A Framework and Toolkit for Managing eHealth Change:
People and Processes

Canada Health Infoway / Inforoute Santé du Canada

Pan-Canadian Change Management Network

About Canada Health Infoway

Canada Health Infoway (*Infoway*) is an independent, not-for-profit organization funded by the federal government. *Infoway* jointly invests with every province and territory to accelerate the development and adoption of electronic health information systems in Canada. These secure systems will allow authorized health care providers to have quick access to their patients' vital health information when and where they need it. This will contribute to better patient care. As well, these systems will eventually provide Canadians with electronic access to their health information to help them manage their own health.

For more information about Canada's efforts to implement information and communications technologies in health care, visit infoway-inforoute.ca.

For questions related to this guide, or *Infoway*'s approach to change management, contact clinicialadoption@infoway-inforoute.ca.

Contents

Who is this for?

People and Processes reflects leading practices and lessons learned for managing change in eHealth projects from across Canada. Based on this experience, this guide and toolkit has been developed as:

- a support for change management (CM) leaders and practitioners working within eHealth, particularly for jurisdictional level and large institutional projects and programs.

- a useful resource for front line clinicians, managers and senior leaders with a project implementation / quality / risk focus.

- an introductory resource for individuals with CM as part of their role but who may not yet have any formal education.

Executive Summary

Change Management

Change management (CM) is about supporting people through change. The term "change management" includes a wide range of activities and means different things to different people; there are tangible and measurable elements to CM, as well as less tangible elements, such as behaviours and culture change, which are just as crucial to overall project success.

Canada Health Infoway (*Infoway*) established the Pan-Canadian Change Management Network (Network) to support improvements in CM with information and communications technology (ICT) for health projects. These members have defined CM as:

"…a strategic and systematic approach that supports people and their organizations in the successful transition and adoption of electronic health solutions. The outcomes of effective change management activities include solution adoption by users and the realization of benefits."

In the world of eHealth, successful change implementation results in solution adoption and other long-term benefits such as improved patient care and organizational efficiencies. In other words, successful implementation of change is achieved when the systems, processes, tools and technology of the change initiative are embedded in the new way health care providers do their work. A focused and appropriately resourced approach to CM has been demonstrated as an essential driver of adoption and for realizing the many benefits of eHealth initiatives across Canada thus far.[1] Conversely, ICT project failures often have root causes associated with CM shortfalls.

This document is focused on CM practices as they relate to people and organizations undertaking change within the context of eHealth projects.[2] *Prosci*, an internationally recognized approach to CM, refers to this concept as the "people side of change."[3] Others refer to it as the *art* of change, implying that there is a need to mesh both science and art to form a comprehensive CM strategy.

National Change Management Framework

Experience from the front lines, as well as an analysis of the current state of pan-Canadian CM activities have shown that different approaches to CM are in play. CM plans must try to anticipate the various individual reactions of people to new and often stressful situations, and as such, must remain fluid and dynamic. Change leaders from across the country also report that often, despite best efforts, plans are not fully executed into actual, tangible practice, but remain a vague ideal of how the change ought to have occurred. This observation provides an opportunity to reflect on new approaches for improving and influencing user adoption and benefits realization.

Discussion among the Network concluded that there were key elements within the CM process that needed to be addressed, both in planning and in execution, in order to ensure success. The group also recognized that sharing information and lessons learned across projects and jurisdictions is critical for promoting rapid improvement and a common understanding in process and approach, based on the collective wealth of expertise and knowledge.

The Network has developed an integrated framework for describing CM activities within the context of eHealth projects that consists of six core CM elements:

🔵 **Governance & Leadership:**
The mechanisms used to guide, steer or regulate the course of a project, including how stakeholders can affect the priorities and progress of a project as well as the CM activities occurring within a project.

🟡 **Stakeholder Engagement:**
The process by which the perceptions, issues and expectations of stakeholders are learned and managed. Stakeholder engagement includes focused attention on the individuals who are expected to change. Their behaviours and needs must be defined, understood and considered when implementing eHealth projects.

🟣 **Communications:**
The process of providing stakeholders with what they need to know, in order to prompt appropriate responses and/or actions.

🟤 **Workflow Analysis & Integration:**
The process of understanding current work processes and opportunities for improvement, so that new processes using eHealth solutions can be sustainably embedded into the culture, as evidenced through their presence within steady-state operations.

🟢 **Training & Education:**
The act of imparting both knowledge and specific skills among key stakeholders to promote adoption.

⬤ **Monitoring & Evaluation:**
The process of reviewing whether CM activities took place as planned; and the extent to which they were effective. As proposed in this framework, monitoring and evaluation take place throughout the lifecycle of the project.

The CM framework is shown in the figure below:

Change Management Framework

Outcomes of successful eHealth change lead to solution adoption and clinical value, benefits realization and overall health care delivery transformation, positively impacting health outcomes for all Canadians.

Each section of this document contains a brief overview of the key concepts for each element of the framework, links to relevant tools and templates, and suggestions for further reading as derived from the literature review and other sources. Where applicable, experiences from Canadian jurisdictions are highlighted throughout.

Background

The Pan-Canadian Change Management Network (Network) is a grassroots collaborative supported by Canada Health Infoway's (*Infoway*) Clinical Adoption team. It was founded to share experiences and identify common goals that address ongoing change management (CM) related issues and concerns within the eHealth space across the jurisdictions (i.e. provinces and territories). Recognizing the importance of CM, this network of CM leaders came together to set common priorities and establish a plan to guide their work.

A subset of the Network, the Change Management Working Group (CMWG), formed in early 2010 to undertake a number of activities listed in their 2010/11 established work plan.

Specifically, the major deliverables for 2010/11 included the development of the following:

1. **Current State Assessment** of jurisdictional CM methodologies and tools.

2. **Literature Review** to compare and contrast CM approaches and methods in use nationally and internationally.

3. **Glossary of Terms** to develop a "common language" for discussing CM among CMWG members.

   and consolidation of the above three items into:

4. **A Framework and Toolkit for Managing eHealth Change: People and Processes**

Together, this collection offers expertise, insights and best practices to help shape CM strategies, and accelerate adoption and the realization of benefits associated with the use of information and communications technologies (ICT) for health.

1.1 Objectives and Purpose of this Document

A survey of CM practices undertaken by the CMWG in 2010 identified that change leaders have varying degrees of access to tools and supports. Some practitioners reported having no formal or structured access to tools and supports, while others indicated they had access to more comprehensive CM toolkits. Some jurisdictions have developed their own templates and guides, while others have researched and developed tools as needed within a project or program.

Key challenges identified by CMWG survey participants included both a difficulty finding appropriate resources to support change in health care settings, particularly in a large and geographically dispersed region, as well as challenges obtaining recognition and 'buy-in' of the need for formalized CM programs, by senior leaders.

*A Framework and Toolkit for Managing eHealth Change: **People and Processes*** addresses these challenges and serves as an additional resource to highlight where particular approaches and tools have been successfully implemented.

This document is not the definitive guide to CM; rather, it is intended to:

- communicate the findings from the CMWG deliverables and serve as a practical resource to highlight key elements of an effective CM plan;

- introduce a CM framework that is based on leading practices;

- provide sample tools and templates for use;

- inform and guide the practice of those new to CM;

- highlight current practices and trends across the country and internationally that align to the key elements of an effective CM plan;

- promote dialogue on what constitutes CM and the important role it plays in achieving successful outcomes;

- act as an early step in the process of achieving a national dialogue on leading CM practices for implementing ICT in health projects, based on evidence of leading practices;

- promote sharing of knowledge, lessons learned, successes, and challenges at a project level, regionally and nationally; and

- build a common language for eHealth CM in Canada.

1.2 Intended Audience

This document is developed as:

- a support for CM leaders and practitioners working within eHealth, particularly for jurisdictional level and large institutional projects and programs;

- a useful resource for front line clinicians, managers and senior leaders with a project implementation / quality / risk focus; and

- an introductory resource for individuals with 'change management' as part of their role but who may not yet have any formal education.

1.3 Key Inputs to this Document

As described previously, this resource has been developed using three pieces of work undertaken by the CMWG:

- Current State Assessment

- Literature Review

- Glossary of Terms

Each of these inputs is briefly described below.

1.3.1 Current State Assessment

Between June and October 2010, a review of eHealth CM methodologies and approaches was undertaken to gain a better understanding of current practice across Canada. A survey was distributed to all jurisdictions, with responses received from Alberta, Yukon, Saskatchewan, Manitoba, Ontario, Nova Scotia, New Brunswick and Newfoundland & Labrador. The survey focused on the following areas:

- Approach

- Resources and Structure

- Tools and Supports

- Successes and Lessons Learned

- Sustainability

Responses were consolidated into a single dataset with overall themes, strengths and gaps noted. This synthesis reflected that the availability of tools and supports varied widely across Canada ranging from jurisdictions with no formal CM supports, to those with some locally developed templates, to those that had implemented formal CM methodologies.

1.3.2 Literature Review

Between June and November 2010, the CMWG undertook a literature review with two key objectives:

- To compare and contrast CM methodologies / approaches in use, both nationally and internationally, and identify applicable tool sets and resources that align with the proposed key elements of an effective CM plan (i.e., the *CM framework*).

- To assist in the creation of a Glossary of Terms by listing and describing commonly used words and phrases within eHealth CM.

Methodology: A comprehensive literature search was initially conducted by *Infoway*'s Clinical Adoption eHealth Information Services team. CMWG members each reviewed a selection of documents and provided structured feedback via a standardized template that centered on five core elements of the CM Framework: Governance & Leadership, Stakeholder Engagement, Communications, Workflow Analysis & Integration and Training & Education. Results were reviewed by the CMWG and a proposed 'final' list of documents was created using specified inclusion criteria.[4] A sixth element, "Monitoring & Evaluation," was subsequently added to reflect the importance of evaluating processes that confirm successful execution and link to ongoing continuous quality improvement activities. In sum, a total of 49 documents were reviewed by the CMWG. After secondary review and discussion, 29 documents were deemed to meet the inclusion criteria and objectives of the deliverable. These materials have guided the population of content into *A Framework and Toolkit for Managing eHealth Change: **People and Processes***.

1.3.3 Glossary of Terms

CM terms and descriptions were identified and documented during the current state analysis and environmental scan. Results were compiled and validated by CMWG members, based on direct relevancy to the topic of CM and its activities within eHealth. Group consensus was sought for the final listing of terms and descriptions. In total, 69 terms were initially identified by the group, with approximately 40 slated for inclusion in the final glossary.

CHAPTER

2 Introduction

2.1 What is Change Management?

In general terms, change management (CM) is about supporting people through change. Typical requirements of successful CM include processes, tools and techniques to proactively manage the human elements of change to achieve desired business results.[5] The end result of effective CM is a change in behaviours, attitudes and/or work processes to achieve business objectives.

The term "change management" includes a wide range of activities and means different things to different people. There are 'hard' aspects to CM, which are "tangible, identifiable and measureable," and there is a 'soft' side to CM that deals with intangible behaviours and culture changes.[6] These are more difficult to measure and manage, yet they are crucial to overall project success.

Research undertaken by the Change Management Working Group (CMWG) identified that many CM practitioners focus on change at an enterprise or strategic level, while others are focused on CM within the context of a single project. This difference is reflected in the reporting structures: in some jurisdictions, CM is at a programmatic level overseeing all aspects of change for healthcare technology and in others, CM is a set of activities contained within a single project.

Implementing information and communications technologies (ICT) in health care is not easy, "requiring organizational commitment, strong leadership, adequate resources (capital and human), sound project methods, a skilled team and the utilization of appropriate change management techniques."[7] As such, CM is an integral part of project management processes, impacting project scope, time, cost, quality, risk, contract/procurement, human resources, communications and more.[8] Ultimately, CM activities result in solution adoption and use, transforming health care quality and efficiency.[9]

This document is focused on CM practices as they relate to people and organizations undertaking change within the context of eHealth projects.[10] *Prosci*, an internationally recognized approach to CM, refers to this concept as the "people side of change,"[11] while others refer to it as the *art* of change, implying that there is a need to mesh both science and art to formulate a comprehensive CM strategy.

Members of the Pan-Canadian Change Management Network (Network) have defined CM as:

"…a strategic and systematic approach that supports people and their organizations in the successful transition and adoption of electronic health solutions. The outcomes of effective change management activities include solution adoption by users and the realization of benefits." [12]
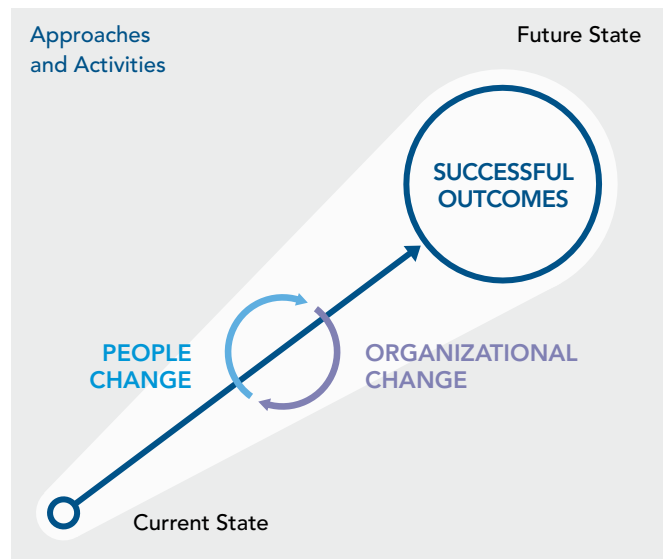
The figure on the following page was developed by the CMWG to illustrate how successful change is dependent on developing and implementing a meaningful approach to a transition that includes a series of relevant and supporting activities over a sustained period of time. When supporting activities focus on both people and their organizations, the potential for successful outcomes is created.

Literature has identified that poorly managed change can result in negative consequences including: turnover of valued employees; lower productivity; resistance in all forms (passive, overt, mild, serious); disinterested, unengaged, detached employees; increased absenteeism; cancellation of projects; slow or non-adoption of new methods and procedures; and little or negative return on investment (ROI).[13]

A study by AMR Research found companies that had successful software implementations spent 10 to 15 per cent of their project budget on CM implementation activities.[14] Allocating funds that support the adoption and execution of CM practices increases the odds of success, as the necessary focus can be placed on supporting the people in the organization who make things happen.[15]

COACH: Canada's Health Informatics Association, suggests that best practices for dealing with implementation challenges of ICTs for health include: recruitment of strong champions and sponsorship for change; choosing a well-designed and resourced CM program that is aligned with organizational culture; implementing change with a staged approach, easing disruption and facilitating demonstration of the benefits of the change as quickly as possible; offering sustained support for new users of a solution / system,

Figure 1

What is Change Management?

Approaches and Activities

Future State

SUCCESSFUL OUTCOMES

PEOPLE CHANGE

ORGANIZATIONAL CHANGE

Current State

working to optimize their engagement and use of the solution and information; and monitoring data quality to provide helpful feedback and education for users of the system about the importance of data in supporting clinical and organizational decision making.[16]

2.2 Organizational Change Management

Organizational CM is focused on supporting people to change their behaviours in specific, desirable ways, by providing them with the right tools and supports.[17] Effective leadership that clearly communicates this vision is a critical first step.[18,19] One must also understand and appreciate the political environment and culture within

the organization and the degree of alignment between any new ideas and the organization's perceived "real needs."[20]

From a leadership perspective, there are a number of activities required to facilitate an effective change process. Hiatt & Creasey's Prosci model refers to these key elements as occurring within three phases:[21]

Figure 2

Prosci Model: Three Phases of Organizational Change

Phase 1 – Preparing for Change
- Define your CM strategy
- Prepare your CM team
- Develop your sponsorship model

Phase 2 – Managing Change
- Develop CM plans
- Take action and implement plans

Phase 3 – Reinforcing Change
- Collect and analyze feedback
- Diagnose gaps and manage resistance
- Implement corrective actions and celebrate successes

Another way to consider organizational change is by analyzing the change against six key phases, summarized in Allen's (2008) The CHANGE Approach© and noted in the table below.

Figure 3

Six Phases of Organizational Change

Creating vision	Articulate why change needs to happen and why it needs to happen within the planned timeframe.	• Is there a clear and compelling reason for adopting this change program? • Is it clear how, when and where this change will happen? • What is required to keep the initiative moving forward? • Is the objective data needed to convince the skeptics available? • Do people feel the urgency to change?
Harness support	Get on board the key decision makers, resource holders and those impacted by the change.	• Who are the stakeholders in this change? • What are the motivators for each stakeholder? • Does the senior executive team support this change? • Has a communication plan been developed? • Are all stakeholders engaged in the change process?
Articulate goals	Define in specific and measurable terms the desired organizational outcomes.	• Do stakeholders take ownership of the vision and goals? • Are program goals SMART (Specific, Measurable, Attainable, Realistic and Timely) goals? • Are people involved in devolving the goals to lower levels of the organization? • Are implementation plans in place supporting attainment of goals? • Are performance measurement and reporting systems set up?
Nominate roles	Assign esponsibility to specific individuals for the various tasks and outcomes.	• Are CM and new operational accountabilities clear? • Are the right people selected for the right roles? • Do people with responsibilities have the necessary skills? • Are project management principles and methods being used? • Is the proportion of goal and task assignment appropriate?
Grow capability	Build organizational systems and people competencies necessary for affecting the change.	• Is the training plan sufficiently scoped and adequately resourced? • Are teams being developed and supported for high performance? • Is support in place ensuring transfer of training to the workplace? • Is there a focus on soft skills as well as technical skills? • Do information, human resources and other systems support the new operational environment?
Entrench changes	Institutionalize the change to make it "the way we do things around here."	• Are performance results reported and successes celebrated? • Is planning sufficient to ensure some quick wins? • Are remuneration, rewards and recruitment systems aligned with the change objectives? • Are new meanings provided through creating workplace symbols? • Do managers and supervisors lead by example?

Failed organizational change tends to occur for several reasons, including: [24]

- absence of a change champion or one who is too junior in the organization;

- poor executive sponsorship or senior management support;

- poor project management skills;

- hope rested on a one-dimensional solution;

- political infighting and turf wars;

- poorly defined organizational objectives; and

- change team diverted to other projects.

2.3 Change Management in eHealth

CM is a necessary component of all aspects of eHealth initiatives, including project planning, project management and effective use of cross-functional teams. The need to integrate CM activities into many aspects of eHealth projects necessitates having multidisciplinary CM teams integrated within the overall project team. This combined team includes members with deep clinical knowledge and understanding of the effect of technology on clinicians, health systems and care processes to increase the successful adoption of eHealth solutions. Integrated project planning fully considers the technology, clinical and business processes, as well as the people aspects of implementation.

2.4 eHealth Change Management in Canada

Adoption and benefits realization of electronic health solutions is accomplished using an integrated approach to CM, adoption and benefits evaluation. *Infoway*'s Clinical Adoption team works to support this pan-Canadian effort through its investment programs and the mandate of its regional teams. CM efforts are underway in every jurisdiction to support eHealth solution implementation and adoption. Recognizing the importance of documenting and sharing the breadth of CM efforts across Canada led the CMWG to undertake its current state assessment (please see Section 1.3.1 for additional details).

Key findings of the CMWG assessment of change projects across Canada identified the following best practices:

- Those individuals and organizations who directly benefit from the initiative are often the most effective at executing the initiative;

- Initiatives that leverage standards and proven technology are most often successful;

- Demonstrating early results based on comprehensive data is important;

- Continuous quality improvement cycles should be applied; and

- Initiatives that demonstrate clinical value will be supported and those that do not include clinical adoption as a goal from the beginning will struggle or fail to be adopted.

Other key findings from the current state analysis are described below:

Approach to CM: All responding jurisdictions recognized the importance of CM and have developed unique delivery approaches. In a number of jurisdictions, this tactic resided within project-level implementation methodology. With the exception of Manitoba, which has wholly adopted *Prosci* [25] as its approach for supporting people through change, no other jurisdiction referenced one particular CM model, nor did any jurisdiction formally reference a set of principles guiding their CM approach.

Resourcing: Responsibility for CM resides with senior management in all jurisdictions and is mostly delivered by contracted resources. Across all respondents, no formal governance mechanism guides or supports CM executives and resources. The percentage of total project budget spent on CM varies considerably across the jurisdictions and with size, scope and type of project.

Tools and supports available: Readiness assessment, stakeholder engagement, workflow integration and training are supported with a wide array of tools across the eight responding jurisdictions. Fewer tools support individual change, end user sites or privacy and security; while no tools were identified to support the development and communication of value propositions or user adoption. In addition, the questionnaire administered by the CMWG identified sustainability as a critical CM concept, and the relationship between sustainability and continuous quality improvement was confirmed as an important area for future consideration. Only one jurisdiction reported formally identifying sustainability as a required CM deliverable within its project management processes, backed by the support of a Reinforcement Sustainment Plan.

2.5 Building a Case for Change

The value and benefits of eHealth solutions are not always readily apparent to all stakeholders. Building a compelling case for change is an important first step in the CM process. For most stakeholders, demonstrating the WIIFM (what's in it for me) proposition is essential.

The case for change can be articulated formally as a business case or a vision statement that clearly articulates the reasons for changing linked to the desired outcomes.[26] In either case, leaders should help to build the case for change and identify the consequences of not changing by profiling the:

- clinical imperative that people understand and support (i.e., articulate why the change is important and how it makes a difference to the work of the organization and its stakeholders (clinicians, administrators, other staff, patients and so on));

- desired benefits and value proposition;

- forces (external and internal, economic, political, social) that make this change necessary; and

- cost of the status quo (i.e., the opportunity cost of doing nothing).

Making a strong case for investing resources in CM will focus stakeholders' attention on the value proposition; act as a vehicle to discover value for all stakeholders; act as a building block for communication and training material; and be used to secure additional resources for the project and communicating value to senior leaders in the organization.

The case for change also identifies the positive or negative influences on the objective of a project. A number of methods can be used to obtain this information:

- think tank, brainstorming sessions;

- focus groups, working groups;

- interviews with various individuals from selected target populations;

- results of questionnaires or grounded studies on organizational climate;

- observations, field study;

- work flow mapping, process analysis;

- management reports on organizational performance; and

- analysis of actual clinical use cases.

A National Change Management Framework

A change management (CM) framework has been developed by the Pan-Canadian Change Management Network (Network). Below is a discussion of the framework's key components, a brief overview of important concepts, links to relevant tools and templates, and suggestions for further reading as derived from the literature review and other sources. Where applicable, findings from the current state assessment are highlighted.

Some tools and templates may be used more than once through the course of a change initiative and as such, may also be referenced in other sections of this document.

Rationale for a National Change Management Framework

Experience from the front lines, as well as an analysis of the pan-Canadian current state assessment, show inconsistencies in approach to CM. In many instances, elements of CM are done well, but may not have been completed to their full extent. Further, some CM plans are often outdated or irrelevant by the time solution implementation occurs. As such, they are never fully executed into actual, tangible practice; thus failing to have the desired strategic impact of influencing user adoption and benefits realization to their maximum potential.

According to "lessons learned" documents and anecdotal evidence from change leaders across the country, issues in user adoption were often a result of CM elements that were either delivered ineffectively or missed completely. This most often occurs because of a primary focus on technology implementation rather than a strategic, tactical focus on people. Discussion among the Network membership concluded that there were

key elements within the CM process that need to be addressed, both in planning and in execution, to ensure success. Additionally, the group recognized that sharing information and lessons learned across projects and jurisdictions is critical for achieving rapid improvement in process and approach based on this wealth of CM experience and knowledge.

The Network membership concluded that information and communications technologies (ICT) for health projects should incorporate the following six core CM elements:

- **Governance & Leadership**
- **Stakeholder Engagement**
- **Communications**
- **Workflow Analysis & Integration**
- **Training & Education**
- **Monitoring & Evaluation**

The national CM framework is shown on the following page.

Figure 4

Change Management Framework

Outcomes of successful eHealth change lead to solution adoption and clinical value, benefits realization and overall health care delivery transformation, positively impacting health outcomes for all Canadians.

Why these elements?

Much literature exists to reflect the importance of each of these key elements[27] and the concepts are covered in more detail throughout this chapter. The value of each of these domains of activity is realized when one considers the negative consequences of *not* incorporating them.

🔵 **Governance & Leadership:** Without an effective governance structure, the strategic view that links project tasks together – the "what are we doing" and "why are we doing it," never gets answered and the project risks loss of aim, direction and successful execution. Without an engaged leadership structure supporting the change activities, as well as desired future state, there is risk of discord and negative impact to organizational culture, failure

to obtain buy-in from stakeholders and overall loss of productivity.

🟡 **Stakeholder Engagement:** Without considering stakeholders, particularly the actual people who need to make the change, there is risk of failed solution uptake, creation of angst and emotional upset, loss of respect for leaders and project implementers, as well as failure to achieve any return of investment or value.

🟣 **Communications:** Consistent and repeated communication about the strategy or project and the desired end goals and objectives is vital. Without it, information would not reach those who need to know. The value of what is trying to be achieved may not be recognized, stakeholders would not be aware or engaged in the process, innovation and creative ideas would never be shared, and the required education and training would not be successfully delivered.

🟤 **Workflow Analysis & Integration:** Without considering the ways that people work and how business is conducted, it is not possible to incorporate a new tool or practice, disrupting the workplace and potentially duplicating efforts. If people are unable to easily use the technology or fail to see its value, it will not get used, wasting valuable resources and halting progress.

🟢 **Training & Education:** An education plan that considers approaches to prepare the organization and users for the upcoming change is critical. It forms the foundation upon which solution training occurs, and continues over the longer term, ensuring sustainability and optimal use. Without execution of comprehensive education and training plans, few, if any of the project goals can be achieved.

⬤ **Monitoring & Evaluation:** Paying attention to process through ongoing monitoring and evaluation provides opportunity to identify risks. Without focusing on these issues, opportunities to improve process, to identify gaps or to recognize success do not take place. Ongoing monitoring and evaluation is essential to understand and manage progress toward the future state. Lessons learned and process improvements need to be integrated in real-time, to avoid repeated mistakes.

A national CM framework helps to proactively focus attention to these core and vital activities, aiming to minimize negative consequences. Thoughtful contemplation of these undertakings, both in planning and in execution, proactively considers users of eHealth solutions and presents communication opportunities. It also supports the integration of technology into practice; and overall, supports people and their organizations as they transition from the current state to the newly desired end state. This is the goal of the national CM framework.

3.1

GOVERNANCE & LEADERSHIP

3.1.1 Governance

Governance concerns the mechanisms that are used to guide, steer or regulate the course of an organization or system.[28] Strong governance leads to better decisions, greater alignment with organizational priorities and more buy-in from stakeholders.[29] With respect to eHealth projects, it is important to establish formal arrangements for governance (and management) of change programs to clearly establish roles, responsibilities and "who does what" throughout the program or project. The governance structure identifies the mechanism by which stakeholders can affect the priorities and progress of a project.

Effective project planning, stakeholder analysis and engagement at the outset of a project can contribute to successful governance and long term project success. Engaging end users/stakeholders when defining governance structures has been shown to contribute to successful outcomes in complex solution projects. For example, the initial planning process may reveal key partners that, if included in the governance structure, may result in benefits to the project later on.

There is no single best model for governance; it will look different in each organization. Indeed, one of the most critical success factors of effective governance is that the model must match the unique culture and objectives of each organization.[30] An approach developed in the province of Alberta is one example of a useful governance framework for eHealth programs. This model addresses both scope and key components of a good governance structure. The figure below describes the scope of Alberta's eHealth governance projects from three different dimensions: planning, delivery and operations.

The approach also identifies three elements of a governance model in terms of principles, structure and processes, as follows:

- **Principles:** the guiding policies to which the governance model(s) should adhere. Simplicity, efficiency, clarity and transparency are identified as useful principles for a complex environment such as eHealth.

Figure 5

Alberta's eHealth Governance Framework

Planning

- Visioning
- Goal-setting
- Policy formulation
- Prioritization
- Global budgeting
- External liaison

Delivery

- Project approval
- Status tracking and reporting
- Budget monitoring
- Schedule maintenance
- Resource allocation
- Change control

Operations

- Infrastructure maintenance
- Staff management
- Troubleshooting
- Service level monitoring
- Procurement and supplier management
- User support

- **Structure:** the roles, responsibilities and relationships among the major participants in the information management/ information technology governance model, including individuals, committees and organizational units.

- **Processes:** the operating modes and "ground rules" for operating the model and making decisions.

Having effective governance mechanisms in place to support CM is an important contributor to project success. In a project-based environment, governance mechanisms and project management structures work hand-in-hand to ensure that projects progress as expected. A common model for integrating rigorous project management with strong governance and project structures was originally developed for use in the United Kingdom, but has since evolved to become a globally recognized standard project management approach, known as the PRINCE2 (Projects in Controlled Environments) methodology.[31]

PRINCE2 is a structured approach to project management that provides a method for managing projects within a clearly defined framework. PRINCE2 describes procedures to coordinate people and activities in a project, how to design and supervise the project, and what to do if the project has to be adjusted when it doesn't develop as planned. Working knowledge of this methodology is required for some CM leadership roles in Canadian jurisdictions. Figure 6 provides a graphical representation of one approach for incorporating CM into a project process and governance structure such as that suggested by PRINCE2.

Figure 6

Integration of Change Management Processes into a Project Process and Governance Structure
Adapted from PRINCE2 Project Process and Governance Structure Diagram – (CCTA, 1996)[32]

Newfoundland & Labrador's Centre for Health Information (NLCHI) has adopted an integrated approach to project planning with a core project team which includes CM. Figure 7 – EMR Project Governance Structure – Newfoundland & Labrador displays the governance model that is in place for their electronic medical record (EMR) program.

3.1.2 Leadership

Clearly defined leadership and accountability structures at the outset of the project will motivate others to adopt change. Successful CM requires that a variety of organizational and/or other governance structures and roles be in place to provide the leadership and accountability for ICT projects.
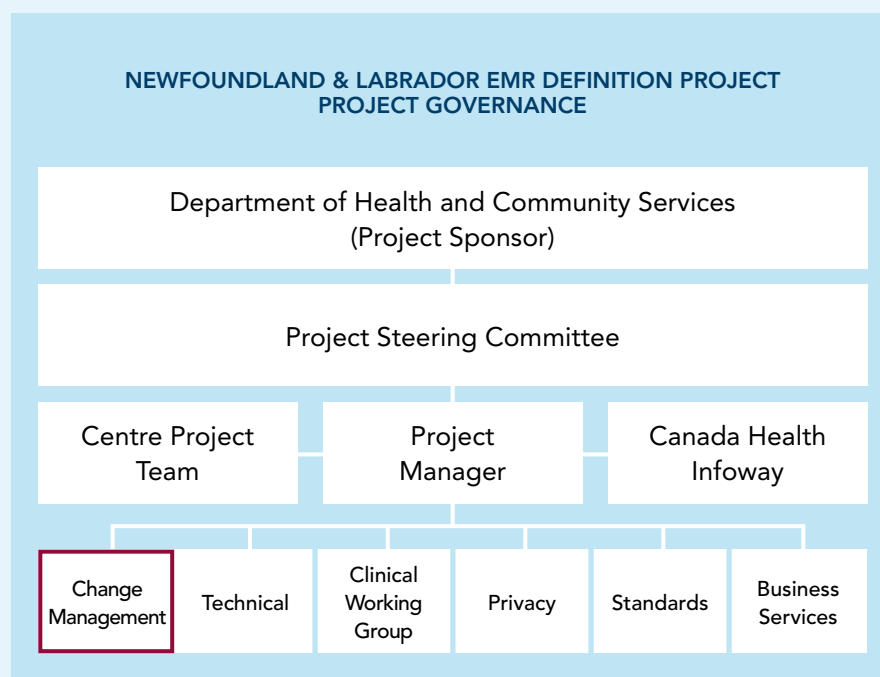
Every project needs to have strategic, operational and tactical level leadership and direction to achieve the required balance of decision making, change progress, and project success.

Although there is no exact formula to follow in implementing an eHealth system, one ingredient for success appears to be the complete and unqualified support of the senior executive team, beginning with the CEO of the organization.[33] The senior leadership needs to support not only the objectives of the project, but also the activities that are required to meet them, including CM. Ideally, the objectives reflect a clearly articulated future state, rather than simply executing projects on time and budget.

In this context, leadership is distinct from management, although effective management

EMR Project Governance Structure – Newfoundland & Labrador

NEWFOUNDLAND & LABRADOR EMR DEFINITION PROJECT
PROJECT GOVERNANCE

Department of Health and Community Services
(Project Sponsor)

Project Steering Committee

Centre Project Team — Project Manager — Canada Health Infoway

Change Management | Technical | Clinical Working Group | Privacy | Standards | Business Services

is an important characteristic of success. Many projects lack change leadership and accountability. A "guiding team" of change leaders and change agents is required to translate the vision into a reality.

The guiding team often includes multiple levels of leadership and management, including:

- **The Initiating Sponsor** – The executive who launched the idea. Usually remains committed but is a little more removed from the daily leadership and accountability.

- **The Sustaining Sponsor** – Could be the program or project steering committee, and a group of local leaders who are accountable for successfully implementing change.

- **The Target Sponsor** – The local level leader of the change.

3.1.3 Key Roles in the Change Process

CM initiatives require highly integrated teams involving a number of distinct roles. Canada's Health Informatics Association (COACH) has developed a *Health Informatics Professional Career Matrix* [34] which identifies 65 health informatics roles and related competencies, including CM related roles, some of which have been reflected in the table below.

The associated toolkit for this document also provides a sample job description for a CM project lead role; and a template to assist in further defining roles and responsibilities (e.g. RACI chart).

Figure 8

Change Leadership Roles

Description	Examples
Executive Sponsor(s) The executive's representative for ensuring that: • appropriate resources are committed; • problems are solved; and • the program succeeds.	Program Sponsor, e.g. Chief Information Officer, Chief Nursing Officer, Chief Medical Officer, Chief Technology Officer
Change Leader(s) A senior member of the organization who: • is able to command resources and the attention of the executive team; • has a strong personal commitment to the success of the program; and • is the principal trouble-shooter.	Business Sponsor, e.g. Medical Director, Allied Health Director, Clinical Informatics Director, Information Technology Director
Change Agent(s) Members of the project team who are seen to be implementers and enablers of change. i.e., these individuals: • manage and perform tasks to bring about change; • set up environments so change can happen; and • maintain the overall responsibility for detailed planning and implementation of one or more components of the change program.	Project Manager, Transition & CM Lead, CM Specialist
Advocates Individuals who: • are responsible for supporting and communicating change initiatives; • allocate required resources within their area of control; • use their influence with others to support the initiatives; and • support, console and coach others through the change process.	Middle managers, Front line supervisors, Team leaders
Stakeholders Individuals who are: • directly affected by, participate in, and will benefit from the change; • expected to behave differently in the 'changed' organization; and • will be accountable for sustaining future state performance.	Front line clinicians, i.e., physicians, nurses, allied health professionals; administrative staff; researchers; and "users" of the solution

CHANGE LEADERSHIP ROLES

Clinician leaders who embrace the change contribute to the project vision through their advocacy, demonstrated use, and by creating a sense of urgency around the need for adoption. Governance structures, as well as roles and responsibilities for all positions including change leaders, agents and advocates must be well articulated and agreed to by those fulfilling the roles. Champions of the change need to be cultivated across all aspects of the organization / initiative. Leadership is required at all levels of participating stakeholders.

3.1.4 Resources and Tools

The following list refers to resources and tools available in the toolkit section of this document. Electronic versions of these resources, as well as others, are available in the toolkit repository found online at Canada Health Infoway's Change [36] Management Forum at forums.infoway-inforoute.ca/CMF/.

- Organizational Change Readiness Assessment

- Risk Assessment Form

- Sample Terms of Reference – Governance Advisory Committee

- Determining a Project Governance Structure for Health Projects

- Roles and Responsibility Charting (RACI)

- Job Fact Sheet – Sample Template

- Control and Influence Assessment

3.1.5 Further Reading

Canada Health Infoway. White Paper on Information Governance of the Interoperable Electronic Health Record (EHR) (March 2007)

This paper addresses information governance topics with privacy and security implications for personal health information in an interoperable pan-Canadian EHR and describes information governance mechanisms that are currently in use in health care in Canada and other countries, or in selected industries outside health care with lessons that could be applied to the Canadian health care context.

Cancer Care Ontario. A Three-Step Method for Large-scale Clinician Change Management Initiatives (2011, 19p.)

This presentation describes how to match CM strategies to specific objectives, identify the right stakeholders and create momentum at all levels of the organization. It discusses how to build sustainability into efforts from the beginning to ensure continuous improvement past project close-out.

Kaiser Permanente. Change Management Strategies Workshop: Change Management Strategies for Effective EMR Implementations (2011, 33p.)

The aim of this presentation was to equip organizations with relevant skills and the understanding required to develop targeted CM strategies. It provides a set of successful practice approaches and lessons learned.

G. Pare. Clinicians' Perceptions of Organizational Readiness for Change in the Context of Clinical Information System Projects: Insights from Two Cross-sectional Surveys Implementation Science (March 2011, 14p.)

"Organizational readiness is arguably a key factor involved in clinicians' initial support for clinical information system initiatives. As healthcare organizations continue to invest in information technologies to improve quality and continuity of care and reduce costs, understanding the factors that influence organizational readiness for change represents an important avenue for future research."

J. Morazain. Gérer le changement. L'Actualité médicale (Mars 2011)

«La résistance au changement est incontournable. L'auteur explique l'importance d'apprendre à bien gérer le changement afin d'atténuer les résistances et de susciter la coopération.»

Saskatchewan Medical Association. EMR Champion Guide. Ministry of Health (2010, 18p.)

"This guide is for clinic champions who have to coordinate the Electronic Medical Record (EMR) implementation and the associated Electronic Health Record (EHR) services within the physician clinic. It has been structured to follow the implementation process and provides items to consider and activities that will happen."

P. Varkey. Change Management for Effective Quality Improvement: a Primer. American Journal of Medical Quality (Jul-Aug 2010)

"The authors provide an overview of the steps to design and execute QI projects that require change management. Adoption of change management practices increases the odds of success because focus is placed on the people in the organization who make things happen."

NHS Connecting for Health. Clinical Deployment Guide for Clinicians: A One Stop Guide to Clinicians Involved in Deploying IT Systems (50p.)

"The guide is designed to help clinicians involved in business change projects enabled by information technology by helping them understand how they can contribute effectively and what roles and responsibilities they may be asked to undertake."

3.2

STAKEHOLDER ENGAGEMENT

The term "stakeholder" is used frequently, but is often confused and interchanged with partners and customers. Stakeholders are described as "…persons, groups or organizations that must somehow be taken into account by leaders, managers and front-line members." [37] They can be internal or external to an organization. Stakeholders can be considered as "any group or individual who can affect or is affected by the achievement of the organization's objectives." [38]

Stakeholder behaviours and needs must be defined, understood and considered when implementing eHealth projects. Often, one of the most important stakeholders is the end user of the solution being implemented. Stakeholder engagement strategies are then defined in response to these needs, with the goal of creating stakeholder commitment, involvement and trust. The overall purpose of stakeholder engagement is to "drive strategic direction and operational excellence for organisations, and to contribute to the kind of sustainable development from which organisations, their stakeholders and wider society can benefit." [39]

Engagement can be mapped on a continuum, as the level of engagement will vary depending on the need for engagement, the stakeholder and the degree of openness for sharing of information. The model below is widely used to describe stakeholder engagement and forms the basis for this stakeholder engagement strategy.[40,41] Stakeholders may be involved for any one or combination of the following: for the purposes of sharing information, providing education, seeking feedback, developing consensus, creating an involved or shared resolution or being empowered to devolve decision-making. Stakeholder engagement goes beyond informing and consulting. Stakeholder engagement requires, at a minimum, some degree of *involvement* or *collaboration* during the change process. These distinctions are described in the table below and are used to inform the tools developed to support implementation of this strategy.

3.2.1 Why Involve Stakeholders?

All initiatives can derive benefit or be put at risk through the degree to which stakeholders are engaged and involved. Ideally, stakeholder involvement will:

- ensure stakeholder input into the project;

- prepare stakeholders for the work necessary to complete the project;

- increase the likelihood of an initiative's success and minimize the risk of failure;

Figure 9

Continuum of Stakeholder Engagement

Inform	We will keep you informed
Consult	We will keep you informed, listen to you, and provide feedback on how your input influenced the decision
Involve	We will work with you to ensure your concerns are considered and reflected in the alternatives and provide feedback on how your input influenced the decision
Collaborate	We will incorporate your advice and recommendations to the maximum extent possible
Empower	We will implement what you decide

- create and sustain winning coalitions;

- ensure long-term viability of organizations, policies, plans and programs;

- mitigate risk – time investment is minimal compared with costs of not involving stakeholders;

- provide access to a wide range of views, expertise, values and beliefs that can be integrated into the change program;

- help stakeholders understand the value proposition and specifically their "WIIFM"; and

- support the incorporation of a wide range of views into developing a case for change and in articulating both clinical and patient benefits. [42]

There may be different considerations for individual stakeholders compared with organizational stakeholders.

3.2.2 Individual Stakeholder Engagement

Stakeholders must be identified at the outset of change projects. Their expectations with respect to benefits and timelines should be anticipated, ascertained and managed from the beginning to avoid misunderstanding and/or disappointment.

Stakeholder identification and analysis is often the first exercise in a series of CM and implementation activities. Results from a complete stakeholder identification and analysis are the foundation for effective communication and training activities,

and other forms of engagement such as working groups and requirements gathering undertakings.

The Change Management Working Group (CMWG) survey supports the literature in this regard, indicating that strong stakeholder engagement and training, frequency and quality of communication, as well as clear communication channels are essential. Successful implementation projects must have structured processes and approaches to engage and involve key clinical end user groups. Experience reported from Saskatchewan indicates building and maintaining strong relationships with stakeholders is important for demonstrating value and sustaining their buy-in throughout the project lifecycle and beyond.

Stakeholders can be engaged and participate in a number of ways, including:

- as champions and super-users, supporting and promoting the change initiative;

- through regularly scheduled work group sessions;

- at structured sessions during strategy, planning, requirements gathering, prototype and build, and testing of the solution phases;

- in formal project leadership roles to engage other end users across the jurisdictions;

- for ad hoc information and feedback sessions; and

- as participants in formal and informal clinical advisory groups.

3.2.3 Process for Engaging Stakeholders

There are four key components of any good stakeholder engagement process: identification, segmentation, analysis and prioritization, understanding and incorporation. Each is briefly described below.

1. **Identify Stakeholders:** The first step to any stakeholder engagement process is stakeholder identification during project initiation. Although self-evident, many projects either neglect this altogether or limit the attention paid to even the most obvious stakeholders. Frameworks for categorization may vary by project, but often include: internal stakeholders, external stakeholders and key partners.

2. **Analyze, Segment and Prioritize Stakeholders:** This step attends to the issues and concerns of stakeholders throughout the project duration. Investing time near the beginning of a project and re-visiting this assessment at regular intervals throughout the project lifecycle improves the likelihood of success. There are three key components to this step:

   Analysis: Understanding the issues that matter most to stakeholders will assist project teams to better prioritize, understand and mitigate engagement risks.

   Segmentation: Identifying the difference between stakeholder groups will provide an opportunity to target messages and methods of engagement.

Prioritization: Some stakeholders have a higher degree of influence. In fact, some projects may have "super-stakeholders" who are particularly invested in a project's outcome and who are highly influential. [43] These "super-stakeholders" must be identified early on, with specific engagement and management strategies identified for each.

Some specific and simple techniques for undertaking these analyses are included in the toolkit.

3. **Understand Stakeholder Perspectives:** Anticipating and understanding stakeholder perspectives is another key step in the engagement process. Specific questions can be unique to each project. This is an opportunity to reach out to solicit views about the project, and how stakeholders wish to participate.

4. **Incorporate Stakeholder Perspectives:** The extent to which stakeholder perspectives are incorporated into projects will vary. Ideally, the "ground rules" for such involvement will be made explicit at the outset. Stakeholders need to know their voices have been heard, even if their recommended courses of action are not adopted. Regular feedback will make stakeholders feel valued and more inclined to participate in future projects as well as much more likely to support, adopt and champion the change.

3.2.4 Coaching & Resistance Management

Developing knowledge is critical to an individual's confidence in their ability to accept and adopt a change. Coaching increases the knowledge and skills of the change agents (e.g. managers, supervisors, etc.) to help them manage and support the change process. Coaching, as defined by Parsloe (1999), is the "process that enables learning and development to occur and thus performance to improve." Successful coaching requires knowledge and understanding of process as well as the variety of styles, skills and techniques. [44]

Coaching provides a number of benefits to the individual transitioning through a change and is based on: [45]
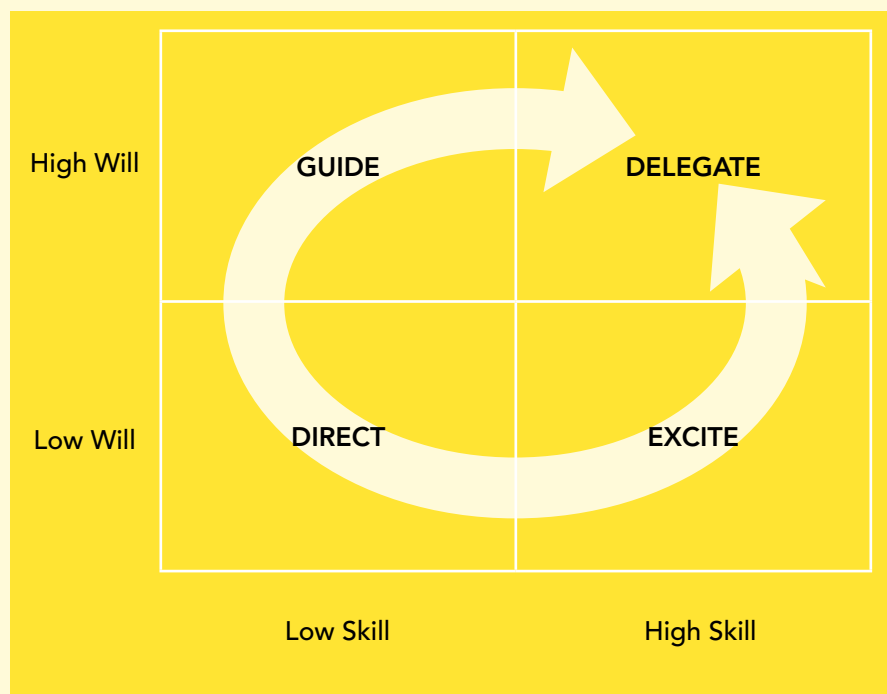
- exploring needs, motivations, desires, skills and thought processes to assist the individual in making real, lasting change;

- using questioning techniques to facilitate an individual's own thought processes in order to identify solutions and actions;

- observing, listening and asking questions that reflect an understanding of the individual's situation;

- applying tools and techniques, including one-to-one training, facilitating, counselling and networking;

- possessing the qualifications and experience required in the areas that skills-transfer coaching is offered;

- managing the relationship to ensure the individual receives the appropriate level of support; and

- ensuring training and education programs are aligned with the individual need.

The National Health System's *Connecting for Health* website [46] details some of the styles of coaching that a leader may choose to employ:

- **Checklist:** Where a coach gives guidance on what the person needs to do to improve their performance and where the person is accountable for achieving the agreed actions.

- **Skill/will matrix:** Where managers are guided on the best approach to take when coaching team members. The skill is the experience, training and understanding of the individual and the will refers to their motivation, confidence or desire to do it. The skill/will matrix is the original work of Hersey and Blanchard and is depicted in Figure 10. [47]

- **GROW:** A model sequence to follow when coaching.

  - Goal – the questions you ask to establish the short, medium and long term aims

  - Reality – exploring the current situations and discussing obstacles

  - Options – where possible solutions are explored

  - Will – what is to be done next? Where the coach and coached agree the action to be taken and make a commitment to carrying it out.

A detailed explanation of the GROW model can be found in John Whitmore's book "Coaching for Performance." [48]

Figure 10
Skill/Will Matrix

Change is often met with resistance for a variety of reasons. Stakeholders can feel they:

- have not been consulted or involved in the change or its design, nor have any shared opinions or views been considered;

- cannot identify "what's in it for me" (WIIFM);

- do not feel the wider community would see the value of the proposed change;

- like the present status quo and question their confidence and competency in the new context;

- do not trust/do not respect/do not like the person/group proposing the change;

- have not been given the support or time to adjust to the changes;

- are expected to change too many things at the same time;

- do not have clarity about change aims and objectives;

- believe other things need changing more urgently; and

- do not think the time is right for this particular change.

Considering the above, planning for change involves "not only generating enthusiasm for the change process and working with the early adopters and converts, but being prepared to challenge and win over the skeptics." [52]

- From the UK's Northumbria University, Joint Information Systems Committee Change Management toolkit (jiscinfonet.ac.uk/infokits/change-management) are some suggestions for dealing with resistance.

- **Co-active:** Based on the belief that a person has the answers and the coach helps to unlock that person's potential to achieve their goals. As coaching is about working in partnership, co-active coaching requires active participation from both the coach and the stakeholder. Details on this coaching model, and the skills and techniques can be found in "Co-active Coaching" by Laura Whitworth et al. [49]

In essence, coaching: focuses on tasks; attends to skills and performance; emphasizes feedback to the learner; addresses a short term need; and enables explicit feedback and discussion. [50]

3.2.5 Addressing Challenges

Most major change processes elicit some or all of the following reactions: [51]

- Initial disbelief – it won't happen!

- Anger – it won't happen if I can help it!

- Acceptance – if it's going to happen then I might as well do it!

- Accommodating new reality – that works quite well and I wouldn't want to change it.

As such, any change will have its supporters and its resistors depending on where your organization is at in implementing a change AND where the individuals within the organization are at with accepting the change.

1. Acknowledge that managing resistance can require the need to both challenge and change an individual's perceptions and beliefs.

2. Work with the early adopters and then move onto the main group of staff. Recognise that there will always be some staff that finds change difficult. Identify and work with this group to minimize their impact by ensuring the majority are on board.

3. Confront the sceptics head on.

4. Reflect on activities and processes undertaken to date. Question if there are other ways to achieve the desired outcomes.

Undertaking a force field analysis may be one way for a CM leader to analyze ways to increase the driving forces and decrease the restraining forces of a change. Additional information regarding this approach can be found in the toolkit section.

Assumptions within the force field analysis theory include the premise that:

- "Increasing the driving forces results in an increase in the resisting forces. Thus, the current equilibrium is maintained but under increased tension.

- Reducing resisting forces is preferable because it allows movement in the desired direction without increasing tension.

- Group norms are an important force in resisting and shaping organizational change." [53]

3.2.6 Resources and Tools

The following list refers to resources and tools available in the toolkit section of this document. Electronic versions of these resources as well as others are available in the toolkit repository found online at Canada Health Infoway's Change Management Forum. [54]

- Are You EMR Ready? A Pre-Implementation Readiness Assessment

- Stakeholder Engagement Planning Template

- Stakeholder Analysis and Segmentation

- Target Audience Analysis Template

- Model for Prioritizing Stakeholders

- Communicating with Stakeholders

- Force Field Analysis

- Resistance Management Framework

3.2.7 Further Reading

J.M. Bryson. What to do when Stakeholders Matter. Public Management Review (2004) vol. 6 (1) pp. 21-53.

This article focuses specifically on how and why leaders might use stakeholder identification and analysis techniques to help their organizations meet their mandates, fulfill their missions and create public value. A range of stakeholder identification and analysis techniques is reviewed, including organizing participation; creating ideas for strategic interventions, including problem formulation and solution search; building a winning coalition

around proposal development, review and adoption; and implementing, monitoring and evaluating strategic interventions. The article argues that wise use of stakeholder analyses can help frame issues that are solvable in ways that are technically feasible and politically acceptable, and that advance the common good.

NHS Connecting for Health. Clinical Deployment Guide for clinicians: A One Stop Guide to Clinicians Involved in Deploying IT Systems. (50 p.)

"The guide is designed to help clinicians involved in business change projects enabled by information technology by helping them understand how they can contribute effectively and what roles and responsibilities they may be asked to undertake."

NHS. Practical Guide to Stakeholder Engagement

This slide deck developed by the National Health Service explains the value of working with stakeholders and uses case studies to show how consulting, listening and involving stakeholders is the key to successfully delivering service transformation.

Zinger Model of Employee Engagement

"Employee engagement is the art and science of engaging people in authentic and recognized connections to strategy, roles, performance, organization, community, relationship, customers, development, energy, and well-being as work connections are leveraged, sustained, and transformed into result." This guide provides a 14 element model for defining employee engagement.

3.3

COMMUNICATIONS

The ability to deliver the right message, by the right person, through the right channel, to the right audience, at the right time is very important. An effective communications approach "requires a matrix of thinking and organization."[55] Communications serve to inform diverse stakeholders and prompt appropriate responses and/or actions. Targeted approaches to communications are defined in response to the stakeholder analysis. Change leaders and implementers need to understand their respective roles in communicating with a broad range of stakeholders.

As applied to the eHealth context, the goals of communication include:

- soliciting feedback – engaging in two-way communication and dialogue;

- providing people with what they need to know to make informed choices about whether/how to comply with or commit to the initiative;

- building trust with candid information about the need for change and the difficulty of changing, including the consequences of not changing; and

- reporting progress – or lack of – so people can be responsible contributors to success.

Minimum core components of communications plans include the following:

- definition of target audience;

- information requirements;

- key messages;

- required frequency and format; and

- responsibility for the provision of information.

Communications planning builds upon stakeholder analysis and CM planning exercises to identify messages for specific stakeholder groups and various ways to deliver messages to these audiences. The CMWG Current State Assessment found that in Yukon, frequent, well-timed and well-considered communications delivered by a single point of responsibility have been a major contributor to project success.

Communication approaches that promote awareness and understanding of the expected change by all affected stakeholders are required. Specifically, the approach to communications should:

- start early in a project and describe the why, what and how;

- consider the audience (messages, format, language, outlet, frequency, etc.);

- consider who the message is coming from;

- make use of a variety of tools and outlets;

- provide a mechanism for sharing project information;

- ensure there are two-way dialogue and feedback mechanisms;

- organize the content of messages after consulting the final users and other stakeholders;

- identify and gather knowledge objects;

- manage rumours and handle misinformation;

- create a feeling of belonging; and

- evaluate the effectiveness of the communications approach.

Workflow analysis (described below) can also contribute to communications activities by identifying the magnitude of the change required from stakeholders. Significant changes will require a heightened communications effort over a longer period of time.

Change leaders should report achievements regularly and widely to keep people motivated and involved and the initiative moving forward.

3.3.1 Resources and Tools

The following list refers to resources and tools available in the toolkit section of this document. Electronic versions of these resources as well as others are available in the toolkit repository found online at Canada Health Infoway's Change Management Forum.[56]

- Key Questions Associated with Communication Planning

- Communication Planning Tools – Audience Assessment Template

- Communications Plan Template

- Preferred Media – Project Communications

- Communication Diagnostic

- Simple Communications Tools

- Sample FAQ Template

3.3.2 Further Reading

C. McCarthy, D. Eastman. Change management strategies for an effective EMR implementation. HiMSS. Chicago: 2010.

This book discusses general reasons to communicate, successful practices for effective communication and includes a communication implementation checklist (pg 107).

Communications Planning

Slide deck that provides a comprehensive guide to communications planning and is closely aligned with the Stakeholder Engagement domain of the CM Framework. This tool is based primarily on Dan S. Cohen "The Heart of Change Field Guide" (2005) also contains numerous templates. (Available on the Infoway CM Forum.)

3.4

WORKFLOW ANALYSIS & INTEGRATION

The objective of workflow analysis and integration is to embed new processes using eHealth solutions into the operations of health service delivery organizations. Analyzing and integrating work processes prior to implementing new technologies will stimulate critical analysis on how work is performed in the current environment, the ways in which these current processes can be improved and identify further opportunities for progress afforded by new or enhanced technology.

In Alberta, workflow assessment and integration is considered to be a key component of CM. Projects that follow their project management office framework must, as part of their 'Organization Change Requirements Plan' address workflow impact. Business requirements are documented early in the project and cover business and information flow.[57]

In New Brunswick, the implementation approach for their drug information system (DIS) supports integrated strategic practices that include a deeper and more substantive understanding of how people change within organizations. The project team makes full use of stakeholder working groups

to discuss and create workflow integration, communications, knowledge management and training plans to create a collective vision to direct the change process. Typically, the business analysis team conducts the process mapping with the stakeholder working group and then transitions the information to the CM team for further consideration and integration into CM plans.[58]

Often, the implementation of new systems focuses on training users rather than examining how the new systems can impact workflow.[59] Implementing new systems provides an opportunity to reexamine workflows and processes so that they may take full advantage of capabilities of these new systems. For example, implementing a new electronic medical record into a physician office environment represents an opportunity to think about processes that might have been in place for many years, or processes that have been adapted to meet the demands of other technologies or systems (e.g., manual scanning of documents, physical location of equipment, etc.).

There is often a struggle between technical and clinical requirements when implementing new solutions. Ideally, designing new workflow processes should incorporate best practices from both the clinical and technological requirements. In reality, teams are often pressured to change their workflows solely to meet the requirements of the system. CM leaders play an important role in ensuring stakeholder-identified

clinical needs are represented in the newly designed workflows.

Even the strongest CM plans can be weakened significantly if there is poor correlation or integration with project plans. Current state workflows are typically documented early in the change process; therefore, a workflow analysis can serve as a "petri dish" for other aspects of CM occurring later in the project. For example, change leaders can get a first-hand look at:

- potential early wins or roadblocks to implementation;

- stakeholders who may become champions or who may create resistance to the change process;

- additional opportunities for change; and

- opportunities to communicate the potential benefits of change.

Integrating people, process and technology through coordinated implementation plans, communications plans, workflow redesign efforts, training and other CM tactics ensures that all activities contribute to a successfully aligned implementation and appropriate communications at ALL stages of implementation. Accomplishing this can be done by involving team members in a variety of planning activities and by producing an integrated deployment plan that can ensure timely delivery of related project activities.

The work of the CMWG found that introducing standard, consistent, repeatable processes throughout the provincial and territorial projects has reduced the variance across project delivery. Manitoba successfully utilizes this approach to reduce process variance and improve quality of project outputs. Organizational commitment to CM has increased and the practice is now an integral component of project delivery in Manitoba.

A conceptual maturity model [60] used by Alberta benchmarks progress of health technology use toward a notional ideal state where processes, solution functionality and solution use are optimized and become integrated into continuous process improvement. As comfort and traction are gained over time, meaningful opportunities to extend the change are identified and implemented, with workflows being continuously improved.

eHealth Ontario has developed a guide about process integration written specifically for implementers of new technologies in clinical environments. [61] This guide introduces a systematic methodology that provides a step-by-step approach to process integration.

Integrating workflow improvements and technology adoption into operations that become engrained in organizational culture over time can be particularly challenging. Sustainable culture change is one of the last things to occur and is highly dependent on results that add lasting value. Clinician champions play a significant role here, as they can provide insight into how work gets done using the new systems.

3.4.1 Resources and Tools

The following list refers to resources and tools available in the toolkit section of this document. Electronic versions of these resources as well as others are available in the toolkit repository found online at Canada Health Infoway's Change Management Forum. [62]

- Analyzing Workflow – Questions to Consider

- Mapping Current Workflow and Processes

- Flow Process Chart Template

- Systems Flow Chart

3.4.2 Further Reading

California Healthcare Foundation. Workflow Analysis: EHR Deployment Techniques (2011, 10p.)

This issue brief explores the stages of workflow analysis, process mapping and process redesign. By documenting and mapping all back office, front office, IT, and provider processes, the clinic team can identify the waste and bottlenecks embedded in its system. This current workflow is then used as a foundation for envisioning an improved workflow facilitated by the EHR.

eHealth Ontario. Guide to Process Integration (May 2009.)

(Available in the Workflow Analysis & Integration Resources and Tools section of Infoway's Change Management Forum. Free Infoway Passport access required.)

This Guide and its associated tools are intended to provide readers with a systematic methodology to develop, in a step-by-step fashion, a customized process integration approach. Using

this approach will allow practitioners to align business processes to realize the value of eHealth solutions and incorporate their new functionality into day-to-day processes.

S. McLaren. Successful EMR Adoption: Optimizing your Workflow. Ontario Medical Review (September 2010, 2p.)

This article provides a practical look at physician office workflow and assessment.

G.R. Hayes. Organizational Routines, Innovation, and Flexibility: The Application of Narrative Networks to Dynamic Workflow. International Journal of Medical Informatics (2011, 17p.)

The purpose of this paper is to demonstrate how current visual representations of organizational and technological processes do not fully account for the variability present in everyday practices. The authors further demonstrate how narrative networks can augment these representations to indicate potential areas for successful or problematic adoption of new technologies and potential needs for additional training.

Stratis Health. Health Information Technology Toolkit. (2010.)

The Health Information Technology Toolkit for Physician Offices helps these health care organizations assess their readiness, plan, select, implement, make effective use of and exchange important information about their clients. The toolkit contains numerous resources, including tools for telehealth, health information exchange and personal health records.

3.5

TRAINING & EDUCATION

When implementing new eHealth systems, approaches to user education, training, knowledge development and capacity will have to be specific, practical and offered on the job in a timely fashion.

Education and training are sometimes simply described as the difference between "knowing" and "doing."[63]

- **Education** refers to a program of instruction in which knowledge or skill is developed or obtained through a learning process. The overall goal is to know more at the end of the process than you did at the start. Knowledge tends to be focused more on the longer-term tenure. As such, it is a key influencer of project sustainability. Key elements of education include:

  - Provision of a broad perspective

  - Flexibility of approach

  - Measured by tenure

  - Encourages general approaches to problem solving

- **Training** is defined as an organizational activity aimed at imparting information or instructions to improve a recipient's performance or to help him/her attain a required level of knowledge or skill. One of the main objectives of a training encounter is the ability to perform a skill to a specified standard at the end of a session. Key attributes of training include:

- Tends to be narrowly focused; leads to a high proficiency in a specific skill

- Effectiveness is measured by what you can do when you have completed it

- Focuses on doing and improvement in performance

When considering the nuance between these two ideas, those leading and those receiving the education or training may find it helpful to ask some key questions:

Figure 11

Key Training and Education Questions

Role Perspective	Education	Training
Leader	Are we educating the team so that they are aware of the reasons for the change?	Are we getting staff up to speed so that they can hit the ground running?
Recipient	What are we implementing and what does this mean to me?	How do I use the transactions to enter data, display information and get the reports to do my job?

While educational initiatives should begin early in a project and be tightly linked with communications messaging (i.e., clearly and consistently delivered, relevant to the target audience, frequently delivered), training activities are often most successful (in terms of improving retention of both knowledge and skill) when offered through 'just in time' delivery.

When planning for education and training, remember to take the time to do the education (i.e., educate on process and procedure) prior to the training. Dedicating time and resources to produce quality education and training materials presented by qualified instructors, is also critical for reducing as much stakeholder angst and adoption risk as possible.

Standardized plans, tools, resources and media should be in place to meet initial needs prior to and during implementation to ensure sustainability of adoption. The content and delivery of these resources should have consistent core components, while allowing for customization where necessary.

Educational programs can make use of tools like videos, manuals, web-based programs, workshops and seminars, but should focus on giving an individual the information needed to promote a particular topic or idea. This could be as simple (but important) as the reason behind a process change. While the individual may not be ready to take the controls, they know what needs to be done; they just may not have yet developed the necessary skills.

Training strategies should focus on achieving skills through, for example, putting education into practice, with an instructor standing back, monitoring and correcting. Common mantras like "tell, show and do" are effective strategies in supporting individuals to implement and achieve new skills.

An effective long-term training strategy needs to incorporate the concept of maturity of use. Users have different needs at different stages: new users need to be acquainted with the basic functionality, while advanced users should be empowered to use technology as a tool for innovation.

Key components of an integrated and effective training strategy include:

- analyzing learning needs regarding the new clinical workflow and system functionality;

- linking stakeholder analysis and communications plan;

- linking changes to what we are changing, why we are changing and how we are changing;

- determining learning objectives and content;

- developing appropriate methods to deliver content;

- assessing the results of education delivery approaches and methods; and

- offering a means of continuous learning (continuous improvement and ongoing learning for new staff).

Experience from the CMWG activities suggest the CM resources should lead the education and training components of the initiative. Even if requirements are established at the outset and the procured vendor is contractually compelled to deliver training, the CM team is often best positioned to know the unique requirements of the environment, and its key players.

Infoway's Clinician Peer Support Network[64] is supporting CM efforts across the country. The peer-to-peer programs are supporting the education and training of eHealth solutions for physicians, nurses and pharmacists within their practice settings – from clinician to clinician. Each program in the network is managed and operated autonomously to meet the unique requirements of the jurisdiction.

A recent example of the support this program provides comes from Newfoundland & Labrador's Peer-to-Peer Network. In this project, both education and training on specific eHealth solutions were identified as needs for practicing and student clinicians. Throughout the initiative, physician, nurse and pharmacist peer leaders shared their experiences about incorporation of eHealth solutions into clinical settings with colleagues and students, and at conferences such as the Primary Healthcare Partnership Forum. Peer leaders promoted EHRs/EMRs through articles published in their respective professional association newsletters and also at in-person workshops around the province. Lastly, peer leaders received CM training and support through Newfoundland & Labrador's Centre for Health Information.

From a national perspective, education and support for front-line users of eHealth solutions is also provided through the Clinicians in Training initiative;[65] a joint collaborative effort between *Infoway* and national associations like the Association of Faculties of Medicine of Canada (AFMC), and Canadian Association of Schools of Nursing (CASN). The goal of this program is to better prepare students to practice in modern, technology-enabled, clinical environments and improve quality of care, access and productivity through the use of ICTs for health. This program is seen to be a critical first step in educating front-line users and supports successful CM initiatives.

3.5.1 Resources and Tools

The following list refers to resources and tools available in the toolkit section of this document. Electronic versions of these resources as well as others are available in the toolkit repository found online at Canada Health Infoway's Change Management Forum at forums.infoway-inforoute.ca/CMF/.[66]

- Training Roles and Responsibilities

- Training Session Evaluation Template

- Computer Training Needs Assessment

- Training and Course Planning Matrix

3.5.2 Further Reading

California Healthcare Foundation. Training Strategies: EHR Deployment Technique (2010, 6p.)

This issue brief explores some approaches to training, their influence on the implementation strategy, and the ways they can streamline workflow and standardize policies and procedures.

National e-Health Strategy. National e-Health and Information Principal Committee (September 2008.)

This resource notes that education campaigns should be supported by an appropriate time-limited incentive program to actively encourage care providers to purchase and implement high priority eHealth solutions as they become available. It also discusses the need to implement changes to vocational and tertiary training programs to increase the number of skilled, nationally available eHealth practitioners.

J. Pfeffer, R.I. Sutton. The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action. Harvard Business School Press (2000.)

This book addresses the challenge of turning knowledge about how to improve performance into actions that produce measurable results, based on research undertaken in private industry. Authors show how some firms overcome the knowing-doing gap, why others try but fail, and how still others avoid the gap in the first place.

3.6

MONITORING & EVALUATION

3.6.1 Monitoring & Evaluation

Monitoring and evaluation are important concepts that extend throughout the lifecycle of eHealth projects and into the operational life of the solution. Benefits, stemming from the use of information and communications technologies (ICT) for health in delivering and supporting health care, need to be established during the planning phase of major projects. A sustained effort is required to ensure these benefits can be realized over the longer-term.

The methods and timeframes for monitoring and evaluation differ depending upon the context of the change initiative. The concepts of formative and summative evaluation provide a foundation for differentiating between process-related evaluation of change management (CM) activities and benefits-focused outcomes evaluation.

Building a CM plan around the framework outlined in this guide will help to ensure that evaluation takes place at the appropriate stages of a project's lifecycle. A variety of examples are included in the information below.

3.6.2 Formative (Process) Evaluation [67]

Formative evaluation helps to confirm if goals and objectives are being achieved across the continuum of the project – from key milestones at the outset through to mid- and later phases of implementation and solution integration. For eHealth projects, formative evaluation offers a means of examining the form and content of the implementation plan, including communications, training, education etc., and assures the technology is meeting all levels of requirement, such as usability, functionality and instructional effectiveness.

Conducted at every stage of the project lifecycle and across all key mechanisms including governance structure and leadership support, formative evaluation provides an opportunity to engage those leading, managing and affected by the solution. It also provides a structure to implement and test innovative ideas as a means to support effective ongoing rollout and solution integration. Additionally, evaluation also provides an opportunity to assess project risks, identify issues and develop mitigation plans. The earlier formative evaluation begins, the more likely an effective project that achieves its intended objectives will result.

Formative evaluations are intended to be built into the overall components of a CM approach, but are often ad hoc and not always part of an integrated evaluation plan. Ideally, a CM plan will contain a comprehensive approach to measuring the effectiveness of change activities, interventions and processes. Formative or process evaluations can evaluate whether targeted users are actually using the solution, and if so, how – and also identify opportunities to engage and enhance user optimization of the solution.

Examples of formative evaluation questions and tools are provided below. *Infoway*'s System and Use Survey is an available survey tool that facilitates evaluation and analysis of use and user satisfaction of a solution that can be administered at any phase of project implementation. [68]

3.6.3 Evaluating

Test methods (e.g. surveys, interview questions) should be developed to best align with the following types of questions:

- Did I achieve my goals and objectives?

- What were the obstacles?

- Did the users benefit in the way I intended?

- What were the unintended consequences?

3.6.4 Key Questions

Key questions evoked by formative evaluations include:

- Are the CM activities being effectively executed?

- Does your solution accomplish what it is supposed to, or is anticipated to?

- Does it impose minimum obstacles between the user and use?

- Does it ensure the interface doesn't get in the way of the learning (use)? i.e.,

  - Are users able to understand instructions?

  - Are users able to navigate through the solution?

  - Are the headings and buttons clearly labeled?

  - Is it visually appealing and easy to read?

- Has the communications strategy influenced the target audience (e.g., measuring awareness of the initiative through a survey or key informant interviews)?

- Have users been satisfied with the training (e.g., training evaluation survey)?

3.6.5 Examples of Commonly Used Testing Methods

- Electronic communications with stakeholders (i.e., asynchronous discussion) via list servs or bulletin boards

- Focus groups or 1-1 interviews

- Observation: This is usually done by observing two or more people using the solution. Record where they click, how long things take to finish, at what point they ask questions, etc. Observer should ask questions upon completion

- Online chat interview: Conduct one-on-one or group discussions for direct feedback.

- Pre- and post-tests: Test people before and after using the solution (or participating in educational session, etc.) to measure strengths and weaknesses, as well as whether the instruction is necessary

- Surveys: Users can complete a survey to indicate their expectations, rate the communications, educational instruction, etc. Surveys are particularly useful if you are doing mass testing of a solution and are looking for trends (e.g., in things like appeal of the course, anticipated benefits, first impressions, etc.)

3.6.6 Summative (Outcomes) Evaluation

Summative evaluation is a method of judging the impact of a project or program at the end of the implementation. The focus is on the outcome.[69] Generally speaking, outcomes evaluation examines whether the initiative achieved targeted levels of adoption and anticipated benefits. There are many methods, timeframes and data sources that may contribute to an outcomes evaluation. In the context of eHealth projects, *Infoway*'s Benefits Evaluation Framework[70, 71, 72] and considerations for measurement and evaluation as described by the Newfoundland & Labrador Centre for Health Information (NLCHI) are key resources to assist in the design of an outcomes evaluation protocol.

The NLCHI framework provides a common sense set of considerations for any kind of measurement and evaluation:

Step 1: Identify key stakeholders

Step 2: Orient key stakeholders to the rationale for why evaluation is needed

Step 3: Agree on when to evaluate

Step 4: Agree on what to evaluate

Step 5: Agree on how to evaluate

Step 6: Analyze and report

Step 7: Agree on recommendations and forward them to key stakeholders

Outcome evaluations are often distinct initiatives from CM, but should ideally be aligned and integrated.

3.6.7 Resources and Tools

The following list refers to resources and tools available in the toolkit section of this document. Electronic versions of these resources as well as others are available in the toolkit repository found online at Canada Health Infoway's Change Management Forum at forums. infoway-inforoute.ca/CMF/.[73]

- Benefits Approach to Evaluation

- Evaluation Methodology Used in Evaluation of Newfoundland & Labrador TeleHealth Strategy

- Methodology Used in NB iEHR / Lab Scoping and Planning Initiative

- Canada Health Infoway – System & Use Survey

3.6.8 Further Reading

University of Victoria. eHealth Observatory (website)

As part of a joint Infoway/CIHR eHealth Chair position, the eHealth Observatory was established to monitor the effects of ICT deployment in Canada. It is to serve as a laboratory where researchers can evaluate the effects of eHealth through the entire system lifecycle from requirements, deployment, and use to adaptation, and then share this new knowledge to advance the field. Their website contains resources, methodologies and publications authored by eHealth Observatory staff and associates.

US Agency for Healthcare Research and Quality. Health Information Technology Evaluation Toolkit (website)

This toolkit provides step-by-step guidance for project teams who are developing evaluation plans for their health information technology (health IT) projects.

NLCHI Framework and Evaluations (website)

The NLCHI provides quality information to health professionals, the public, researchers and health system decision makers. The centre supports the development of data and technical standards, maintains key health databases, prepares and distributes health reports, and supports and carries out applied health research and benefits evaluations. The centre's mandate also includes the development and implementation of a confidential and secure provincial electronic health record (EHR), including the CM required to support adoption by end user clinicians. The goals of the project referenced above were to: review current approaches to evaluating the impact of health information systems (particularly those leading to an EHR); and develop an evaluation framework which addresses the information needs of key stakeholders and the identified best practices in the evaluation of such initiatives.

Conclusion: Future Directions for Change Management

eHealth change management (CM) is foundational to achieving effective and efficient use of information and communications technologies (ICT) for health. Successful change implementation results in solution adoption and other long-term benefits such as improved patient care and positive organizational impacts. Success occurs when the systems, processes, tools and technology of the change initiative are embedded in the new way clinicians do their everyday work. CM is an essential driver of adoption, realizing many benefits of eHealth initiatives across Canada.

CM practices vary across Canada. Each jurisdiction is at a different place on the CM journey and has focused its efforts in different areas. The Pan-Canadian Change Management Network (Network) has made considerable progress toward developing a repository of knowledge and leading practices to foster learning across Canada. This document and toolkit represent a synthesis of that work and a starting point for future directions.

As Canadian investments in eHealth continue, it is essential that we continue to examine, learn from and share lessons around CM activities, successes and failures.

Canada Health Infoway and its CM partners remain committed to this objective, and to a continuous learning process. Collaboration is essential!

CHAPTER

5 Change Management Toolkit

Introduction to Toolkit

In this section you will find a sampling of tools and templates that relate to the proposed change management (CM) framework and content presented earlier in the guide. These tools are intended to provide practical support for readers of this document. For the most part, these resources have been used in Canadian eHealth projects, and have been shared by the jurisdictions to support collaboration amongst peers, exchange of best practices and facilitate knowledge dissemination.

You are welcome to adopt and adapt these tools to best fit your environment and need. When doing so, please recognize and note any of the specific references or citations located on some of the examples.

Resources provided within this document represent a sampling of the wealth of information and supports that are available. To better support this valuable collection of assets and to ensure ongoing relevancy and currency of information, an associated toolkit repository has been created at Canada Health Infoway's online Change Management Forum available at: forums.infoway-inforoute.ca/CMF/.

We hope you will visit there often to access the materials and to suggest inclusion of new items. If you have a tool, template, presentation, success story or case study example of a challenging situation, we would love to hear from you! Contact us at clinicaladoption@infoway-inforoute.ca.

Together, we can continue to profile and support effective eHealth CM practices, one step at a time, working collaboratively to achieve successful outcomes that benefit our patients, our providers and our health care delivery system overall.

Get connected

Canada Health Infoway's Change Management Forum (forums.infoway-inforoute.ca/CMF/)
is an online wealth of resources, tools and templates to support your role as a change management leader.
Access is easy – sign up for a free *Infoway* Passport by visiting the Forum. **Don't forget!**

Passport user ID:

_____

Password:

_____

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1.1 Organizational Change Readiness Assessment

Project Name

Project Acronym or No.

Project Sponsor

Target Project Completion Date

yyyy/mm/dd

Project Manager

Version No.

0.0

Version Date

yyyy/mm/dd

About the Change Readiness Questionnaire

This questionnaire is ideally used when planning for change. It is designed to give a quick snapshot of the organization, how the levers are currently aligned, and profiles the "change readiness" of the organization at a point in time, in the eyes of the people who answered the questions.

Managers, supervisors, change agents, and some champions, if available, should each fill out and score the questionnaire. It will take no more than 15 minutes. They should then share their profiles as a group. This will yield two important results:

1. By comparing their profiles, the team can share their assumptions and come to a common agreement about the organization's and people's readiness for change.

2. They can agree where they will need to focus their initial efforts, and what pitfalls may emerge later down the road.

This questionnaire should be repeated at different times during the change process as a way of monitoring how change is progressing.

Organizational Change Readiness Assessment

Please check the appropriate box (1 through 5) for each item below.

		1	2	3	4	5
1	To achieve the directions and priorities, what we have to change is:	☐ Clearly Defined	☐ Defined	☐ Somewhat Defined	☐ Not Defined	☐ Very Ill-Defined
2	The directions, priorities and the reasons for the change are:	☐ Well understood by staff	☐ Understood by staff	☐ Somewhat understood by staff	☐ Not understood by staff	☐ Not at all understood by staff
3	The external pressure to change is:	☐ Well understood by staff	☐ Understood by staff	☐ Somewhat understood by staff	☐ Not understood by staff	☐ Not at all understood by staff
4	The external pressures and trends will encourage us to change:	☐ Greatly encourage	☐ Encourage	☐ Neither encourage nor discourage	☐ Discourage	☐ Greatly Discourage
5	Commitment by all staff to the new directions, priorities and changes is:	☐ Very high	☐ High	☐ Average	☐ Low	☐ Very low
6	The culture and organization values will:	☐ Greatly assist with the change	☐ Assist with the change	☐ Neither assist nor inhibit	☐ Inhibit the change	☐ Greatly inhibit the change
7	In terms of helping us reach our directions and priorities, the existing management style will:	☐ Greatly assist	☐ Assist	☐ Neither assist nor inhibit	☐ Inhibit	☐ Greatly inhibit
8	The current organization structure and job classification system is:	☐ Very conducive to change	☐ Conducive to change	☐ Neither supportive nor resistant to change	☐ Not conducive to change	☐ Not at all conducive to change
9	The management team leading the change:	☐ Works very well together	☐ Works well together	☐ Neither works well nor poorly together	☐ Does not work well together	☐ Does not work at all well together
10	In terms of the competency and training required to achieve and sustain the planned change, the existing staff are:	☐ Very well equipped	☐ Well equipped	☐ Somewhat equipped	☐ Not well equipped	☐ Not at all equipped
11	Our human resource systems (human resource planning, performance management, compensation systems and training and development systems) support change:	☐ Very well	☐ Well	☐ Neither well nor poorly	☐ Not well	☐ Not at all well

Organizational Change Readiness Assessment

Please check the appropriate box (1 through 5) for each item below.

	1	2	3	4	5
12 Our communication processes and vehicles are aligned and positioned to support this change:	☐ Very well	☐ Well	☐ Neither well nor poorly	☐ Not well	☐ Not at all well
13 We recognize and reward behaviours that will help move us forward toward achieving our priorities:	☐ Very well	☐ Well	☐ Neither well nor poorly	☐ Not well	☐ Not at all well
14 Our leadership will support the vision, and has the courage to support and sustain the change:	☐ Very well	☐ Well	☐ Neither well nor poorly	☐ Not well	☐ Not at all well
15 We will be able to overcome any initial resistance to change that is likely to surface:	☐ Very well	☐ Well	☐ Neither well nor poorly	☐ Not well	☐ Not at all well
16 In terms of risk taking, we are:	☐ Very open to risk taking	☐ Open to risk taking	☐ Neither open nor closed to risk taking	☐ Not open to risk taking	☐ Not at all open to risk taking
17 In terms of the capability, motivation and confidence to bring about the change, we are:	☐ Very well equipped	☐ Well equipped	☐ Neither equipped nor ill-equipped	☐ Not well equipped	☐ Not at all equipped
18 Change efforts that we have undertaken in the past have been:	☐ Very successful	☐ Successful	☐ Somewhat successful	☐ Not successful	☐ Not at all successful
19 In terms of having an executive sponsor who will initiate and authorize the change and give credibility to it, we are:	☐ Well prepared	☐ Prepared	☐ Somewhat prepared	☐ Not prepared	☐ Not at all prepared
20 In terms of having project support staff who will carry the changes down into the organization and support and monitor the changes, we are:	☐ Well prepared	☐ Prepared	☐ Somewhat prepared	☐ Not prepared	☐ Not at all prepared
21 In terms of having experienced resources who will work on the design changes and provide the required consultation and implementation support, we are:	☐ Well prepared	☐ Prepared	☐ Somewhat prepared	☐ Not prepared	☐ Not at all prepared
22 In terms of having people in the organization who will champion, influence and support the change, we are:	☐ Well prepared	☐ Prepared	☐ Somewhat prepared	☐ Not prepared	☐ Not at all prepared

Organizational Change Readiness Assessment

Please check the appropriate box (1 through 5) for each item below.

	1	2	3	4	5
23 In terms of being clear on which organizations or groups will be most affected by the change, we are:	☐ Very clear	☐ Clear	☐ Neither clear nor unclear	☐ Not clear	☐ Not at all clear
24 In terms of being well equipped to deal with the "pain" that will be experienced by various groups and individuals in the organization, we are:	☐ Very well equipped	☐ Equipped	☐ Somewhat equipped	☐ Not equipped	☐ Not at all equipped
25 Information to assist us with the change process is:	☐ Readily available	☐ Available	☐ Somewhat available	☐ Not available	☐ Not at all available
26 Productivity tools to support the change process are:	☐ Readily available	☐ Available	☐ Somewhat available	☐ Not available	☐ Not at all available
27 Our work is organized into "silos," so that groups who work on different parts of the same work have little to do with each other.	☐ Not very organized into silos	☐ A little organized into silos	☐ Somewhat organized into silos	☐ Mostly organized into silos	☐ Very organized into silos
28 Tasks are broken down into sequential "bits," not organized into complete jobs.	☐ Organized into complete jobs	☐ Mostly complete	☐ Somewhat complete	☐ Mostly incomplete	☐ Broken down into "bits"
29 Our organization structure supports getting decisions made:	☐ Strongly	☐ Mostly strongly	☐ Somewhat	☐ Mostly weakly	☐ Weakly

Change Readiness Questionnaire Scoring Profile – Instructions

Part A

Each lever is represented by a particular set of questions. (e.g. Lever A: External Environment is represented by Questions 3 & 4)

Calculate the average score for each lever in the chart below (round up to the nearest whole-number for each decimal > .4)

Part B

Using the average scores calculated for each lever in part A, place an X in the appropriate box (1 to 5)

If you find you have extreme scores making up an average score (i.e., you have 2 questions with answers of 5 and 1), the average is 3, however this hides the extreme range. Place an asterisk (*) beside the average score to alert yourself to discuss the underlying scores with your change sponsor and project team members.

In Part B, the X's tell you which levers will prove a hindrance to change, and which will provide support.

Change Readiness Questionnaire Scoring Profile – Part A

Lever	Questions from Change Questionnaire	Insert your previous responses from the change readiness questionnaire below (e.g., enter "5" for Q3)					Add the numbers from each response	Divide & round the total (> .4, round up)
A	External Environment (Questions 3 & 4)	Q3	+Q4					
		+					=	/2 =
B	Leadership (Questions 7, 9, 14, 19 & 22)	Q7 +Q9	+Q14	+Q19	+Q22			
		+ +	+	+			=	/5 =
C	Strategic Direction (Questions 1 & 2)	Q1	+Q2					
		+					=	/2 =
D	Organization Structure, Tasks and Work Processes (Questions 8, 27, 28 & 29)	Q8	+Q27	+Q28	+Q29			
			+	+	+		=	/4 =
E	Management Processes and Communication (Questions 12, 18, 23 & 24)	Q12	+Q18	+Q23	Q24			
			+	+	+		=	/4 =
F	Culture, Norms and Morale (Questions 6, 15 & 16)	Q6	+Q15	+Q16				
			+	+			=	/3 =
G	Human Resources Systems (Questions 11 & 13)	Q11	+Q13					
			+				=	/2 =
H	Employees' Personal Goals and Competencies (Questions 5, 10, 17, 20 & 21)	Q5 +Q10	+Q17	+Q20	+Q21			
		+ +	+	+			=	/5 =
I	Information Processes (Questions 25 & 26)	Q25	+Q26					
			+				=	/2 =

Readiness for Change Questionnaire Scoring Profile – Part B

Lever	Questions from Change Questionnaire	Will likely greatly support change effort			Will likely greatly inhibit change effort	
		1	2	3	4	5
Business Directions						
A	External Environment (Questions 3 & 4)					
B	Leadership (Question 7, 9, 14, 19 & 22)					
C	Strategic Direction (Questions 1 & 2)					
Operations						
D	Organization Structure, Tasks and Work Processes (Questions 8, 27, 28 & 29)					
E	Management Processes and Communication (Questions 12, 18, 23 & 24)					
Support Systems						
F	Culture, Norms and Morale (Questions 6, 15 & 16)					
G	Human Resources Systems (Questions 11 & 13)					
H	Employees, Personal Goals and Competencies (Questions 5, 10, 17, 20 & 21)					
I	Information Processes (Questions 25 & 26)					

1.2 Risk Assessment Form – Part 1

Project Name

Project Manager

Risk Item #

Date:

Risk Owner

Priority: (H,M,L)

Probability: (H,M,L)

Risk Category:
(Scope, Quality, Schedule, Cost, etc.)

Risk Statement

A Risk Statement should include:

Condition: A concise statement of risk. A sentence that briefly describes the key circumstances, situations, etc. that have caused concern, doubt, anxiety, or uncertainty.

Consequence: The impact(s) of the actualization of the risk or issue. A brief statement that describes the key, possibly negative outcome(s) of the current conditions.

Context: The what, when, how, and why of the risks, describing the circumstances, contributing factors, and related issues (include background and additional information that is not included in the risk statement).

Potential Impact

Impact: The criticality of the loss or effect of the undesirable event on the project if the risk occurs.

Approach (Accept, Avoid, Mitigate, Transfer)

Accept: Recognize the risk and its uncontrollability

Sometimes implementing a positive, controlling response to an identified risk is either not possible because it is outside the project's sphere of influence or not cost effective. Examples might be the expected development of new technology or the imposition of legislation that might leave some of the project objectives fundamentally flawed. It is still important to document these risks even if no actions can be taken.

Avoid: Use an approach that avoids the possibility of risk occurrence

This approach is often used in the planning stage of a project. An example might be using a tried and trusted technical solution rather than depending on one that is less understood.

Mitigate: Take action to reduce risk likelihood or impact

This is by far the most common risk response. It implies that the response is an identifiable action that will form part of the project plans and will be monitored regularly. An example might be resolution of technical issues during a design phase.

Transfer: Shift the risk to another party

Risks should be borne by the party that is best equipped to deal with them and will benefit most from the rewards of success. The most obvious example of risk transfer is contracting to suppliers for whom the risk is reduced.

Actions to be Taken

Actions which are immediately incorporated in the work plan to avoid or mitigate the risks.

Mitigation/Contingency Plan

Contingent actions, which are included in the project risk mitigation plan, and which will only be included in the work plan if and when the corresponding risks occur.

Risk Assessment Form – Part 2

Project Name

Project Manager

Risk Item #   **Date:**   **Risk Owner**

Priority: (H,M,L)   **Probability: (H,M,L)**   **Risk Category:**
                                                                (Scope, Quality, Schedule, Cost, etc.)

Risk Statement

Potential Impact

Approach (Accept, Avoid, Mitigate, Transfer)

Actions to be Taken

Mitigation/Contingency Plan

1.3 Sample Terms of Reference for Governance Advisory Committee

Insert Project Name **Governance Advisory Committee**
Terms of Reference
mm/dd/yyyy

Mandate

To provide advice and make recommendations to the *Leader Position, e.g. CEO* of the *Organization* to support *Insert expected benefits*, as well as creating long-term trust in the *Insert Project / Program Name*, for both users and the public.

Scope

The *Insert Project Name* Governance Advisory Committee ("Advisory Committee") is responsible for advising on all *Insert Project* matters related to the collection, use and disclosure of personal health information.

Membership

The *Leader Position, e.g. CEO* will appoint the members of the Advisory Committee to represent key stakeholders. These appointments will be based on the recommendations of representatives of the following organizations:

- *List participating organizations & associations & roles*;

- *List participating organizations & associations & roles*;

- *List participating organizations & associations & roles*; and

- *etc*.

- Other Advisory Committee members may be included at the discretion of the *Leader Position, e.g. CEO* and with the advice of the Committee.

The *Insert Project Name* Governance Advisory Committee is not a legal entity, and will not have legal or contractual responsibility for the *Insert Project* and the information associated with it.

Chairs

The Committee shall be co-chaired by a representative of the *Organization* and an elected representative of the remaining members. The elected co-chair shall serve a term of two years.

Responsibilities

Specific responsibilities of the Advisory Committee include but are not limited to:

- Providing advice on the development of *Insert Project* policies that are associated with the collection, use and disclosure of personal health information;

- Making recommendations for policies on secondary use and disclosure of personal health information associated with the *Insert Project*;

- Reviewing reports on user compliance and other activities of the *Insert Project*;

- Recommending changes to the personal health information disclosed to the *Insert Project*; and

- Advising on written agreements associated with the *Insert Project*.

Recommendations and Decision-making

Recommendations to the *Leader Position, e.g. CEO* will be made by consensus.

- It is desirable that recommendations are acceptable to all Advisory Committee members; therefore the process should be continued until a consensus is achieved.

- If a consensus in the Advisory Committee cannot be reached on an issue that requires action by the *Organization*, the *Leader Position, e.g. CEO* will be advised.

Dispute Resolution

A dispute between the *Leader Position, e.g. CEO* and the Advisory Committee shall be documented by the Advisory Committee and directed to the Board of Directors for resolution. The Board of Directors may solicit advice from other parties, including but not limited to, the *Indicate higher authority, e.g. Minister of Health*.

Meetings

Meetings will be held as required, but not less than once per quarter. Meetings will take place in person or via telephone conferencing. The *Organization* will reimburse reasonable travel costs associated with the meetings in accordance with the *Organization* travel policy.

Quorum

Quorum for meetings will be attendance by a simple majority of Advisory Committee members and must include representation from the *Indicate required bodies, such as representatives from regulatory colleges*.

Duration

The Advisory Committee will remain in place for *Indicate timeline* or until such time as the *Organization* Board of Directors authorizes an alternative governance structure.

Amending the Terms of Reference

The Terms of Reference may be revised by the *Leader Position, e.g. CEO* upon the recommendation of the Advisory Committee.

1.4 Determining Project Governance Structure in eHealth Projects

Following is a list of many of the decision-making tasks your organization may encounter in its eHealth projects. The list is sequenced so tasks generally requiring more senior-level individuals to make decisions are first. Identify for your organization at what level each of the decisions should be made. Add additional tasks as required, or delete tasks that don't apply.

In assigning decision-making authority, bear in mind that one individual may be the decision maker for some tasks, but if a group of users will be impacted by the decision, the decision should be made by representatives of the group.

Decision-Making Task	Organizational Unit to Make Decision
Release of funds	
Contract approval	
Contract negotiation	
Benefits expectation setting/benefits realization	
Project staffing/steering committee formation	
Community engagement	
Contract management	
Communications plan	
Code of conduct	
Goal setting	
Strategic plan	
Acceptance testing	
Project management/domain team formation	
Project budget	
Functional requirements	
Chart conversion and pre-load strategies	
Turnover and rollout strategies	
Issues management	
Super user identification	
Clinical documentation standards	
Design of screens	
Adoption of care plan templates, order sets	

Decision-Making Task	Organizational Unit to Make Decision
Clinical work flows	
Customization of screens and templates	
Alert rules	
Customization of reports	
Data dictionary/master files and tables	
Data conversion	
Contingency planning	
Staff development	
Medical staff introduction	
End user training	
Data quality management	
Interface testing	
System testing	
Go-live readiness	
Archive requirements	
Network bandwidth requirements	
Change control	
Document management and control	
Security controls	
Other (specify):	

1.5 Roles and Responsibility Charting (RACI)

- RACI is an acronym that stands for Responsible, Accountable, Consulted and Informed.

- Responsibility Charting is a technique for identifying functional areas where there are process ambiguities, bringing the differences out in the open and resolving them through a cross-functional collaborative effort.

- Responsibility Charting enables managers from the same or different organizational levels or programs to actively participate in a focused and systematic discussion about process related descriptions of the actions that must be accomplished in order to deliver a successful end product or service.

- Developing RACI charts surfaces many organizational issues because it reconciles the three elements of roles and responsibilities:

  - **Role Conception:** what people think their jobs are.

  - **Role Expectation:** what others in the organization think another person's job function is and how it should be carried out.

  - **Role Behaviour:** what people actually do in carrying out their job.

RACI Chart Example

Department:	Change Management
Procedure:	Communications Plan – Project Planning Phase
Updated:	06/01/11

Step	Task	Front Line Staff	Working Group	Project Change Team	Project Manager	Advisory Committee
1	Develop key messages		C	R	A	
2	Identify target audiences		C	R	A	
3	Identify critical timelines	I	C	C	R, A	I
4	Develop draft of communications plan		C	R	A	I
5	Draft email, newsletter and briefing note content		C	R	A	

R Performs the task
A Accountable for the task being completed
C Consulted with prior to the activity being performed
I Informed that the task has been completed

Note, some groups add a category entitled "S" for "Supports." Supporting personnel or groups provide resources for a task to be performed. These variations are known as "RASCI" Charts.

Used with permission of author. Spafford Global Consulting, 2004-2008.
Accessed at: spaffordconsulting.com/templates.html

RACI Chart Tool

Department:

Procedure:

Updated:

Step	Task	Group A	Group B	Group C	Group D
1					
2					
3					
4					
5					

R   Performs the task
A   Accountable for the task being completed
C   Consulted with prior to the activity being performed
I   Informed that the task has been completed

Used with permission of author. Spafford Global Consulting, 2004-2008.
Accessed at: spaffordconsulting.com/templates.html

1.6 Job Fact Sheet – Sample Template for a Provincial Level CM Project Lead Role for EHR Program

The following template was developed by the Newfoundland & Labrador Centre for Health Information and can be adapted to a specific project, program, organization, or region of responsibility.

Purpose of Form

This form is used to identify the job (Section 1), create a job description (section 2) as well as detail the qualifications for the job (sections 3 & 4). These sections are used for recruitment, selection and identification of training requirements. In addition, the form provides information that enables job evaluation and benchmarking for pay purposes. Areas such as independence of action, impact of errors, supervision, demands and working conditions (Sections 5 – 12) are all essential in addition to the job description and the qualifications to enable full and equitable evaluation of the position.

This form can be completed by incumbents and/or managers and supervisors. It should be agreed to by all parties and signed off (Section 1).

1. Job Identification

Organization	
Division or Department	
Name	
Job Title	Change Management Project Lead
Title of Immediate Supervisor	
Branch or Section	Change Management
Location	
Date	
Approval Signatures	

(Employee)   (Supervisor)   (Manager)

Instructions for Creating the Job Description

- Provide a brief overview of the job, describing it so that a person unfamiliar with the work would be able to understand it.
- Consider the major activities or responsibilities (usually 3 to 5). Take your time and think about the job before you begin to respond to each section. Describe each activity or responsibility with a phrase at the top of each box. Include a detailed breakdown to provide examples so any reader can relate to the functions. It may be helpful to make a checklist of the components of the job to ensure that answers are as complete as possible.
- Estimate the percentage (to the nearest 5%) of time spent on each. If there are fluctuations in the level of work activities, consider the work over a one-year period. Then describe each activity using details or examples.

2. Job Description & Purpose
In the space below, provide a brief description of the job and its purpose.

Change Management (CM) is a critical aspect of Electronic Health Record (EHR) implementation; a strategic, systematic approach that supports individuals and their organizations in moving forward and successfully employing electronic health solutions. The outcomes of eHealth CM activities result in solution adoption by clinician end users and ultimately, the full realization of benefits. The incumbent will be the organization's CM lead for specific project(s) to support adoption by end users, and therefore benefits realization of the EHR.

The purpose of this position is to develop and implement a CM plan that serves to guide the project team(s) and appropriate stakeholders, so that end user adoption is maximized to its potential.

Break down the job into major activities or responsibilities.
Describe each by a phrase and provide additional detail with examples.

Activity A: Measurement of Current State and Change Readiness (15%)

Introduction of the EHR will require significant attention to CM, from both the technical/workflow and human change aspects. Education and training are key components of the CM strategy. In order to understand the needs/requirements for CM, the incumbent will require skills to perform current state and/or change readiness assessments to build appropriate CM plans, and to identify the current state or baseline. These assessments are part of the cycle for continued improvement to support adoption of the EHR within the region.

The incumbent should be knowledgeable in terms of the structure and functions within the provincial health system, such that identification of necessary individuals and functions will be included for CM activities.

Activity B: Engagement of key stakeholders and relationship management to support CM (15%)

CM will require involvement and support of key stakeholders within the provincial health system. The incumbent will identify and partner with necessary personnel to create the environment for positive change. The ability to establish and maintain key relationships with professional groups and associations, in order to engage groups of front line clinicians and other key stakeholders, while engaging CM champions, will be important to the success of this position.

Activity C: Tactical deployment of the EHR CM strategy within the *insert name of organization / locale* (70%)

Working in consultation with the organization's CM staff, and *indicate others*, the incumbent will lead CM initiatives to enable smooth implementation of the EHR.

CM will include various tactics including, but not limited to:

- development/implementation of change readiness assessments through surveys, focus groups and interviews;
- development and implementation of CM plans;
- communication to various stakeholder audiences through numerous media and venues;
- development and implementation of education for regional stakeholders regarding the EHR and vision for the future;
- implementation of education and training programs with appropriate staff (e.g. 'train the trainer' sessions or direct training by the incumbent);
- participation with regional CM coordinators, colleagues at *insert organization* and others to identify and leverage best practices and lessons learned to facilitate optimum implementation and adoption of the EHR; and
- evaluation of CM initiatives and creation of complementary new interventions to support EHR adoption as required.

Activity D: (%) _____

Activity E: (%) _____

3. Other Key Abilities and Competencies

List other key abilities and competencies required to perform this job.

- CM specialists can have a background in human resources, education, business or organizational development.
- As above; experience specific to adult education would be a definite asset.
- The individual should be self-motivated, results-driven and action oriented.

- She/he will be required to coordinate travel and workload to meet the needs of the region within specified time constraints.
- The proven abilities to organize and multi-task are assets.
- Experience in adult education, quality improvement or CM.

4. Education and Specific Training

(a) What, in your opinion, should be the minimum schooling or formal training for a new person being hired into this job?

- Minimum requirement Bachelor's degree;
- Clinical background (e.g., nursing, pharmacy, allied health or other) – highly recommended; and
- Familiarity with the *Insert organization / program / project etc.* is highly recommended.

(b) Is there any provincial or other vocational or professional certification or degree necessary to perform in this position.

☐ Mandatory   ☐ Preferred   ☐ Not applicable

Please Specify:

5. Work Experience

What, in your opinion, would be the minimum experience necessary to do this job effectively?

About:

☐ 1 month   ☐ 3 months   ☐ 6 months
☐ 1 year   ☐ 2 years   ☐ 3 years
☐ 5 years   ☐ 7 years   ☐ 10 years
☐ more

What, in your opinion, would be the minimum "on the job" learning time required for a new person to be fully effective in this job?

About:

☐ 1 month   ☐ 3 months   ☐ 6 months
☐ 1 year   ☐ 2 years   ☐ 3 years
☐ 5 years   ☐ 7 years   ☐ 10 years
☐ more

6. Initiative (Independence of Action)

(a) **List the decisions made or duties performed without seeking supervisory approval.**

1. Identification of key provincial stakeholders
2. Coordination of training plan
3. Relationship management

(b) **List the decisions that require the supervisor's approval.**

1. Budget to implement training activities
2. Final sign off for training plan once developed
3. Final sign off for communications plan

6. Initiative (Independence of Action)

(c) **What guidelines, procedures, manuals etc. are available to guide decision-making and actions?**
- Numerous documents relevant to EHR CM strategy and plan
- Organizational Administrative Policy and Procedure Manual

(d) **State any financial responsibilities (and amounts) the job involves e.g. cash, sales, budget, inventory.**
- Travel budget (TBD)
- Training budget (TBD)

7. Impact of Errors

Describe two typical major errors that could reasonably be made in this job, even with due care. Indicate the worst consequences, e.g. waste, delays, time lost, money lost, injury, damage, effect on people.

1. Poor key stakeholder identification and relationship management, with resulting low adoption of EHR, which could result in loss of time, money and most importantly negatively impact success of the provincial EHR strategy.

2. Poor organizational skills may result in wasted time and money.

8. Working with Others

With whom will the employee be required to communicate in doing this job? Use titles. (In Person; Telephone; Writing.)

	People Contacted	How Often	Purpose	How
Within Organization	CM Team internal to project team and Regional Health Authorities	Weekly	Strategy and tactics	Telephone, teleconference, face to face
	Clinical and IM/IT personnel	Daily	Strategy and tactics	Varied
	Users of EHR	Daily	Training, education	
Outside Organization	CM team from the organization	Varied	Gap analyses, relationship management, CM training, evaluation of interventions	Varied
	Project teams and others	Varied	Gap analyses, relationship management, CM training, evaluation of interventions	Varied

9. Supervision or Direction Exercised

Indicate any jobs or work groups that the employee will supervise under one or more of these categories:

(a) Assign and check work of others doing similar work (e.g., Lead hand): Integration with project team, internal and external stakeholders is required. Indirect reporting may be required.

(b) Provide technical or functional guidance to other staff (as above in (a)).

(c) Supervise a work group; assign work to be done, methods to be used, and responsibility for all the work of the group (as above in (a)).

10. Employees Supervised

On the appropriate line, please indicate the total actual number of staff for whose work the employee will be accountable.

	1-3	4-10	11-20	21-30	31-60	61-150	151 Plus	
Full time employees								Combined Total
Part time employees								Full time equivalent (2000 hrs/yr)

11. Physical, Mental and Sensory Demands

Enter estimated percentage in appropriate box Explain any condition that applies to the job	Percent of Total Work Time				
	0-5%	5-20%	20-40%	40-70%	Over 70%
a. Comfortable; few exceptional demands		X			
b. Intense concentration (visual, listening, tactile)					X
c. Lifting, carrying, climbing, standing					
d. Other heavy physical effort					

12. Working Conditions

a) **Explain any unpleasant aspects of the working environment.**
   E.g. heat, cold, odours, noise, work interruptions, cramped conditions, outside work, danger.

   Minor unpleasant aspects

   Major unpleasant aspects

(b) **What is the scheduled work week?**   Monday to Friday, 8:30am to 4:30 pm

   What, if any, shift work is required?

   Other unusual hours?

(c) **Overnight travel: % of time away?**   Approximately 25 % travel potential

   Driving vehicle during work: % time?   Approximately 25%

1.7 Control and Influence Assessment

The following diagram was developed by British Columba
Interior Health* and is useful for conceptualizing and
listing those factors and stakeholders that are within or out
of the control / influence of the project or its mandate.

OUT OF OUR CONTROL/INFLUENCE

WITHIN OUR INFLUENCE

**IN OUR
CONTROL**

*Reproduced with permission

2.0 Stakeholder Engagement

Contents

2.1 Are you EMR Ready? A Pre-Implementation Readiness Assessment

The following tool was developed by the Clinical Adoption Team at Canada Health Infoway in support of electronic medical record implementations.

EMR Pre-implementation Guide

Undertaken by academic researchers, "*Experiences from the Forefront of EMR Use*" captures the implementation experiences from 20 Canadian primary care offices in Canada. In studying the diverse clinics, from project inception to execution, it is clear that there are factors common to every successful EMR implementation.

There are five key areas of the pre-implementation stage, but no matter what stage you're in, there's a lot to consider. Leveraging lessons learned from physician peers and their patient care teams, the following guide was created to provoke your thinking and consideration of EMR system implementation in your practice.

Use this guide to gain a better understanding of the impact that an EMR system implementation will have on your practice, and what you can do to support a smoother transition from paper to electronic.

What is your EMR area of focus?

1. Contemplation
2. Leadership and commitment
3. Solution provider and system support selection
4. Preparation and readiness
5. Managing change

Make your way through the five key areas of pre-implementation to self-assess your EMR readiness.

Contemplation

Reviewing this EMR pre-implementation guide might be your first step in contemplating an EMR implementation. Engaging your team, identifying what it will mean to your practice, and what will be involved in your implementation will set the foundation for your EMR journey.

Making sure you have taken the following steps in understanding contemplation will help ensure your care team's readiness for an EMR implementation:

☐ You have begun gathering information about EMRs and the implementation process that lies ahead.

☐ You consider your office team knowledgeable about EMRs in general.

☐ You have taken advantage of any available EMR system implementation support; for example, a local Clinician Peer Support Network.

☐ Your office team culture is one that is open to discussion.

☐ You can clearly articulate the reasons prompting your office to implement an EMR system.

Leadership and Commitment

Every successful EMR implementation has been led by a practice champion. This is a valued and essential role ensuring that all team members are engaged and understand the value and progress which is communicated to them throughout all implementation stages.

Making sure you have taken the necessary steps in understanding leadership and commitment will help ensure your care team's readiness for an EMR implementation:

☐ You have the commitment from at least one physician to champion the implementation through all stages of EMR system implementation. (In a large inter-professional practice, you will need additional champions to support your team needs).

☐ Your office team understand the benefits of implementing an EMR system.

☐ You have developed a comprehensive project plan for your office EMR system implementation including dedicated resources for the work required? For example, a plan for team education and training, privacy and security impact and a clearly defined process for how decisions will be made.

☐ You have identified channels that will support communicating most effectively with your office team about the EMR system implementation; for example, newsletters and regular face-to-face meetings.

☐ In your project plan, you have identified when and how you will measure the success of your EMR system implementation with your team.

Solution Provider and System Support Selection

If you've done the following, you are on the right path to selecting an EMR that will meet your practice needs.

☐ You have identified your office requirements in an EMR system – considering your needs now and those of the future; for example, interoperability with other electronic health information systems, chronic disease management, etc.

☐ Your EMR system will support integration in the office between both clinical and administrative workflows.

☐ You have EMR system provider selection criteria available to use during the selection process; for example, standardized terminology, electronic prescribing, etc.

☐ You have discussed the pros and cons of the various EMR systems with your office team.

☐ You have identified ongoing support and maintenance resources required for the EMR system once implemented.

Preparation and Readiness

Refer to the checklist points below to ensure that your practice is well positioned to transition from a paper patient chart to an electronic medical record as you approach your EMR system go-live date:

☐ You have identified what needs to be done to prepare and support your office team for the EMR system implementation; for example, general computer skills training for each team member.

☐ You have identified your approach for rolling out the EMR system functionality in your office; for example all functionality at once (big bang) or a staged rollout.

☐ You have worked with your system provider to create feasible project plan timelines.

☐ You have a plan in place for how to manage incoming paper from external points of care; for example, lab results, consultation notes.

☐ You have planned an approach for entering data from paper patient charts into the EMR.

☐ Your office team will be involved in hardware selection and placement.

☐ You have decided if your hardware devices will be hardwired or wireless connections.

☐ You will place hardware in locations where your patients can be involved; for example, a computer in a patient exam room so results can be reviewed together.

☐ You have identified who will be responsible for ongoing support of software and hardware issues after go-live. Alternatively, there is someone from your office team appointed to be responsible for information management and technology. You've considered all resources including financial, time commitment, and relevant skill and knowledge.

☐ You have a plan in place for handling system downtimes.

Managing Change

Ensure that you understand your practice team's level of readiness in making changes and how you can successfully support them through the EMR implementation:

☐ Your office team is comfortable with making suggestions about alternative workflows when supported by EMR functionality.

☐ You can identify a team member who understands from an overall office perspective what a day/week/month looks like.

☐ Your office team is capable of performing initial and ongoing workflow analyses and improvements to ensure that the right team member with the right skill level is doing the right job at the right time with the right resources or equipment.

☐ You have short term and long term plans in place for your paper chart storage.

☐ Full EMR system functionality training has been completed as scheduled for all targeted team members.

☐ Your office culture encourages continuous improvement, change and support for one another.

☐ Your office practice using an inter-professional, collaborative team approach.

☐ All team members have a clear understanding of how their work will be impacted by go-live. This includes identifying what they will stop doing and what they will start doing. You have coordinated a practice run — with one of you acting as the patient.

☐ You plan to involve your patients in viewing the screen along with you – so you can show them their health information and provide education.

☐ You have communicated to your patients about the EMR system implementation explaining what it means to their care and how it may impact them.

For more information and resources, visit: infoway-inforoute.ca/working-with-ehr/health-care-providers/emrs

2.2 Stakeholder Engagement Planning Template

	Key Stakeholders	Interests & Priorities	Engagement Objectives	Key Activities
Customers				
Delivery Partners				
Strategic Partners				

2.3 Stakeholder Analysis and Segmentation

This grid identifies the groups who can affect the project or are affected by the project according to:

- **Level of influence** defines their breadth of power and influence in the project.

- **Impact** indicates the degree to which they will be impacted directly by the project.

- **Level of support** identifies their anticipated support and commitment toward the success of the project.

- **Level of project engagement required** identifies the intensity and type of engagement required during the project. This may vary by project phase.

Stakeholder Group	Level of influence	Impact	Current level of support	Context & major issues or concerns	Level of engagement required	Approach/ strategy for involvement	Relationship manager

Level of influence
1 = No decision making authority or influence
2 = Some influence but not critical
3 = Influencer but no decision making authority
4 = Medium level of influence and decision making authority
5 = High level of influence and decision making authority

Impact
1 = Low
2 = Medium
3 = High

Current level of support
1 = Negative
2 = Resistant
3 = Compliant
4 = Interested
5 = Positive

2.4 Target Audience Analysis Template

The following table was developed to support a PACS implementation; however, it is easily adaptable for other eHealth uses.

Position	Number of Staff	Vendor Tools/ Tasks	Solution Tools/ Tasks	Training Solution	Comments

2.5 Model for Prioritizing Stakeholders

The above model presented above has been adapted from Sharma (2008), who groups stakeholders into cohorts:

- **High Influence Challengers:** Outreach efforts should focus on converting these individuals to champions. Failing that, plan countermeasures that could help neutralize any actions they might take that could potentially harm or derail the project.

- **High Influence Champions:** Proactively leverage the positive energy from these individuals / groups to further your objectives and to build a strong foundation of support.

- **Low Influence Challengers:** Maintain awareness of any actions that could potentially harm the project, but put less energy into converting these challengers into champions

- **Low Influence Champions:** Ensure that positive relationships are maintained, but put less energy into further cultivating these champions.
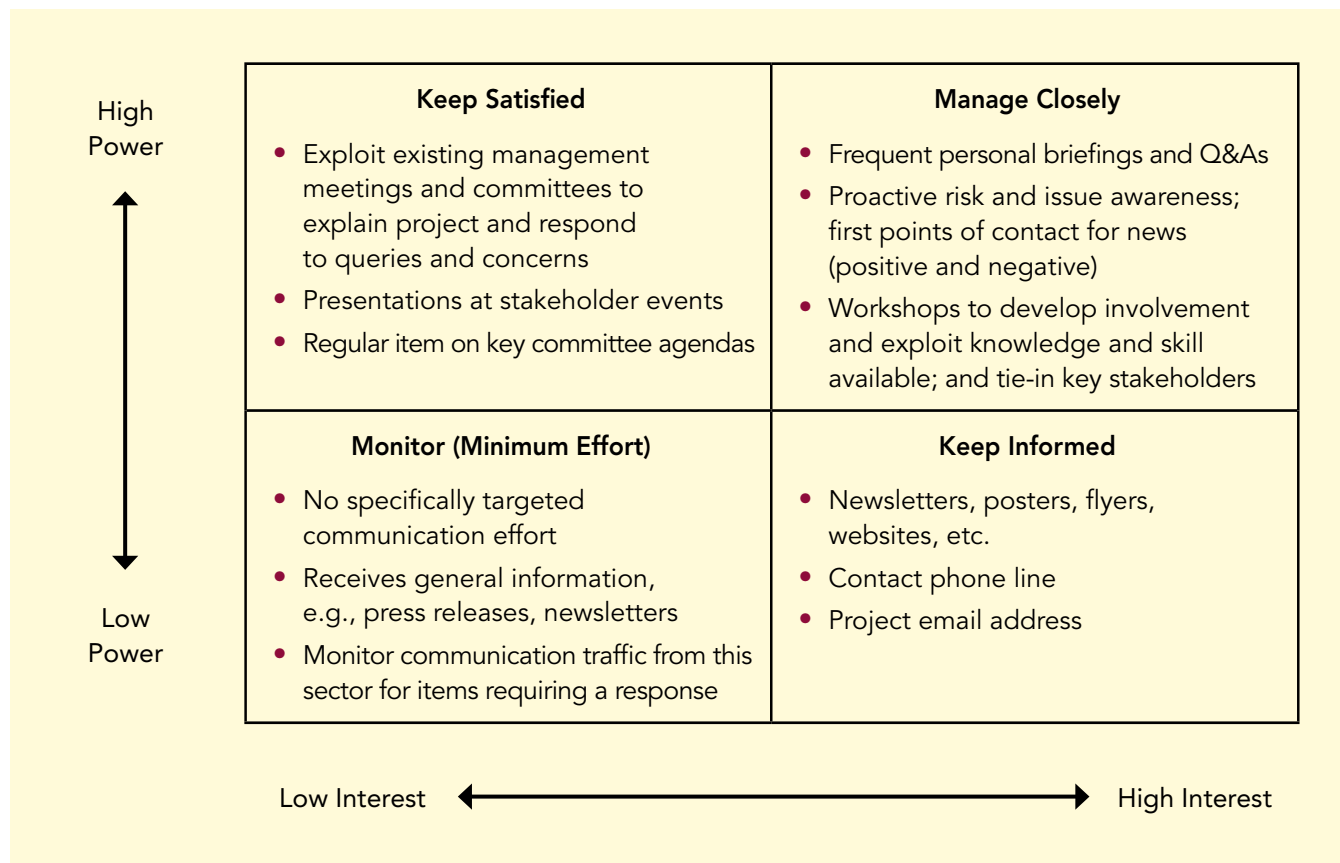
According to Sharma, project leaders are best advised to allocate stakeholder engagement resources to the High Influence Challengers and High Influence Champions.

2.6 Communicating with Stakeholders

The following stakeholder map can be used to identify the most appropriate means of keeping stakeholders informed of developments within the project.

The four groups identified within the stakeholder map (Monitor, Keep Informed, Keep Satisfied, and Manage Closely) can provide the basis for a communication strategy.

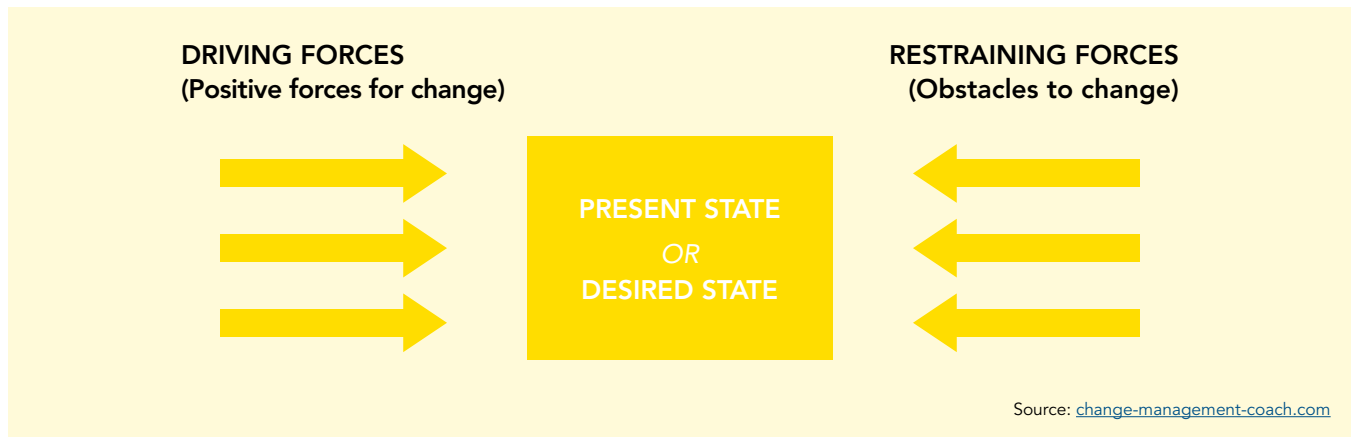| High Power	**Keep Satisfied**	**Manage Closely**
	• Exploit existing management meetings and committees to explain project and respond to queries and concerns • Presentations at stakeholder events • Regular item on key committee agendas	• Frequent personal briefings and Q&As • Proactive risk and issue awareness; first points of contact for news (positive and negative) • Workshops to develop involvement and exploit knowledge and skill available; and tie-in key stakeholders
Low Power	**Monitor (Minimum Effort)**	**Keep Informed**
	• No specifically targeted communication effort • Receives general information, e.g., press releases, newsletters • Monitor communication traffic from this sector for items requiring a response	• Newsletters, posters, flyers, websites, etc. • Contact phone line • Project email address

Low Interest ←——————————→ High Interest

2.7 Force Field Analysis Process

A force field analysis usually involves the development of a diagram. The driving forces and resisting forces are identified and then indicated pictorially with lines of differing strengths indicating the relative importance of each aspect. An example of a force field analysis is shown below.

Force Field Analysis Example (Force Field Analysis – Kurt Lewin)

DRIVING FORCES
(Positive forces for change)

RESTRAINING FORCES
(Obstacles to change)

PRESENT STATE
OR
DESIRED STATE

Source: change-management-coach.com

Force Field Analysis Worksheet
For further instructions on force field analysis, visit mindtools.com/rs/ForceField

To use:

- Describe your plan or proposal for change in the middle.

- List all forces for change in one column, and all forces against in the other column.

- Assign a score to each force, from 1 (weak) to 5 (strong).

- Once you have carried out an analysis, you can decide whether or not a project is viable.

Forces FOR change	Score	Change Proposal	Forces AGAINST change	Score
Total			**Total**	

2.8 Resistance Management Framework

The following model has been reproduced with permission from British Columbia's Interior Health Change Management Super User's Toolkit. This resistance management framework is sometimes referred to as the "CLARA" framework.

Customer experience: Begin with the mindset to create a positive customer experience; stay calm at all times in order to

Listen: Seek first to understand what the problem or issue is before you speak. Once you think you are clear on what the issue is, respond with

Affirmation: Begin with a statement of empathy to show understanding of where the person is coming from and then

Re-state and respond: Re-state the person's specific concern to ensure you've heard correctly. If accurate, respond to the person's problem. In closing,

Add a new piece of information from your perspective and if the problem or issue cannot be resolved, find an appropriate escalation path.

Explanation of the CLARA Framework:

Step 1:

Customer experience: Begin each conversation with a customer service mindset: "What can I do to create an excellent customer experience [focus on both technical and people aspects]?" Stay calm at all times in order to

Step 2:

Listen: Listen closely to what the person is saying and how the person must be feeling as a result; try not to interrupt the person in the process. Once you think you are clear on what the issue is, respond with

Step 3:

Affirmation: With the first words out of your mouth, say something that demonstrates empathy. Statements like, "That is really frustrating. I can understand how you feel" or "I understand how time sensitive this is for you." Empathy statements acknowledge to the person you are serving that you understand where he or she is at. In order to be effective, empathy statements must be genuine.

Empathy absorbs emotion so you may need to repeat the listen and affirm steps several times before moving on to the next step depending on the situation. By repeating the listen and affirmation steps you are helping to calm the person down.

Step 4:

Re-state and respond: By re-stating what you think you've heard to be the specific issue, you are checking for understanding before you attempt to resolve anything. Before you move forward to resolve the issue, ensure that you've got agreement from the person on the issue. Once there is agreement, work to resolve the issue to the best of your ability in a timely fashion.

Step 5:

Add: In closing, speak to something positive about the project from your perspective. Share a positive comment you've heard about *Insert Project / Solution name* along the way or share a helpful tip that will benefit the person. In your mind, circle back to the question, "Did I do my best to create a positive customer experience?" If the issue cannot be resolved, identify and follow through on an escalation path.

Other helpful tips for applying CLARA:

I. Ways to calm yourself if the person you are helping is upset:

1. Be aware of your emotional response to the person's statement/attitude. Try counting to ten in your head while the person is talking.

2. Focus on your breathing. Take 3-5 deep breaths. Feel your tension de-escalate.

3. Clarify your intentions. Silently say to yourself "I am here to help," "I want to help," "I want to turn this person's concern into a positive experience."

II. Ways to listen and look for common ground with the person you are helping:

1. Listen respectfully and demonstrate you are listening by positive eye contact and other attentive non-verbal cues.

2. Listen and look for common ground, for what you share with this person: a hope, a concern, an experience, a feeling, an interest, a question, a value. State your common ground as a part of your empathy statement.

3. Try to not interrupt the person when he or she is talking. If the person continues to talk, send a subtle message by your body language; shift your weight or step slightly toward the person to catch his or her attention.

III. Ways to affirm and acknowledge the other person:

1. Affirm the common ground you share with your best guess about what it is: i.e.,

    i.   "I share your concern about..."

    ii. "I understand why…"

    iii. "I think you are right about..."

    iv. "I agree with you about…"

2. Acknowledge the feeling expressed. Even if you cannot find common ground to affirm, you can probably genuinely empathize with a feeling that is expressed: i.e.,

    i.   "I can see that this has been difficult for you"

    ii. "This is not easy"

    iii. "I'd feel (frustrated, upset, angry) if I were in your shoes, too"

3. To be affirming, this step must be genuine, not perceived as sweet or slick talk. Speak spontaneously rather than develop "pat" answers. Affirming may not feel natural at first, but it will get easier with practice.

4. PAUSE so the person can clarify their feelings or reactions, or disagree with you. If necessary, listen again for what you can next affirm or acknowledge.

IV. Add – to continue to build the relationship and open the possibilities:

1. Include a positive comment about *Insert Project / Solution* that you think will help the person to see a positive angle on the project. Relate the comment to a value you picked up on in the conversation you have just had.

2. Share a quick user tip or cheat sheet reference to leave with the person if he or she does not already have one that will be of help for the future.

3. If you are unable to resolve the issue yourself, identify the appropriate next step in order to ensure the issue gets resolved. This may include:

    • Finding an appropriate super user

    • Contacting the service desk

    • Following up with your manager

3.0 Communications

Contents

Key Questions Associated with Communications Planning

Communications Planning Tools – Audience Assessment Template

Communications Plan Template

Preferred Media – Project Communications

Communication Diagnostic

Simple Communications Tools

Sample FAQ Template

3.1 Key Questions Associated with Communications Planning

Questions to consider when building the plan:

- Who is the audience?

- What information needs does this audience have?

- What is the desired response?

- What is the likely response?

- How will information be communicated to the organization?

- How should the message be delivered (via what channel)? How often?

- Who should deliver the message?

- How will we capture feedback and input?

- How will we follow through on feedback and input?

- How will we measure communication effectiveness?

Change-Specific Communications Planning

- What are the goals?

- What are the themes, messages and information that need to be communicated?

- Who must receive the message (internal/external)?

- What do the stakeholders need to know?

- What is the desired and likely response?

- What is the organization's flow of communication and tools and processes?

- Who should deliver the message?

- What channels will reach different stakeholders effectively?

- How should the message be delivered (media)? How often?

- How will communication effectiveness be measured?

3.2 Communications Planning – Audience Assessment Template

Adapted from Cohen, 2005,
The Heart of Change Field Guide

Stakeholder or group	Description of stakeholder or groups	Criticality to success (1-5)	How the change affects this audience	Effort required to change (1-5)	Concerns / issues (what this audience needs)	Degree of commitment* (Negative (-)/ Neutral (0)/ Positive (+))

1 = Low
5 = High

*In addition to using the "-" or "+" symbols, numeric values can be applied to further note level of commitment. E.g., +4 or -3.

3.3 Communications Plan Template

Adapted from Cohen, 2005,
The Heart of Change Field Guide

Communi-cation /action	Key messages /details	Audience targeted	Due date	Channel	Develop	Review /approve	Deliver	Status

3.4 Preferred Media – Project Communications

The following tool describes the advantages and disadvantages of using various communications media / channels for key stakeholders. Adapted with permission from Manitoba eHealth.

Stakeholder description	Preferred Media	Advantages	Disadvantages
Sponsors	Standing meetings/ presentations with senior project team member(s), i.e., steering committee meetings/ other standing meetings	Provides opportunity for dialogue Ensures the message is delivered exactly as intended Ensures message is consistent and targeted	Difficulty in finding time in sponsors' calendars Time intensive for senior project team(s)
	Written reports	Ensures message is consistent and targeted Allows sponsors to choose convenient time to review	Does not provide on the spot feedback Unsure if document is read
	Email/memos	Ensures message is consistent and targeted Allows sponsors to choose convenient time to review	Does not provide on the spot feedback Unsure if document is read May be lost in the "shuffle"
Leaders	Standing meetings/ presentations with project team member(s) i.e., standing committee/council meetings	Provides opportunity for dialogue Ensures the message is delivered exactly as intended Ensures message is consistent and targeted	Difficulty in finding time in stakeholders' calendars Time intensive for project team(s) members
	Ad hoc meetings/ presentations with project team member(s), i.e., kick-offs/launches	Provides opportunity for dialogue Ensures the message is delivered exactly as intended Ensures message is consistent and targeted	Difficulty in finding time in stakeholders' calendars Time intensive for project team(s) members Must be perceived to be relevant to stakeholder
	Written reports	Ensures message is consistent and targeted Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Unsure if document is read
	Email/memos	Ensures message is consistent and targeted Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Unsure if document is read May be lost in the "shuffle"

Stakeholder description	Preferred Media	Advantages	Disadvantages
Leaders (continued)	Website	Ensures message is consistent Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Unsure if stakeholders use website Resource intensive to create and keep updated
	Newsletters	Ensures message is consistent and targeted Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Unsure if stakeholders review material Must be "targeted" for stakeholder group May be lost in the "shuffle" Resource intensive to create
Project Team	Project Team Meetings	Provides opportunity for dialogue Ensures the message is delivered exactly as intended Ensures message is consistent and targeted Ensures team has current information	Difficulty in finding time in team members' calendars
	Email/memos	Ensures message is consistent and targeted Allows team members to choose convenient time to review	Does not provide on the spot feedback Unsure if information is read May be lost in the "shuffle"
	Newsletters	Ensures message is consistent and targeted Allows team members to choose convenient time to review	Does not provide on the spot feedback Unsure if team member reviews material Must be "targeted" for team members May be lost in the "shuffle" Resource intensive to create
	Website	Ensures message is consistent Allows team members to choose convenient time to review	Does not provide on the spot feedback Unsure if team members use website Resource intensive to create and keep updated
End Users	Email/memos	Ensures message is consistent and targeted Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Unsure if information is read May be lost in the "shuffle" Question: Are all end users on email?

Stakeholder description	Preferred Media	Advantages	Disadvantages
End Users (continued)	Newsletters	Ensures message is consistent and targeted Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Stakeholders may not believe information is credible Unsure if stakeholders review material Must be "targeted" May be lost in the "shuffle" Resource intensive to create
	Website	Ensures message is consistent Allows stakeholders to choose convenient time to review	Does not provide on the spot feedback Unsure if stakeholders use or have access to website Resource intensive to create and keep updated
	Face-to-face meetings with Project Team	Provides opportunity for dialogue Ensures the message is delivered exactly as intended Ensures message is consistent and targeted	Difficulty in finding time in stakeholders' calendars Time intensive for project team members Must be perceived to be of value
	Face-to-face updates from supervisors/managers	Provides opportunity for dialogue Provides end users with strong sense of credibility	Difficulty in finding time in stakeholders' calendars (shift work etc.) Time intensive for supervisors/managers Must be perceived to be of value by both parties Resource intensive Question: is message being delivered consistently and in a timely manner?
	Lunch and Learns	Provides opportunity for dialogue Increases visibility of team members Ensures message is delivered consistently	Must be perceived to be of value by end users to attend as many may not consider their lunch hour as "working time"

3.5 Communication Diagnostic

Instructions

- Please read each statement and indicate the extent to which it describes the norm in your organization as a whole. Your responses should reflect what you have experienced as well as what you have generally observed in your organization.

- Answer the questions using a 5-point scale; the far left of the scale indicates that you strongly disagree and the far right of the scale indicates that you strongly agree. Please respond by checking the box that corresponds most closely to your situation.

- Please take the time to respond to the open-ended questions at the end of the survey. Your responses are crucial in improving the change initiative.

- Be honest in your responses. There are no right or wrong answers, and your answers will remain completely confidential.

As a member of this organization, I…

	Strongly Disagree			Strongly Agree		Don't Know
Feel that the change initiative is communicated effectively, giving everyone a solid understanding of our future	☐	☐	☐	☐	☐	☐
Feel that the change initiative has been explained in clear terms	☐	☐	☐	☐	☐	☐
Feel that the change initiative is communicated frequently	☐	☐	☐	☐	☐	☐
Feel informed on the progress of the initiative	☐	☐	☐	☐	☐	☐
Do not feel overloaded with data, because communications have been clear and heartfelt	☐	☐	☐	☐	☐	☐
See multiple forms of communication (e.g., large and small meetings, 1-to-1 discussions, memos, newsletters, e-mails, conference calls, etc.) being used to communicate the change initiative	☐	☐	☐	☐	☐	☐
See leadership avidly communicating the need for change and why it is in our best interest	☐	☐	☐	☐	☐	☐
See managers avidly communicating the need for change and why it is in our best interest	☐	☐	☐	☐	☐	☐
See that leadership doesn't just talk about the change vision, but leads by example	☐	☐	☐	☐	☐	☐
See that managers don't just talk about the change vision, but lead by example	☐	☐	☐	☐	☐	☐
Feel that activities in our organization that are inconsistent with our change vision have been clearly explained	☐	☐	☐	☐	☐	☐
Receive clear (not mixed) signals about the change initiative	☐	☐	☐	☐	☐	☐
See that feedback mechanisms for employees to express their opinions and interests in the change initiative are in place	☐	☐	☐	☐	☐	☐
Believe that those feedback mechanisms are being used	☐	☐	☐	☐	☐	☐
Feel that there is constant dialogue between all levels of the organization regarding the change initiative	☐	☐	☐	☐	☐	☐
Subtotal	x1	x2	x3	x4	x5	
Grand Total						

3.6 Simple Communications Tools

The following two tools – the elevator speech and simple speaking notes – have been reproduced with permission from British Columbia's Interior Health Change Management Super User's Tool Kit

Elevator Speech

- What is *Insert Project / Solution* name about?

- Why is it important to do?

- What will success look like?

- What will we need from you?

Simple Speaking Statements

Completing the cells in the table below will assist change practitioners in developing simple, straightforward messages for a variety of communications pieces.

	Why Change?	What are the Benefits?
Short Term		
Long Term		

3.7 Sample FAQ Template

The following tool has been reproduced with permission from British Columbia's Change Management Super User's Tool Kit

Project Background:

Q. What is the *Insert Project Name* **Project?**

A. Indicate project goals, target audience, value proposition (i.e., why is the project being done). Who is leading the project? What are the expected benefits?

Q. How does this project contribute to *Indicate Jurisdiction* **eHealth Vision?**

A. Indicate how this project fits into the 'bigger picture.' What is the jurisdiction's vision for eHealth?

Q. What will be delivered through the implementation?

A. Specify functionality that will become accessible for use through project implementation.

Q. Who makes the decisions about *Insert Project Name***?**

A. Indicate who the decision makers are, how collaboration is undertaken, how feedback is received and incorporated.

Project Scope:

Revise these questions as relevant to the project / implementation

Q. Why would *Indicate type of user; e.g. public health, clinicians, etc.* **users support moving to a new application when we have** *Insert name of legacy system***?**

A. Articulate WHY a user would want to get on board with the new project?

Q. Why not complete a pilot project first, or a phased implementation, so that we know the application works?

A. Answer as relevant; or remove question

Q. Who will pay for the implementation of *Insert Project Name***?**

A. _____

Governance:

Q. What is the governance structure of the project?

A. The overall Project governance is identified on the following page.

Revise table as required

Project Management Office	Manages the process and procedures governing access to all Project functions/modules in all jurisdictions.
Project Management Committee	Manages operations and enhancements for Project over the long-term, its membership consists of jurisdictional representatives.
eHealth Strategic Council	…
Joint Executive Committee (JEC)	Has a decision making role with regard to the implementation project, with the authority to direct resources, allocate funding and determine project scope.
Issues Management Team	Provides project staff support to the JEC and the Implementation Leads Committee to assist in resolving escalated issues.
Implementation Leads Committee	…
Implementation Working Group	Provides input, advice and recommendations on configuration, data conversion scope, data access models, business scenarios to support the Conference Room Pilot process, communicate with constituents in their own organizations.

Q. What role do *Indicate 'players'; e.g., Regional Health Authorities, LHINs, Ministry, Organization type, etc.* **play in the governance structure?**

A. _____

Q. How are _____ Chief Information Officers (CIO) involved in this Project?

A. _____

Q. What is the mandate and membership of the Implementation Working Group?

A. _____

Q. What is the mandate and membership of the Implementation Leads Committee?

A. _____

Q. What is the relationship between the Implementation Working Group and the Implementation Leads Committee?

A. _____

Q. In the situation where the Implementation Working Group identifies a gap between the current application's functionality and desired functionality, is there a process for addressing those gaps?

A. _____

Q. How will _____ have input into the Project?

A. _____ will have input into the project in a number of ways – most notably through the Implementation Leads Committee and Implementation Working Group processes.

Q. How will Project decisions be communicated?

A. _____

Q. How will jurisdictional enhancements (add-on functionality) be funded?

A. _____

Configuration:

Q. What is the role of _____ in configuration?

A. _____

Q. What skills are needed from _____ to support configuration as well as implementation as a whole?

A. _____

Q. What is the role of _____ in data conversion?

A. _____

Q. What is the Project Team's role in data conversion?

A. _____

Q. How does *Insert Solution name* **compare to the existing system –** *Insert Legacy system name***?**

A. _____

Q. Will every _____ be able to develop their own User Defined Forms (UDF)?

A. _____

Q. Will _____ be able to develop reports?

A. _____

Q. Will _____ be able to develop ad hoc queries?

A. _____

Training:

Q. What is the training approach that will be used for the implementation?

A. _____

Q. What is the approach to ensure realistic data is included in the training materials and scenarios?

A. _____

Q. Would there be user defined data in the training database specific to each _____?

A. _____

Q. How many trainers are expected to be trained? Is there a limit and a location for training?

A. _____

Q. Will tools and materials be available to support training efforts?

A. _____

Change Management:

Q. What is the change management approach for the Project?

A. _____

Role and Responsibilities:

Q. What is the role of Canada Health Infoway?

A. _____

Q. What is the role of the Ministry / Department of Health?

A. _____

Q. What is the role of *Vendor***?**

A. _____

Q. What is the role of the *Complete this question for all other stakeholders involved in the project*

A. _____

4.0 Workflow Analysis & Integration

Contents

4.1 Analyzing Workflow – Questions to Consider

The following template provides a list of some questions that
can be used to help describe a process from end-to-end.

Question	Response
What is the process? (For example, registering a patient or refilling a prescription.)	
Are there important patient care processes that do not involve seeing a patient? (For example, dealing with an abnormal lab result.)	
What are the tasks or steps involved? (For example, checking a patient's health number or confirming a prescription is up-to-date.)	
What are the variations to these processes? Are there acceptable reasons for process variations by clinic site?	
Who completes the process? Do several types of staff perform the same tasks? Is this a good example of cross-training or is it a duplication of effort?	
How long does it take?	
Where are the bottlenecks where the process gets interrupted or slowed? Has some staff member already found a way around such points?	
Do some tasks need to be done more than once in a given process? (For example, must the same data be entered at different points during patient check-in?)	

4.2 Mapping Current Workflow and Processes

The following steps should be used to map current workflow and processes:

1. Identify processes to be mapped, those that will be impacted by the eHealth solution being acquired. A good place to start identifying processes to be mapped is those you have envisioned for eHealth solutions.

2. Use individuals who actually perform the process. They know it best and they need to own the impending change. You may need to hold a retreat or some virtual meetings with field personnel to ensure they become engaged in the activity.

3. Instruct persons on process mapping, why it is being done, and how it is done. Ensure that people know the purpose is to get automation right, not to lay blame. Then, be sure no one insinuates blame for current issues. Encourage staff to identify all problem areas so they can be addressed through automation.

4. Map current processes. Avoid identifying opportunities for improvement now because critical controls built into current processes may be overlooked.

5. Validate maps to ensure they reflect current processes, all variations, all data collected (the information payload), and all decision making.

6. Collect all forms and reports that are part of processes to be automated through eHealth solutions.

7. Obtain benchmark data to define expectations for change and for use in benefits realization studies.

Workflow and Process Redesign

The following steps should be used to map how workflows and processes will be performed with eHealth solutions:

1. Identify potential problems in current workflows and processes and determine their root cause. Study the following areas:

   ☐ Bottlenecks
   ☐ Sources of delay
   ☐ Rework due to errors
   ☐ Role ambiguity
   ☐ Unnecessary duplications
   ☐ Unnecessary steps
   ☐ Long cycle time
   ☐ Lack of adherence to standards
   ☐ Lack of information
   ☐ Lack of quality controls

The following tools may be helpful in identifying root cause:

   ☐ Statistical charts
       ☐ Radar   ☐ Pareto   ☐ Control
   ☐ Relations diagrams
   ☐ Tree diagram
   ☐ Affinity diagram
   ☐ Force field analysis
   ☐ Cause and effect diagrams
   ☐ Physical layouts as applicable

2. Identify changes that may be able to resolve problems today. Implement these and revise maps to reflect the changes.

3. Educate about health care information technology (HIT) and electronic health records (EHR) and identify further changes that will be possible and are desirable.

4. Document in a new map the potential new processes reflecting desired improvements.

5. Use maps reflecting new processes to create use case scenarios to identify HIT functional specifications for vendor selection, and later to build out the HIT application during implementation to achieve the desired improvements.

6. Test new workflows and processes once incorporated into the HIT.

7. Train all staff on new workflows and processes, using the maps as guides.

8. Incorporate changes from the maps into policy and procedure. Some organizations use the maps themselves to construct their policies and procedures.

9. Conduct benefits realization and celebrate successful change/correct course as necessary.

Process Mapping Tools

A variety of tools are available for process mapping:

- Flow process chart: a template that enables steps in a process to be enumerated in a list format. This tool is often used by clinicians who are unfamiliar with flow charting. The disadvantage of the tool is that it is more difficult to spot decision points and clearly see the various branches in thought processes when making a decision.

- Systems flow chart: a commonly used tool that is relatively easy to construct and especially easy to use in visualizing workflow. It uses two basic symbols: A rectangle denotes the step in a process where a task is performed. It should answer "who does what." For instance, a task may be "nurse's aide records patient temperature." A diamond shape denotes where a decision must be made. For example, after recording the temperature, the nurse's aide may need to decide whether the temperature is within the normal range, and if not, what to do next. Such a decision would incorporate the decision "Normal?" in the diamond shape, with one branch denoting "Yes" and leading to the next step; and one branch denoting "No" and leading to the alternative next step. Where the system flow chart addresses the issue of envisioning decision points, a disadvantage is that it does not enable much description in its symbols.

- Systems flow chart with sticky notes: A final option for constructing a process map is in the form of a systems flow chart with sticky notes. Upright, the note forms a rectangle, and tilted the note forms a diamond. Because sticky notes can be placed on a blank wall or large sheet of paper and then moved around if tasks are noted to be missing, the sticky note tool is especially useful where mappers are new to mapping, or where there is potential variation among different staff, different locations, etc.

4.3 Flow Process Chart Template

The two types of tools are illustrated below.

Flow Process Chart

Operation	Transportation	Inspection	Decision	Delay	Storage	Time	Quantity	Analysis (✓)			Performed by: Date:
Process: ☐ Present ☐ Proposed								Why is it done this way?			
								Why is it done by this person?			
								Why is it done at this time?			
								Why is it done at this location?			
								Why is it done – is it necessary?			
								Details of present/proposed process:			**Notes**
O	→	☐	◊	D	▼			1.			
O	→	☐	◊	D	▼			2.			
O	→	☐	◊	D	▼			3.			
O	→	☐	◊	D	▼			4.			
O	→	☐	◊	D	▼			5.			
O	→	☐	◊	D	▼			6.			
O	→	☐	◊	D	▼			7.			
O	→	☐	◊	D	▼			8.			
O	→	☐	◊	D	▼			9.			
O	→	☐	◊	D	▼			10. *(Note: Additional rows will be needed)*			
Totals:									**Present**	**Proposed**	
O								**Summary:**	No. / Time	No. / Time	
								Operations			
	→							Transportations			
		☐						Inspections			
			◊					Decisions			
				D				Delays			
					▼			Storages			
								Totals:			

Used with permission. Amatayakul, M. (2007). *Strategies for the digital future of healthcare information*. Margaret \ A Consulting. Available by contacting author at: margret-a.com/index.html

4.4 Systems Flow Chart

Below is a process map for medication administration from a Critical Access Hospital with five nurses. The numbered items in the symbols represent variations in how nurses perform the specific component of the process.

Medication Administration

```
Medication          →   Transcribe order   →   Medication, route,   →   Notification of nurse giving new medication
order on chart          by RN or LPN           dosage put on MAR.          1. Sticky note on patient MAR
                                               May or may not         OR  2. MAR taken out of 3 ring binder
                                               include time           OR  3. MAR on counter
                                                                      OR  4. Verbal communication
                                                                      OR  5. Never told
```

```
    1. Med put on tray with MAR                                                              Is med in pyxis?
       for one patient                          No  ←───────────────────────────────
OR  2. All patient meds put on
       large tray with all MARS
OR  3. Put meds on cart with MARS
```

```
    1. Write time on MAR under                                                                    Yes
       date given to indicate that
       med is checked out           Med nurse writes down med                        1. Check med out of pyxis for
OR  2. Write time, cross through    needed, patient name, ect on                         single dose
       and initial under date       sticky note and gives to charge              OR  2. Check out meds for shift
OR  3. Leave blank until given      nurse who goes to pharmacy                    OR  3. Check out meds for 24-48 hours
                                    and signs out med.
```

```
    1. Take med to patient room
       in blister pack              Medication given to med nurse
OR  2. Take out of blister pack     by charge nurse
                                                                        Med nurse checks med
                                                                        with MAR
```

```
ID patient with 1 form of ID                                                         Chart med on
                                                                                         1. MAR in room
                                                                                 OR  2. MAR outside room on cart
                                                                                 OR  3. MAR at nurses station
```

```
Compare med to MAR in room   →   Administer med after ID and   →
                                 watch patient take med
```

5.0   Training & Education

Contents

5.1 Training Roles and Responsibilities

The following role descriptions have been adapted from those used as part of a Clinical Documentation Improvement (CDI) program in London, Ontario.

Master Trainer Strategist

Identify scope of role, as appropriate

- Provides overall training strategies and framework for all sites

- Provides high level direction to master trainers of site teams

- Approves and oversees the co-ordination of vendor training

- Guides and coaches training resources with needs assessment, design/development of materials and delivery as well as the evaluation process

- Assists teams with planning and project management

- Assesses and obtains resources

- Escalates major issues to Clinical Core Team that impact the project deliverables

- Partners with Communications and Change Management

Master Trainer

Identify scope of role, as appropriate

- Conducts needs assessment for target audiences

- Identifies training needs (e.g., clinic / department workflow)

- Provides direction to training resources for materials and delivery, specific to clinic/department

- Establish location for training (e.g., training rooms, within clinics)

- Co-ordinates vendor training

- Develops training schedules and planning

- Establishes an evaluation process for each training activity

- Creates and coordinates communication with Coordinators/Super Users/Learners

- Escalates issues to Master Trainer Strategist

- Partners with other Master Trainers, Clinical Coordinators and Super Users.

Trainers

Identify scope of role, as appropriate

- Assists with the development of clinic/department specific training materials/support materials for learners

- Conducts "1 on 1" training with physicians, clinical staff, super users

- Facilitates classroom training, if necessary

5.2 Training Session Evaluation Template

Please complete and return to: _____

Classroom	1	2	3	4	5
The classroom setting was a comfortable environment for learning.	☐ Strongly Disagree	☐ Disagree	☐ Neutral	☐ Agree	☐ Strongly Agree
The amount of training time was sufficient.	☐ Strongly Disagree	☐ Disagree	☐ Neutral	☐ Agree	☐ Strongly Agree
The classroom pace was comfortable.	☐ Strongly Disagree	☐ Disagree	☐ Neutral	☐ Agree	☐ Strongly Agree
Materials	1	2	3	4	5
The training materials were sufficient.	☐ Strongly Disagree	☐ Disagree	☐ Neutral	☐ Agree	☐ Strongly Agree
Trainer	1	2	3	4	5
The trainer communicated clearly and in a language you understood.	☐ Strongly Disagree	☐ Disagree	☐ Neutral	☐ Agree	☐ Strongly Agree
The trainer was knowledgeable and able to answer your questions.	☐ Strongly Disagree	☐ Disagree	☐ Neutral	☐ Agree	☐ Strongly Agree

Your Feedback

What *positive* feedback would you like to share?

What feedback would you like to share for *improvement*?

Job Title _____   Date _____

Dept/Clinic _____

Your feedback is so important to the success of this project.
THANK YOU!

5.3 Computer Training Needs Assessment

The following document has been adapted from Computer Training Needs Assessment tools developed by British Columbia's Fraser Health and Interior Health Authorities.

In order to prepare for implementation, we need to identify your computer training requirements. Please take a few minutes to complete this form and return to your department/unit manager.

Employee Name _____

Job Title _____

Dept. / Unit _____

Windows Operating System			
Log-on to Windows	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Log-off of Windows	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Identify screen elements, i.e., menus, icons, taskbar, start button, toolbar	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Use the right and left mouse buttons	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Use computer keyboard	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Minimize, maximize & close programs	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Start programs, i.e., Word, Outlook	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Use cut and paste within applications	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Install printers from the network	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Open and save files to a hard drive, network drive or other storage medium	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Use SharePoint	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Use Windows Help & Support	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Request assistance from Help Desk	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete

Write the number of the screen component on the blank line to the left of its description.

____ Maximize Button

____ Title Bar

____ Minimize Button

____ Scroll Bar

____ Close Button

____ Menu Bar

____ Toolbar Button

Internet Browser			
Describe the difference between Internet and Intranet	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Start Internet Explorer	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Start corporate Intranet	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Search for and view information over the Internet	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Use of sophisticated web based applications such as online banking and/or shopping sites	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete
Identify file and shortcut to desktop	☐ Not Familiar	☐ Sometimes have difficulty	☐ Can easily complete

I have taken the following training:	Yes	No	Don't know
Computer Basics & Windows Tasks	☐	☐	☐
Outlook E-Mail & Contacts	☐	☐	☐
Outlook Calendar & Tasks	☐	☐	☐
Word: Introduction	☐	☐	☐
Word: Intermediate	☐	☐	☐
Word: Advanced	☐	☐	☐
File Management	☐	☐	☐
Excel: Introduction	☐	☐	☐
Excel: Intermediate	☐	☐	☐

Which method of training do you feel would be most effective to achieve your learning goals:			
Classroom training (hands-on)	☐ Not very effective	☐ Somewhat effective	☐ Very effective
Presentation (demo)	☐ Not very effective	☐ Somewhat effective	☐ Very effective
On-line tutorials (hands-on, self-paced)	☐ Not very effective	☐ Somewhat effective	☐ Very effective
On-line user guide (self-paced)	☐ Not very effective	☐ Somewhat effective	☐ Very effective

Please select the most desirable day(s) and time(s) for you to attend training programs (select as many as apply):	A.M.	P.M.	No preference
Monday	☐	☐	☐
Tuesday	☐	☐	☐
Wednesday	☐	☐	☐
Thursday	☐	☐	☐
Friday	☐	☐	☐

5.4 Training and Course Planning Matrix

The following matrix was developed to support the training needs of the North Network, a telehealth organization that is now part of Ontario's Telemedicine Network.

Category	Training Modules	Content	Audience	Primary / Backup Trainer
One row per category, e.g., • General Information • Hardware • Software • Peripherals • Information for physicians • Train the Trainer • Privacy • Other	Identify training module name	Describe module content, e.g., • General operations • Troubleshooting • Roles and responsibilities • Other content specific to the audience	e.g., clinical staff, managers, administrative support staff, physicians, etc.	Identify recommended training staff / group

6.0　Monitoring & Evaluation

Contents

Benefits Approach to Evaluation

Example Evaluation Methodology Used in Evaluation of Newfoundland & Labrador Telehealth Strategy

Example Evaluation Methodology Used in NB iEHR / Lab Scoping and Planning Initiative

Canada Health Infoway — System & Use Survey

6.1   Benefits Approach to Evaluation

A benefits approach will help you to engage different stakeholders and organizations, and also enable you to establish baselines and quantify improvements.

	Long Term	**Short Term**
Personal	• **Outcome:** How would I like to be? • **Benefits:** What will that give me? These could be in health, time, growth, happiness.	• **Outcome:** What will I achieve this week? • **Benefits:** What value do I get from achieving this (and does the value I get contribute to my longer-term aim)?
Organizational	• **Outcome:** What will we as a community / organization look like at the end of this transformational programme? • **Benefits:** What will the value-add be? Organizational or community benefits are more likely to be population health, quality of life / length of active life for a segment of the population, resources freed up and used to deliver additional services, staff career opportunities, etc.	• **Outcome:** For each project: what is the outcome of this project? Projects may have milestones indicating a particular achievement, etc. • **Benefits:** What are the short-term benefits or values of achieving this? (Once again, do the short-term benefits contribute to the longer-term benefits? If not, do they represent 'quick wins' which keep people motivated and engaged?)

Adapted from UK National Health Service.

6.2 Example Evaluation Methodology
Used in Evaluation of Newfoundland & Labrador Telehealth Strategy

Step 1:

Identification of key stakeholders in each jurisdiction: It is important that a wide range of stakeholders be involved in and/or apprised of the evaluation efforts within their own jurisdictions because it will improve the likelihood that: (1) information exchange will occur; (2) comparable evaluation approaches will be introduced; (3) greater strategic alignment between the goals of the broader health system and the goals of the specific initiative will occur; and (4) champions for evaluation will be engaged.

Step 2:

Orient key stakeholders to the rationale for why evaluation is needed: It is important to orient key stakeholders to the telehealth initiative and the evaluation process as early as possible, to determine their: (a) expectations of the telehealth initiatives and (b) views on what an evaluation plan should address. A workshop format has proved useful for this type of stakeholder engagement, wherein an overview of the telehealth strategy and key initiatives is presented; expectations documented and views on evaluation elicited.

Step 3:

Agree on when to evaluate: Ideally, evaluation of complex information systems should involve longitudinal evaluation, that is, evaluation that occurs over time, and/or involves multiple data collection points. Whenever possible, the evaluation of complex health information systems initiatives such as the Telehealth Strategy should involve data collection at three or more points: (1) baseline (pre-system implementation); (2) during implementation and (3) post implementation (preferably multiple measures at 6 and 12 months post implementation).

Step 4:

Agree on what to evaluate: There are virtually an endless number of other evaluation questions that could be posed about complex health information systems such as the Telehealth Strategy. However, resources to pursue these issues are limited, in terms of funding and availability of personnel with expertise to conduct the evaluation.

Step 5:

Agree on how to evaluate: A discussion of the most feasible methods for approaching the selected evaluation questions will involve consideration of the tradeoffs involved with the methods chosen.

Step 6:

Analyze and report: Many researchers have noted that the task of consolidating the findings of a multi-method evaluation is perhaps the most difficult component of the study of complex health information systems.

Step 7:

Agree on Recommendations and forward them to key stakeholders: Likelihood of agreement on recommendations increases if stakeholders are involved in their development and dissemination.
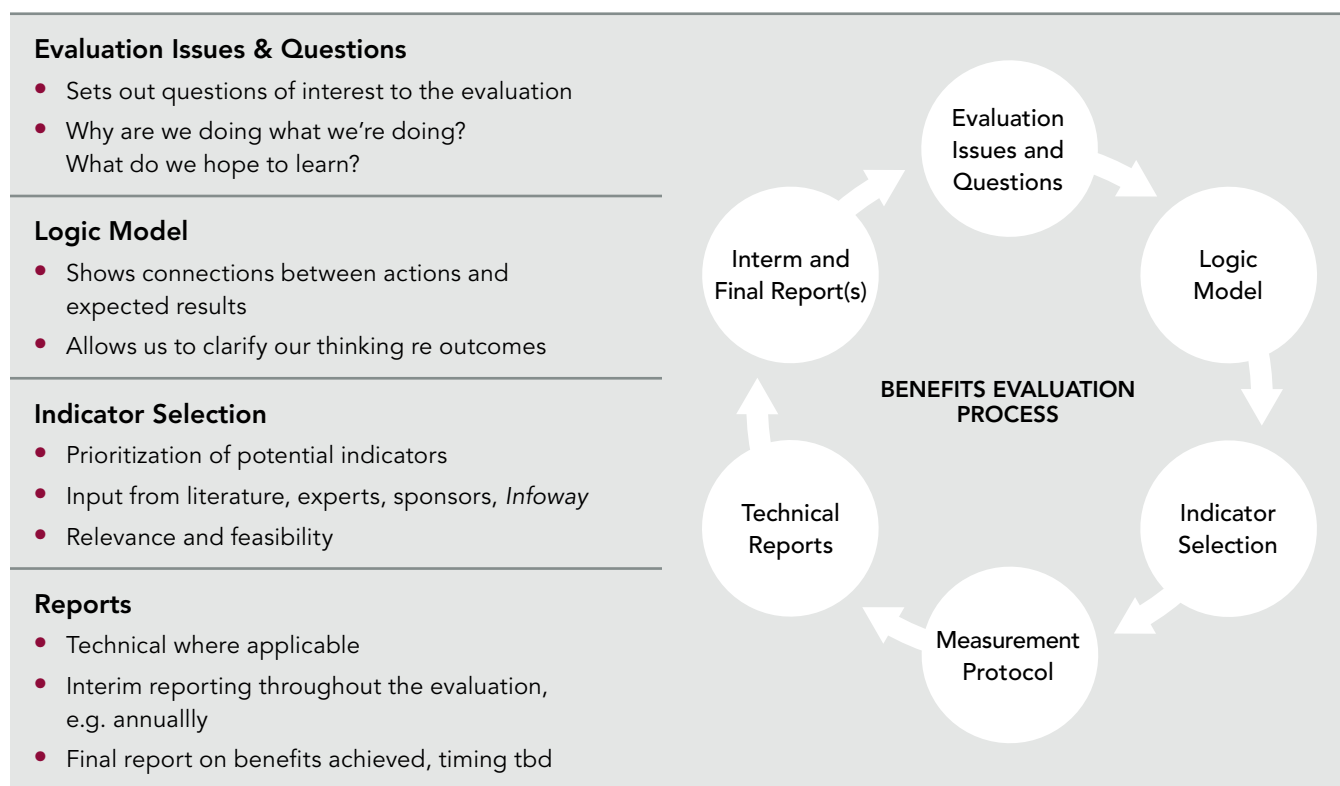
6.3 Example Evaluation Methodology

Used in NB iEHR / Lab Scoping and Planning Initiative

The benefits evaluation model below demonstrates the broad strokes of defining and identifying benefits. Its circular nature highlights the process of learning, refining and growing the depiction of benefits. This planning deliverable addresses the first three elements: Evaluation & Issue Identification, Logic Model, and Indicator Selection.

Elements of the Benefits Evaluation Framework

Evaluation Issues & Questions
- Sets out questions of interest to the evaluation
- Why are we doing what we're doing?
  What do we hope to learn?

Logic Model
- Shows connections between actions and expected results
- Allows us to clarify our thinking re outcomes

Indicator Selection
- Prioritization of potential indicators
- Input from literature, experts, sponsors, *Infoway*
- Relevance and feasibility

Reports
- Technical where applicable
- Interim reporting throughout the evaluation, e.g. annuallly
- Final report on benefits achieved, timing tbd

BENEFITS EVALUATION PROCESS

- Evaluation Issues and Questions
- Logic Model
- Indicator Selection
- Measurement Protocol
- Technical Reports
- Interm and Final Report(s)

6.4 System & Use Assessment Survey

This document is designed to detail the process of adapting and administering the System & Use Assessment Survey (S&U Survey). The core survey questions can be found in the online toolkit repository located at: forums.infoway-inforoute.ca/CMF/.

For any questions relating to the S&U Survey or for further information please contact the Infoway Clinical Adoption team at clinicaladoption@infoway-inforoute.ca.

Evaluation Objectives

The customizable System & Use Assessment Survey is intended to be administered soon after a project has gone live. Its purposes are to:

1. Provide benefits statements to drive adoption in later implementations

2. Assist in identifying barriers to adoption so that remedial action may be initiated

3. Identify additional functionality which could be provided in future releases

4. Provide analysis of the viability of communication and training strategies

5. Provide stakeholders with the assurance that their adoption of the solution is important.

Background

The S&U Survey was created with the intention of being used to assess quality and use components of health IT systems, and to flag obstacles to adoption and the realization of net benefits from the system. The questions that make up the survey were developed by evaluation Subject Matter Experts and *Infoway*'s Benefit Evaluation team.

To date, a number of projects such as those listed in the following domain areas have successfully customized the System and Use Survey: drug information systems, diagnostic imaging, EMR pharmacy integration, clinical information systems, and clinical outcomes data projects. A copy of the original survey template can be found in the online toolkit repository.

Survey Process

The S&U Survey process is divided into four phases. The activities that make up each the phase are outlined in Table 1. More detailed descriptions of select activities that require additional explanation are discussed following the table.

Table 1: Survey Activities

Activity	Involvement	Timeframe
Plan and Adopt Survey		
Identify opportunity for survey use and assess appropriate timing of administering survey.	**Project** • Project Evaluation Lead *Infoway* • Benefits Evaluation (BE) Lead	Ideally during planning stages of project
Survey template shared with Project team and questions are customized to suit project (please see appendix B for survey template). The inclusion of *Infoway*'s Core Questions is discussed with Project team (Appendix D).	**Project** • Project Evaluation Lead *Infoway* • BE Lead	Ideally prior to implementation stages of project
Process agreed upon for distribution for survey i.e. survey instructions, timelines, survey leads etc.	**Project** • Project Evaluation Lead *Infoway* • BE Lead	See above
Project approves final version of survey.	**Project** • Project Evaluation Lead *Infoway* • BE Lead	See above
Electronic, web-based version of survey is created.	*Infoway* • BE Lead • Information Management and Technology (IMT)	See above

Table 1: Survey Activities (continued)

Activity	Involvement	Timeframe
2. Data Collection		
Project compiles a list of potential survey participants and decide on method to distribute survey (both electronic and paper versions).	**Project** • Project Evaluation Lead *Infoway* • BE Lead	
Link to electronic S&U Survey enabled.	**Project** • Project Evaluation Lead *Infoway* • BE Lead • Information Management and Technology (IMT	
Survey software automatically collects participants responses.	*Infoway* • Information Management and Technology (IMT)	
Reminder email #1 sent out to non-responders.	**Project** • Project Evaluation Lead	1-2 weeks after initial email
Discussion of need to administer paper-based survey to non-responders.	**Project** • Project Evaluation Lead *Infoway* • BE Lead	2 weeks after initial email
Infoway provides Project team with copy of paper-based survey and Project team prepares to distribute it.	**Project** • Project Evaluation Lead *Infoway* • BE Lead	2 weeks after initial email
Reminder email #2 sent out to non-responders.	**Project** • Project Evaluation Lead	3 weeks after initial email
Paper-based survey is distributed by Project team.	**Project** • Project Evaluation Lead	3 weeks after initial email

Table 1: Survey Activities (continued)

Activity	Involvement	Timeframe
3. Analysis and Report		
Project evaluation lead provided with raw survey data results throughout survey and at completion (see Appendix C for sample reports).	**Project** • Project Evaluation Lead *Infoway* • BE Lead • Information Management and Technology (IMT)	Frequency to be determined with project
Project may choose to conduct additional analysis of raw data.	**Project** • Project Evaluation Lead • Evaluator and/or • *Third party organization* (responsibility of Project)	Once collection of responses is complete
4. Data Storage		
Both Project and *Infoway* retain data sets with no personal identifiers. *Infoway* may aggregate the survey data with results from other evaluation projects and use it in pan-Canadian studies.	**Project** • Project Evaluation Lead **Infoway** • BE Lead	

Sample Size

Prior to administering the survey, it is important to determine the number of potential survey participants. In order to calculate a response rate for the survey it is necessary to track the number of people invited to participate in the survey, and how many people complete the survey. A high response rate is important to legitimize a survey's results. When a survey elicits responses from a large percentage of its target participants, the findings are seen as more accurate.

The survey sponsor needs to determine who in their organization will take the survey. Some choices are: the whole company, only permanent and/or full-time employees, or only certain job positions (i.e. physicians, nurses, pharmacists, support staff).

Administering paper based version of survey

While the S&U Survey is designed to be administered electronically, the electronic method can sometimes result in low response rates. Distributing a paper copy of the survey to participants in addition to the electronic version is possible, but will require additional labour from the project team.

Infoway will provide the project evaluation team with a paper version of the electronic survey; however, the project evaluation team will be responsible for distributing the paper version, collecting the completed surveys, and inputting the responses into the electronic version of the survey.

Possible methods of distributing the paper survey include:

1. Sending out survey attached to employees' pay stubs

2. Organizing sessions in which groups of employees complete the survey together (either in regular group-meeting times or in larger groups at a special event)

3. Project evaluation team personally handing out surveys to individuals or departments and arranging a convenient drop off location

Results

Infoway's survey software will collect and store the raw data collected from electronic survey participants. The collection and storage of the paper version will be the responsibility of the project evaluation team.

Infoway will provide the project evaluation lead with data result reports periodically. Please see Appendix A for examples of the two formats that data is presented in.

Privacy and data storage

Confidentiality

The survey is anonymous. The survey does not ask for participants to provide any personal identification such as name or employee ID number, or any other information that is potentially identifying.

To ensure confidentiality compliance, all responses inputted into the electronic survey will be stored on *Infoway*'s secure server. The data will not have any personal identifiers. The server administrator will require a password to access the data.

The project evaluation team will be responsible for ensuring the paper copies of the survey are kept confidential.

Data retention

Infoway will maintain the results from the electronic survey in accordance with stringent data protection and management requirements to protect the confidentiality of the data and to prevent unauthorized use or access.

CHAPTER

6   Glossary

The following terms and descriptions have been assimilated from the efforts of the Pan-Canadian Change Management Network and are intended to present a foundation of common language and dialogue within the eHealth change management community. This listing is expected to be further developed and refined.

Descriptions come from multiple sources as cited.

Term	Description
Adopters of Change [74]	Adopters of change are grouped into five categories: Innovators (venturesome); Early adopters (respectable); Early majority (deliberate); Late majority (skeptical); Laggards (traditional).
Adoption [76]	The acceptance of technological innovation in everyday practice regardless of the degree of infusion.
Advocate [75]	An advocate is a person who helps build a case for change by drawing support from within the industry, by selling the idea of change. Advocates do not need to be people in authority or in the organization. The key attribute of an advocate is having the trust and confidence of potential sponsors and being able to influence the sponsor's decision.
Benefits Evaluation	An assessment of the impact, benefit or change resulting from participation in an initiative, program or effort.
Benefits Realization	Benefits realization is the process of achieving objectives, which generally includes three components: (1) Articulation of the benefits; (2) Identification of key assumptions or conditions, and development of action plans to address them; and (3) Measurement against objectives.
Business Process Transformation [77]	Business transformation is the institutional capability of translating the strategic business vision for products, services and processes into a commitment and plan for execution. It entails new ways of working, reconfiguration of people and competence to deliver strategic objectives, new ways of influencing and support business change, and ultimately a way to rethink stakeholders' needs to be responsive.
Change [78]	Change involves a shift in action or thinking. It is about the events or circumstances that impact and affect the organization. These could include a new leader, changes in government policy, technology, stakeholder expectations, etc. Thus, change is typically outcome or results focused, in that organizational change is usually a solution to someone's perception of a problem or opportunity.

Term	Description
Change Agents [79]	Change agents are those who make the difference in implementing change at a local level. This will depend on the nature of the change, but the role often falls to middle managers because they have the influence and authority to make the change happen.
Change Champions [80]	These are the early adopters, colleagues who want the change implementation to succeed, and believe the change will be beneficial to the institution. The change champions will be staff affected by the change. They do not have to have management responsibilities.
Change Consultant [81]	The role of consultant is very different from a line manager who has authority, responsibility and accountability for specific results and outcomes. A consultant role is not the same as a staff role sanctioned by senior management to use specific expertise to implement a project or initiative. Consultants use their expertise, influence and personal skills to facilitate a client-requested change without formal authority to implement recommended actions.
Change Maintenance [84]	Too frequently, organizations discontinue their support of change management on completion of implementation. In fact, effective change management requires ongoing support through the measurement of compliance with the change, as well as support for performance adjustments on an "as needed" basis to facilitate acceptance of the change in the organization.
Change Management [82]	A strategic and systematic approach that supports people and their organizations in the successful transition and adoption of health information systems. The outcomes of these change management activities result in solution adoption by users and the full realization of benefits.
Change Managers [83]	Change managers have the expertise to lead the change and can act as role models. They are given responsibility for the day-to-day change implementation. They design the change process, strategy and approach, and confirm these with the change team. They design the communication strategy and contingency plans for the change. They facilitate key events to build commitment for the change, monitor progress and communicate the change results throughout the organizational structure.
Change Management Framework [85]	The Change Management Framework is a model of the fundamental elements needed for inclusion in an integrated change management approach, and is designed to achieve strategic objectives. The framework strives to provide information supporting the complexity of change and includes the core elements of: leadership and governance; stakeholder engagement; communications; workflow integration; training and education; and outcomes measurement.
Change Participants [86]	Change participants are all those affected by the change. They will need to know the reasons behind the change as well as the intended effect on them and their work practices. They are stakeholders, but a change may also have stakeholders who are not directly affected. For instance, the funding bodies or governors may have a stake in seeing a change implemented, but the change may not have any immediate impact on their working practices.

Term	Description
Change Sponsor [87]	Someone who has the authority, seniority, power, enthusiasm and time to lead/carry through/oversee changes. The change sponsor may not get involved with the day-to-day management of the change but should support and monitor progress. Usually the change sponsor is a senior member of the management team given responsibility for affecting the change. This person ensures the availability of necessary resources and accepts ultimate responsibility for the successful change implementation. Sponsors approve the change strategy and approach. They are active champions and role models for the new reality and they monitor and communicate change progress to interested parties.
Change Team [88]	The change team is made of staff members charged with implementing the change. They support the change manager in undertaking his or her role and responsibilities. They must have the confidence of both the management and the staff affected by the change. They should be drawn from all areas affected by the change and it is essential they demonstrate commitment to the change. They will need to be given the time from their regular job functions and recognition to undertake the role of implementing change.
Clinical Transformation [89]	A comprehensive, ongoing approach to care delivery excellence that measurably improves quality, enhances service, and reduces costs through the effective alignment of people, process and technology.
Culture [90]	An organization's culture is the set of values and beliefs that cause people to behave in certain ways. When they behave that way and get the results they expect, it reinforces those values and beliefs. This self-reinforcing cycle creates a culture.
Early Adopters [91]	Those who are opinion leaders in most social systems (respectable).
Early Majority [92]	Those who adopt new ideas just before the average member of a social system (deliberate).
Facilitator [93]	A facilitator eases the way for all stakeholders in the change process, providing the environment where they can be actively engaged and empowered. Ideally, facilitators use participatory methods and have a broad base of knowledge and experience as adult educators and leaders of change.
Force Field Analysis [94]	Force field analysis is a specialized method of weighing pros and cons. It is essentially a technique for looking at all the forces for and against a decision and weighting these factors to determine if a plan is worth implementing. Any status quo is a balance of the current forces acting on the system. Change will only occur if that balance is altered by adding forces, strengthening the forces for change, or reducing forces hindering change. When a decision is made to carry out a plan, force field analysis helps to identify changes that could improve it.
Gap Analysis	Gap analysis evaluates the difference between the organization's current position and its desired future. Gap analysis results in development of specific strategies and allocation of resources to close the gap. *(Sometimes referred to as "Fit" analysis.)*

Term	Description
Governance [95, 96]	Governance concerns the mechanisms that are used to guide, steer or regulate the course of an organization or system. Within the realm of information and communications technology (ICT), governance refers to the structures and processes needed to ensure organizational ICT strategies and objectives are achieved.
Information and Communications Technology (ICT) for Health [97, 98]	ICTs are defined as technologies that facilitate communication and the processing and transmission of information by electronic means. ICT for health refers to the interaction between patients and health service providers, institution-to-institution transmission of data, or peer-to-peer communication between patients and/or health professionals. Examples include health information networks, electronic health records, telemedicine services, wearable and portable systems that communicate, health portals, and many other technology-based tools assisting disease prevention, diagnosis, treatment, health monitoring and lifestyle management.
Innovators [99]	Those who are very eager to try new ideas (venturesome).
Laggards [100]	The last group to adopt an innovation (traditional).
Late Majority [101]	Those who adapt new ideas just after the average member of a social system (skeptical).
Learning Organization [102]	The learning organization facilitates the learning of all its members and continuously transforms itself. Change management for planned and unplanned change is easier in such organizations.
Outcomes Measurement [103]	Refers to the extent to which a program achieves its stated objectives. Also referred to as "outcomes evaluation," it measures outputs and outcomes (including unintended effects) to determine program effectiveness, but may also assess program process to understand how outcomes are produced.
Process Owners [104]	Process owners are involved in identifying the business capabilities that need to be developed. They are often involved with providing information for solutions across business units and from end-to-end, integrating new business processes and selecting enterprise solutions. They define investment strategies and assist with transition plans. Their knowledge is needed to ensure the compliance of all enterprise solutions with the appropriate architecture and registration. They may establish and support a change leader / agent network to drive change management activities. The process owners have direct influence on stakeholders, the ability to monitor performance and determine the impact of the change on stakeholders, and track and report progress in alignment to the business change strategy.
Process Measurement [105, 106]	Evaluation that focuses on what occurs in a program as it is delivered and documents the extent to which intervention strategies and activities are executed as planned. Involves monitoring implementation activities and processes. This type of information can be used to adjust activities in real-time throughout a program's life. In the ICT context, it can refer to the process of delivering the program or technology, including alternative delivery procedures.

Term	Description
Sponsorship Assessment [107]	An analysis of the level of support and the sponsorship competency of all key business leaders involved in the change.
Stakeholder [108]	An individual or group with an interest in the success of an organization and its products. Thus, stakeholders could consist of the organization's own members, senior authorities either within or outside the organization, suppliers, etc. Stakeholders are groups internal and external to the organization that affect the organization's interests.
Stakeholder Engagement [109, 110]	The process by which the perceptions, issues and expectations of stakeholders are learned. The overall purpose of stakeholder engagement is to drive strategic direction and operational excellence for organizations, and to contribute to the kind of sustainable development from which organizations, their stakeholders and wider society can benefit.
Stakeholder Impact Map [111]	A tool used to assess a project's impact on various stakeholders. Project phases and activities are assessed against key stakeholders and results of each assessment are compiled to reflect the overall impact. The results yield a chart indicating the overall level of change needed and the aspects of the project most likely to be affected.
Sustainability [112]	Described as "when new ways of working and improved outcomes become the norm." Sustainability is achieved when processes have changed and benefits are realized and have even further evolved over time. Sustainability results when the change becomes an integrated or mainstream way of working rather than something "added on."
Transition [113]	Transition is an internal, psychological re-orientation experienced by people coming to terms with a change. It is a process or inner experience not necessarily focused on outcome or results. It is timed differently from the external changes that caused it.
What's In It For Me (WIIFM) [114]	A useful way to consider the different needs and attitudes of those who will be key stakeholders in an improvement initiative is to carry out a "what's in it for me" analysis. WIIFM criteria could include: deeply held values and beliefs; working relationships; conditions of work: place, hours etc.; salary; job security; nature of work: tasks, responsibilities etc.; and power: status, position, identity. The more criteria that are negatively affected by the change, the greater the resistance to change. Changes that negatively interfere with a person's power, status, position and identity will evoke the most emotion.

CHAPTER

7 Endnotes & References

1   Nagle, L., Catford, P. (2008). Toward a model of successful electronic health record adoption. *Electronic Healthcare*. Vol. 7.(1). Accessed at: longwoods.com/content/19838.

2   While some tools and approaches may be used for enterprise change management (CM), our intention was to support CM at a project level.

3   More information on Prosci's approach to CM can be found at: prosci.com/bpr_ph1.htm.

4   Inclusion criteria included: source easily accessible; minimal to no copyright or proprietary licenses to consider; and information contained within source aligned to core element(s) of the proposed framework. Discrepancies were resolved through discussion.

5   Hiatt, J., Creasey, T. (2003). *Change management: The people side of change*. (Loveland, CO: Learning Center Publications, 2003).

6   Leyland, M., Hunter, D., Dietrich, J. (2009). *Integrating change management into clinical health information technology project practice*. McMaster University, Hamilton, ON. 2009 World Congress on Privacy, Security, Trust and the Management of e-Business.

7   Canada's Health Informatics Association. (2010). CPHIMS-CA: Canadian supplemental review and examination guide. Use and adoption challenges for health information systems. Available at: coachorg.com.

8   Voropajev, V. (1998). Change management – a key integrative function of project management in transition economies. *International Journal of Project Management*. 16.1 (1998):15-19.

9   Kaluzny, A.D., McLaughlin, C.P., (2009). *Continuous quality improvement in health care*. 3rd edition. Jones & Bartlett, 2009.

10   While some tools and approaches may be used for enterprise CM, our intention was to support CM at a project level.

11   More information on Prosci's approach to CM can be found at: prosci.com/bpr_ph1.htm.

12   As accepted by the Pan-Canadian Change Management Network, March 1, 2011.

13   Canadian Society for TeleHealth. *Telehealth Change Management Repository – Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/change_management_library.htm.

14   Petouhoff, N., Chandler, T., Montag-Schultz, B. (2010). *The business impact of change management: What is the common denominator for high project ROI's?* Graziadio School of Business and Management, Pepperdine University. Retrieved from: gbr.pepperdine.edu/2010/08/the-business-impact-of-change-management/.

15   Varkey, P., Antonio, K.(2010). Change management for effective quality improvement: a primer. *American Journal of Medical Quality. Am J Med Qual*. 2010 Jul-Aug; 25(4):268-73. Retrieved from: ncbi.nlm.nih.gov/pubmed/20445133.

16   Canada's Health Informatics Association. (2010). CPHIMS-CA: Canadian supplemental review and examination guide. *Use and adoption challenges for health information systems*. Available at: coachorg.com.

17 Allen, L. (2003). *Organizational change management — The new imperative.* Business Performance Pty Ltd. Accessed from: businessperform.com/change-management/change_management.html.

18 Ibid.

19 Hiatt, J., Creasey, T. (2003). *Change management: The people side of change.* (Loveland, CO: Learning Center Publications, 2003).

20 Allen, L. (2003). *Organizational change management — The new imperative.* Business Performance Pty Ltd. Accessed from: businessperform.com/change-management/change_management.html.

21 Hiatt, J., Creasey, T. (2003). *Change management: The people side of change.* (Loveland, CO: Learning Center Publications, 2003).

22 Ibid.

23 Allen, L. (2008). *Managing change in the workplace.* (2nd Ed). Business Performance Pty Ltd. Available at: businessperform.com/products/managing-change/managing_change.html.

24 Allen, L. (2003). *Organizational change management — The new imperative.* Business Performance Pty Ltd. Accessed from: businessperform.com/change-management/change_management.html.

25 More information on Prosci's approach to CM can be found at: prosci.com/bpr_ph1.htm.

26 For further information, including a case for measuring the ROI for change, please see *The case for change management: Three people side ROI factors* at: change-management.com/tutorial-case-mod4.htm.

27 More than 60 different CM approaches have been reviewed by Peggy Barton in: Barton, P., Devane, T., Cady, S., et al. (2007). *The change handbook – The definitive resource for today's best methods for engaging whole systems.* Berrett-Koehler Publishers Inc. San Francisco, CA.

28 Canada Health Infoway. (2007). *White Paper on Information Governance of the Interoperable Electronic Health Record (EHR)*, March. Available from: infoway-inforoute.ca/privacy-mandate/white-paper-on-information-governance.

29 Pannoni, R., Ricketts, G. (2010). From Change Management to Governance – A Framework for Increasing Success with Technology. *International Association for Human Resource Information Management.* Volume XIV, Issue 6. December 2009/January 2010. Accessed at: razorlearning.com/blog/2010/03/change-management-governance-framework-increasing-success-technology/#_edn2.

30 Ibid.

31 Calder, A. (2006). *IT Project Governance and PRINCE2 Project Management.* [Electronic document]. Accessed from: projectsmart.co.uk/pdf/project-governance-and-prince2-project-management.pdf.

32 Central Computer and Telecommunications Agency (CCTA). (1996). *PRINCE2: Project Management for Business.* The Stationery Office, London.

33 College of Healthcare Information Management Executives (CHIME). (2010). *The CIO's Guide to Implementing EHRs in the HITECH Era.* p.13.

34 Canada's Health Informatics Association. (2009). *Health informatics professional career matrix.* Accessed on April 11, 2011 from: secure.coachorg.com/career_development/professionalism/core_competencies.htm.

35 Allen, L. (2003). Change program roles. Business Performance Pty Ltd. Melbourne, Australia. Accessed from: businessperform. com/change-management/change_program_roles.html.

36 Sign-up to access the Forum is required. (Free access). forums.infoway-inforoute.ca/CMF/.

37 Bryson, J. (2004). What to do when Stakeholders matter. *Public Management Review* (2004) vol. 6 (1) pp. 21-53.

38 Freeman, R. (1984). *Strategic Management: A stakeholder approach.* Boston: Pitman.

39 AccountAbility. (2005). *Stakeholder engagement standard. Exposure draft*. London, United Kingdom. [Electronic document]. Retrieved from: accountability21.net/uploadedFiles/publications/SES%20Exposure%20Draft%20-%20FullPDF.pdf.

40 Bryson, J. (2004). What to do when Stakeholders matter. *Public Management Review* (2004) vol. 6 (1) pp. 21-53.

41 International Association for Public Participation. (2006). Accessed at: iap2.org.

42 National Health Service (NHS). (2010). *Practical Guide to Stakeholder Engagement*. Retrieved from: webarchive.nationalarchives.gov.uk/20100809114547/http://www.isip.nhs.uk/practical.

43 Sharma, R. (2008). *The six principles of stakeholder engagement*. Supply chain management review (October) pp. 1-9.

44 Parsloe, E. (1999). *The manager as coach and mentor*. Chartered Institute of Personnel and Development, CIPD House. London, Britain.

45 List abstracted from: Willis, P., Richards, M. (1999). *The coaching and mentoring network. What are coaching and mentoring?* Retrieved from: coachingNetwork.org.uk/resourcecentre/whatarecoachingandmentoring.htm.

46 National Health Service (NHS). (2011). Connecting for Health. *Mentoring and coaching*. Retrieved from: connectingforhealth.nhs.uk/systemsandservices/capability/phi/personal/learningweb/personal/mentoring.

47 More reading on Hersey and Blanchard's Situational Leadership Theory can be found at: mindtools.com/pages/article/newLDR_44.htm.

48 Whitmore, J. (2002). Coaching for performance. *GROWing people, performance and purpose*. 3rd edition. Nicholas Brealey Publishing. London, UK.

49 Whitworth, L., Kimsey-House, K., Kimsey-House, H., Sandahl, P. (2007). Co-active coaching. *New skills for coaching people toward success in work and life*. Davies-Black Publishing. Mountainview, CA.

50 National Health Service (NHS). (2011). Connecting for Health. *Mentoring and coaching*. Retrieved from: connectingforhealth.nhs.uk/systemsandservices/capability/phi/personal/learningweb/personal/mentoring.

51 JISC infoNet. (2009). Good practice and innovation. *Change management – resistance to change*. Northumbria University. Retrieved from: jiscinfonet.ac.uk/infokits/change-management/resistance-to-change.

52 Ibid.

53 Ibid.

54 Sign-up to access the Forum is required. (Free access). forums.infoway-inforoute.ca/CMF/.

55 College of Healthcare Information Management Executives (CHIME). *The CIO's Guide to Implementing EHRs in the HITECH Era*. 2010 p.33.

56 Sign-up to access the Forum is required. (Free access). forums.infoway-inforoute.ca/CMF/.

57 Change Management Working Group. (2010). *Current state analysis – Alberta's response*. Information available by contacting clinicaladoption@infoway-inforoute.ca.

58 Change Management Working Group. (2010). *Current state analysis – New Brunswick's response*. Information available by contacting clinicaladoption@infoway-inforoute.ca.

59 eHealth Ontario. (2009). A guide to process integration. *(Available in the online toolkit repository)*.

60 More information on Maturity Models can be found at: Hagens, S. (2009). Canadian EHR: Early benefits and journey ahead. *Health Care Information Management and Communications*. (HCIM & C). 4th Quarter, December 2009. Accessed at: healthcareimc.com/bcovers/previous/Vol_XXIII_No_4/pdfs/Hagens_Dec_09.pdf.

61 Ibid.

62 Sign-up to access the Forum is required. (Free access).

63 Pfeffer, J., Sutton, R.I. (2000). *The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action*. Harvard Business School Press, 2000.

64 More information on the Clinician Peer Support Network program is available at: infoway-inforoute.ca/lang-en/working-with-ehr/health-care-providers/clinician-peer-support-network.

65 The recent Clinicians in Training media release is available at: infoway-inforoute.ca/lang-en/about-infoway/news/news-releases/694-canadian-medical-schools-to-strengthen-training-on-effective-clinical-use-of-information-a-communications-technologies.

66 Sign-up to access the Forum is required. (Free access).

67 Landau, V. (2001). *Topic 10: Developing a project management plan*. Formative evaluation. Retrieved on October 12, 2010 from: roundworldmedia.com/cvc/module10/notes10.html.

68 More information on Canada Health Infoway's System and Use Survey can be obtained by contacting: clinicaladoption@infoway-inforoute.ca.

69 Bhola, H. S. (1990). *Evaluating "Literacy for development" projects, programs and campaigns: Evaluation planning, design and implementation, and utilization of evaluation results*. Hamburg, Germany: UNESCO Institute for Education; DSE [German Foundation for International Development]. xii, 306 pages.

70 Canada Health Infoway. (2005). *Benefits Evaluation Technical Report*. [Electronic document]. Retrieved 2.infoway-inforoute.ca/Documents/BE%20Techical%20Report%20(EN).pdf.

71 Canada Health Infoway. (n.d.). *Benefits Evaluation Online Forum* (sign-up required). Accessible at: forums.infoway-inforoute.ca/BE/.

72 Canada Health Infoway. (n.d.). *System & Use Survey Tool*. Accessible by contacting the Clinical Adoption team at: clinicaladoption@infoway-inforoute.ca.

73 Sign-up to access the Forum is required. (Free access).

74 Wade, T., Nori, A. (2006). General Practitioner (GP) Change Management Strategy: *Engagement with General Practice*. HealthConnect SA, October 2006. [Electronic document]. Retrieved from: publications.publications.health.sa.gov.au/cgi/viewcontent.cgi?article=1005&context=perfq&sei-redir=1#search="wade,+t,+nori+A,+General+practitioner+change+management+strategy".

75 Canadian Society of Telehealth. *Telehealth Change Management Repository – Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/change_management_library.htm ($).

76 Car, J., Black, A., Anandan, C. et al. (2008). *The Impact of eHealth on the Quality & Safety of Healthcare – a Systematic Overview & Synthesis of the Literature*. Report for the NHS Connecting for Health Evaluation Programme, March. 619p.

77 Morello, D. Olding, E. (2008). *Rethinking Change: Practical Realities of Successful Transformation*. Gartner Research, Publication Date: 6 February 2008.

78 JISC InfoNet. (2002). Change Management InfoKit. Retrieved Sept 19, 2010 from: jiscinfonet.ac.uk/infokits/change-management/transition-management/index_html.

79 JISC InfoNet. (2002). Change Management InfoKit. Retrieved Sept 19, 2010 from: jiscinfonet.ac.uk/infokits/change-management/roles/agent.

80 JISC InfoNet. (2002). Change Management InfoKit. Retrieved Sept 19, 2010 from: jiscinfonet.ac.uk/infokits/change-management/roles/champion.

81 Canadian Society of Telehealth. *Telehealth Change Management Repository – Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/change_management_library.htm ($).

82 Canada Health Infoway. (2011). *Pan-Canadian Change Management Network*. Change management working group – 2010/11 deliverables. Information available by contacting clinicaladoption@infoway-inforoute.ca.

83 Canadian Society of Telehealth. *Telehealth Change Management Repository – Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/ change_management_library.htm.

84 Fickenscher, K. (2010). *A New Model for Healthcare Transformation*. Dell Services. Accessed at: i.dell.com/sites/content/public/solutions/healthcare/en/ Documents/hc-transformation-kevin-fickenscher.pdf.

85 Canada Health Infoway. (2011). *Pan-Canadian Change Management Network*. Change management working group – 2010/11 deliverables. Information available by contacting clinicaladoption@infoway-inforoute.ca.

86 Canadian Society of Telehealth. *Telehealth Change Management Repository – Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/ change_management_library.htm.

87 JISC InfoNet. (2002). Change Management InfoKit. Retrieved Sept 19, 2010 from: jiscinfonet.ac.uk/ infokits/change-management/roles/sponsor.

88 Canadian Society of Telehealth. *Telehealth Change Management Repository - Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/ change_management_library.htm.

89 Fickenscher, K. (2010). *A New Model for Healthcare Transformation*. Dell Services. Accessed at:i.dell.com/sites/content/public/solutions/ healthcare/en/Documents/hc-transformation-kevin- fickenscher.pdf.

90 Institute for Healthcare Improvement (IHI). (2005). *Going Lean in Health Care*. IHI Innovation Series white paper. Cambridge, MA. Available on IHI.org.

91 JISC InfoNet. (2002). Change Management InfoKit. Retrieved Sept 19, 2010 from: jiscinfonet.ac.uk/ infokits/change-management/adoption/index_html.

92 Ibid.

93 Ramsden, V.R.,Vilis, E., White, H. (2006). *Facilitation as a Vehicle for Change* (p1) *in Guiding Facilitation in the Canadian Context: Enhancing Primary Health Care*. Department of Health and Community Services, Government of Newfoundland & Labrador with four other provincial Ministries of Health (Ontario, Manitoba, Saskatchewan, British Columbia).

94 Wade, T., Nori, A. (2006). General Practitioner (GP) Change Management Strategy: *Engagement with General Practice*. HealthConnect SA, October 2006. [Electronic document]. Retrieved from: publications. health.sa.gov.au/cgi/viewcontent.cgi?article=1005&co ntext=perfq&sei-redir=1#search="wade,+t,+nori+A,+G eneral+practitioner+change+management+strategy".

95 Canada Health Infoway. (2001). *White Paper on Information Governance of the Interoperable Electronic Health Record (EHR)*, March. Available from: infoway-inforoute.ca/privacy-mandate/white-paper- on-information-governance.

96 Beratarbide, E., Kelsey, T. (2009). Implementing eHealth governance: eHealth Governance – a key factor for better health care. [Electronic document]. Available at: circa.mcs.st-and.ac.uk/Preprints/ eHealthGovernance.pdf.

97 International Information Resource Centre. Information Development Study: Davies, J. (2006). *Information and Communication Technologies (ICT) in the Health Sector* – a literature review. Available from: asksource.info/pdf/lit_review.pdf.

98 Europe's Information Society. "What is eHealth?" ec.europa.eu/information_society/activities/health/ whatis_ehealth/index_en.htm.

99 JISC InfoNet. (2002). Management InfoKit. Retrieved Sept 19, 2010 from jiscinfonet.ac.uk/ infokits/change-management/adoption/ index_html.

100 Ibid.

101 Ibid.

102 Wade, T., Nori, A. (2006). General Practitioner (GP) Change Management Strategy: *Engagement with General Practice*. HealthConnect SA, October 2006. [Electronic document]. Retrieved from: publications.health.sa.gov.au/cgi/viewcontent.cgi?article=1005&context=perfq&sei-redir=1#search="wade,+t,+nori+A,+General+practitioner+change+management+strategy".

103 United States General Accounting Office. (2005). *Performance Measurement and Evaluation: Definitions and Relationships*. May, 2005. Retrieved from: gao.gov/new.items/d05739sp.pdf.

104 Canadian Society of Telehealth. *Telehealth Change Management Repository – Change Management Roles*. Retrieved from: secure.coachorg.com/CTF/resources/change_management_library.htm.

105 WestEd. (n.d.). *Evaluation toolkit for Magnet Schools Programs*. Glossary. United States Department of Education. Accessed at: evaluationtoolkit.org/glossary.

106 Trochim, W. (2006). Research Methods Knowledge Base. *Introduction to Evaluation*. Available from: socialresearchmethods.net/kb/intreval.htm.

107 Hiatt, J. (2006). *ADKAR: A Model for Change in Business, Government and Our Community, How to Implement Successful Change in Our Personal Lives and Professional Careers*. Prosci Research.

108 University of British Columbia. Business Terminologies. Organizational Development & Learning. Retrieved July 21, 2010 from: hr.ubc.ca/odl/resources/businessdefinitions.html#stakeholder.

109 National Health Service (NHS). (2007). *Practical Guide to Stakeholder Engagement*. [Power point presentation]. Available from: webarchive.nationalarchives.gov.uk/20100809114547/http://www.isip.nhs.uk/practical/PGstakeholder.ppt#295,7,Key.

110 AccountAbility. (2005). *Stakeholder engagement standard*. Exposure draft. London, United Kingdom. [Electronic document]. Retrieved from: accountability21.net/uploadedFiles/publications/SES%20Exposure%20Draft%20-%20FullPDF.pdf.

111 Canada Health Infoway. (2008). Change Management Forum. Case studies for effective change management: Projet Imagerie médicale dans le cadre du Dossier de santé du Québec. Plan de gestion de changement et de communication. P-02 RUIS Laval, ID2-2 RUIS Montréal McGill, P-03 RUIS Sherbrooke. (Change Management Plan as Part of a Telehealth Project. (Québec) Prepared by the Telehealth Team, Montreal RUIS, fall 2008. 11p). Available from: infoway-inforoute.ca/login-forums or by contacting clinicaladoption@infoway-inforoute.ca.

112 National Health Service (NHS). (2010). Institute for Innovation and Improvement. *Sustainability: Ensuring Continuity in Improvement*. Available from: institute.nhs.uk/sustainability_model/general/welcome_to_sustainability.html.

113 JISC InfoNet. (2002). Change Management InfoKit. Retrieved Sept 19, 2010 from: jiscinfonet.ac.uk/infokits/change-management/transition-management/index_html.

114 National Health Service (NHS). (2005). Institute for Innovation and Improvement. *Improvement leader's guide: Managing the human dimensions of change – Personal and organizational development*. 55p. [Electronic document]. Available at: clahrc-northwestlondon.nihr.ac.uk/inc/files/documents/improvement-methodology-resources-section/ilg_3.1_managing_the_human_dimensions_of_change.pdf.

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