

# 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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## Categories:

Tool, Implement, Communication, Knowledge dissemination, Program planning

## Date posted:

August 21, 2017

## Date updated:

September 1, 2017

## Tool

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## 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

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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

Michelle Driedger  
Anita Kothari  
Ian D Graham  
Elizabeth Cooper  
Eric J Crighton  
Melanie Zahab  
Jason Morrison  
Michael Sawada

### 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

|                                  |   |
|----------------------------------|---|
| <b>Title of Primary Resource</b> | If you build it, they still may not come: Outcomes and process of implementing a community-based integrated knowledge translation mapping innovation  |
| <b>File Attachment</b>           | None  |
| <b>Web-link</b>                  | <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907302/pdf/1748-5908-5-47.pdf">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2907302/pdf/1748-5908-5-47.pdf</a>   |
| <b>Reference</b>                 | 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. |
| <b>Type of Material</b>          | Journal article   |
| <b>Format</b>                    | Periodical  |
| <b>Cost to Access</b>            | None.   |
| <b>Language</b>                  | English   |
| <b>Conditions for Use</b>        | © 2010 Driedger et al.  |

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