Canadian Task Force on Preventive Health Care

Methods Manual

Chapter 7: Knowledge Translation

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7   Knowledge Translation

Knowledge Translation (KT; also called knowledge mobilisation, amongst other terms) can include dissemination and/or implementation of evidence. Integrated KT involves partnering with knowledge users in work from conception of research (including guideline development) through to its conduct and dissemination. The Task Force uses an integrated KT approach whereby relevant knowledge users (e.g., primary care clinicians, patients/public partners) are engaged throughout the guideline development process.

The Task Force Knowledge Translation Working Group (see section 1.6.2.3) develops partnerships and strategies aimed at advancing and supporting the dissemination and uptake of Task Force guidelines and other knowledge products into clinical primary care practice. The KT Team executes the work approved by the KT Working Group and works closely with the Communications team on matters related to public relations.

Approaches to engagement and co-creation are mentioned throughout the manual (e.g., see section 6.3 for more detail on stakeholder engagement). Methods for new initiatives such as the Task Force Public Advisors Network and Clinical Prevention Leaders Network will be added to the manual following completion of the pilot phase. This chapter provides more detail on diffusion, dissemination and implementation strategies, development of KT tools and evaluation of KT activities.

7.1 Diffusion, Dissemination, and Implementation

The Task Force KT strategies include a combination of different methods of diffusion, dissemination, and implementation. Diffusion focuses on passive strategies, such as publication of guidelines in peer-reviewed publications and newsletters, with targeting of open access journals. The Task Force website also serves as passive diffusion. Dissemination involves activities that tailor the message and medium to a particular audience, such as the creation of decision support tools, infographics, and mass media communications, including social media. Implementation moves research into decision-making when the strength of the evidence is sufficient, such as enabling local opinion leaders to support the application of Task Force guidelines.

For each of these approaches, the Task Force considers the following questions:
- Who are the end-users (or knowledge users) of the guideline and who will be interested in its results?
- What are the key messages for each of the relevant end-user groups?
- Who are the principal target audiences, organizations, and groups for each of these messages?
- What are the barriers and facilitators to uptake of the guideline for each of these end-user groups?
- What KT strategy will be used to address these barriers and/or facilitators to the uptake of the guideline?

Considering the above questions, the KT Working Group then uses a multi-pronged, tailored approach to disseminate information to knowledge users that is evidence-based and theory informed. Diffusion and dissemination strategies include the following:

- In conjunction with the Communications team, sharing communication about Task Force activities (e.g., new guidelines and KT tools, other Task Force publications and products, new Task Force projects) through a dedicated website, E-newsletters, and social media campaigns;
- Engaging a wide audience through a comprehensive public communications campaign with the release of each guideline, which includes, but is not limited to, developing press releases, media materials, social media plans, and media training for Task Force members;
- Coordinating media planning with stakeholders around guideline release;
- Engaging knowledge users and developing strategic partnerships through ongoing communications with knowledge users, seeking out and responding to their feedback on guidelines and related materials, and engaging key audiences (e.g., primary care providers, patients/public partners) in KT tool development through co-creation (in some instances) and usability testing (usability testing process further described below);
- Co-developing KT tools with primary care providers, the general public, and policy-makers;
- Publishing guidelines and methods (including of KT methods and evaluation results) in peer-reviewed journals;
- Presenting guidelines, methods and KT tools at major scientific meetings;
- Seeking out endorsement or other forms of support from relevant organizations for new guidelines (see section 6.3.3.4);
- Providing webinars to knowledge users close to the release of new guidelines;
- Sending copies of newly released guidelines and KT tools to knowledge users;
- Developing and testing approaches to facilitate dissemination and implementation of guidelines through use of opinion leaders and educationally influential individuals (e.g., pilot of Clinical Prevention Leader Network).

While widespread guideline implementation is not the primary focus of the KT Working Group, the development of KT tools supports guideline implementation. Pilot initiatives, such as the Clinical Prevention Leader Network are also being tested to support implementation.

7.2 Development of KT Tools

A wide array of KT tools are developed by the Task Force and KT Team to assist primary care providers in deepening their understanding of the Task Force guidelines and methodology and to facilitate their integration into clinical practice. The

development process is based on the knowledge-to-action framework (1), and uses co-design principles with primary care clinicians and patients. The resulting tools incorporate the emerging best practices for KT. The protocol for the development of KT Tools is provided in the Appendix. These tools may include but are not limited to:

- Algorithms,
- Harms and benefits posters,
- Clinician and patient frequently asked questions (FAQ) sheets,
- 1000-person diagrams,
- Decision-aids.

KT tools are available on the Task Force website (https://canadiantaskforce.ca/tools-resources/).

7.3 Evaluation of KT Activities

The KT Team leads an annual evaluation of Task Force activities, as outlined in Table 1, to assess the impact of dissemination activities and the uptake of guidelines by stakeholders, and to ensure that all KT activities are consistently aligned with key objectives. The Task Force will consider the following:

- Are the KT strategies selected having a sustained effect on the dissemination and uptake of the Task Force guidelines?
- How can the Task Force optimize sustainability?
- How can previous successful strategies be leveraged for future guidelines?

The annual evaluations use the RE-AIM evaluation framework (2,3) to guide design and analysis of data. This framework accounts for reach, effectiveness, adoption, implementation, and maintenance of guidelines, KT tools and other Task Force products. Data are collected through document reviews, collection of metrics (on publications, presentations, website usage, etc.), and surveys and interviews with primary care providers in English and French. These activities are described further in Table 1.

The results of the annual evaluation are reviewed by the Task Force members, and if necessary, adjustments made to the KT strategy. The annual evaluation report is posted on the Task Force website (https://canadiantaskforce.ca/get-involved/annual-evaluation/).

Table 1. Summary of activities to evaluate knowledge translation (KT)			
Objective	**Outcome**	**Measurement method/Data source**	**Timeline**
To determine if statements of the Task Force's objectives are aligned with its implementation efforts	Alignment	Document review	Completed once, before beginning the evaluation
To determine the reach of KT activities aimed at disseminating guidelines to the primary knowledge users (primary care providers)	Reach	Publications Presentations Stakeholder dissemination Website usage measures Media hits	Annually, for all guideline topics
To determine primary care providers level of awareness and knowledge of key recommendations, the current source(s) of information they use to guide their practice (in the context of the guideline topic), and their general perceptions of the guideline, the Task Force, and KT processes used	Awareness of: • Task Force • Task Force guidelines • KT Tools	Surveys/interviews	
	Knowledge of guideline recommendations	Surveys/interviews	
	Agreement with guidelines	Surveys/interviews	
To determine the outcomes of more active KT activities aimed at increasing use and uptake of guideline knowledge by primary care providers and their patients, where these activities include dissemination of KT tools for primary care providers (e.g., algorithms, summaries, and clinical decision support tools) and patients (e.g., summaries, FAQ sheets, and decision aids)	Self-reported actual and planned practice change	Surveys/interviews	Annually, for selected guideline topics for which evaluation of KT tools is feasible and appropriate or where KT activities represent major changes to previous practice

References

1. Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Caswell W, et al. Lost in knowledge translation: time for a map? J Contin Educ Health Prof. 2006;26(1):13–24.

2. Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. Am J Public Health. 1999 Sep;89(9):1322–7.

3. RE-AIM. RE-AIM [Internet]. [cited 2023 Feb 16]. Available from: https://re-aim.org/

Appendix: Protocol for Development of Knowledge Translation (KT) Tools

KT Team Initial Tool Preparation (1+ weeks)

1. Once guideline topic has been selected, KT Team conducts an environmental scan of existing tools developed by other groups. (1 week)

Guideline Working Group, evidence review and synthesis centre (ERSC), and Science Team Initial Tool Preparation (timing dependent on guideline development process)

2. The Working Group Chair, working group members, and Science Team Lead will determine the outcomes of interest for the guideline topic and begin outcome table preparation.

3. Once the list of outcomes is determined, the Working Group Chair will collaborate with the ERSCs and Science Team Lead to complete the outcome table during the evidence review process.

4. Once the outcome table is completed by the Working Group Chair, ERSC, and the Science Team Lead, they will send the completed table and the evidence review to the KT Team tool development specialist. The KT Team tool development specialist will review the evidence review and outcome tables to ensure that the outcomes can provide a basis for a KT tool.

   Note: If during the evidence review process the Working Group chair, ERSC, and Science Lead do not identify any data for outcomes of interest, then they do not have to complete the outcome table. An alternate KT Tool will be strategized in collaboration with the KT Team tool development specialist.
   Note: Once draft guideline recommendations have been developed, the KT Team tool development specialist may need to consult with the guideline ERSC or the Science Team Lead if the information extracted from the evidence review does not entirely align with the recommendations (e.g., age group corresponding to outcome numbers does not match age group corresponding to a recommendation)

Planning (4.5 weeks)

5. Science Team Lead shares guideline and external review comments (if available) with the KT Team once guideline is almost ready for submission to journal (e.g., 1-2 weeks before submission). (0.5 week)

6. KT Team tool development specialist reviews guideline, evidence review, and external review comments (if available). (1 week)

7. KT Team tool development specialist prepares KT tool planning table for guideline working group, which includes suggestions about tool type and content. (1 week)

8. KT Team tool development specialist circulates KT tool planning table to guideline working group for feedback. (2 weeks)

    - Guideline working group reviews and signs off on KT tool planning table.

Tool Development (14.5-17.5 weeks)

9. KT Team tool development specialist reviews KT tool planning table approved by guideline working group and drafts first version of tools (v1). These versions will include all content and preliminary graphics. (1-2 weeks depending on number of tools to be created)

    Information from the following sources may be included in tools:
    a. Section of the guideline that provides a summary of recommendations for clinicians and policy makers

    b. Section of the guideline that provides the key points

    c. Section of the guideline that provides the key messages for the public

    d. Section of the guideline that provides an overview

    e. Methods section of guideline

    f. Recommendations section of guideline

    g. Section of the guideline that provides the benefits and harms

    h. Section of the guideline that provides the considerations for implementation of recommendations

    i. Section of the guideline that provides information on other guidelines

    j. Key absolute effects on harms and benefits from the GRADE table reported in evidence review

    k. Results from patient engagement process for guideline

    l. Key questions or concerns raised during early stakeholder presentations (if applicable)

    m. Any additional sections deemed appropriate by the guideline Working Group Chair and Science Team Lead.

Note: the KT Team tool development specialist may need to consult with the Science Team Lead to clarify information contained in the guideline or evidence review (e.g., if the working group wants to include information on the harms of screening colonoscopy but the guideline appears to contain information on diagnostic colonoscopy only).

10. KT Team tool development specialist circulates v1 tools to the KT Team for internal feedback. (0.5 week)

   - KT Team provides initial feedback on format and content

11. KT Team tool development specialist creates second version of tools (v2) based on KT Team feedback. (0.5 week)

12. KT Team tool development specialist circulates v2 tools to guideline working group, KT Working Group, and Science Team Lead. (0.5 week)

   - Guideline working group, ERSC and KT Working Group review tools for appropriateness and content accuracy

   - Science Team Lead reviews tools for consistency with guideline

   - If there are any discrepancies in feedback, guideline working group chair makes final decision on what is/is not included.

13. KT Team tool development specialist creates third version of tools (v3) based on feedback from guideline working group, KT Working Group, ERSC and Science Team Lead. Initial graphics formatting is completed at this stage. (0.5 week)

14. KT Team tool development specialist circulates v3 tools to guideline working group and KT Working Group. (0.5 week)

   - Guideline working group and KT Working Group review tools for appropriateness and content accuracy

   - Science Team Lead provides KT Team with a copy of the CMAJ peer review comments, working group's response to CMAJ comments, and revised guideline with changes tracked. *Note: these materials may be sent to the KT Team as soon as they are ready.*

15. KT Team tool development specialist creates fourth version of tools (v4) based on feedback from guideline working group and KT Working Group. Graphics formatting is completed at this stage. (0.5 week)

- KT Team tool development specialist sends tools to graphic designer for additional formatting, if necessary

16. KT Team conducts usability testing with v4 tools. (2–4 weeks depending on whether patients are recruited)

   - 5-8 participants recruited from population(s) targeted by tools (i.e., PCPs and/or patients to whom the guideline applies)

   - Participants are recruited through the Task Force's recruitment list which consists of primary care providers and patients who have consented to being contacted for future studies through conferences and previous Task Force initiatives (e.g., annual evaluations). Participants are also recruited through the College of Family Physicians of Canada. Depending on the guideline topic, a portion of participants are recruited through other partner organizations.

   - In order to ensure diversity, participants are selected from different provinces and primary care providers are selected to encompass a wide range of years in practice. *Note: This does depend on the number of participants who express interest to participate in the usability testing interviews at a given time.*

17. KT Team compiles interview and/or focus group notes from usability testing to provide immediate feedback to KT Team tool development specialist. (0.5 week)

18. KT Team tool development specialist creates fifth version of tools (v5) based on usability testing feedback. Tool development specialist incorporates minor feedback into tools and flags more substantial comments and concerns for guideline working group review. (0.5 week)

19. KT Team prepares usability testing report (occurs simultaneously with Steps 18–19; 1 week)

20. KT Team circulates v5 tools and usability testing report to guideline Working Group chair, KT Working Group, and Science Team Lead. (1 week)

   - Guideline working group and KT Working Group review usability testing report

   - Guideline working group and KT Working Group review tools for appropriateness and content accuracy

   - Science Team Lead reviews tools for consistency with guideline

- Guideline working group provides guidance on how to address usability testing feedback flagged by tool development specialist for working group input

21. KT Team tool development specialist creates sixth version of tools (v6) based on feedback from guideline working group, KT Working Group, and Science Team Lead. (0.5 week)

    Note: 6 rounds are planned for, but this number can be reduced depending on feedback.

22. KT Team tool development specialist circulates v6 tools to guideline working group, KT Working Group, and Science Team Lead for final review and approval. (0.5 week)

    - Guideline working group and KT Working Group provide final comments

    - Science Team Lead reviews tools for consistency with guideline

23. KT Team tool development specialist creates final version of tools (v7) based on feedback from guideline working group, KT Working Group, and Science Team Lead (0.5 week)

24. KT Team sends tool to Science Team to review any final numbers in algorithm/1000 person diagram tools to make sure all numbers are accurate

25. If necessary for final guidance on feedback, KT Team tool development specialist sends v7 tools to guideline working group chair for final sign off. (0.5 week)

    Note: Rounds of review and revision may continue beyond v7 until the Working Group Chair and the Science Team Lead approve the content. However, this may delay tool development timelines.

26. KT Team arranges for tool copyediting. (1 week)

27. KT Team arranges for French translation according to Task Force translation lexicon. (1 week)

28. KT Team arranges for French translation verification. (1 week)

29. KT Team tool development specialist creates black-and-white versions of tools. (0.5 week)

Note: At the discretion of the guideline working group, the KT Team may seek feedback on KT tools from external parties (e.g., clinical experts, stakeholders) throughout development process. Additionally, the KT Team may receive feedback when KT tools are disseminated to early release stakeholders (approximately 1 week prior to the guideline release date). If this happens, the KT Team will discuss the feedback with the guideline working group and make any necessary changes either before or after the guideline release (depending on timelines).

Dissemination (1.5 weeks)
30.   KT Team creates a web page for each tool on the TF website. Each tool is available in two languages (i.e., English and French) and two colour formats (i.e., colour and black and white) and will appear online once embargo period ends. (1 week)

31.   KT team also disseminates final versions of the tools along with the guideline to guideline specific stakeholders from the stakeholder list.

Evaluation
The KT Team will evaluate the reach and uptake of the KT tools as part of the Task Force annual evaluation. In particular, the KT Team will conduct surveys and interviews with primary care providers to assess their awareness and use of the tools. The KT Team will also examine the reach of the tools by measuring the number of tools disseminated to stakeholders, viewed on the Task Force website, and displayed during stakeholder presentations. The tools assessed during the annual evaluation will be all tools developed since the previous annual evaluation and all tools associated with guidelines that recommend a major change to current practice (e.g., breast cancer, cervical cancer, and prostate cancer screening). The KT Working Group will use the findings from the evaluation to identify the strengths and limitations of the Task Force's KT strategy. They will also use the findings to inform methods for improving future KT tools.

File Naming Conventions:

All KT tool documents will be named according to the following convention:

"Task Force_GuidelineTopic_Tool Name"
        E.g., "Task Force_ProstateCancer_Clinician FAQ"

French documents will include "Fr" after the version number.
        E.g., "Task Force_ProstateCancer_Clinician FAQ_Fr"

For the final version of a document, "FINAL" will appear at the end of the file name.
        E.g., "Task Force_ProstateCancer_Clinician FAQ FINAL".

Documents should not be labelled "FINAL" until
- all content has been finalized by the guideline Working Group Chair and Science Team Lead
- all content has been copyedited