

# Knowledge Translation Intervention Casebook



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# OVERVIEW

## BACKGROUND

Gaps between what is known about optimal health care from research evidence and what happens in clinical care are common. The field of knowledge translation (KT) has emerged as a means to reduce these gaps. KT is defined as the synthesis, dissemination, exchange, and ethically sound application of knowledge to improve health, provide more effective health services and products, and strengthen the health care system<sup>1</sup>. KT scientists design and evaluate KT interventions (KTIs) that aim to change individuals' behaviours, improve clinical outcomes, improve patient experience, or optimize the function of the health care system to better enable the adoption of recommended actions (e.g., educational strategies, audit and feedback, evidence briefs). These KT advancements have led to the identification of KTIs that are more or less effective; however, knowledge users (e.g., clinicians, clinical administrators, operational leaders, decision-makers) are often not KT experts and may choose suboptimal KTIs for their context or desired outcomes. This casebook is intended to serve as a resource for knowledge users to assist them with selecting and designing appropriate KTIs for application in their context.

## OBJECTIVE

To identify prioritized KTIs with known effectiveness and develop a casebook to provide knowledge users with information about the interventions' effectiveness and operationalization.

## METHODS AND RESULTS

### SEARCH STRATEGY

A targeted search for systematic reviews that evaluated the effectiveness of a KTI was conducted in two databases and one peer-reviewed journal, resulting in a total of 566 candidate systematic reviews (n=number of systematic reviews).

- *Cochrane Effective Practice and Organisation of Care* (EPOC) database ([epoc.cochrane.org](http://epoc.cochrane.org)) (n=101),
- *Health Systems Evidence* database ([healthsystemsevidence.org](http://healthsystemsevidence.org)) (n=335)
- *Implementation Science* journal (n=130)

### CASE SELECTION

Abstracts of the candidate systematic reviews were independently reviewed by three people to identify those that met the inclusion criteria and were relevant to the Ontario health care context. The following data were extracted from 86 systematic review articles by one reviewer and audited for accuracy by a second reviewer:

- Outcome data related to KTI effectiveness (patient clinical or process outcomes, health care provider process or knowledge/skills outcomes, or health system/organizational outcomes);
- Information about the context in which the KTI's effectiveness was studied;
- Details about how the KTI was operationalized (e.g., format, method of delivery, frequency, duration).

Seventeen KTI reviews demonstrated potential effectiveness and were selected for inclusion in the casebook for knowledge users. A detailed summary was created for each selected KTI systematic review and these form the content of this casebook.

## QUALITY ASSESSMENT

One of two validated assessment tools was used to evaluate the quality of each of the 17 selected systematic reviews. Systematic reviews identified from the Health Systems Evidence database were assessed by the McMaster Health Forum using the AMSTAR tool<sup>2</sup> and those identified from the EPOC database and Implementation Science journal were evaluated by the *Knowledge Translation Intervention Casebook* project team using the ROBIS tool<sup>3</sup>.

Quality of the studies included in the 17 systematic reviews was assessed using a variety of tools by the systematic review authors. Tools used included the Cochrane Risk of Bias tool<sup>4</sup>, MERSQI scoring<sup>5</sup>, CONSORT Statement<sup>6</sup>, Downs and Black standardized tool for intervention studies<sup>7</sup>, Critical Appraisal Skills Program (CASP) tools<sup>8</sup>, or assessment tools developed by the review authors. The quality scores of the included studies have been simplified by the *Knowledge Translation Intervention Casebook* project team to three quality levels: high quality, medium quality, or low quality.

## REVIEW AND FEEDBACK

Two focus groups were conducted—one with a provincial focus (Cancer Care Ontario) and one with a regional health system focus (Hamilton Health Sciences)—to gather feedback about the content and format of the casebook KTI summaries and feasibility and contextual relevance of the KTIs. Sample KTI summaries were provided to focus group members, who made suggestions related to the content, level of detail, and format of the summaries. All feedback was taken into consideration and any necessary changes were made.

## CASEBOOK LAYOUT AND CONTENTS

The information contained in the *Knowledge Translation Intervention Casebook* summaries is presented in four sections, as described below.

## INTRODUCTION TO THE KTI

The first section of the KTI summary includes:

- A description of the KTI
- The KTI's goals in clinical care
- A summary statement about the evidence currently available to support the KTI's effectiveness
- Information to keep in mind before using the KTI in practice

## EVIDENCE-BASED FINDINGS FROM THE SYSTEMATIC REVIEW

The following information about the systematic review is presented in a table:

- Systematic review article citation
- A description of the KTI(s) included in the systematic review
- Study settings (e.g., location, healthcare setting, health care context)
- Intervention deliverer(s) and recipient(s)
- Quality of the systematic review
- Quality of the studies included in the systematic review
- KTI comparisons (e.g., KTI vs. other KTI, KTI vs. no KTI)
- KTI effectiveness outcomes, organized into the following categories:
  - Patient clinical outcomes (e.g., blood glucose level, infection rate)
  - Patient process outcome (e.g., compliance with taking prescribed medication, emergency department visits)
  - Health care provider knowledge/skill outcome (e.g., awareness of clinical practice guideline recommendations)
  - Health care provider process outcome (e.g., prescribing of antibiotics, conducting shared-decision making with patients)
  - System/organizational outcome (e.g., cost, length of hospital stay)

## OPERATIONALIZATION OF THE KTI

If available, evidence-based information about how best to apply the KTI is provided. Examples of information that could be included are:

- Characteristics of the KTI that influence its effectiveness (e.g., format, method of delivery, frequency, duration).
- Contextual factors to consider when implementing the KTI that may influence its effectiveness.

## STUDY EXAMPLE

Information from one or more selected studies included in the systematic review is presented in table format for each KTI to provide additional details about its operationalization. Studies were selected based on their quality and their detailed description of the intervention that could help knowledge users to implement that KTI in their own context.

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