Knowledge Translation Planner

Canada

ACKNOWLEDGEMENTS

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Introduction

Knowledge translation (KT) is key to achieving, and sustaining, valuable health policy outcomes. KT aims to translate knowledge into action — action that will improve Canada's health care system and ultimately lead to healthier Canadians.

Effective KT can accelerate the use of knowledge by:

- focusing attention and resources on high priority research questions (1);

- ensuring that the knowledge being used is based on the best available evidence (2);

- ensuring that the knowledge is being implemented as intended (3);

- ensuring important outcomes are being evaluated so that scarce resources are not wasted (4); and

- supporting spread and scale-up of evidence-based practices, programs and policies.

The Knowledge Translation (KT) Planner can help you take a practical and evidence-informed approach to disseminating and implementing knowledge.

The KT Planner can be used in many ways. For example, if you are applying for funding, incorporating information from your KT planning into the application documents can result in a higher quality application that clearly demonstrates how your initiative will engage key stakeholders and contribute to improvements in the health care system. If you are a funding recipient, KT planning can help you identify ways to improve the reach, impact or sustainability of your initiative.

The KT Planner has four sections:

1. Knowledge to Action Model: a snapshot of the process to develop, disseminate and implement knowledge;

2. Planning for Knowledge Dissemination and Implementation: a step-by-step approach to the KT planning process;

3. Appendices: other useful resources

4. Endnotes and Bibliography: the sources used to develop the KT Planner

Before using the KT Planner, we suggest that you take a few minutes to become familiar with the following terms, which are used throughout the document.

◤ What is knowledge?

A general definition of knowledge is "the facts, information and skills acquired through experience or education; the theoretical or practical understanding of a subject" (5). In the context of the KT Planner, the "knowledge" that is being disseminated and implemented should be grounded in evidence, that is to say, the "most relevant, high quality qualitative or quantitative" (6) research available. The word "knowledge" is used throughout the KT Planner to denote what is being disseminated and implemented. For example, "knowledge" could be a guideline, an intervention, a program or a practice.

In addition to the knowledge being disseminated and implemented, you will gather valuable information from other sources that will support your planning. These sources include practices and policies of stakeholder organizations, culture and personal experience.

◤ What is knowledge translation?

KT is an active process that includes the synthesis, dissemination, exchange and implementation (application) of knowledge to improve the health of Canadians (7). Health Canada's Strategic Policy Branch refers to knowledge translation as "moving knowledge to action to improve the health of Canadians." A more detailed definition is found in the glossary (Appendix A).

◤ What is dissemination?

Dissemination is the active effort to spread evidence-based or evidence-informed knowledge to specific audiences (8), to increase awareness and understanding, encourage audiences' motivation to use the knowledge and increase their ability to use the knowledge. It involves presenting and delivering knowledge in the most effective ways to suit the intended audiences and their context. Dissemination activities can range from more passive to targeted approaches, e.g. publication of an article in a peer-reviewed journal to delivery of webinars tailored to specific audiences.

◤ What is implementation?

Implementation is the use of strategies to adopt and integrate evidence-based or evidence-informed interventions and to change practice, policies and programs within specific settings (9). These strategies can also be focused on changing behaviour. Examples of implementation include the introduction of a new curriculum across multiple organizations or the establishment of a practice change in a health care setting.

Section 1

The Knowledge to Action Model

The next two pages present a visual overview of the Knowledge to Action (KTA) Model (10) adapted by the Strategic Policy Branch of Health Canada.

Page 2 shows the relationship between knowledge development and knowledge implementation. The knowledge development component in the centre of the model shows that knowledge needs to be increasingly refined before it is ready to be used (11). The outer action cycle identifies the phases that are needed to implement the knowledge and deliberately cause change (12). The KT Planner assumes that the knowledge, or evidence base, already exists, and consequently focuses on the "action cycle" of the KTA Model.

The phases in the action cycle of the KTA Model are ordered A through G. The two-way arrows indicate that each phase can influence another, and that the direction is not necessarily sequential. In addition, the inner knowledge development component can influence and be influenced by the phases of the action cycle.

The KTA Model was designed for implementation but its principles can be applied to dissemination. For more information on the model, see Appendix B.

Page 3 lists the planning steps associated with each phase.

Knowledge To Action Model

D Tailor and implement KT* strategies

C Identify barriers and facilitators to knowledge use. Select appropriate KT* strategies

B Adapt knowledge to local context

A Identify need

Identify, review, select knowledge

E Monitor knowledge use

F Evaluate outcomes

G Sustain knowledge use

Knowledge Development

Knowledge Inquiry

Knowledge Synthesis

Knowledge Products
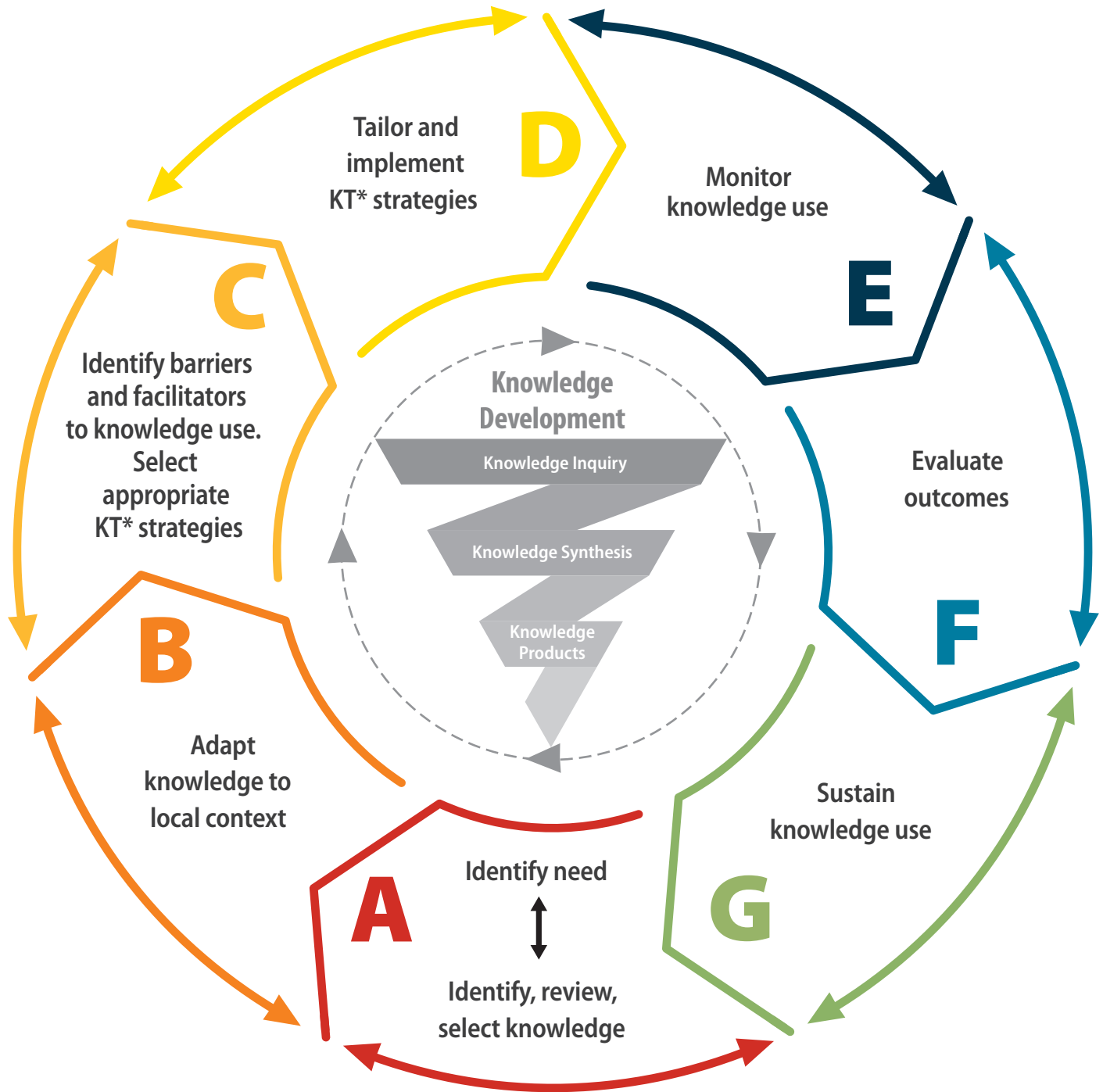
* Knowledge Translation (KT) strategies refer to dissemination and implementation strategies.
Source: Modified by Strategic Policy Branch, Health Canada (2016), from Graham ID et al. JCHEP 2006;26:13–24.

Legend:
Steps to Plan for Knowledge Dissemination and Implementation

A **Identify need. Identify, review and select knowledge**

  1. Identify and consult with your stakeholders and target audience(s)

  2. Define the need and the expected outcomes for your initiative

  3. Identify the knowledge you want to disseminate and implement

B **Adapt knowledge to local context**

  4. Identify any adaptations needed to the knowledge

C **Identify barriers and facilitators to knowledge use. Select appropriate KT strategies**

  5. Identify the barriers and the facilitators

  6. Choose the appropriate dissemination and implementation strategies

D **Tailor and implement KT strategies**

  7. Define the dissemination and implementation strategies

  8. Assess the context for your strategies

  9. Tailor the strategies

  10. Prepare to implement the strategies

  11. Validate your outputs, outcomes and indicators

E **Monitor knowledge use**

  12. Plan to monitor knowledge use

F **Evaluate outcomes**

  13. Plan to evaluate outcomes

G **Sustain knowledge use**

  14. Plan for sustainability

Section 2

Planning for Knowledge Dissemination and Implementation

This section is organized according to the action cycle phases of the KTA Model, with each phase divided into planning steps. Each step contains a core set of questions, and tips, to prompt thinking and discussion. Some steps also include questions that are unique to dissemination or implementation.

Although it's important to consider all steps in your KT planning, selecting the appropriate starting point may depend on various factors, such as the type of initiative you are undertaking, any work you have already completed and the specific needs of your target audience(s).

While using the KT Planner, you are encouraged to work through the steps in collaboration with key stakeholders, such as your target audience(s). These groups can help you identify any gaps in planning that may affect your activities, outcomes, budget and timeframe.

The KT Planner worksheet (see Appendix C) is an optional tool to record your planning information.

TIPS

▶ Planning for KT is a dynamic and iterative process that allows you to respond to changing contexts and new opportunities.

▶ Good KT planning takes time and resources. Be sure to work through each step of the KT Planner to identify what information will be important to the success of your initiative. The questions in each step will prompt you to consider the main elements of your KT planning.

A Identify need.
Identify, review and select knowledge

In this first phase of KT planning, you will be developing the foundation for your initiative. While it can be tempting to move ahead quickly with your KT activities, to be most effective you should complete — in whichever order — Steps 1 through 3. This will enable you to: (Step 1) engage organizations that can contribute to your success and/or might be most affected; (Step 2) establish the validity and scope of the issue(s) you are addressing; and (Step 3) confirm that your knowledge is grounded in evidence. (13)

STEP 1

Identify and consult with your stakeholders and target audience(s)

- Who are your key stakeholders?

- What role will your stakeholders play? For example, will they be involved in planning, dissemination and/or implementation or decision making? Ensure that your stakeholders are involved in as many aspects as possible.

- How will you engage stakeholders in your knowledge dissemination and/or implementation process(es)?

- How can your stakeholders help you to define and reach your target audience(s)?

- Which target audience(s) do you want to reach?

  - E.g. Front-line health workers, supervisors, researchers, patients, policy makers, or the media.

TIPS

▶ Building strong relationships takes time and resources — be sure to factor these items into your work plan and budget.

▶ Ensure you identify the right level of stakeholders. For example, working only with managers and not including front-line staff could affect the outcomes of your efforts to disseminate and implement new operational guidelines.

STEP 2

Define the need and the expected outcomes for your initiative

- What is the need (or problem) that you wish to address? What are some of its causes? What are some of its effects? Consider that the need may be reflected at different levels, e.g., at the system, organization, provider and patient/client level. If the need is not clear, you may wish to do a needs assessment.

- Have your stakeholders and target audience(s) worked with you to identify the need? What is the evidence of the need? Consider administrative records, surveys, interviews or evaluation findings as potential sources for evidence.

- Do your stakeholders and target audience(s) agree that the need you wish to address is real and that it is a priority for them?

- How feasible is it to address the need? For example, are the necessary financial resources, people and time available? Are there entrenched practices or policies that seem insurmountable?

- What are the expected outcomes for your initiative? How can your stakeholders and target audience(s) help you validate the outcomes?

NOTE: Having a discussion with your stakeholders and target audience(s) about the expected outcomes of your initiative is an ideal opportunity to: develop a shared understanding of your work; establish buy-in from all parties; and validate the outcomes. You should also explore potential opportunities for sustainability of the knowledge from your initiative.

- How will dissemination and implementation help you to achieve your expected outcomes?

NOTE: Dissemination is used to raise awareness, increase knowledge and motivate target audiences to use knowledge. Implementation is used to change behaviours, practices, policies and programs within specific settings. Refer to Step 6 for detailed information on dissemination and implementation strategies.

TIP

▸ You may wish to refer to Health Canada's *Performance Measurement and Evaluation for Grants and Contributions: Recipient Reference Guide* for information on outputs and outcomes and theories of change related to KT.

STEP 3

Identify the knowledge you want to disseminate and implement

- Have you selected the knowledge that will address the need (issue) and contribute towards your expected outcomes?

- Is the knowledge you have selected based on or informed by evidence?

- What is the evidence? Have you documented it?

- Does the knowledge exist in a clear, concise and user-friendly format? If not, how can this knowledge be made useable? Who might help?

B Adapt knowledge to local context

Using what you have learned in Phase A, now consider the "fit" of the knowledge with your target audience(s) and that audience's context, and whether any adjustments to the knowledge are required. For example, if you are introducing a guideline, in its original form it may not be appropriate to the culture of your stakeholders or target audience(s), or it may require materials, equipment or resources that are not available. In this case, you would adapt the guideline, being careful to keep it grounded in the evidence.

STEP 4

Identify any adaptations needed to the knowledge

- How does your context differ from the one in which the knowledge was originally created and evaluated?

- How will you, your stakeholders and target audience(s) identify any adaptations so that the knowledge is appropriate to the local context, while upholding the consistency of the evidence? For example, if a guideline you wish to implement recommends a specific drug that is not available in your jurisdiction, how will you adapt the guideline?

- How will you document the adaptations to the knowledge?

- What process will be put in place to update the knowledge, if necessary?

TIP

▶ While adapting the knowledge, consider potential issues related to the implementation context (see Steps 8 and 9).

C Identify barriers and facilitators to knowledge use. Select appropriate KT (dissemination and implementation) strategies

Regardless of the scope of your initiative, it is important to clearly understand the complexities of your target audience(s) and stakeholders by identifying what prevents or helps them use knowledge (14). With this information, you will be able to select the KT strategies that directly address the identified barriers and take advantage of existing facilitators. In this phase, you will consider various types of barriers and facilitators, learn about different kinds of dissemination and implementation strategies, and choose the strategies that are most likely to be effective for your initiative.

STEP 5

Identify the barriers and the facilitators

- What barriers could limit or prevent your target audience(s) from using the knowledge? Consider various types of barriers and levels.

  - Examples of barriers include:
    - Individual: insufficient knowledge, stress regarding change, unclear professional roles and responsibilities
    - Organization: weak leadership, lack of resources, no established process to use knowledge to inform policy- or decision making
    - System: gaps in legislation, outdated regulations or complex service delivery

- What can you and your stakeholders do to reduce the identified barriers? These activities should be included in your work plan.

- What could facilitate the use of knowledge by your target audience(s)? Facilitators are often the "opposite" of barriers.

  - Examples of facilitators include:
    - Individual: up-to-date skills, clear professional roles and responsibilities, openness to learning
    - Organization: a learning culture that supports training, committed leadership, sufficient resources
    - System: appropriate legislation, supportive regulations or flexible service delivery

■ What can you and your stakeholders do to take advantage of identified facilitators? These activities should also be included in your work plan.

▶ Allow sufficient time and resources to collect detailed information on the barriers and facilitators that will affect your initiative.

▶ Engage key stakeholders, including your target audience(s), to identify barriers and facilitators.

▶ Do your best to identify the root cause of a barrier. For example, if "time" is identified as a barrier, try to find out the reasons why, e.g. not enough staff or overly complex processes.

▶ Check the literature for information on the barriers and facilitators identified for your initiative. You may be able to adopt or adapt what others have done to address the same barriers and facilitators.

STEP 6

Choose the appropriate dissemination and implementation strategies

■ Based on what you learned in Step 2 — defining the need and expected outcomes — which strategies will best contribute to the success of your initiative?

  • Dissemination strategies include presentations, posters, conferences, workshops, webinars, media, knowledge brokering and social media.

  • Implementation strategies are generally more complex, and include training, engaging local opinion leaders, improving organizational facilities or equipment, or revising professional roles or responsibilities.

■ What kinds of strategies will be most effective, given your identified barriers and facilitators (Step 5)?

■ Do your selected strategies show evidence (e.g. from research and practice) that they are effective with your target audience(s)?

■ What additional criteria would help you identify the appropriate strategies? For example, is the strategy practical and affordable? Are you able to mitigate any associated risks?

TIPS

▶ If you can't find evidence supporting the effectiveness of your desired strategies, either reconsider the strategies, or provide an explanation to support using them and describe how you plan to monitor and evaluate their effectiveness (see Step 11).

▶ Confirm your chosen strategies through interviews, workshops and surveys. If possible, test the chosen strategies with the target audience(s) and invite feedback.

▶ Multiple strategies may lead to a greater impact. For example, if you are introducing a practice change, depending on the barriers and facilitators you have identified, you might need to increase the knowledge of your target audience, provide training to develop new skills, engage opinion leaders to promote the change, and obtain the support of senior leaders in the organization to reallocate resources.

D Tailor and implement KT (dissemination and implementation) strategies

Now that you have completed Steps 1–6, in this phase, you will build on and further refine the information you have gathered, tailoring the selected strategies to ensure the right "fit" for your initiative. You will also consider how to put the strategies in place, ensuring you identify the necessary financial and human resources. Once this phase is completed, you will have a comprehensive understanding of all the components of your dissemination and/or implementation strategies.

STEP 7

Define the dissemination and implementation strategies

- In addition to the barriers and facilitators you identified in Step 5, what other barriers and facilitators would affect how each strategy is carried out?

- What activities are needed to reduce the barriers and maximize the facilitators? Include this information in your work plan.

- What are the key messages for each strategy, keeping in mind that these may be different for each audience? How could the messages be framed so they speak directly to the interests and concerns of each audience?

- What are the most important characteristics of your target audience(s) when it comes to sharing knowledge with them? Consider things such as education level, expertise, level of influence, etc.

TIPS

- ▶ Match the key messages to the target audience(s) by determining what information is most important to them. Making a chart that links the messages to the relevant audience can be helpful.

- ▶ Choose a limited number of key messages and keep them simple, using clear language and avoiding jargon.

- ▶ Team up with a skilled "knowledge broker" (someone with expertise in communications, the subject matter or knowledge translation) to help make your messages relevant to each audience.

- What are the preferences of your target audience(s)? Consider the media your audience is most likely to use, e.g. social media, e-mail, and the amount of information the audience is most likely to need.

- Who will help deliver your key message(s)? A credible messenger is a trusted source for information, and can be a person, an organization, a journal, etc. It is important to identify and include this messenger in your planning.

- Are there existing knowledge sharing opportunities that you could use, e.g. newsletter, upcoming meetings, conferences?

- What other supports and tools might be required for your chosen strategies?

- What are the associated financial and human resources required for each strategy?

STEP 8

Assess the context for your strategies

- How would you describe the context in which you will apply your strategies? Consider the information identified by you and your stakeholders in Phase A (Steps 1–3) and Phase B (Step 4).

- What other factors may affect implementation of your strategies? These may include:

  - Factors that relate to the organization that will benefit from the knowledge: e.g. its structure, communication styles, values and priorities, readiness to change, leadership style, resources, approach to learning, patient needs (15).

  - Factors that relate to the individuals who will adopt the new practice or behaviour: e.g. their area of expertise, attitudes, prejudices, openness to new methods, their role (16).

TIPS

▸ Choose strategies that fit the context for your initiative. For example, strategies to implement a screening tool across multiple contexts should take into account the needs and experiences of the target audiences, the geographic locations and available resources.

▸ In addition to this step, context assessment should take place at other points during your initiative, e.g. when working with stakeholders (Step 2), when adapting the knowledge (Step 4), during evaluation (Step 13, if applicable) and when planning for sustainability (Step 14).

▸ There are many ways to assess context, needs and readiness, e.g. surveys, interviews, focus groups, observations and discussions with key stakeholders.

- Factors that relate to what is being implemented: e.g. the strength of its evidence, its ability to be adapted, its complexity and its cost (17).

- Factors that relate to the organization that will deliver the strategies: e.g. its expertise, attitudes, understanding of the initiative, confidence in providing support, and openness to adapting to other ways of working.

STEP 9

Tailor the strategies

■ How would your selected strategies need to be tailored for each target audience and context?

NOTE: Consider any potential issues so you can adjust the strategies before you begin to carry them out. For example, a hospital would like to introduce a smoking cessation program for staff that was originally designed to be delivered during the lunch hour. Given that hospital employees work in three shifts over a 24-hour period, the hospital should tailor the implementation strategy by delivering the program during each shift so that all staff can participate.

TIP

▶ When tailoring the implementation strategy, be aware of potential impacts on the effectiveness of what is being implemented. For example, will reducing five planned in-person training sessions to two sessions because of insufficient time result in a negative, neutral or positive impact?

STEP 10

Prepare to implement the strategies

■ Does your work plan identify the activities and human resources required for each strategy?

NOTE: Implementation strategies should be supported by a team that is actively involved with implementation efforts, and is accountable for guiding this work. Team members should know what is being implemented, understand KT, promote and participate in the change and be able to support collaborative work (e.g. conflict resolution, collective problem solving, communication, goal setting, planning and task coordination) (18). Consider:

- Who should participate in the implementation team?

- What selection criteria should guide the composition of the implementation team?

- What supports does the implementation team need? These may include technical assistance, coaching, financial and/or human resources (19).

■ Have key senior leaders been identified? What is their current level of buy-in? Do you need to enhance their buy-in and, if so, what is your plan to do so?

■ Are all key stakeholders sufficiently engaged? If not, how will you address this situation?

TIPS

▶ Be realistic about the timeframe(s) for rolling out your strategies. Try not to do too much too fast.

▶ If implementation is more challenging than expected, be prepared to reassess barriers and facilitators at all levels.

Now that Steps 1 to 10 have been completed, you will be moving on to plan for performance measurement (Step 11), monitoring (Step 12), evaluation (Step 13) and sustainability (Step 14). The results of this planning process should align with the performance measurement tools (logic model and indicators table) for your initiative, and also contribute to your evaluation plan (if applicable).

STEP 11

Validate your outputs, outcomes and indicators

- Are the outputs you identified still valid and will they contribute to the expected outcomes? Your work to define the dissemination and implementation strategies in Step 7 may have resulted in different or additional outputs.

- Are the expected outcomes you identified for your initiative in Step 2 still valid? Your work to identify barriers and facilitators, select and tailor the dissemination and implementation strategies may have led you to revise the expected outcomes.

- Do you have the best set of indicators to measure your outputs and expected outcomes? Consider the quality and effectiveness of your strategies.

- For implementation strategies, how will you measure how much of the original knowledge (or program or intervention) is delivered? Or what changes are made? Or how well the program or intervention is delivered? Or how interested and receptive the participants are (20)?

- For dissemination strategies, of the target audience, how will you measure who is reached? Or how satisfied the target audience is? Or how useful the audience finds the knowledge?

- If you have validated your performance measurement tools with your stakeholders, have any gaps or changes been identified?

E Monitor knowledge use

When your initiative is ready to be implemented, it will be important to consider how you will monitor its progress and performance. Monitoring is "the ongoing, systematic process of collecting, analyzing and using performance information to assess and report on an organization's progress" (21). Regardless of whether your initiative is engaged in dissemination or implementation, monitoring can help you find out whether outputs or outcomes are being achieved, whether the strategies are being implemented as intended, or whether there are any unanticipated changes. Monitoring will also identify whether any adjustments are needed to your KT planning.

STEP 12

Plan to monitor knowledge use

- How will you collect and store information on the progress and performance of your strategies?

- What process have you developed to analyse and report on this information?

- What financial, human and technical resources are required? What training might be required? These resources should be included in the budget for your initiative.

- How are you planning to use your monitoring information, e.g. for reporting, learning, decision making and/or stakeholder engagement?

TIP

▶ Enlist a champion from your organization who can promote the benefits of generating, sharing and reporting good performance data (22).

F Evaluate outcomes

In this phase of planning, you will consider whether evaluation would be useful for your initiative and, if so, what questions it might answer. According to Treasury Board of Canada Secretariat, "evaluation is the systematic and neutral collection and analysis of evidence to judge merit, worth or value. Evaluation informs decision making, improvements, innovation and accountability. Evaluations typically focus on programs, policies and priorities and examine questions related to relevance, effectiveness and efficiency" (23). Evaluation is also necessary to determine whether your knowledge (or program or intervention) should be sustained.

STEP 13

Plan to evaluate outcomes

- Have you determined if an evaluation will be carried out for your initiative? If so, the evaluation should include an examination of your dissemination and implementation strategies.

- What financial, human and technical resources would be required? If planning for an evaluation, ensure this information is included in your work plan and budget.

TIPS

▶ Develop your evaluation plan (if needed) in collaboration with your key stakeholders and Health Canada.

▶ When planning your evaluation report, consider who will receive what information, in what format and when; and who will prepare and deliver the information (24).

G Sustain knowledge use

Ideally, the knowledge generated by your initiative should be accessed and used for as long as possible. Although it occurs as the final phase in the KT Planner, planning for sustainability should form part of your early discussions with key stakeholders, regardless of whether there are formal arrangements for you or another organization to take responsibility for sustainability. Early planning will allow you to identify and integrate the activities and resources needed for sustainability into the ongoing operations of the responsible organization.

STEP 14

Plan for sustainability

- Is there sufficient evidence to support the need for sustainability?

- What aspect(s) of your initiative should be sustained?

- Who will be responsible for sustainability and how they will accomplish this?

- Which stakeholders need to be engaged in planning and/or assuming responsibility for sustainability?

- What are the barriers and facilitators to sustainability?

- How soon would sustainability efforts need to begin and when might they end?

- With respect to sustainability, how will progress be monitored and outcomes evaluated?

- What financial and human resources are required for sustainability?

TIPS

▸ There are many factors that affect sustainability, including funding, leadership, organizational capacity and partnerships. Identify those that are critical to your initiative so you can develop appropriate strategies to address barriers and enhance facilitators for each factor.

▸ By setting a clear timeframe for sustainability, you might alleviate any concerns from your key stakeholders about making a long-term commitment, thereby encouraging their buy-in and sharing of resources.

▸ Using evidence from performance measurement and/or evaluation to communicate your successes will help engage key stakeholders, confirm the benefits of your initiative to the organization and funders, and mobilize broader stakeholder or public support.

▸ Paying attention to updated information on your subject matter, changes in policy that affect the knowledge being disseminated and implemented, or new target audience(s) to be included will help keep the knowledge current and useful.

- Do you intend to increase the reach and impact of the knowledge that has been successfully evaluated to benefit more people in a lasting way? If so, consider whether changes are needed at the health care system level, e.g. financial measures, regulation and legislation.

Bringing it all together

If you are applying for funding, once you have a clear idea of your plans for knowledge dissemination and implementation, incorporate the activities, resources, outputs and outcomes into your application, including the work plan and budget.

If you are already receiving funding, consider whether the results of your KT planning require any changes to your work plan, budget and/or performance measurement tools. If so, please consult your Health Canada program contact.

Questions? Comments?

We welcome your feedback on this Knowledge Translation Planner. Please send your questions and/or comments to your Health Canada program contact.

Section 3

◤ Appendices

APPENDIX A: Glossary

Barrier
A barrier is any factor that might prevent achievement of expected outputs and outcomes.

Dissemination
The goal of dissemination is to spread evidence-based or evidence-informed knowledge to specific audiences (25). It involves presenting knowledge in different ways and using a variety of channels.

Evidence-based guideline
An evidence-based guideline outlines a recommended practice that is based on systematic review of evidence.

Evidence-based implementation strategy
An evidence-based implementation strategy has been evaluated to implement evidence into practice.

Evidence-based program
An evidence-based program comprises an intervention (i.e. what is being implemented) and implementation strategies that have been systematically evaluated and proven to be effective at producing an outcome.

Evidence-informed
Evidence-informed refers to use of the best available knowledge and research to guide program design and implementation.

Facilitator
A facilitator is any existing factor that would contribute to the achievement of expected outputs and outcomes.

Implementation
Implementation is the use of strategies to adopt and integrate evidence-based or evidence-informed interventions and change practice within specific settings (26). Strategies are also focused on changing behaviour.

Knowledge

A general definition of knowledge is "the facts, information and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject" (27). In the context of the KT Planner, the "knowledge" that is being disseminated and implemented should be grounded in evidence, that is to say, the "most relevant, high quality qualitative or quantitative" research available (28).

Knowledge translation

Knowledge translation (KT) is an active process that includes the synthesis, dissemination, exchange and implementation (application) of knowledge to improve the health of Canadians (29). It involves purposeful interactions among people who produce knowledge and those who use knowledge. How knowledge is shared depends on the context in which interactions take place; the needs, roles, resources and capacity of knowledge producers and users; and the knowledge type and findings (30).

Logic model

A logic model is a visual depiction of the relationship between inputs, activities, outputs and outcomes.

Stakeholder

A stakeholder is any person, group or organization who is actively involved in the initiative, or whose interests may be positively or negatively affected by the implementation of the initiative. Stakeholders can include knowledge producers, users and target audiences.

Target audience

A target audience comprises the people and/or organizations that the initiative is trying to reach directly through its activities.

APPENDIX B: Knowledge to Action Model

The following descriptions of the phases of the Knowledge to Action (KTA) model are from Ian D. Graham et al. (31), and have also been adapted for this *Knowledge Translation Planner*.

Knowledge Development

Knowledge development consists of three components: development, synthesis and products. Knowledge is refined as it moves from the phases of inquiry to synthesis to products. Products present knowledge in clear, concise and user-friendly formats. Ideally they provide explicit recommendations with the intent of influencing the target audience's practices and behaviours.

Identify need

The need (or problem) and goals for the initiative are identified.

Identify, review and select knowledge

The knowledge (or knowledge product) that will address the identified need (or problem) is selected.

Adapt knowledge to local context

The knowledge is adapted to suit the context in which it will be implemented. This step should not be confused with the later step that involves tailoring the implementation strategies to the context.

Identify barriers and facilitators to knowledge use

Barriers and facilitators to knowledge use are identified. Barriers and facilitators at the individual level relate to factors such as knowledge, skills, social or professional role, beliefs about one's capabilities, intentions, beliefs about the consequences of the knowledge use, emotion and the individual's environment. Barriers and facilitators at the organizational level include factors such as the culture of the organization, the implementation climate, leadership engagement, needs of the end user, and/or available resources. Barriers and facilitators may also exist at the system level.

Select appropriate KT strategies

"KT strategies" refers to dissemination and implementation strategies. These strategies will reduce the identified barriers or support the identified facilitators. Selected strategies should be based on the best available evidence for effectiveness.

Tailor and implement KT strategies

Strategies are adapted to the context in which they are being implemented. Factors that might prevent or facilitate implementation include: the culture of the organization, readiness for implementation (e.g. leadership engagement, available resources) and patient needs.

Monitor knowledge use

Once the logic model and performance indicators are set, use of the knowledge is monitored. The quality of the implementation can also be assessed and, based on findings, the implementation can be improved.

Evaluate outcomes

Outcomes are evaluated based on what is identified in the logic model.

Sustain knowledge use

While sustaining knowledge use occurs in the "final" step of the KTA model, planning for sustainability should occur earlier in the initiative.

APPENDIX C: Worksheet

(The sample worksheet is available in a fillable Microsoft Word format)

Worksheet

STEP 1: Identify and consult with your stakeholders and target audience(s)

STEP 2: Define the need and the expected outcomes for your initiative

STEP 3: Identify the knowledge you want to disseminate and implement

STEP 4: Identify any adaptations needed to the knowledge

STEP 5: Identify the barriers and the facilitators

STEP 6: Choose the appropriate dissemination and implementation strategies

STEP 7: Define the dissemination and implementation strategies

STEP 8: Assess the context for your strategies

STEP 9: Tailor the strategies

STEP 10: Prepare to implement the strategies

STEP 11: Validate your outputs, outcomes and indicators

STEP 12: Plan to monitor knowledge use

STEP 13: Plan to evaluate outcomes

STEP 14: Plan for sustainability

Health Canada   Santé Canada

Canada

APPENDIX D: Resources

In addition to the endnotes and bibliography, the following is a selection of resources you might find useful.

■ **General information on knowledge translation**

▸ **http://www.cihr-irsc.gc.ca/e/29418.html#1**. The Canadian Institutes for Health Research website provides information on knowledge translation, the Knowledge to Action Model and other resources.

▸ **http://ktcanada.org/**. The Knowledge Translation Canada website contains resources and information on education and training.

■ **Understanding behaviour change**

▸ Theoretical Domains Framework was developed to make behaviour change theories more accessible in relation to implementation practices (see Bibliography for Cane).

▸ Capability, Opportunity, Motivation — Behaviour (COM-B) is a behavior change theory (see Bibliography for Michie).

■ **Understanding the context for implementation**

▸ Consolidated Framework for Implementation Research (CFIR) is a framework that can be used to understand the implementation context (see Bibliography for Damschroder).

▸ Promoting Action on Research Implementation in Health Services (PARiHS) is a framework that describes how to implement research into practice, focusing on three key elements required for knowledge translation: evidence, context and facilitation: **http://qualitysafety.bmj.com/content/7/3/149**.

▸ Ecological Framework identifies the factors, including contextual ones that affect implementation (see Bibliography for Durlak and Dupre).

■ **Implementation strategies**

▸ Rx for Change: **https://www.cadth.ca/rx-change**. The Rx for Change searchable database contains current research evidence about intervention strategies used to alter behaviours of health technology prescribing, practice and use.

▸ Cochrane Effective Practice and Organisation of Care (EPOC): **http://epoc.cochrane.org/our-reviews**. This site contains systematic reviews of educational, behavioural, financial, regulatory and organisational interventions designed to improve health professional practice and the organisation of health care services.

- The Expert Recommendations for Implementing Change (ERIC): **http://implementationscience. biomedcentral.com/articles/10.1186/s13012-015-0209-1**. This site provides a list of implementation strategy terms and definitions.

■ **Other KT planning tools**

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- Registered Nurses' Association of Ontario. Available from: **http://rnao.ca/bpg/resources/ toolkit-implementation-best-practice-guidelines-second-edition**

■ **Evaluation**

- RE-AIM: **http://re-aim.org/**. RE-AIM is a framework that identifies the five elements necessary for health behaviour interventions. It can be used to evaluate the potential for public health impact and sustainability.

■ **Sustainability**

- Sustainability Framework and Assessment Tool: **https://sustaintool.org/**. This online sustainability tool allows programs to rate their capacity for sustainability.

- National Health Service Sustainability Model: **http://www.qihub.scot.nhs.uk/media/162236/ sustainability_model.pdf** (archived). This model identifies the factors that play a role in sustaining change in healthcare. It can be used to assess a specific project.

Section 4

◤ Endnotes and Bibliography

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