resources.

Conditions for Use

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Evaluation and Measurement Characteristics

Evaluation

Information not available

Validity

Not applicable

Reliability

Not applicable

Methodological Rating



Not applicable

Tool Development

Developers

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Elizabeth Cooper
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Melanie Zahab
Jason Morrison
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Method of Development

The Ottawa Model for Research Use (OMRU) guided data collection and analysis. EYEMAP software was used as well as other GIS software. Evaluation and follow-up of dyads was extensive and analysis followed the approach to qualitative inquiry.

Release Date

2010

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Resources

Title of Primary Resource	If you build it, they still may not come: Outcomes and process of implementing a community-based integrated knowledge translation mapping innovation
File Attachment	None
Web-link	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907302/pdf/1748-5908-5-47.pdf
Reference	Driedger, S.M., Kothari, A., Graham, I.D., Cooper, E., Crighton, E.J., Zahab, M., et al. (2010). If you build it, they still may not come: Outcomes and process of implementing a community-based integrated knowledge translation mapping innovation. <i>Implementation Science</i> , 5, 47.
Type of Material	Journal article
Format	Periodical
Cost to Access	None.
Language	English
Conditions for Use	© 2010 Driedger et al.

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