March 2002

toolkit

implementation of
clinical practice guidelines

RNAO
Registered Nurses Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario

toolkit

Implementation of
clinical practice guidelines

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RNAO

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Visit the RNAO website at www.rnao.org to place an order for this Toolkit.

acknowledgements

RNAO wishes to acknowledge the following persons for the review of the Toolkit:

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introduction

setting the stage

Clinical practice guidelines (CPGs) are commonly referred to as: systematically developed statements of recommended best practice in a specific clinical area, designed to provide direction to practitioners in their practice. CPGs are implemented to enable the accomplishment of one or more of the following objectives:

- To deliver effective care based on current evidence;
- To resolve a problem in the clinical setting (e.g. poor management of pain);
- To achieve excellence in care delivery by meeting or exceeding quality assurance standards;
- To introduce an innovation (e.g. a new effective test or treatment).

As increasing numbers of CPGs are developed, there continues to be a large variation in health care practice, in general, and in nursing care specifically. Furthermore, there is concern that CPGs will not be fully utilized by health care practitioners if they are not effectively introduced, supported and implemented. There is strong support in the literature, albeit largely physician based studies, indicating inadequate use of well-known CPGs *(Bero, Grilli, Grimshaw, Harvey, Oxman & Thomson, 1998; Davis & Taylor-Vaisey, 1997; Oxman, Thomson, Davis, & Haynes, 1995; Thomas, Cullum, McColl, Rousseau, Soutter, & Steen, 1999; Wensing, Van der Weijden, & Grol, 1998)*.

The RNAO nursing best practice guidelines can be found at www.rnao.org

This Toolkit was designed to assist health care settings in maximizing the potential of CPGs, through systematic and well-planned implementation. It was also designed to accompany the nursing best practice guidelines (NBPGs) developed by the Registered Nurses Association of Ontario (RNAO) in order to facilitate their implementation.

The likelihood of success in implementing CPGs increases when:

- A systematic process is used to identify a well-developed, evidence-based CPG;
- Appropriate stakeholders are identified and engaged;
- An assessment of environmental readiness for CPG implementation is conducted;
- Evidence-based implementation strategies are used that address the issues raised through the environmental readiness assessment;
- An evaluation of the implementation is planned and conducted; and
- Consideration of resource implications to carry out these activities is adequately addressed.

This chapter of the Implementation Toolkit addresses four questions:

1. **Who is the Toolkit designed for?**
2. **How was the Toolkit developed?**
3. **What are the limitations of the Toolkit?**
4. **How do you use the Toolkit?**

Who is the Toolkit designed for?

The users of the Implementation Toolkit will include nurses and other health care professionals. In particular, this Toolkit will be most valuable for individuals who have responsibility for implementing CPGs in their organization(s). Organizations wishing to implement CPGs should identify one or more individuals who would be assigned responsibility for facilitating the planning, implementation, and evaluation processes. Typically, an interdisciplinary approach is an important factor in planning, implementing and evaluating activities.

Individuals identified to lead the process of CPG implementation may be referred to as facilitators, project managers or project leads. Groups charged with leading implementation activity may be referred to as the Implementation Committee, Steering Committee or Project Team.

How was the Toolkit developed?

The RNAO, with funding from the Ontario Ministry of Health and Long-Term Care (MOHLTC) initiated a multi-year project to develop, pilot, evaluate and disseminate nursing best practice guidelines. A panel of nurses/researchers was convened by RNAO to develop a Toolkit to guide organizations wishing to implement CPGs, including those developed as part of the Nursing Best Practice Guidelines Project. The panel conducted its work independent of any bias or influence from the Ontario MOHLTC.

The Toolkit Panel determined, through a process of consensus, the scope of the Toolkit.

Whenever possible, the panel used a hierarchy of evidence which assigned levels of evidence. Evidence was identified from available systematic reviews, sound primary studies, and the expert opinion of panel members.

The Toolkit was developed as a user-friendly resource to facilitate systematic identification and implementation of CPGs. Since the content relies on current available knowledge, it will undergo regular review and updating as outlined in Appendix A.

caution

What are the limitations of the Toolkit?

Research in the field of CPG implementation is in its infancy stage. Much of this research has been conducted with physician groups and very little with nursing and other health professional groups. Hence, you are advised to carefully consider the fit between your organization and the recommendations and directions provided in this Toolkit.

How do you use the Toolkit?

The Toolkit was conceptualized using a model developed by the panel (See Figure 1). The model depicts six essential components for CPG implementation: CPG identification (1); stakeholder identification, assessment and engagement (2); environmental readiness (3); use of effective implementation strategies (4); evaluation of the CPG implementation (5); and identification of resource requirements (6). Each chapter is organized to correspond to one of the six components. Although the components of CPG implementation are organized as separate chapters, it is important to note that with each component, there are resource requirements and stakeholder implications. At the end of each chapter, key resource and stakeholder implications are outlined.

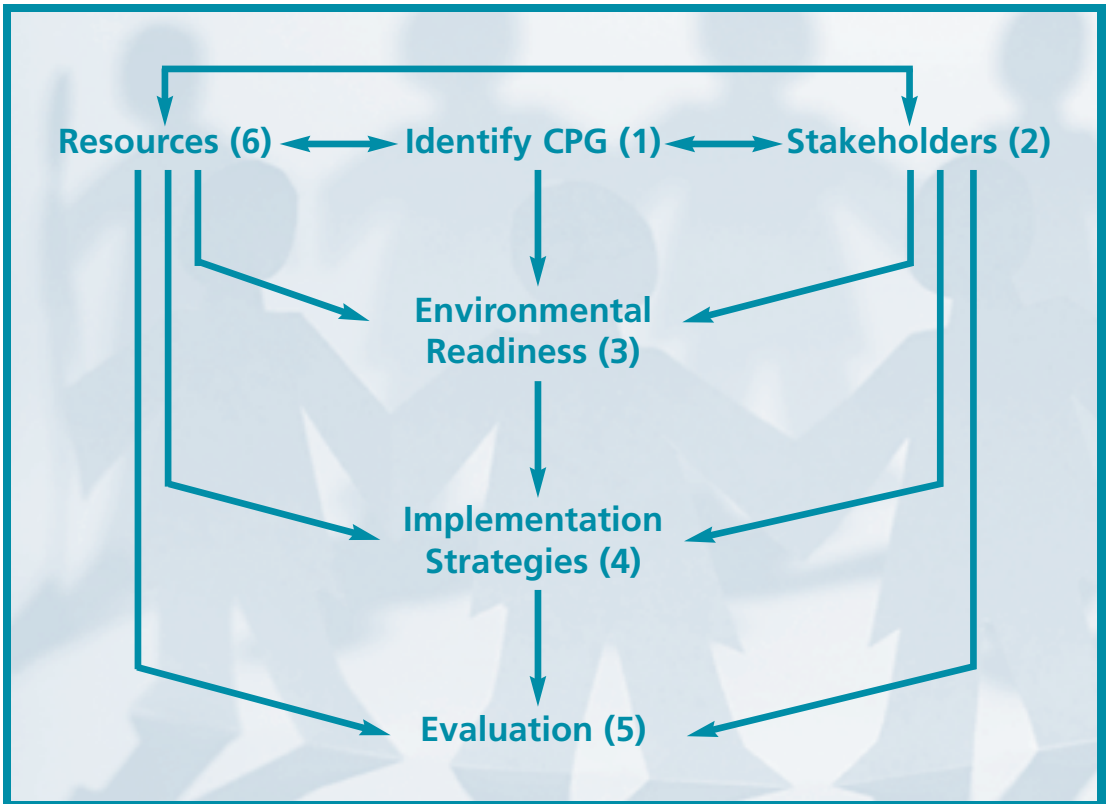

Figure 1: Clinical Practice Guideline Implementation Model

What to look for as you read the chapters

Each chapter is organized with the following subheadings:

1. Review of previous chapter
2. What is this chapter about?
3. Key definitions
4. Here are the FACTS
5. Making it happen in your practice setting
6. Implications to consider before proceeding to the next chapter
   a) Stakeholder implications
   b) Resource implications
   c) Action plan implications
7. Scenario (an application of the content of each chapter)
8. References

Overview of chapter contents

Chapter	Content	Templates (see accompanying diskette)
Introduction	Setting the stage	Action plan template.
Chapter 1	Criteria for identifying a well-developed evidence-based CPG.	Instrument to critically appraise existing clinical practice guidelines. Go to: www.agreecollaboration.org
Chapter 2	Stakeholder engagement. Direction is provided on how to identify stakeholders and how to engage them as supporters for the implementation.	Stakeholder assessment worksheet.
Chapter 3	A framework for conducting an environmental readiness assessment.	Environmental readiness assessment worksheet.

Overview of chapter contents (continued)

Chapter	Content	Templates (see accompanying diskette)
Chapter 4	Specific strategies for CPG implementation.	
Chapter 5	Evaluation of the CPG implementation and impact. Key indicators are identified.	Indicator identification worksheet.
Chapter 6	General direction is provided on determining the human and financial resources for identifying, implementing and evaluating the CPGs.	Budget worksheets.
Chapter 7	Steps in the Toolkit are summarized and tools to assist you in managing and monitoring the implementation of a CPG are provided.	Action plan template.

Icons to watch for as you use your Toolkit:

	**Resource Implications**		**Stakeholders**
	**Worksheet**		**Action Plan**

Action Plan

As you begin the planning exercise, we recommend that you use our action plan. The template for the action plan and blank worksheets are provided on an accompanying diskette.

The templates can be immediately put to use by inserting the appropriate information in the worksheets. As you proceed through each chapter, you will find one or more worksheets to assist you in putting into action the material learned in that chapter. Key definitions are included in each chapter, and a full glossary is provided in Appendix B.

Action Plan Implications:

- Become familiar with the Action Plan Template.
- Identify broad based timelines for the CPG implementation and evaluation project.
- Start development of the action plan immediately as you proceed with the next chapter.

Resource Implications:

- The individual(s) identified to lead the process of CPG implementation in your organization should have skills in project management, change management, facilitation, working with and engaging others, and resourcefulness.

- It must be understood early in the process that CPG implementation will require resources e.g. dedicated time for leading, planning and implementing the project, education time, etc. The specific details of resource requirements are discussed in Chapter 6. However, like stakeholder assessment, resource requirement assessment should begin early and be developed through the planning process. Use the worksheets as you work through each chapter to identify the budget implications for implementing a CPG.

Worksheet templates are provided on an accompanying diskette. Use the worksheets as you work through each chapter.

Scenario

At the closing of each chapter is a scenario to illustrate how you can identify, implement and evaluate the implementation of a CPG. Below, is a brief description of the scenario, which will be expanded to reflect the content covered in each chapter.

You are a Clinical Nurse Specialist (CNS) in palliative care in a general hospital. In your first year in this position, you have been working with patients in the palliative care program and consulting with nurses in the hospital about pain management in general. Over the past few months, you have been reflecting on the level of pain control and on pain management practices in your hospital. You are aware that patient and family satisfaction with pain management is lower in your setting than in other similar settings. You know that some of your colleagues are interested in improving pain management. You have discussed your concerns with your manager and the Chief Nursing Officer at your organization. The three of you decide that it would be a good idea to look for a clinical practice guideline on pain management to use in your setting.

References

Bero, A. L., Grilli, R., Grimshaw, M. J., Harvey, E., Oxman, D. A., & Thomson, M. A. (1998). Closing the gap between research and practice: An overview of systematic reviews of interventions to promote the implementation of research findings. British Medical Journal, 317, 465-468.

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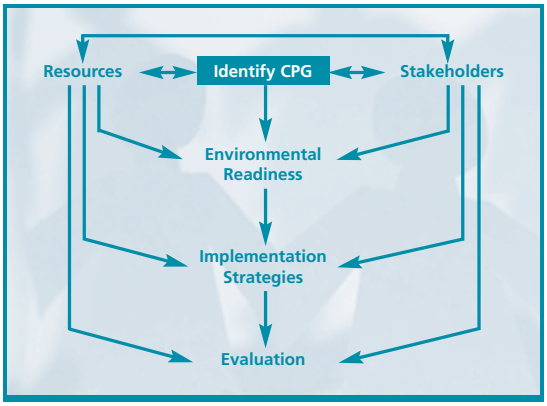
chapter 1

step 1

Selecting Your Clinical Practice Guideline

preamble: The first step in using clinical practice guidelines (CPGs) in your organization is to decide which CPG to introduce. An increasing number of CPGs on the same topic area has resulted in the time consuming and difficult task of accessing and selecting high quality CPGs. Clinical practice guidelines can be accessed through many sources including published literature, Internet sites, and organizations. Guidelines vary in the level of methodological rigor used to develop them, the strength of the evidence supporting specific recommendations, their clarity and format. There is a growing acknowledgement among those involved in CPG development that there is a need to follow globally set standards of CPG development. Many guidelines fall short in following established methodological standards in all areas of guideline development --particularly in the identification, evaluation, and synthesis of scientific evidence *(Cluzeau, Littlejohns, Grimshaw, Feder & Moran, 1999; Graham, et al., 2001; Grilli, Magrini, Penna, Mura & Liberati, 2000; and Shaneyfelt, Mayo-Smith & Rothwangl, 1999)*.

What is this chapter about?



In this chapter, you will become familiar with how to assess the quality of CPGs using a guideline appraisal instrument. You will also review the process a group can use to facilitate the adoption or adaptation of an existing guideline for local use.

The process by which you can critically appraise available guidelines will be outlined, along with strategies and tools. The first step in implementing any CPG is to find the best CPG to implement.

The information in this chapter is based on the following key sources: *Graham, Harrison & Browers (2001)* and the experience of the RNAO Nursing Best Practice Guidelines Project, 2001.

key definitions

Clinical practice guidelines or Best practice guidelines

"Systematically developed statements (based on best available evidence) to assist practitioner and patient decisions about appropriate health care for specific clinical (practice) circumstances" *(Field & Lohr, 1990).*

Consensus of expert opinion

"A process for making policy decisions, not a scientific method for creating new knowledge. At its best, consensus development merely makes the best use of available information, be that scientific data or the collective wisdom of the participants" *(Black, Murphy, Lamping, McKee, Sanderson & Askham, 1999).*

Evidence

"An observation, fact, or organized body of information offered to support or justify inferences or beliefs in the demonstration of some proposition or matter at issue" *(Madjar & Walton, 2001).*

caution Look for CPGs that are based on the highest quality evidence

Evidence-based practice

The systematic application of the best available evidence to the evaluation of options and to decision-making in clinical management and policy settings *(National Forum on Health, 1997).*

Levels of evidence

A hierarchy of evidence, usually ranging from strongest to weakest.

Resources

Financial, human or in-kind requirements necessary to achieve the objectives that are outlined in your action plan.

Stakeholder

An individual, group and/or organization with a vested interest in your decision to implement a CPG. Stakeholders include individuals or groups who will be directly or indirectly affected by the implementation of a CPG.

Systematic review

The application of a rigorous scientific approach to consolidate the research evidence on a specific topic. "Systematic reviews establish where the effects of health care are consistent and research results can be applied across populations, settings, and differences in treatment (e.g. dose); and where effects may vary significantly. The use of explicit, systematic methods in reviews limits bias (systematic errors) and reduces chance effects, thus providing more reliable results upon which to draw conclusions and make decisions" *(Clarke & Oxman, 1999).*

Here are the FACTS

To select a CPG, you need criteria for decision-making such as a critical appraisal instrument specifically designed to assess CPGs. *Graham, Calder, Hebert, Carter & Tetroe (2000)* conducted a comparison of critical appraisal instruments for CPGs. The authors concluded that although a large number of critical appraisal instruments were identified, no one instrument could be exclusively recommended. The Cluzeau instrument, however, was noted to have the most extensive testing.

The Cluzeau instrument underwent further testing and was revised and renamed the AGREE (Appraisal of Guidelines for Research & Evaluation) instrument, based on the name of an international group established to improve the development and effectiveness of CPGs. The AGREE instrument is the most current and rigorously tested instrument for the appraisal of CPGs available at this time. You are advised to regularly visit the AGREE website to obtain the most current version of the AGREE instrument www.agreecollaboration.org.

Making it happen in your practice setting

How do you select a clinical practice guideline?

step 1:

Identify whether or not a credible organization or author has already conducted an up-to-date appraisal of CPGs in your area of interest. Organizations such as the RNAO have used a systematic process to critically appraise many CPGs in diverse topic areas. If such an appraisal exists, determine whether the organization or author used a systematic and rigorous process of appraising the guidelines, using a valid appraisal instrument. Further, you will want to find out who was involved in the appraisal process and what the limitations are with the identified CPG.

step 2:

If no review of CPGs is available, systematically search for all available CPGs in your chosen topic area:

- Start by systematically searching for CPGs through the Internet. Many websites provide access to developed guidelines. Note that such guidelines vary in rigor and quality. Additionally, many of the websites do not systematically assess the quality of the guidelines that are housed in their databases. A thorough and systematic search on the Internet is highly recommended.

- Using a skilled librarian or literature search expert, search the common health care literature databases for CPGs in your topic area. A careful search includes keeping a detailed documentation of the search strategy used. Search terms needs to be carefully identified by the clinicians most familiar with the clinical content area. For example, terminology used to search for CPGs in the area of pain could include: pain, pain management, pain relief, practice guideline(s), clinical practice guideline(s), standards, evidence-based guidelines, best practice guidelines. Searching of more than one database is highly recommended (Medline, CINAHL, Embase, etc).

- CPGs are often developed by organizations, groups of organizations and/or associations and may not be published in the literature. You can interview your stakeholders for their knowledge of unpublished CPGs.

step 3:

Ensure all CPGs are accessed in their entirety. A quick read often points to technical documents, monographs or other associated documents that describe the guideline development in detail, as well as the supporting evidence. A meticulous record of accessed guidelines should be kept.

step 4:

When large numbers of CPGs are accessed, screening criteria may be used to short-list the documents. Screening criteria should ensure that guideline development was evidence-based. Screening criteria may also include: CPGs written in English (if you don't have capacity for translation), written within a specific time frame, focused on a more narrow topic area, etc.

What do you do once a set of CPGs has been identified?

step 1:

Use the AGREE instrument to critically appraise each short-listed CPG. This tool allows for evaluation in six key dimensions: scope and purpose; stakeholder involvement; rigor of development; clarity and presentation; applicability; and editorial independence. Identify a group of four to six members to review and independently appraise the guidelines. It is preferable if the members as a group have expertise or experience in the clinical topic area of interest, have some understanding of the research process, and have an orientation to the use of the AGREE instrument. Tables and bar graphs of AGREE scores for each CPG can be developed to summarize ratings and permit comparison across CPGs.

The process of critically appraising the guidelines allows you to identify one or more guidelines you and your organization would consider for implementation. If you identify more than one, the implementation team can decide whether to use one guideline exclusively or adopt recommendations from one or more guidelines, based on levels of evidence, clarity, etc.

step 2:

Most CPGs will have a number of recommendations. Your implementation team needs to identify the recommendations for implementation. Your decision process may involve considering the following questions:

1. Are there certain recommendations that are based on higher levels of evidence than others?
2. Are there specific recommendations in the CPG that address the needs in your organization?
3. Are there any recommendations that are already being implemented?
4. Are there some that have only been implemented partially? Not at all?
5. Are there some recommendations that must be implemented before other recommendations?
6. Are there any recommendations that can be implemented at once?
7. Will some recommendations take longer to fully implement?
8. Are there barriers to implementation of some of the recommendations that will either take a long time to overcome or require many resources? (e.g. time, money, specific skills)

The decisions made at this stage will inform the scope of your CPG implementation, as well as the amount of resources required. Use key stakeholders-- such as nurse managers and clinical nurses working in the practice area-- and quality assurance data to answer the questions listed above.

Before proceeding to the next chapter, consider the following:

Stakeholder Implications:

- Key stakeholders are engaged early in the process, e.g. to be part of the CPG appraisal process.
- Stakeholders have very important sources of information such as: the extent of the problem, the unmet needs, and the motivation required to address the issue.

Resource Implications:

- Consider resources for the following: literature and Internet searches for CPGs; time for critical appraisal of the CPGs; and space and time for panel or committee to meet on a regular basis.
- RNAO has workshops available on the following topics that would assist in skill development (see www.rnao.org):
  - **a)** Research Appraisal - e-learning module
  - **b)** Customized workshops in the areas of critical thinking, evidence-based practice, working in teams, change management, negotiation, etc - call RNAO Centre for Professional Nursing Excellence, 416.599.1925, 235

Action Plan Implications:

- Pull out your action plan and include the specific actions that will be required for your organization to identify a specific guideline, the specific recommendations, etc.
- Specify the responsibilities for the tasks such as Internet searches, literature searches, guideline appraisal, data compilation, etc.

Scenario

You are the Clinical Nurse Specialist who brought forward the issue of pain management in your organization. Your first task is to find a suitable CPG for pain management. You have taken the lead, with support from your Chief Nursing Officer, in pulling together a panel of stakeholders also interested in the issue of pain. The Pain CPG Implementation Committee comprises three staff nurses, a nurse manager, a nurse educator, a physician, a pharmacist, and a university nursing professor.

Two committee members agree to conduct a search for CPGs related to pain management. They consult with a librarian and search the nursing, medical, and health literature, and the Internet. All committee members use their local and professional contacts to search for unpublished work or "in progress" guidelines.

The panel identifies ten CPGs related to pain assessment and management:

1. Royal College of Nurses: The Recognition and Assessment of Acute Pain in Children
2. AHCPR: Acute Pain Management in Adults: Operative or Medical and Trauma;
3. AHCPR: Management of Cancer Pain in Adults;
4. American Pain Society: Quality Improvement Guidelines for the Treatment of Acute and Cancer Pain;
5. American Geriatric Society: The Management of Chronic Pain in Older Persons;
6. College of Physicians and Surgeons of Alberta: Guidelines for the Management of Chronic Non-Malignant Pain;
7. Canadian Pain Society: Guidelines for the Management of Chronic Non-Malignant Pain;
8. University of Iowa Gerontological Interventions Research Center: Research Based Protocol: Acute Pain Management;
9. American Society of Anaesthesiologists: Practice Guidelines for Chronic Pain Management; and
10. Health Canada: The Management of Chronic Pain in Patients with Breast Cancer.

Two committee members screen the identified guidelines, using the following criteria:

1. Guideline is available and accessible for retrieval in its entirety;
2. Guideline is evidence-based, e.g. contains references, description of evidence, and sources of evidence;
3. Guideline is in English (only have access to English speaking reviewers);
4. Guideline is dated no earlier than 1995; and
5. Guideline is strictly about the topic area (a quick read by two members confirms if guideline addresses topic at hand).

Each committee member reads through the guidelines. In order to identify relevant, quality guidelines, the committee divides up the task of critically appraising the 10 CPGs. For each CPG, there are formal appraisals, using the AGREE Instrument.

Each appraiser's ratings and overall assessment are summarized for the committee to review. The committee identifies the following three guidelines as meeting the committee's criteria for quality guidelines from which recommendations will be adopted:

1) AHCPR: Acute Pain Management in Adults: Operative or Medical and Trauma;
2) AHCPR: Management of Cancer Pain in Adults; and
3) Royal College of Nurses: The Recognition and Assessment of Acute Pain in Children.

The committee compares the specific recommendations in the three guidelines and concludes that the majority of the recommendations are based on the same evidence. In some cases, recommendations are better worded and evidence is more clearly described. The committee decides to implement recommendations for which there is the best research evidence. They also select recommendations for implementation based on the scope of the committee's goals and objectives.

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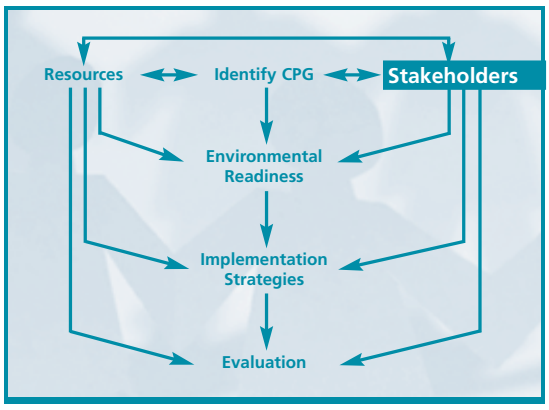
chapter 2

step 2

Identifying, Analyzing, and Engaging Your Stakeholders

review of previous chapter: Now that you have identified and selected a clinical practice guideline (CPG) or recommendations from several CPGs for use in your setting, you are ready to look at stakeholders.



What is this chapter about?

This chapter examines the role of stakeholders (e.g. individuals, groups, and/or organizations) who may have a vested interest in your decision to implement CPGs, and who may attempt to influence your decisions and actions as you develop your implementation plans *(Baker, Ogden, Prapaipanich, Keith, Beattie, & Nickleson 1999).*

You and your team need to:

1. Identify the stakeholders;
2. Analyze their interests;
3. Determine their level of support and influence related to your plans; and
4. Develop strategies to engage the key stakeholders.

This chapter will take you through this process, step by step.

Stakeholders can support, or oppose the implementation of the CPG, or even remain neutral throughout the implementation process. This chapter will address each of these types of stakeholders, and how a team can work with stakeholders to successfully implement a CPG.

The recommendations in this chapter are based on the following key sources:

- ***Shields*** (1994)-- assessing stakeholder support;
- ***Varvasovszky & Brugha*** (2000)-- stakeholder analysis;
- ***Baker et al.,*** (1999), ***Fottler, Blair, Whitehead, Laus & Savage*** (1989) and ***Blair & Whitehead*** (1988)--demonstrating the use of stakeholder analysis in hospital mergers; and
- ***Pollack*** (1994)-- example of stakeholder analysis used in program development.

key definitions

Stakeholders

A stakeholder is an individual, group and/or organization with a vested interest in your decision to implement a CPG. Stakeholders include individuals or groups who will be directly or indirectly affected by the implementation of a CPG.

Stakeholders can be categorized in a number of ways: internal, external, or interface stakeholders. Categorizing stakeholders will enable you to identify:
1. Stakeholders that will influence your implementation; and
2. Groups of "like" stakeholders.
This will help you and your team to find the most effective ways to engage stakeholders.

Stakeholders can also be categorized according to their positive, negative and/or neutral response to your CPG implementation. This categorization is often determined as you are carrying out a stakeholder analysis.

Internal stakeholders

Internal stakeholders are from within the organization and can include the staff nurses, the Chief Nursing Officer, clinical nurse specialists, physicians and others.

External stakeholders

External stakeholders operate outside the organization and can include organizations such as the RNAO, accreditation bodies, and various interest groups including patient and consumer groups, and others.

Interface stakeholders

Interface stakeholders operate across organizational, environmental boundaries. They include such persons as board members from your organization, staff with cross appointments, and other similar persons. Categorization can usually be determined when you initially identify stakeholders.

Stakeholder analysis

Stakeholder analysis is a way to generate information about individuals, groups and/or organizations. A stakeholder analysis will help you and your team to understand stakeholder behaviour, plans, relationships and/or interests. As well, it will help you and your team to determine the influence and resources stakeholders will bring to bear.

Stakeholder management and engagement

Stakeholder management describes the way you and your team engage or work with stakeholders. The goal of stakeholder engagement is compatibility between the interests of your stakeholders and your own project goals. Stakeholder engagement employs various approaches that can at best improve congruence or at least minimize the consequences of not having compatible goals.

Stakeholder management is a neutral term as it includes ways to work with positive as well as negative stakeholders. Where appropriate, the word "stakeholder engagement" will be used instead of stakeholder management.

Stakeholder triaging

Stakeholder triaging is a form of stakeholder engagement. It will help you and your team to:

1. Direct energies towards stakeholders based on their positive, negative and/or neutral stance;
2. Determine how much energy and what type of resources to spend on each type of stakeholder;
3. Decide which stakeholder group should be addressed first; and
4. Decide on your goals for stakeholder engagement.

Here are the FACTS

There is little research to support a particular approach towards stakeholder identification, analysis and/or engagement. More recently, health policy literature has incorporated a "case study" approach towards sharing how stakeholders should be addressed, within the context of varying types of projects (See for example, *Varvasovszky and Brugha,* 2000).

- Being clear on the components of the project and the implementation process, and familiarity with the related issues will help you identify the initial set of stakeholders. Following this, you can use a snowball technique. With this technique, each stakeholder is asked to identify other relevant stakeholders, and/or a structured survey is conducted where respondents are asked to identify and/or rank the importance of various stakeholders.

- Using both qualitative and quantitative approaches to identify stakeholders will facilitate a complete stakeholder list and database.

- Stakeholder analysis is a way to **a)** identify key individuals who may have an impact on a proposed change; **b)** assess for potential stakeholder reaction, based on their position in relation to the change; and **c)** determine possible ways to engage stakeholder's interests. The goals of stakeholder analysis are twofold:
  - To maximize congruence between stakeholder interests and the goals of the project; and
  - To manage and/or minimize risks associated with stakeholder non-support.

- As part of stakeholder analysis, stakeholders should be assessed in terms of:
  - Potential for cooperation or degree of support for the change/clinical initiative; and
  - Potential for threat or degree of influence related to adoption of change/clinical initiative.

- Stakeholder analysis includes assessing the type of stakeholder (i.e. internal, external/or interface); the nature of the vested interest; and the factors that will create stakeholder buy in. This will enable your team to determine the level of stakeholder influence and support. From there, appropriate strategies for stakeholder engagement can be developed. It is important to reassess each stakeholder and his/her corresponding position regularly. Strategies may need to be revised as new stakeholders emerge and as stakeholders change their positions over time. You may need to employ different strategies to engage stakeholders, depending on changes in stakeholder support and influence.

- Other areas for consideration in a stakeholder analysis include interest in the issue, stakeholder involvement with the issue, and impact of the issue on the stakeholder.

- Those who have high influence and are highly supportive can be counted on to most positively influence dissemination and adoption of CPGs. Such stakeholders need a great deal of attention to enable them to continue to support the initiative, and must be continually kept informed.

- Those who have high influence and are low in support need the greatest amount of attention in order to get them on board.

- Those who have low influence but are highly supportive need some attention to prevent them from becoming neutral or negative toward the change.

- Those who have low influence and are low in support may be lowest on the priority list; however, it is best to engage this group to at least a neutral position to minimize any negative effects.

- Attention to stakeholder triaging, that is determining what strategy to use with what type of stakeholders and when, enables the most effective use of energy and resources in project implementation.

- A good match between stakeholder and strategy results in congruence between stakeholders and project goals. A mismatch may result in:
  - Wasted energy (excess attention is paid to stakeholders who have little influence);
  - Missed opportunities (failure to involve supportive stakeholders). This may place the organization at risk, because there is a failure to anticipate and/or defend against nonsupportive stakeholders.

Making it happen in your practice setting

You are now ready to conduct a step-by-step stakeholder analysis. This will help your organization support the implementation of your CPG.

Clarity is a critical first step
step 1:

Be very clear on your CPG project, what your target unit is (i.e. the entire organization, one site, your program, your unit) and just what you are attempting to accomplish. Outline how care is delivered now, and who is involved. Outline how care will be delivered using the CPG, and who will be involved. Use your entire team to clearly outline this in chart form. All those involved in the before and after situations will be stakeholders. This work will also serve as the beginning of your action plan.

Calling all stakeholders
step 2:

Work again with your entire team and continue identifying your key stakeholders in the implementation project. Remember to use stakeholder categories such as internal stakeholders, external stakeholders and interface stakeholders. Remember to consider clinical nurses, nurse educators, other health care providers, quality assurance staff, nurse administrators, nurse researchers, and patients and their families. In identifying stakeholders also consider:

- How your institution make decisions
- Who is involved in decision-making
  - Those who will make the decision (i.e. Directors of Operations, policy makers, etc);
  - Those who can influence the decision;
  - Those who influence implementation (i.e. Nurses, managers, allied health, physicians, purchasing, policy makers, families, etc.);
  - Those who will champion the decision and implementation (i.e. Director of Operations, Chief Nursing Officer, etc.);
  - Those who will lead and champion (support) aspects of the implementation; (i.e. Nurses, managers, allied health, physicians, purchasing, housekeeping, etc.); and
  - Those who will implement/use the recommendations.
- Type of co-operation
  - Supporters;
  - Non supporters, and/or
  - Those who are neutral.

It's data collection time
step 3:

Once you have a comprehensive list of stakeholders, work with your team to begin to collect information to understand your stakeholders. To do this you may wish to survey key personnel, set up focus groups, or conduct key informant interviews. Plan to use a specific script to describe the CPG project so each stakeholder obtains the same information.

In completing the stakeholder analysis, information about each stakeholder should come from the source (through surveys, focus groups, or key informant interviews) or as close to the source as possible. Information about stakeholders from secondary sources should be validated as the stakeholders are engaged in the project.

Information from large stakeholder groups, such as nursing staff, may be a challenge to obtain; however, working with professional practice councils, nurse representatives, using written surveys, and/or open forums, may facilitate obtaining input from this important stakeholder group.

Use stakeholder assessment worksheet (see accompanying diskette) as a guide to collect these data. During this data collection, remember to ask stakeholders to identify others who they think may need to be considered.

Information from patient and family stakeholders may be obtained directly from patients and/or their families, and community and consumer groups.

Organize and analyze step 4:

At this time, the data need to be analyzed and judgments made regarding stakeholder support and influence, as well as potential for co-operation or threat to your implementation. Stakeholder analysis can be completed by a team or by an individual. A team approach is often preferred to maximize resources and to provide a balanced analysis, especially when making assessments related to stakeholder positions and influence. Consensus will be the main decision-making strategy as you and your team work to conduct a comprehensive stakeholder analysis.

Remember that your stakeholder analysis is always time-sensitive. Some stakeholders may not appear to be highly influential now, but as the project unfolds their influence may increase. For example, staff nurse groups may not be highly influential initially in obtaining resources to move your project forward, however, they will be key stakeholders in the planning and implementation phases of your project.

Engage for the optimal fit step 5:

Still working on the stakeholder analysis, use the model in Figure 2 (next page) to identify the strategies you will use to best engage your stakeholders. Carefully and accurately assess your stakeholders' interests and influence. The data from the stakeholder analysis will be useful throughout the planning, implementation, and evaluation phases of your project.

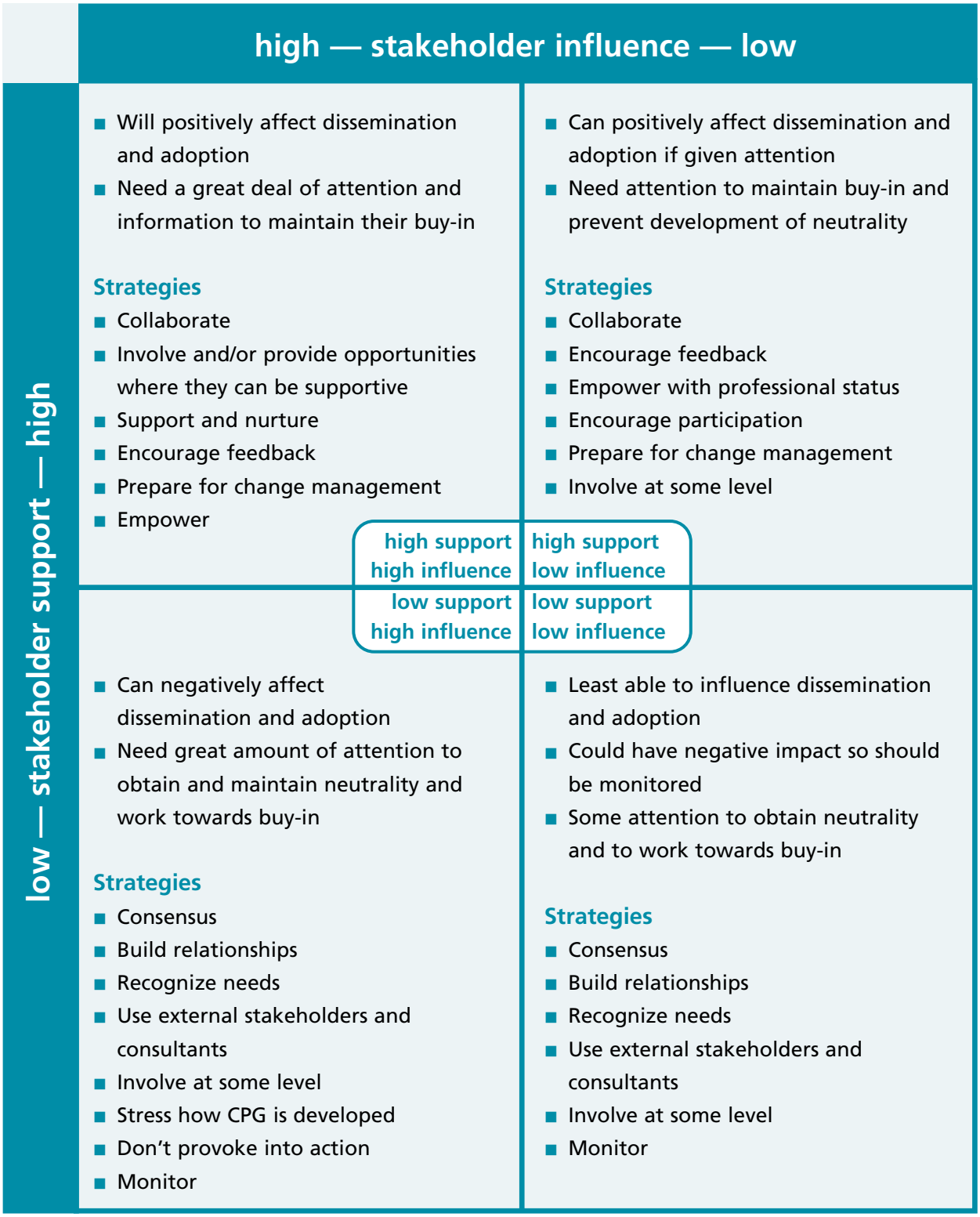
Revisit and review step 6:

Remember to revisit your stakeholder analysis regularly to review your list of key stakeholders and determine whether their positions have changed--based on your strategies of engagement, where you are in the project, or other changes specific to your stakeholders.

Analyze and revise step 7:

Revise your strategies of stakeholder engagement as necessary to increase congruence between stakeholders' needs and your project goals. This will reduce the risk to the organization and your project, and enable your organization to make the best use of its resources.

Figure 2: Stakeholder Influence, Support and Strategies for Engagement



Before proceeding to the next chapter, consider the following:

Resource Implications:

- Access the budget worksheet from the accompanying diskette
- Complete as directed

Action Plan Implications:

- Pull the Action Plan template
- Add activities related to stakeholder identification, analysis and engagement

Scenario

Below is the scenario for implementing a CPG for the assessment and management of pain, which you have been following in this Toolkit. The case now continues, focused on stakeholder identification, analysis and management. This is outlined in the completed stakeholder analysis following the scenario.

Prior to planning how you would go about implementing your selected CPG pain recommendations, you gather stakeholder information using the stakeholder analysis worksheet. Your findings reveal the following:

- Your organization does not have any established pain assessment and management program, and the staff's use of evidence-based pain management is variable among the differing units. For example, on the two palliative care units, the clinical educator has successfully developed a pain management interest group. This group reviews the literature on a monthly basis and discusses ways to implement new pain management processes. They have begun work on a new standard of nursing pain management.

- The group has identified a number of barriers to better pain management, including lack of support for documentation and differences among the nurses with respect to their attitudes about pain and their knowledge of pain management.

- The Clinical Educator is also often called upon to provide advice about pain management for difficult cases on two other units in your twelve-unit facility.

- On the other side of the spectrum, there is a unit where staff provides care to AIDS patients in the end stage of their disease. Many of the staff are new and are not familiar with the evidence about pain management. The nurse manager on the unit does not consider pain management her most pressing issue. She has told you numerous times she is more concerned about her staff competencies in terms of assessing and managing the physical and emotional needs of AIDS patients.

- In your travels through the institution you have also met an oncologist who works with many of the outpatients in your facility. As the attending physician for many of your patients, she is supportive of your role in the facility. She has asked you to collaborate with her in the management of pain in the outpatient clinic located in your facility. She currently sees a great number of palliative care patients in the clinic for pain management.

- In speaking with other physicians on the units, you learn that they are essentially satisfied with the current level of nursing practice. They indicate they will support changes to nursing pain management, provided current practice does not deteriorate.

- The anesthetists in your institution have specialized knowledge about pain management. However, they are overworked and don't have time to help with planning.

Your initial assessment of your institution presents with many challenges as well as opportunities to improve patient care and professional practice. You are eager to begin the process of disseminating the recommendations outlined in the pain CPGs you selected in Chapter 1.

You have taken the knowledge about the key stakeholders and completed the table of stakeholder information shown below. Furthermore, you have brainstormed and decided on key strategies to involve and engage your stakeholders. You and your team decide to revisit the stakeholder analysis data periodically to review and revise the stakeholder engagement strategies as well as to add new stakeholders.

After completing your stakeholder assessment, you realize you have a great deal of work to do. You also realize that your stakeholders will have varying degrees of influence over time and you will need to ensure you seek an appropriate level of support. For example, at the beginning of the implementation process, the nurses will have less influence in implementing the guideline than in the later stages of the project. At the beginning of your implementation, you and your team decide to involve a few nurses from each unit in the development of the implementation strategy. When you launch the guidelines, you and your team recognize there is a need to influence all the nurses on each of the units, as they will have a large impact on if and how well the guideline is implemented on a day-to-day basis.

SCENARIO WORKSHEET The following is the result of the stakeholder analysis:

key stakeholder	nature of the vested interest	stakeholder influence & support (high and low)		management strategies	revise
		influence	support		
Facility's Administration	■ Improving the quality of clinical services. ■ Improving professional practice. ■ Cost-effectiveness and efficiency of services.	High	High	■ Obtain approval for key project activities (i.e. approval of pain program). ■ Prepare for, and include in, change management.	
Chief Nursing Officer	■ Being the "best" provider of services to the community.	High	High	■ Collaborate on key project activities (i.e. pain steering committee meetings). ■ Prepare for and include in, change management.	
Managers	■ Improving the quality of clinical services. ■ Improving professional practice. ■ Being the "best" provider of services to the community.	High	High for one of the two managers	■ Collaborate on key project activities (i.e. presentations to units & steering committee meetings). ■ Prepare for and include in, change management.	
Clinical Educator	■ Improving the quality of pain management services for patients. ■ Improving professional practice.	High	High	■ Collaborate on key project activities (i.e. educational "roll out" to staff). ■ Prepare for and include in change management (i.e. follow-up with staff in the clinical practice environment reviewing care plans).	
Nurse Pain Management Interest Group	■ Improving the quality of pain management services for patients. ■ Improving professional practice. ■ Maintaining professional practice independence. ■ Maintaining job satisfaction.	Low	High	■ Involve by working together on key project activities (i.e. as part of pain management team that will provide consultative services to units). ■ Build consensus (i.e. emphasize the importance of the guidelines in changing practice positively, review additional research). ■ Involve in evaluation of the CPG implementation.	

key stakeholder	nature of the vested interest	stakeholder influence & support (high and low)		management strategies	revise
		influence	support		
Nurses	■ Improving the quality of pain management services for patients. ■ Maintaining professional practice independence. ■ Maintaining job satisfaction.	Low	Low	■ Monitor activities initially. ■ Involve long-term care at some level – gradually at first during program development and then as much as possible during implementation. ■ Build consensus overall (i.e. educate about the guidelines, educate about current research and develop aids that will improve clinical practice– standardized care plans).	
Oncologists	■ Improving the quality of pain management services for patients.	High	High	■ Involve in key project activities, (i.e. pain program and/or policy procedure review and development). ■ Stress how guidelines developed (i.e. describe experts involved in developing them).	
Anesthetists	■ Maintaining the quality of the pain management services for patients.	High	Low	■ Involve in key project activities i.e. pain program and/or policy and procedure review. ■ Stress how program developed overall (i.e. discuss physician experts used to develop the guidelines).	
Other physicians	■ Maintaining the quality of the pain management services for patients.	Low	Low	■ Collaborate in key project activities (i.e. ask to review pain program and/or policy and procedures). ■ Stress how program developed over all (i.e. discuss the types of studies that were used to develop the guidelines).	
Patients and families	■ Choosing a health care provider (hospital or health professional) that can help him or her manage his or her pain in the most effective manner.	High	High	■ Involve in implementing pain management program. ■ Stress how program developed (i.e. provide information pamphlets that describe the guidelines).	

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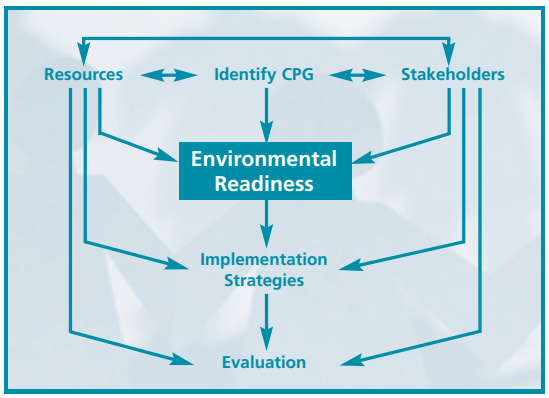
chapter 3

step 3

Assessing Your Environmental Readiness

review of previous chapter: Thus far, you have identified key CPG recommendations to implement in your practice areas and have examined the role of stakeholders.



What is this chapter about?

To ensure smooth implementation of the CPG recommendations, it is essential to assess the environment and develop your implementation plan based on your findings. In this chapter, we will review eight elements believed to support the implementation of CPGs and suggest some questions to assist you in assessing your environment.

key definitions

Structure

Those aspects of the organizational infrastructure having to do with how decisions are made, staffing practices, workload patterns, physical facilities, and resource availability (i.e., Are there forums for resolution of clinical issues? How do clinical resource decisions get made? What are the general staffing patterns related to staff mix?).

Workplace culture

The overall nature of the organization: **a)** how we think things should be done; **b)** what is seen as important to focus on, allocate resources to; and **c)** what we aspire to base the philosophy, values, vision and mission on--as they are expressed in day-to-day activities (i.e. Is there a belief in excellence in clinical practice? Is there an expressed desire to focus on evidence-based practice? Is there a movement to be a leader in nursing excellence?).

Communication systems

All the formal and informal processes that are in place to enable information exchange (i.e., What formal communication systems are there for addressing clinical issues? For initiating change at the clinical level? Are there forums and/or venues available for informal discussions to take place related to clinical issues? Are results from these discussions taken anywhere?).

Leadership support

The extent to which management at all levels and others with influence in the organization are prepared to enable changes in the system related to clinical practice and quality of care issues (i.e., Does management at any level express the desire to promote evidence-based practice? Are there known influential champions in the organization who speak out for quality and clinical excellence?).

Knowledge, skills & attitudes of the potential target group

The knowledge, skills, general views and belief systems of the potential target group that relate to change, evidence-based practice and clinical nursing excellence. This will affect motivation toward adoption of new ideas and practices (i.e. Does the staff have the necessary knowledge and skills? Does staff have a positive attitude to new initiatives? Is it easy to talk about change to staff? Has staff been successfully supported through change in the past?).

Resources

Financial, human or in-kind requirements necessary to achieve the objectives that are outlined in your action plan.

Interdisciplinary relationships

The behaviours, types of interactions and ways of making decisions demonstrated among and between disciplines that will be involved in, or affected by, the CPG (i.e. Are there teams of professionals from a variety of disciplines who regularly work together on issues?).

Here are the FACTS

The organizational context has a significant effect on the implementation of research. The recommendations in this chapter are based on the following works:

1. *Kitson, Harvey, & McCormack (1998)* claim that successful implementation of research is a function of the interplay of three core elements: the level and nature of the evidence, the context or environment into which the research is to be placed, and the method or way in which the process is facilitated. They identify three dimensions of context: culture, leadership roles and the organization's approach to measurement. They conclude that most successful implementation of research occurs when evidence is strong, the context is receptive to change with sympathetic cultures and appropriate monitoring and feedback mechanisms, and there is appropriate facilitation of change.

2. *Dobbins, Ciliska & DiCenso (1998)* note that organization characteristics such as size, complexity, availability of resources, culture, communication channels and decision making processes are significantly associated with research utilization and explain considerably more of the variance in research utilization than other factors.

3. *Logan & Graham (1998)* state that the practice environment exerts a powerful set of influences on practitioners that can encourage or discourage the process of research transfer and use. They identify structural, social and patient related factors. Structural factors include such characteristics as decision-making structure, workload and available resources. Social factors include such variables as the politics and personalities involved and the culture and belief systems in place. Patient related factors include patient willingness or ability to comply with evidence-based recommendations.

4. Solberg et al (2000) claim that organizational capability for planned change is critical, including strong support and interest at all levels of leadership, along with a well-developed infrastructure, capability and culture for continuous quality improvement and change management.

Making it happen in your practice setting

With the assistance of your implementation team, perform an assessment of the "environmental readiness" of your practice setting or organization by answering the questions in the worksheet on the accompanying diskette. You may wish to consult with other key individuals or stakeholders while doing your assessment.

Due to the complexity of most organizations and practice environments, it is likely not possible or accurate to answer simply "yes" or "no." Instead, identify the facilitators and barriers in the table at the end of this chapter. Your implementation plan should be tailored to take advantage of the facilitators and to address the barriers. You should be able to compensate for some barriers by the design of your interventions (see Chapter 4) and your stakeholder communication plan (see Chapter 2).

Use environment readiness assessment worksheet. Note that while there are valid and reliable research tools available, there is no one simple approach to assessing environmental readiness. The worksheet provides a means of assessing key factors related to environmental readiness.

Before proceeding to the next chapter, consider the following:

Stakeholder Implications:

- Environmental readiness assessment must involve key stakeholders.
- Your key stakeholders identified to this point will need to be kept informed and engaged in the planning processes.

Resource Implications:

- Conducting an environmental readiness assessment is a time consuming effort. Time should be allocated for this exercise and due attention given to the assessment. A thorough understanding of the barriers and facilitators will enhance the implementation strategies.

Action Plan Implications:

- Pull the Action Plan template.
- Add your strategies for conducting the environmental readiness assessment.

Scenario

You have learned about conducting an environmental readiness assessment. You decide to share this learning with the Pain CPG Implementation Committee. As a team, the committee decides to conduct an environmental readiness assessment of the hospital. This assessment takes place in tandem with the stakeholder assessment.

First, based on reading the pain CPG, the committee decides that it will likely be most efficient to implement the CPG throughout the hospital, rather than piecemeal, on only some units. For example, the committee recognizes that documentation will likely change as part of the implementation. In your hospital it is not possible to change the documentation system for one unit, without changing documentation systems throughout the hospital. This means that the environment for the implementation is the entire hospital.

The committee members share information with each other about how pain management happens in the hospital. They also share information about factors in the hospital that may either help or hinder implementing the CPG. The committee decides that the director of quality management will be a good person to consult with during this phase of their work. The director of quality management has a lot of experience with improving patient care and is very familiar with the management structure and systems in the hospital. These systems are a focus of the environmental assessment, so it makes sense to have the director participate in the committee for this phase.

The committee completes the environmental readiness assessment over a two-week period. They assess the barriers and facilitators to identify the appropriate intervention strategies. The committee's discussion is outlined in the worksheet below.

SCENARIO WORKSHEET

The following is the result of your environmental scan:

Element	Question	Facilitators	Barriers
Structure	To what extent does decision-making occur in a decentralized manner? Is there enough staff to support the change process?	■ Clinical units mostly managed autonomously. ■ Hospital-wide and unit-by-unit quality management program. ■ Multidisciplinary clinical educators.	■ Anesthetists under-resourced and do not have time to attend committee meetings. ■ Some new staff.
Workplace culture	To what extent is the CPG consistent with the values, attitudes and beliefs of the practice environment? To what degree does the culture support change and value evidence?	■ Pain management is valued. ■ Quality improvement activities are valued. ■ Presence of clinical pathway viewed positively by staff. ■ Affiliation with a nursing school where there are clinical researchers.	■ Some clinical staff cynical or skeptical about quality improvement. ■ Little knowledge about CPGs. ■ Concern that CPGs will restrict professional autonomy.
Communication	Are there adequate (formal and informal) communication systems to support information exchange relative to the CPG and the CPG implementation processes?	■ Vehicles for communication to staff include: monthly e-mail updates from the CEO, regular bulletins to nurses from the Chief Nursing Officer, quarterly staff newsletters, unit staff meetings, communication books, rounds, bulletin boards. ■ Healthy grape-vine. ■ Multidisciplinary practice leaders have formal communication process.	■ Limited opportunities for cross-discipline communication.
Leadership	To what extent do the leaders within the practice environment support (both visibly and behind the scenes) the implementation of the CPG?	■ CNO and your manager are actively supportive. ■ Manager on the Pain CPG Implementation Committee.	■ Pain management is not a priority for palliative care manager.

Element	Question	Facilitators	Barriers
		■ Hospital co-sponsored nurses learning about pain management, through the RNAO Clinical Fellowship program. ■ Directors of pharmacy and quality management are supportive.	
Knowledge, skills and attitudes of target group	Does the staff have the necessary knowledge and skills? Which potential target group is open to change and new ideas? To what extent are they motivated to implement the CPG?	■ One unit has pain committee. ■ Journal clubs on some units. ■ Continuing education for nurses.	■ There is potential for information overload and subsequent resistance to change. ■ Misconceptions among the staff about the appropriateness of a number of pain management strategies. ■ No previous emphasis on pain management updates for staff.
Commitment to quality management	Do quality improvement processes and systems exist to measure results of implementation?	■ Established quality management program. ■ Computerized workload measurement system for nurses' work.	■ Limited resources for additional measurement. ■ Workload measurement system does not allow for pain management workload. ■ Response rates to the patient and family surveys have been low.
Availability of resources	Are the necessary human, physical and financial resources available to support implementation?	■ Committee members able to participate. ■ RNAO Clinical Fellowship Program. ■ Dedicated time of hospital librarian. ■ Link to the local university.	■ Insufficient pumps for patient controlled analgesia (PCA). ■ Competing priorities for the clinical educators' time to deliver education. ■ Limited local pain management expertise. ■ Overall limited resources.
Interdisciplinary relationships	Are there positive relationships and trust between the disciplines that will be involved or affected by the CPG?	■ Good personal relationships between the committee members. ■ Established collaborative relationship with the university faculty member.	■ Limited opportunities for cross-discipline communication. ■ Limited experience in having multidisciplinary teams. ■ Role clarity is lacking among disciplines regarding pain management.

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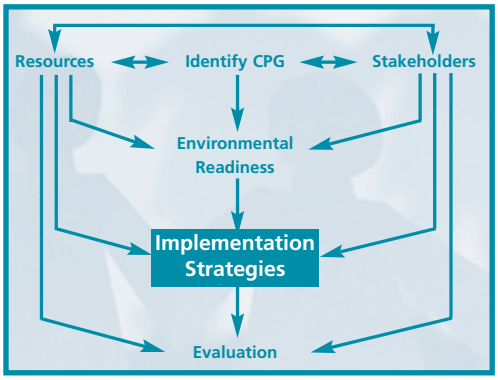
chapter 4

step 4

Deciding on Your Implementation Strategies

review of previous chapter: Now that you've identified a CPG to implement, considered stakeholder support in your setting, and assessed your practice setting's readiness for implementing the selected CPG, you're ready to put the guideline into practice. How do you do this?



What is this chapter about?

Your implementation strategies should be based on your assessment of the practice setting and on evidence about what works.

This chapter will help you decide how to implement the CPG in your setting. It provides a summary of what is known about the effectiveness of various strategies for implementing practice guidelines.

A list of potential strategies is provided with strategies categorized as generally effective, sometimes effective, and of little or no effect. Once you have selected one or more strategies, you should plan specific ways to implement them in your unique practice setting. There is insufficient research evidence to say with confidence which specific strategies work best in a particular context, so be flexible and willing to experiment.

key definitions

Audit and feedback
Summaries of clinical performance (e.g. based on review of charting or one-to-one observation of clinical practice) used to increase the target group's awareness of their and/or others' practice.

Didactic educational meetings
Lectures with little or no interaction.

Educational materials
Distribution of non-interactive educational printed, audiovisual, or computer-produced information.

Educational outreach visits
One-to-one visits by nurse-facilitators, pharmacists, study investigators or others to individual target staff to explain the desired change.

Interactive educational meetings
Learner involvement through discussion and active participation (e.g. work group tasks, problem-based learning, etc.)

Local consensus processes
Inclusion of participating practitioners in discussions to ensure they agree that the chosen clinical problem is important and the suggested approach is appropriate.

Local opinion leaders
Respected academic and clinician peers who can influence others to change behaviour.

Marketing
The management process responsible for identifying, anticipating and satisfying customer requirements profitably. This includes all functions of development, research, planning, design, pricing, packaging, advertising and promotion, public relations, sales, distribution and after-sales service.

Patient mediated interventions
Involving patients to influence health care providers.

Reminders
Manual and computerized reminders to prompt behaviour change.

Here are the FACTS

caution Implementation strategies that work with other professions may not be effective in nursing.

Although many studies have been conducted to evaluate the effectiveness of implementation strategies, they have focused on medical practice and not nursing practice. There are some very important differences between medical and nursing practice that may influence the transferability of an effective intervention in medicine to the practice of nursing. For instance, the level of autonomy in clinical decision-making of hospital nurses is highly related to and driven by organizational policies and procedures. Therefore, strategies that are successful with physicians may not be effective with nurses.

The recommendations in this chapter are based on three published systematic reviews:

1. A review of systematic reviews of interventions in medicine to promote the implementation of research findings published to 1998 *(Bero et al., 1998).*
2. A systematic review of rigorous evaluations of CPGs in medicine *(Grimshaw, et al., 1995; Grimshaw & Russell, 1993).*
3. A review of guidelines in professions allied to medicine published to 1995 *(Thomas et al., 1999).* Seventeen of the 18 studies included in this review evaluated guidelines aimed at nurses.

This research indicates:

- Simple dissemination, for example, mailing information to a specific group, is usually insufficient to change professional practice;
- Educational interventions requiring participation by professionals--including targeted seminars, educational outreach visits, and involvement of opinion leaders-- are more likely to lead to changes in behaviour;
- Educational outreach visits are effective in influencing prescribing behaviour. Opinion leaders are also effective, but more research is needed before their widespread use in implementing CPGs;
- Implementation strategies are more likely to be effective when they focus directly on the professional and the patient (e.g., restructuring patient records, patient specific reminders, patient mediated interventions);
- Implementation strategies that are nearer the end user and integrated into the process of health care delivery are more likely to be effective;
- Multi-faceted interventions targeting different barriers to change are more likely to be effective than single interventions; and
- Interventions based on an assessment of potential barriers to change are more likely to be effective.

Evidence on Implementation Strategies

generally effective	sometimes effective	little or no effect
■ Educational outreach visits ■ Reminders ■ Interactive educational meetings ■ Multifaceted intervention including two or more of: • Audit and feedback • Reminders • Local consensus processes • Marketing	■ Audit and feedback ■ Local opinion leaders ■ Local consensus processes ■ Patient mediated interventions	■ Educational materials ■ Didactic educational meetings

Making it happen in your practice setting

It will be easier to implement the CPG in your setting if you have someone on your team with project management skills. Use their project-planning resources to make a detailed plan of each step in your implementation and to plan your budget. Tailor your strategies to overcome barriers and build on the facilitators in your setting.

It is a good idea to consider evaluation ideas at this point, in case you need to collect any information before you start to implement.

Basically, you should:

1. Use the results of the environmental scan and stakeholder analysis to identify barriers and enabling factors;
2. Enlist local champions and include those with authority to help supply resources;
3. Carefully consider strategies for your setting from those shown from research to have some effectiveness;
4. Select implementation strategies to take advantage of available resources and supports;
5. Where possible, pick a starting point with a high chance of success to pilot your implementation;
6. Be open to adjusting the implementation strategies to the practice reality. Involve local stakeholders to do this; and
7. Provide ongoing monitoring and support during the trial period to help users over the learning curve.

Before proceeding to the next chapter, consider the following:

Stakeholder Implications:

- Depending on the stakeholder analysis and the barriers and facilitators, a number of implementation strategies could involve specific target groups of stakeholders. At this stage, skills in stakeholder management include good communication systems, clear messages, as well as an ability to listen and involve others. Keeping stakeholders engaged can be time-consuming.

Resource Implications:

- The chicken or the egg. Usually the selection of implementation strategies will depend on the total amount of resources available for the project. At other times, the identified implementation strategies may direct the resources required. There are usually fixed limits on what an implementation team and other stakeholders can spend, in terms of money and time.

Action Plan Implications:

- Add the selected implementation strategies to your Action Plan.

Scenario

The Pain CPG Implementation Committee discusses possible strategies for implementing the pain guideline. Based on the environmental readiness assessment indicating that there is not enough knowledge or time, and recognizing that the oncologist, anesthetist, and nurse manager need to be brought in, the committee decides to go with multiple interventions from the list of generally effective and sometimes effective strategies.

They consider whether the strategies are likely to be feasible in their setting (e.g., human and other resource implications). Some potential strategies are rejected early on because it will be difficult to obtain resources to implement them. For example, due to insufficient resources, they decide against using audit and feedback, even though the committee believes that one-on-one observation of clinical practice with immediate feedback might help nurses adopt the new practices. The committee is investigating the possibility of testing audit and feedback in a research partnership with a university professor.

The committee selects a number of strategies including educational sessions, reminders, documentation changes, marketing, and patient education materials. Each member of the committee is given a task of planning for one component of the implementation plan. As the committee chair, and because you have experience with project management, you agree to take everyone's pieces and put together an overall plan.

Your multifaceted plan includes the following strategies:

Implementation Strategies

Build local consensus

- Form a committee of nurse representatives from all patient-care areas to plan for change. In addition to the staff nurses, the committee should include a pharmacist, a palliative care coordinator, a manager, a university professor, a nurse researcher, a clinical educator, a nurse practitioner, and an anesthetist. Consult with the director of quality management. Ensure that the committee identifies areas for improvement, agrees on priorities, reviews research literature, agrees on a specific practice guideline for implementation, and designs the program.
- Expand the committee to include other disciplines throughout the hospital. Use feedback from physicians and other members of the health care team to modify the documentation sheets to include information that would be helpful for the multidisciplinary team.

Schedule interactive educational sessions

- Present an education day to train unit-based resource nurses. Presenters could include members of the Pain CPG Implementation Committee, a university professor, a manager, a pharmacist, and nurses knowledgeable about pain management. Focus the sessions on the pain management guideline and on developing skills for change management. Apply for RNAO clinical fellowships for three resource nurses for developing skills in knowledge translation and implementing CPGs.
- Present an educational half-day to all nursing staff and interested allied-health staff. Presenters could include the resource nurses and unit-based nurse educator.
- Design the education sessions with the input of the hospital clinical educators. Include activities to involve the nurses, for example:
  - Questionnaires about knowledge and attitudes to pain and about their own pain experiences; and
  - Problem-based scenarios tailored to specific units.
- Provide patient and family education.

Implementation Strategies

Plan educational outreach visits

- Encourage the pain resource nurses on each unit to provide one-to-one ongoing consultation, feedback and encouragement to nursing staff; and
- Conduct one-to-one visits between members of the pain CPG implementation committee and the pain resource nurses.

Reminders

- Develop a new pain history document and include it in the admission chart as a reminder to admitting nurses to complete. Ensure that the document reflects the new pain management standards.
- Place a pain bulletin board on each unit, to remind staff of the new program.
- Post the pain assessment flow sheet at the bedside with the vital signs flow sheet, to remind nurses to complete and document their pain assessment when they do vital signs.
- Post a laminated version of the pain assessment tools on the walls in all emergency department patient rooms to remind nurses, patients, and families to routinely assess pain.

Develop a marketing plan

Have the committee consult with the hospital communications experts to develop the plan. The plan should include:

- Presentations about the program on all units;
- Presentations to multidisciplinary leaders;
- Presentation at nursing, pediatric, surgery, and research rounds;
- Creation of a logo and distribution of buttons to nursing and multidisciplinary staff;
- Information sessions in the cafeteria;
- Publication of information in hospital newsletters;
- Creation of bulletin boards on all patient care units;
- Distribution of pain awareness buttons obtained from a pharmaceutical company;
- A presentation to the hospital board and senior management;
- E-mail updates to all nursing staff; and
- Publicity in local news agencies.

Implementation Strategies

Select local opinion leaders

- Select unit-based resource nurses to be champions for the change; and
- Select unit-based resource nurses for their interest and clinical expertise and for the respect given to them by their peers.

Provide patient-mediated interventions

- Provide pamphlets about the pain management program to patients and family members. The pamphlets should include information about what they can expect in terms of pain assessment and pain management and be made available in the major languages of your hospital patients.
- Post pain flow sheets at the bedside, where the pain history is collected with patients and families, and a pain assessment tool in patient rooms in the emergency department.

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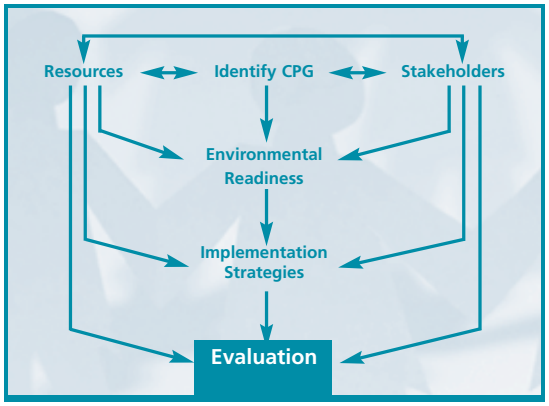
chapter 5

step 5

Evaluating Your Success

review of previous chapter: By this point, you have identified the CPG you would like to implement, have begun to identify and collaborate with stakeholders, have conducted an environmental scan to identify facilitators and barriers, and have chosen the implementation strategies to disseminate the CPG. Before going ahead with implementation strategies, be sure to develop your evaluation plan in case you need to collect baseline data.



What is this chapter about?

Once you have chosen your CPG or recommendations from several CPGs to implement, it is important to gather data to determine whether the CPG has been successful in addressing your reason(s) for implementing it. The purpose of this chapter is to describe strategies for evaluating the CPG implementation and outcomes.

The introduction of a CPG can be considered a program, and program evaluation principles should be considered in the evaluation of your implementation.

key definitions

Program evaluation

Systematically gathers, analyzes, and reports data about a program to assist in decision-making *(Porteous, Sheldrik & Stewart, 1997)*.

Structure evaluation

Assesses settings and instruments available and used for the provision of care. This covers facilities, supplies, and equipment and may also include organizational structure and numbers and qualifications of the health agency staff. It signifies the properties and resources used to provide care and the manner in which they are organized. It answers the question: "Are the physical and human resources required to implement the CPG recommendations available?"

Process evaluation

Evaluates how the program is operating. It focuses on what the program does and for whom. It answers the question: "Is implementation consistent with the way the program was planned?" and "How can the program be improved?"

Outcome evaluation

Assesses the impact of the program. It examines the changes that occurred as a result of the program and if the program is having the intended effect. It answers the question: "What are the results of this program?" It may also answer the question: "Are the benefits of the program worth the costs?" *(Porteous et al., 1997)*

Here are the FACTS

- **Conducting a program evaluation.** Since the implementation of recommendations from a CPG will involve changes in practice, most units are interested in evaluating the impact of change on their program. Find out the process that your health care organization uses for program evaluation. Some agencies call the process of evaluation of care quality assurance, quality improvement or continuous quality improvement (CQI). If there is an existing committee or individuals with experience in program evaluation, seek their advice and assistance.

- **Developing the evaluation plan.** Keep the evaluation plan simple. Include in your plan structure, process and outcome indicators. Carefully consider using existing data and tools. It can be very time consuming to identify or develop data collection tools. Using data that are routinely collected will give you a head start and will keep the costs down.

- **Measuring structure and process**. Outcomes are only one piece of the evaluation plan. There are structural factors (e.g. physical facility/equipment) and process factors (e.g. knowledge and skills) that may be important. For example, an evaluation of a pain management program that depends on patient controlled analgesia (PCA) requires an assessment of whether there is a sufficient number of PCA pumps available (structure) and whether nurses have received education to increase their awareness and knowledge about pain management (process). Structure and process data can help to explain negative findings in outcomes. For example, if reduced levels of pain were not achieved, structure data might indicate that indeed there were not enough PCAs on the unit or, process data might indicate that the education program was ineffective in increasing nurses' awareness or knowledge about pain management.

- **Measuring outcomes.** Outcomes, or patient targets, are often easy to identify. Select a small number (2 to 3) of important targets. In the table of potential indicators there are many outcomes listed in categories that relate to the unit, the health care provider, the patient and costs. Look for existing data about the outcomes. This has two advantages. First, you can easily compare pre- and post- implementation changes. Secondly, the criteria for selection of data have already been established and tested.

Making it happen in your practice setting

There are a number of steps to facilitate the collection of data in a practice setting:

step 1:

Identify expert resources to assist with the evaluation process (e.g., quality assurance/risk management staff, CNS, epidemiologist, university faculty).

step 2:

Design an evaluation plan that outlines:

- Goal(s) you want to achieve by implementing the CPG;
- Target group (e.g., nurses and patients in the palliative care unit);
- Structure objective and indicators;
- Process objectives and indicators;
- Outcome objectives and indicators; and
- Resources required.

step 3:

Consider issues related to data collection:

- Which patients/clients/families will be selected for inclusion in the program evaluation?
- How feasible is it to collect the data from these people (sample) within your time frame? We recommend that you keep the sampling plan simple and identify a sample that is easily obtainable.
- What are the structure, process, and/or outcome measures you want to record? (See table on page 63).
- What methods are available to collect data? Chart audits are commonly used. Other possibilities include self-administered questionnaires, interviews, and focus-group discussions with patients/clients or staff.
- Who will enter the data you collect into a computer program and who will do the analysis? We strongly recommend that you talk to these people before collecting any data to make sure that the analyses that you would like are manageable.
- What factors do you anticipate might hinder or bias the data collection? Plan a pilot study to work out feasibility issues. For example, pilot the chart audit tool with 10 cases before you do any more.
- Who will write the program evaluation report and/or present the findings? Plan sufficient time for report writing. This phase may take longer than you anticipate.

step 4:

Develop a realistic timeline based on length of time required to ensure necessary resources are in place, to identify or develop data collection tools, to collect data, to enter and analyze the data, and to write/present your findings.

step 5:

Find out who needs to approve your plan:

Administration: It is important that the unit managers review the evaluation plan, including the objectives and outcomes. In addition, review by administrators of the disciplines affected (e.g. dietary, medicine) may be required. Even if it is not necessary, it is a good idea. Other interested professionals will likely have useful suggestions.

Research ethics board: Although program evaluation and quality assurance may not be considered research in your practice setting, there may be ethical issues. What is the nature of the data collected? For example, collecting sensitive information in some agencies requires review by the research ethics board. Patient satisfaction surveys do not usually require a written consent form, but do need an information letter attached. Patients need to know the purpose of the survey and how their anonymity and confidentiality will be protected. Chart numbers or identifying information should not be included on the data records. Instead a code system should be used.

Patient forum or consumer representative groups: Some health care agencies have an established process for review of programs and new initiatives by a patient care forum or consumers. Obtaining direct input from people or representatives who receive the health service is valuable. You will likely receive helpful comments related to the content and feasibility of your evaluation plan.

step 6:

Prepare a budget incorporating the costs of data collection and analysis and ensure the funds or resources (e.g. staff) are available.

Points to Keep in Mind:

- Consider both quantitative and qualitative data collection methods, depending on the nature of your goal or objectives. Supplementing the quantitative chart audit data with information and quotes from patient or staff interviews provides good contextual information for the interpretation of results.
- Whenever possible, collect baseline data before implementing the CPG to provide a comparison for data collected after CPG implementation.
- National or provincial data sets (e.g., Canadian Institute of Health Information (CIHI)) may be available for comparison with agency data before and after CPG implementation.
- Use local monitoring processes and quality management tools whenever possible.
- Use existing data collection tools (e.g., chart abstraction tools, patient satisfaction questionnaires, interview schedules) whenever possible.
- Plan strategies to enhance the response rate when collecting data from participants. In order to have data that are representative of the patients/clients and/or the nurses, it is important to have a good response rate. Ideally you would like to achieve an 80% response rate but it is very common in surveys to obtain about a 50% response rate. If less than half of the participants have responded, it will be difficult for you to know how representative or meaningful the results are. Strategies for enhancing staff response may depend on the incentives provided to the members of the unit. Having sufficient time to complete questionnaires and providing coverage by other staff for patient responsibilities may be helpful. Food may be an incentive (e.g. lunch) for staff as well as for patients/clients/families. Keep questionnaires as simple and short as possible to enhance the response rate and the quality of the data. Few people can maintain their attention with a long and complex questionnaire and the validity of the responses may be compromised.
- Identify any factors that may bias the collection of data. For example, in a before-after design, other changes that occur in the setting at the same time as the CPG implementation (e.g. restructuring of unit) might influence the process and/or outcome measures, making it difficult to determine whether the CPG was singly responsible for changes in process or outcomes. Changes during the program evaluation should be kept to a minimum. Those that cannot be avoided should be noted so they can be considered as potential factors that influenced the findings.

Use the table on the next page to identify your evaluation objectives and your structure, process and outcome indicators.

Potential Indicators for Evaluation of the Implementation of Clinical Practice Guidelines (CPG)			
Category	**Structure (What you need to have)**	**Process (How you go about it)**	**Outcome (What happens)**
Objectives	Identify your evaluation objectives		
Organization/ Unit	• Organizational stability • Culture and support for change • Quality assurance mechanisms • Policy/procedures • Nursing care delivery system • Physical facilities • Equipment	• Development/modification of policies and procedures • Charting	• Achievement of targets for patient outcome improvement • Achievement of condition specific goals
Provider	• Number/qualification of staff • Ratio of staff to patients/clients • Roles, responsibilities, multi-disciplinary collaboration • Educational program	• Awareness of/attitude to CPG • Knowledge/skill level	• Attendance at educational program • Adherence to CPG • Number and completeness of assessments done • Number and range of appropriate treatments • Provider satisfaction
Patient/client/ Family	• Patient/client characteristics (Demographics/level of risk) • Patient-centred approach • Involvement in decisions	• Patient awareness of/attitude to CPG • Family, community acceptance • Patient/family knowledge	• Physical, psychological, social, patient/client outcomes • Family health • Satisfaction with care • Access to care
Financial costs	• Costs of additional staff and physical resources required • New equipment	• Costs of implementation strategies • Staff education • Patient/client education	• Incremental costs of innovation, including product and drug costs • Revenue/growth of service • Length of stay • Number of diagnostic tests, interventions • Visits to ER, readmission rates

Before proceeding to the next chapter, consider the following:

Stakeholder Implications:

- Stakeholders who will play a part in the evaluation include administrators who will want to see whether the resources to implement the CPG were warranted, and all those involved in the implementation of the CPG--including patients and family.

Resource Implications:

- The evaluation plan will depend on the amount of resources available. Resources will include experts to assist with the formulation and conduct of the evaluation, data collectors, and data entry clerks and data analysts. Resources will also include costs related to the purchasing or printing of data collection instruments.

Action Plan Implications:

- Add the selected evaluation strategies to your Action Plan

Scenario

One of the goals you will want to achieve by implementing the pain CPG is to improve patient satisfaction with pain management. You are not likely to improve patient satisfaction (an outcome indicator) unless you first ensure that all necessary equipment identified in the CPG (e.g. PCA pump) is in place on the unit.

- Your first evaluation step is to ask staff nurses to keep a log for two weeks, noting each time equipment or supplies related to pain control are unavailable when needed (structure measure).
- You are also not likely to improve patient satisfaction if the implementation strategies are not effective in transferring the required knowledge about pain control to the nurses. To assess this, administer a questionnaire to the nurses on the unit before and after the CPG implementation. The questionnaire should assess their knowledge about pain control (process measure).
- Once you are assured that the structure and process goals have been met, you are ready to evaluate patient satisfaction. Hire a data collector who is not involved in patient care to administer a questionnaire to patients that evaluates their perceptions of pain control in the unit (outcome measure). Ideally, these data are collected before and after CPG implementation, so that you can examine changes in patient satisfaction. Decide on which questionnaires to use (you may need to obtain assistance in this area); oversee the data collection, data entry and analysis phases; and, identify appropriate assistance (if required) with the interpretation of the findings.

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Websites:

A Basic Guide to Program Evaluation written by Carter McNamara defines program evaluation and provides an overview of methods to collect information, ethics issues, analysis and interpretation of information, reporting of results, contents of an evaluation plan, pitfalls to avoid, additional resources as well as links to specific details about developing questionnaires, conducting interviews and focus groups and developing case studies. The Guide can be found at the following website: http://www.mapnp.org/library/evaluatn/

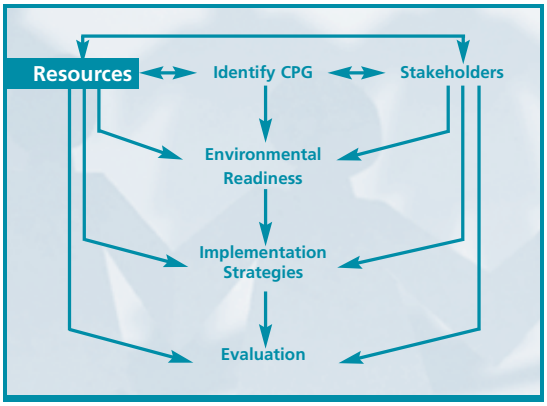
chapter 6

step 6

What About Your Resources?

Review of previous chapter:

- Identified the CPG or recommendations from several CPGs that you plan to implement;
- Conducted a stakeholder analysis to identify barriers and enabling factors for the guideline implementation;
- Completed an environmental readiness assessment;
- Considered available resources and supports;
- Carefully selected implementation strategies;



- Developed an evaluation plan; and
- May also have collected information on implications for resources required.

You are now ready to prepare a budget for the implementation and evaluation of your CPG recommendations.

What is this chapter about?

1. The creation of the budget required to finance the implementation and evaluation of the CPG in your organization; and
2. Strategies to help you persuade your administration to contribute the resources necessary to effectively implement and evaluate the CPG in your organization.

key definitions

Resources
Financial, human or in-kind requirements necessary to achieve the objectives that are outlined in your action plan.

Here are the FACTS

To effectively implement a CPG, a well-developed and written action plan should specify the steps for achieving the objectives of the CPG. The project objectives must be specific, measurable, and attainable. This may sound easy to do, but in practice it is not. Health care agencies and institutions tend to state their objectives in broad terms like "raising the quality of life for patients" but because these are generally nonspecific, they are also not measurable. Specific and measurable objectives will allow you to **(a)** assess the behaviour and actions of your target group and **(b)** determine what level of expenditures is required to attain your objectives.

Your action plan most likely involves a variety of approaches including a combination of media, community, small group and individual activities. When your simple, clear message is repeated in many places and in many formats throughout your target group's community, it is more likely to be seen and remembered. The variety of approaches you use will depend on your program's budget and what will be most effective with the target audience.

In Chapter 4 of this Toolkit, implementation strategies that are generally effective and sometimes effective were described. These include:

- Educational outreach visits;
- Manual or electronic reminders to prompt behaviour change;
- Interactive education meetings;
- Audit and feedback;
- Local opinion leaders;
- Local consensus building;
- Patient mediated interventions; and
- Marketing strategies (using several channels and mediums to deliver your message).

You must define and select the strategies you plan to use to achieve your program objectives. To do so, you will need to develop a budget that allocates funds to each of the four areas, often known as the four P's:

1. Product (services, training, and knowledge offered to the target group of staff);
2. Price (of new equipment, training programs, etc.);
3. Place (the setting where the product is delivered to the target group of staff); and
4. Promotion (the means by which the product is promoted and communicated to the target group of staff, decision makers and other stakeholders).

The next step is to cost each of the strategies individually and allocate the budget accordingly. How much should go to promotion incentives versus personal communication strategies? There is no easy answer. If you knew how adoption of the CPG would be affected by each possible allocation, then the answer would be readily apparent. If you could anticipate the acceptance levels by the target group, then the allocation problem would be rationally solvable.

Making it happen in your practice setting

The following worksheet can help you generate your campaign budget:

Chapter	Expenses	Total cost
Setting the stage – General ■ Getting organized ■ Educational/public relations activities	■ Project Manager ■ Press conference ■ Staff meetings ■ Speaker time ■ Meeting expenses	
CPG identification ■ Search and assessment activities	■ Librarian support ■ Literature and Internet searches ■ Data analysis and information systems requirements (hardware, software, technical support time)	
Stakeholders ■ Identification, assessment and engagement activities	■ Meeting expenses (room, food and beverage) ■ Focus groups ■ Staff/departmental meetings ■ Seminars	
Assessing environmental readiness ■ Research and needs assessment	■ Meetings ■ Travel ■ Surveys	
Implementation ■ Promotion and behaviour changing activities	■ Slides ■ Poster production ■ Art and graphics design ■ Marketing ■ Presentations at key meetings ■ Article in the hospital newsletter ■ Posters on each unit ■ Media release	

Chapter	Expenses	Total cost
	■ Speaker time ■ Staff replacement time to attend session(s) ■ Printing costs for workbook, etc ■ Interactive educational meetings ■ Workshops ■ Group meetings to work on case studies ■ Clinical Nurse Specialist time ■ Information Technology specialist's time ■ Information Technology training time ■ Equipment and its maintenance ■ Development of audit tools ■ Data collection by health records staff ■ Interviewer and transcriber ■ Data analysis and report ■ Presentations to staff, quality council, senior management ■ Replacement time of staff who need to attend meetings	
Evaluation ■ Data generation, analysis/review and report production	■ Staff time--charts pulled, abstraction of data from charts, data entry and analysis, interviews ■ Stipends or incentives paid to enhance response rate ■ Tapes, tape-recorder, and secretarial time to transcribe the tapes of interviews and focus groups ■ Stationery or publication costs (printing, graphic design, photocopying) ■ Data analysis and report	

Strategies to help garner the necessary campaign/action plan resources

Step 1

Create your CPG campaign strategy

Your written and well-developed action plan is the key to your administration's financial vault. A good action plan will point to the outcomes or deliverables the organization can expect as a result of implementing the campaign.

Additionally, a good strategy provides specific goals and can include:

- A description of the key target audiences;
- The distribution channels;
- The unique positioning of the organization as compared to other like or "sister" organizations;
- The reasons why it is unique and compelling to clients/patients;
- Possible research and development opportunities; and
- Potential cost savings

Overall, the action plan should position your organization as a leader, challenger, follower or niche player in the area. The strategy is comparable to a corporate business plan that is used by business owners to generate new revenue.

Step 2

Generate a plan to attract resources/utilize local champions

Your attempt to persuade your administration to allocate resources to make the CPG implementation and evaluation a success is analogous to your efforts to change the behaviour of your target group or staff. You are attempting to influence the behaviour of the people who have control of the resources in your institution. Therefore, take the time to generate a plan to attract the resources. You may require money, time, human resources, political capital, or more likely some from each area. Determine quickly who your supporters are and make use of them (see Chapter 2). Ideally, your manager should be on board with the project and should be able to attract senior administration's attention to the effort.

Step 3

Pool resources/build partnerships with key allies

Just as the power of a choir derives from its union of many voices, a powerful message requires groups throughout the community to come together in a coordinated effort. Organizations concerned with your issue can sing the melody along with you. By pooling resources with other organizations or practice settings (units, departments, etc), you can have a greater impact as well as access new audiences. Build connections with key people and organizations that have the potential to bring attention and credibility to your initiative. Invite businesses to sponsor your project (consider any conflict of interest) and align yourself with other professional associations, local service organizations and existing community coalitions.

Before proceeding to the next chapter, consider the following:

Stakeholder Implications:

- Consider stakeholders who will assist you in determining an accurate and presentable budget: people in your finance department, communications department, education department, your manager, etc.
- Consider stakeholders who will rally your cause, specifically, your manager, other members of administration, members of Patients' Council (if one exists), quality improvement staff, board members, or anyone that can help to build the case for implementing the CPG.

Action Plan Implications:

- Add to your action plan the strategies you will be using to identify the resources for the implementation and evaluation of the CPG.

Scenario

Prior to approval of the implementation plan, the Clinical Managers, VP Clinical Services, and VP Finance ask your committee to generate a budget for the Pain CPG Implementation. They want to know how resources will be allocated to conduct the multifaceted implementation plan, and they want to know what new costs will be associated with the implementation. The committee consults with the budgeting experts in the hospital. They decide that the Toolkit budgeting tool will provide the information the managers need.

As the committee prepares the budget, they systematically think about costs associated with each implementation strategy and ask questions that help them to develop the budget (See table below).

Strategy	Details	Questions the committee asks as they prepare the budget
1. Build local consensus	Form a multi-disciplinary committee. Get feedback from physicians.	■ How much staff replacement time is needed? ■ How much time is needed for individuals who will meet with the physicians?
2. Schedule interactive educational sessions	Design the educational sessions with the input of the hospital clinical educators. They will include some presentation of information as well as activities to involve the nurses, for example: ■ Completing questionnaires about knowledge and attitudes to pain and about their own pain experiences ■ A problem based approach, with problem scenarios tailored to specific units. Submit applications to the RNAO for clinical fellowships for 3 resource nurses.	■ What are the costs associated with the creation, copying, and distribution of the questionnaires? ■ How much time will the clinical educators need to prepare the sessions? ■ Is there a cost for other educational materials, such as videotapes? ■ What are the costs for replacement time for staff attending education sessions? ■ Will the session(s) be held after hours? Is there a requirement for staff overtime? ■ Is there a requirement for food or beverage? ■ Do you have a room-booking cost? ■ Do you have costs for audiovisual support?

Strategy	Details	Questions the committee asks as they prepare the budget
		■ What resources will be needed to produce the education sessions? Handbooks? Handouts? Overheads? Specify the number of handouts required. ■ What are the costs for co-sponsoring the RNAO clinical fellowships? ■ What are the printing costs for patient and family education material? ■ Can education material be purchased? ■ Do you require any capital equipment? Is there depreciation or leasing costs that administration need to be aware of?
3. Schedule educational outreach visits	■ Encourage one-to-one visits by pain committee members with the resource nurses. ■ Encourage one-to-one interaction between resource nurses and staff.	■ What are costs for staff replacement time? ■ Will there be any travel, parking costs?
4. Reminders	■ Develop a new pain history document to be included in the admission chart, as a reminder for admitting nurses to complete. The document should reflect the new pain management standards. ■ Place a pain bulletin board on each unit to remind staff of the new program. ■ Post the pain assessment flow sheet at the bedside with the vital signs flow sheet to remind nurses to complete and document their pain assessment when they do vital signs.	■ Are there costs associated with the development and/or purchase of the pain history document? ■ How many documents will need to be purchased? ■ Who will cover the costs of formatting the documentation to meet hospital standards? ■ Is a training session required for the use and storage of the pain history document? ■ What costs are associated with the creation and placement (maintenance) of the pain bulletin board?

Strategy	Details	Questions the committee asks as they prepare the budget
	■ Post a laminated version of the pain assessment tools on the walls in all emergency departments, critical care, and palliative care patient rooms to remind nurses, patients, and families to routinely assess pain.	■ What are the costs associated with the reproduction and posting of the pain assessment flow sheet? Number of copies required? ■ What are the costs associated with creation and placement of the pain assessment tools? Photocopying? Laminating?
5. Evaluate CPG Implementation	Collect both quantitative and qualitative data to evaluate whether the implementation process was successful.	■ What information systems and data base programs are required to complete the review process? ■ What types of survey instruments will be used? Are there distribution costs? ■ Will staff be required to produce, analyze and synthesize data? ■ Are stipends or incentives required to enhance survey response rates? ■ What costs will be associated with the production and presentation of the final report?

Ideally, all resource requirements have been taken into consideration and you have consulted with the financial and human resources representatives of the institution's management team.

Now go to the "spreadsheets" provided in the accompanying diskette to view a version of a "completed" budget for the pain CPG action plan. Blank worksheets are also provided.

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summary

The Toolkit for implementing CPGs has provided you with the following:

1. A methodology for assessing and identifying quality guidelines to implement;
2. Processes for identifying, analyzing and engaging stakeholders that can support various phases of CPG implementation;
3. An outline of how to conduct an environmental readiness assessment leading to identification of specific barriers and facilitators;
4. The evidence on specific implementation strategies available at present;
5. Possible strategies for planning and conducting evaluation of the implementation and its impact; and
6. Resource requirements and strategies for developing a convincing budget to permit CPG implementation and evaluation.

As you plan a CPG implementation, you can bring together the suggested activities or actions from the six steps outlined in this Toolkit, in the form of an action plan. A template of the action plan is shown below. As the individual responsible for implementing a CPG, such an action plan will become your means of:

1. Identifying all of the activities and actions that need to be taken;
2. Identifying individuals, groups or committees that will carry out the activities;
3. Developing a critical path with specific timelines for completion of the activities;

4. Communicating the plan and the status of the implementation project to relevant stakeholders; and
5. Monitoring the progress and developing contingency plans if required. You may also want to use the provided template as a checklist for ensuring that all key elements of implementation planning have been addressed. You will need to add specific actions as required.

As you implement your CPG you need to keep in mind that:

1. Your plan needs to be fluid or adaptable for unforeseen situations such as when a new barrier is identified.
2. Your plan must involve your key stakeholders throughout the planning exercise. You must ensure that they agree on the developed action plan. The implementation team must have a good understanding of the action plan and should use this as a means of monitoring progress.

Last but not least….

1. All milestones in your action plan should be noted, communicated and celebrated. For example, when implementation actions are initiated, creating an event to launch the implementation provides a motivating milestone. Other milestones may include completion of education sessions, the start of a particular key intervention such as the use of new pain pumps, and lastly, of course the completion of the formal implementation.
2. It should be clear that CPG implementation becomes an on-going activity and sustainability of its implementation is equally important. Identifying committees, groups or individuals who will continue to champion, monitor and address issues on an on-going basis is important. Identifying policies and procedures, orientation programs, self-learning modules, equipment replacement programs, etc. can be ways to ensure sustainability.
3. CPGs do become outdated; it is important to regularly review the literature for updates.
4. Change is a constant, however, making change happen is a big challenge! Have fun with your implementation projects!

Action Plan Template: 

Instructions: Use this template to develop your implementation action plan. You will need to complete the columns and identify specific activities under each of the major activities identified in the template.

	activity	target date	most responsible person	outcome/ deliverables	progress
1.	Identification of project lead, champions and/or the group who will lead the identification and implementation of a CPG a) Identify skill and role requirements. b) Communicate/recruit interested individual or group. c) Secure participation of project lead. d) Ensure project lead has clear mandate and resources required to start the planning process.				
2.	Identification of a CPG a) Identify stakeholders who will participate in the identification, assessment and selection of a CPG. b) Access the AGREE tool. c) Ensure understanding and knowledge about the use of the AGREE tool. d) Search and retrieve all available CPGs in the topic area of interest to the organization. e) Conduct the appraisal exercise. f) Present the data to the group involved in the appraisal exercise. Decide on a CPG based on its quality and content. g) Communicate the decision to relevant stakeholders.				

	activity	target date	most responsible person	outcome/ deliverables	progress
3.	Identification, analysis and engagement of stakeholders **a)** Define scope of implementation-- extent of implementation **b)** Identify stakeholders-- use team approach to identify. **c)** Using team, collect data about the stakeholders-- use template provided. **d)** Organize the data and analyze--again use a team approach--strive for consensus. **e)** Determine strategies that will be used to influence, support and engage stakeholders in different capacities. **f)** Update the action plan based on strategies identified.				
4.	Insertion of stakeholder strategies and actions once identified.				
5.	Completion of environmental readiness assessment.				
6.	Identification and planning of specific implementation strategies **a)** Identify the barriers and facilitators from the environmental assessment. **b)** Involve your relevant stakeholders, choose intervention strategies from available strategies. Choose interventions based on available information, effectiveness, and fit with the organization and its members.				

	activity	target date	most responsible person	outcome/ deliverables	progress
7.	Update of action plan, based on implementation strategies identified.				
8.	Development of plan for evaluation a) Identify available sources of evaluation support—expertise, data collection, etc. (may want to start with your Quality Council) b) Develop evaluation plan. c) Operationalize the plan.				
9.	Update of action plan based on results of the evaluation plan.				
10.	Identification of resources required for implementation a) Use budget worksheets provided. b) Involve implementation team and relevant stakeholders to ensure support for the completed budget. c) Develop strong argument for the budget. d) Identify ways to obtain funding from non-operational sources first – e.g. revenue streams, partnerships with specific vendors, etc. (Consider any conflict of interest) e) Present budget and sources of revenue to the responsible organizational management level.				
11.	Identification of monitoring processes.				
12.	Plan for celebration, marking milestones.				

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appendix A: Revising and Updating The Toolkit

The Registered Nurses Association of Ontario proposes to update the Implementation Toolkit as follows:

1. The Toolkit will be reviewed and revised as appropriate following the six-month pilot implementation phase. At this time, any new research findings and comments and recommendations made by the pilot implementation sites, will be reviewed. Revisions will be made as appropriate.

2. Following dissemination, the Toolkit will be reviewed by a panel of specialists (Review Team) in the topic area every three years following the last set of revisions.

3. During the three-year period between development and revision, the RNAO Nursing Best Practice Guideline (NBPG) project staff will search for new systematic reviews and randomized controlled trials (RCT) in the field. This review will be undertaken regularly.

4. Based on the results of the regular review, project staff may recommend an earlier revision period. Appropriate consultation with a team comprised of members from the original panel and other specialists in the field will help inform the decision to review and revise the Toolkit earlier than the three-year milestone.

5. Three months prior to the three-year review milestone, the NBPG project staff will commence the planning of the review process as follows:

a. Specialists in the field will be invited to participate in the Toolkit Review Team. The Review Team will be comprised of members from the original panel, as well as other recommended specialists;

b. The feedback received, the questions encountered during the dissemination phase, and the comments and experiences of implementation sites will be compiled;

c. New knowledge in the field, systematic reviews, meta-analysis papers, technical reviews and randomized controlled trials will be compiled; and

d. A detailed action plan with target dates for deliverables will be established.

The revised Toolkit will be disseminated, based on established structures and processes.

appendix B: Glossary

Audit and feedback

Summaries of clinical performance (eg, based on review of charting or one-to-one observation of clinical practice) used to increase the target group's awareness of their and/or others' practice.

Clinical practice guidelines or Best practice guidelines

"Systematically developed statements (based on best available evidence) to assist practitioner and patient decisions about appropriate health care for specific clinical (practice) circumstances" *(Field & Lohr, 1990).*

Communication systems

All those formal and informal processes that are in place to enable information exchange, (i.e., What formal communication systems are there for addressing clinical issues? For initiating change at the clinical level? Are there forums and/or venues available for informal discussions to take place related to clinical issues? Are results from these discussions taken anywhere?)

Consensus of expert opinion

"A process for making policy decisions, not a scientific method for creating new knowledge. At its best, consensus development merely makes the best use of available information, be that scientific data or the collective wisdom of the participants" *(Black et al., 1999).*

Didactic educational meetings

Lectures with little or no interaction.

Educational materials

Distribution of non-interactive educational printed, audiovisual, or computer-produced information.

Educational outreach visits

One-to-one visits by nurse-facilitators, pharmacists, study investigators or others to individual target staff to explain the desired change.

Evidence

An observation, fact, or organized body of information offered to support or justify inferences or beliefs in the demonstration of some proposition or matter at issue *(Madjar & Walton, 2001).*

caution Look for CPGs that are based on the highest quality evidence

Evidence-based practice

The systematic application of the best available evidence to the evaluation of options and to decision-making in clinical management and policy settings *(National Forum on Health, 1997).*

External stakeholders

External stakeholders operate outside the organization and can include organizations such as the RNAO, accreditation bodies, and various interest groups including patient and consumer groups, and others.

Interactive educational meetings

Learner involvement through discussion and active participation (e.g. work group tasks, problem based learning, etc.).

Interdisciplinary relationships

The behaviours, types of interactions and ways of making decisions demonstrated among and between disciplines that will be involved in, or affected by, the CPG (i.e. Are there teams of professionals from a variety of disciplines who regularly work together on issues?).

Interface stakeholders

Interface stakeholders operate across organizational, environmental boundaries. They include such persons as board members from your organization, staff with cross appointments, and other similar persons. Categorization can usually be determined when you initially identify stakeholders.

Internal stakeholders

Internal stakeholders are from within the organization and can include the staff nurses, the Chief Nursing Officer, clinical nurse specialists, physicians and others.

Knowledge, skills & attitudes of potential target group

The knowledge, skills, general views and belief systems of a potential target group that relate to change, evidence-based practice and clinical nursing excellence. This will affect motivation toward adoption of new ideas and practices. (i.e., Do the staff have the necessary knowledge and skills? Does staff have a positive attitude to new initiatives? Is it easy to talk about change to staff? Has staff been successfully supported through change in the past?)

Leadership support

The extent to which management at all levels and others with influence in the organization are prepared to enable changes in the system related to clinical practice and quality of care issues. (i.e., Does management at any level express the desire to promote evidence-based practice? Are there known influential champions in the organization who speak out for quality and clinical excellence?)

Levels of Evidence

A hierarchy of evidence, usually ranging from strongest to weakest.

Local consensus processes

Inclusion of participating practitioners in discussions to ensure they agree that the chosen clinical problem is important and the suggested approach is appropriate.

Local opinion leaders

Respected academic and clinician peers who can influence others to change behaviour.

Marketing

The management process responsible for identifying, anticipating and satisfying customer requirements profitably. This includes all functions of development, research, planning, design, pricing, packaging, advertising and promotion, public relations, sales, distribution and after-sales service.

Outcome evaluation

Assesses the impact of the program. It examines the changes that occurred as a result of the program and if the program is having the intended effect. It answers the question: "What are the results of this program?" It may also answer the question: "Are the benefits of the program worth the costs?" *(Porteous, Sheldrick, & Stewart, 1997)*

Patient mediated interventions
Involving patients to influence health care providers.

Process evaluation
Evaluates how the program is operating. It focuses on what the program does and for whom. It answers the question: "Is implementation consistent with the way the program was planned?" and "How can the program be improved?"

Program evaluation
Systematically gathers, analyzes, and reports data about a program to assist in decision-making *(Porteous, Sheldrik & Stewart, 1997).*

Reminders
Manual and computerized reminders to prompt behaviour change.

Resources
Financial, human or in-kind requirements necessary to achieve the objectives that are outlined in your action plan.

Stakeholder
An individual, group and/or organization with a vested interest in your decision to implement a CPG. Stakeholders include individuals or groups who will be directly or indirectly affected by the implementation of a CPG

Stakeholder analysis
A way to generate information about individuals, groups and/or organizations. A stakeholder analysis will help you and your team to understand stakeholder behaviour, plans, relationships and/or interests. As well, it will help you and your team to determine the influence and resources stakeholders will bring to bear.

Stakeholder management and stakeholder engagement
A term used to describe the way you and your team can engage or work with stakeholders. The goal of stakeholder engagement is compatibility between the interests of your stakeholders and your own project goals. This is accomplished by employing various approaches that can at best improve congruence or, at least, minimize the consequences of not having compatible goals.

Stakeholder triaging

A form of stakeholder engagement that will help you and your team to:

1. Direct energies towards stakeholders based on their positive, negative and/or neutral stance;
2. Determine how much energy and what type of resources to spend on each type of stakeholder;
3. Decide which stakeholder group should be addressed first; and
4. Decide on your goals for stakeholder engagement.

Structure

Those aspects of the organizational infrastructure having to do with how decisions are made, staffing practices, workload patterns, physical facilities, and resource availability. (i.e, Are there forums for resolution of clinical issues? How do clinical resource decisions get made? What are the general staffing patterns related to staff mix?)

Structure evaluation

Assesses settings and instruments available and used for the provision of care. This covers facilities, supplies, and equipment and may also include organizational structure and numbers and qualifications of the health agency staff. It signifies the properties and resources used to provide care and the manner in which they are organized. It answers the question: "Are the physical and human resources required to implement the CPG recommendations available?"

Systematic review

The application of a rigorous scientific approach to consolidate the research evidence on a specific topic. "Systematic reviews establish where the effects of health care are consistent and research results can be applied across populations, settings, and differences in treatment (e.g. dose); and where effects may vary significantly. The use of explicit, systematic methods in reviews limits bias (systematic errors) and reduces chance effects, thus providing more reliable results upon which to draw conclusions and make decisions" *(Clarke & Oxman, 1999)*.

Workplace culture

The overall nature of the organization: **a)** how we think things should be done; **b)** what is seen as important to focus on, allocate resources to; and **c)** what we aspire to base the philosophy, values, vision and mission on-- as they are expressed in day-to-day activities. (i.e. Is there a belief in excellence in clinical practice? Is there an expressed desire to focus on evidence-based practice? Is there a movement to be a leader in nursing excellence?)