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FNIHB Quality Improvement

USER GUIDE

QUALITY IS EVERYONE'S RESPONSIBILITY

Canada

Acknowledgements

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Accreditation Canada, *Stronger Together: Participatory Facilitation Tools For Accreditation Coordinators*
Saskatchewan Health Quality Council, *Quality Improvement 101*
Washinghton State Department of Health, *Quality Improvement Program*

Table of Content

About the Guide

The purpose of this guide is to provide Branch employees, at all levels, with the information, resources, and tools to understand FNIHB's vision for quality improvement and to embed quality improvement activities into their day to day work.

This document is aimed at both National and Regional employees within the organization. Each chapter of the Guide will provide just the right amount of information to help you through your Quality Improvement journey.

Chapter 1 – FNIHB's Quality Improvement Program

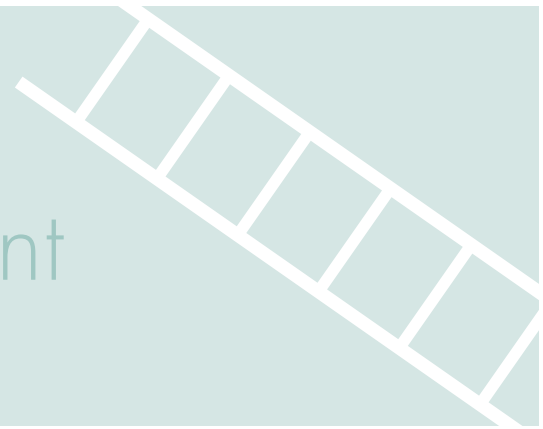
Chapter 2 – Quality Improvement 101

Chapter 3 – Quality Improvement Tools and Resources

Chapter 4 – Quality Improvement Plans

We hope that this Guide will answer some of your immediate questions about the Branch's approach to Quality Improvement and provide you with the information, tools and resources to get started today!

1 Quality Improvement Program at FNIHB



Overview

FNIHB leadership is committed to improving the quality and safety of health services and programs for First Nations and Inuit individuals, families and communities. In order to meet this commitment, the Branch has developed the Quality Improvement Policy Framework. The Framework provides the foundation for a structured approach to quality improvement. Furthermore, the framework better aligns QI activities and efforts across FNIHB; and outlines goals to achieve quality and value in FNIHB provided services and programs through coordinated, continuous quality improvement.

Quality is everyone's responsibility and applies to all areas within FNIHB. It is incorporated into key strategies, plans and projects for the branch[1], and has been identified as a key priority for the FNIHB Strategic Plan. QI encourages employees to focus on the whole organization, both large, multifaceted issues and small, pointed issues; plan for improvement guided by key strategic frameworks; and develop collaborative team-based improvement activities.

Once successfully embedded, FNIHB will have a new perspective on the way business is done by:

- ⇒ Developing a shared sense of the organization and client needs;
- ⇒ Encouraging collective, continuous learning;
- ⇒ Engaging multi-leveled leadership for quality improvement that is distributed across different parts of the organization;
- ⇒ Developing a heightened state of involvement and awareness throughout the organization;
- ⇒ Mobilizing resources, including funding, physical assets, commitment and talent to achieve common goals;
- ⇒ Continually making improvements over time; and
- ⇒ Implementing innovative ways to address the needs of clients, stakeholders and partners.

FNIHB's Quality Improvement and Accreditation team will support employees at all levels throughout the quality improvement journey. Their responsibilities include:

- ⇒ Creating a communication and learning strategy for the Quality Improvement Strategy;
- ⇒ Facilitating education about the Quality Improvement; and,
- ⇒ Supporting the development of Quality Improvement objectives and plans.

1- Quality Improvement has been embedded into the Branch Operational Plan, FNIHB Indicators Framework, Accountability Framework, and FNIHB Program and Service Delivery Standards Project.

FNIHB QUALITY IMPROVEMENT POLICY FRAMEWORK – SNAPSHOT

VISION

Healthy First Nations and Inuit individuals, families and communities

PURPOSE

To embed continuous quality improvement into all aspects of our work in support of healthy First Nations and Inuit individuals, families and communities

GUIDING PRINCIPLES

- ⇒ Shared Responsibility for Quality
- ⇒ Continuous Learning & Improvement
- ⇒ Current evidence, on-going measurement & evaluation
- ⇒ Collaboration & Partnerships
- ⇒ Responsiveness & Flexibility

2 FNIHB Quality Improvement 101

ABOUT QUALITY IMPROVEMENT

Definition of Quality

FNIHB defines quality improvement in reference to six quality dimensions:

- ⇒ **Accessible:** Providing equitable, timely and appropriate health services
- ⇒ **Client Centered:** Actively involving and respecting the needs and preferences of individuals, families and communities
- ⇒ **Culturally Competent:** Integrating knowledge about First Nations & Inuit individuals, families and communities into specific health program and services standards, policies, practices and attitudes
- ⇒ **Effective:** Achieving the best possible health outcomes, supported by current evidence
- ⇒ **Efficient:** Making the best use of resources to optimize benefits and results
- ⇒ **Safe:** Minimizing risk and avoiding harm

Definition of Quality Improvement

Quality Improvement is commonly viewed as a business strategy that looks at organization as a system, plans for improvement within integrated business planning, and manages team-based improvement activities within a coordinated, integrated information system. More specific to health care, QI is defined as the combined and unceasing efforts of everyone (providers, clients and families, managers, planners, policymakers, and researchers) to make the changes that will lead to better health outcomes, better system performance and better professional development.

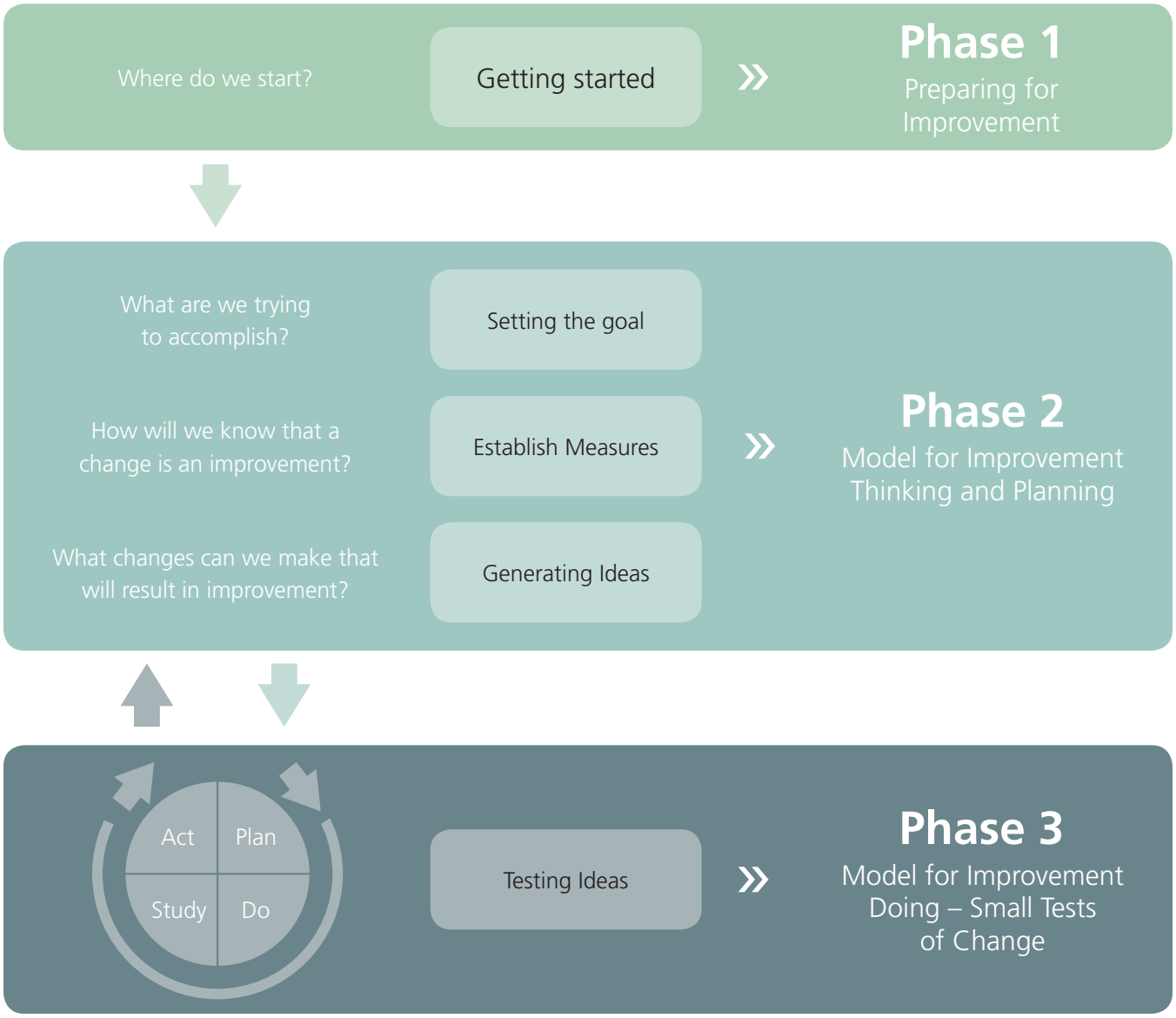
Benefit of a Quality Improvement approach for the organization

A coordinated, continuous quality improvement approach allows us to look at how we perform work. When all the key players are involved in quality improvement, they can collectively focus on achieving quality and value in FNIHB-provided services and programs. The ideal outcome is improved health outcomes for First Nations and Inuit individuals, families, and communities.

A teamwork approach is intrinsic to quality improvement. Using collective knowledge, experiences, and efforts from the "right people" is a powerful approach to improving process, programs and services.

FNIHB'S APPROACH TO QUALITY IMPROVEMENT

FNIHB's approach to quality improvement is a three phase approach which incorporates the "Model for Improvement"[2]



2- The "Model for Improvement", developed by Associates in Process Improvement, is a simple yet powerful tool that has proven success in hundreds of health care organizations worldwide (www.IHI.org).

PHASE 1 – PREPARING FOR IMPROVEMENT

Implementing the tools provided in Chapter 3 of this guide, the team will complete the "Preparing for Quality Improvement" phase in order to answer the questions below:

- ⇒ Where do we start?
- ⇒ What project should we select for improvement?
- ⇒ Who are the right people to improve the selected process?
- ⇒ What is happening today?
- ⇒ Why is it happening?
- ⇒ What should we do first?

Once the team has determined where to focus their QI efforts, they are ready to move into Model for Improvement.

PHASE 2 – MODEL FOR IMPROVEMENT: "THINKING AND PLANNING "

Key Questions:

- ⇒ What are we trying to accomplish? (Setting Goals)
- ⇒ How will we know that a change is an improvement? (Establishing Measures)
- ⇒ What changes can we make that will result in an improvement? (Selecting Changes)

1. What are we trying to accomplish? (Setting Goals)

A good goal statement address an issue that is important to those involved and should be SMART.

S	**Specific**	A goal statement needs to be clear and focused. It should explain "who, what, when"
M	**Measurable**	The goal statement should have a specific measurable target and a clear time-frame for completion.
A	**Aspirational & Attainable**	The goal statement should be challenging enough to enable a meaningful change but at the same time attainable.
R	**Realistic**	Set the bar high enough for a satisfying achievement but not so high you set yourself up for failure.
T	**Time-specified**	Set a timeframe with a clear target date to work toward.

Examples of effective goal statements:

- ⇒ Increase the percentage of FN and I in post-secondary education for health related disciplines by 10 % by September 30, 2013
- ⇒ Increase to 95% the percentage of 3 year olds fully immunized in 9 months.
- ⇒ Reduce staff overtime by 5% by June 30, 2013

2. How will we know that change is an improvement? (Establishing Measures)

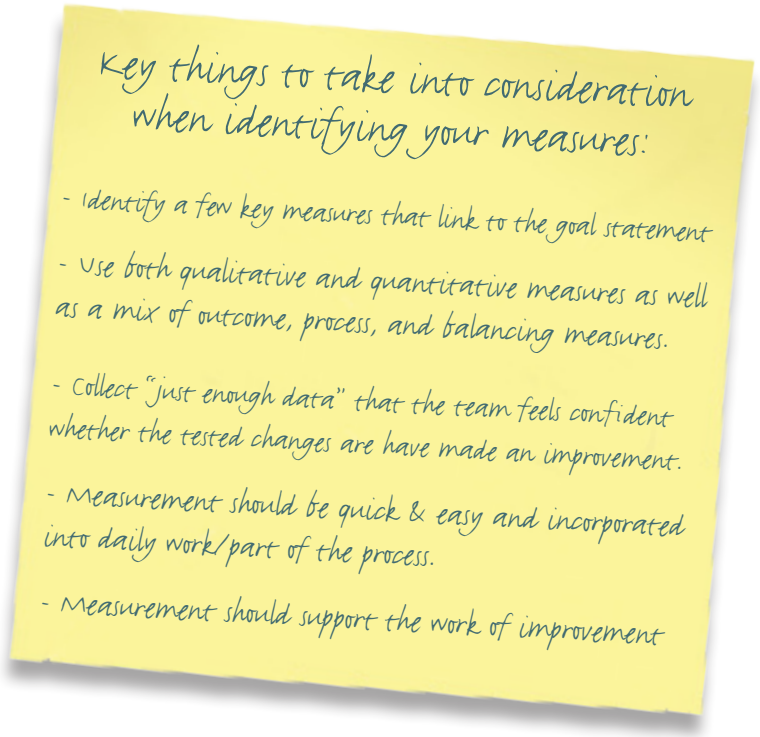
Measurement has two purposes: Measurement that occurs at the beginning helps to establish a baseline; and measurement that occurs through the change process provides feedback needed to know if changes are having the desired impact. Unlike measurement for research purposes, QI measurement focuses on receiving immediate feedback on change processes and does not require large quantities of data.

There are three types of measures that can be applied when answering the question "How will we know that change is an improvement?"

Outcome: The "voice of the end user". Outcome measures reflect the effect of quality improvement efforts on the health of the end user - often health outcomes. What is ultimately better because of our efforts?

Process: The "voice of the system". Process measures are used to determine whether or not some process or activity which has been shown to have a positive impact on outcomes is actually being done. These measures answer the question "What are we doing that is leading to better outcomes?"

Balancing: Balancing outcomes determine whether a change in one part of the system causes problems in other parts of the system. What might be an unintended consequence to consider? monitor?



Outcome and process measures are both used to track progress toward your GOAL Statement. A way to keep the difference between process and outcome clear is to think of process measures as measures of tangible activities. In contrast, outcome measures are things that are outside of your full control; they have many components and take time to see a change.

Balancing measures monitor unintended consequences that may results from improvement efforts. These measures can be either process or outcome measures, but the main difference is that they are not measuring the elements of your improvement projects, but about other programs, services and client groups that might be negatively or positively affected by your change efforts.

3. Selecting Changes: What changes can we make that will result in an improvement?

> *"All changes do not lead to improvement, but all improvement requires change"*
> (Langley, G. et al, 2009)

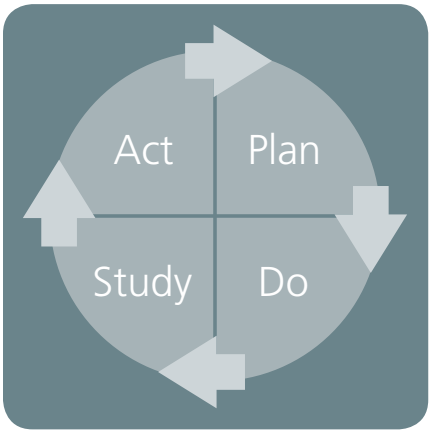
The ability to develop, test, and implement changes is essential for any individual, group, or organization that wants to continuously improve.

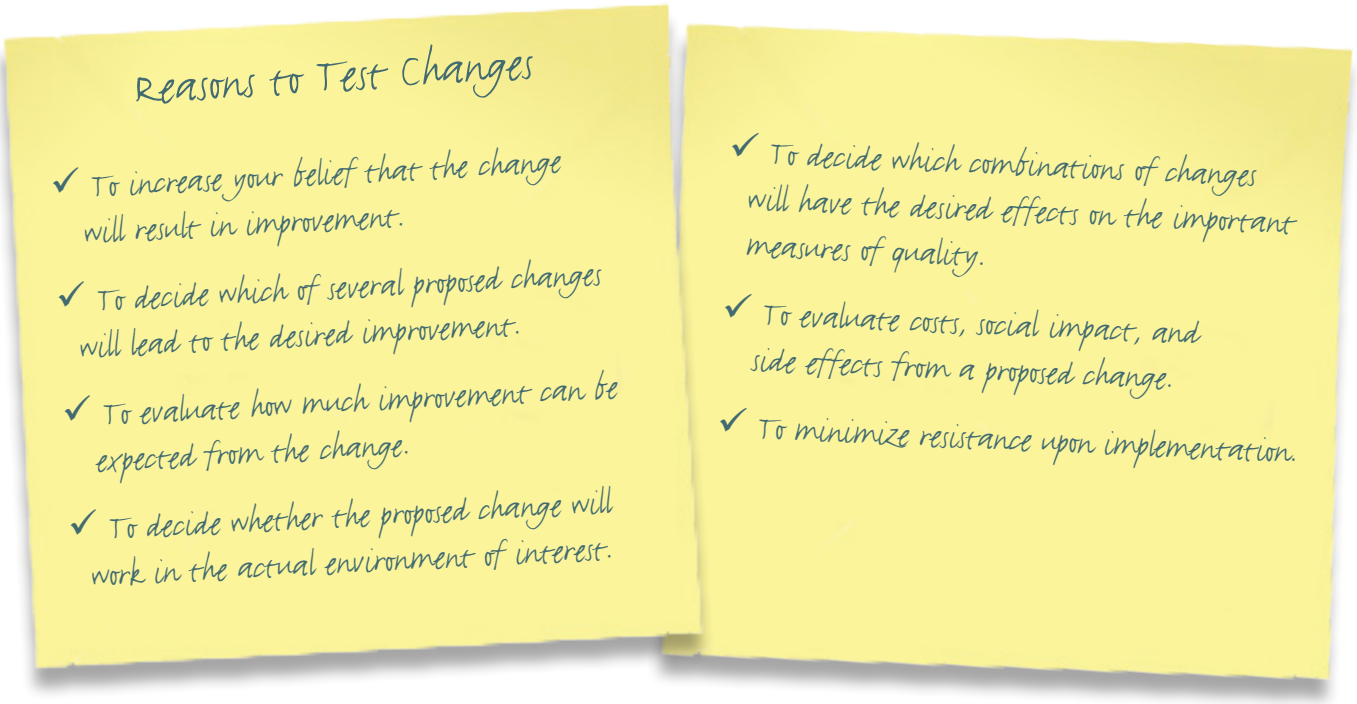
It is important to remember that not all change results in improvement, and not all ideas for other regions, programs, or teams can be adapted to your work environment. It is important to first understand the root causes of quality problems in your own setting, and then tailor strategies to address those root causes. This will help your individual team to prioritize and identify the types of activities/ changes most likely to result in significant changes.

PHASE 3 – MODEL FOR IMPROVEMENT: "DOING" - SMALL TESTS OF CHANGE

Once a team has set a goal statement, developed measures to determine whether a change leads to an improvement, and generated change ideas the next step is to test a change in the real work setting.

The Plan-Do-Study-Act (PDSA) cycle is a simple problem-solving approach for testing a change — by planning it, trying it, observing the results, and acting on what is learned.





Plan: Decide on what QI Priorities to address and plan the test or observation, including a plan for collecting data.

- ⇒ Assemble the team
- ⇒ State the objective of the test.
- ⇒ Make predictions about what will happen and why.
- ⇒ Develop a plan to test the change. (Who? What? When? Where? What data need to be collected?)

Do: Test the changes on a smaller scale to see if they work;

- ⇒ Carry out the test.
- ⇒ Collect data, document problems, surprises, and observations.
- ⇒ Begin analysis of the data.

Study: Set aside time to analyze the data to see if the change improved quality.

- ⇒ Complete the analysis of the data.
- ⇒ Compare the data to predictions.
- ⇒ Summarize what was learned.

Act: Implement the change on a larger scale and monitor the results.

- ⇒ Adopt, adapt or abandon change based on learning
- ⇒ Build knowledge into next PDSA cycle

The PDSA gives us a way to quickly test change instead of spending weeks or months planning a comprehensive change process only to find out that it is fundamentally flawed, it enables rapid testing and learning.

3 Quality Improvement Tools and Resources

Phase 1
Preparing for Quality Improvement

Where to Start?	»	Project Selection Criteria
What is happening?	»	Process Mapping Affinity Diagrams
Why is this happening?	»	Cause and effect diagram 5 "Why" Technique
What to do first?	»	Interrelationship Diagram Nominal Voting Technique

Phase 2
Model for Improvement Thinking and Planning

What are we trying to accomplish?		
How will we know that a change is an improvement?	»	Model for Improvement worksheet
What changes can we make that will lead to an improvement?		

Phase 3
Model for Improvement Doing – Small Tests of Change

Testing Ideas »

TOOLS TO ANSWER THE QUESTION: WHERE TO START?

Selection Criteria for QI Projects (10 min)

What is it?

This tool can be used to prioritize QI projects.

CRITERIA / PROJECTS	PROJECT1	PROJECT2	PROJECT 3
1. Is it aligned with the FNIHB Strategic Plan?			
2. It is a high priority for management?			
3. Getting data is easy?			
4. Does the problem happen often? (not rarely)			
5. Do we know what an error looks like?			
6. Does it have a clear objective with a specific target?			
7. Does the problem lie within our control?			
8. Does the solution lie within our control?			
9. Is there a clear time frame for completion?			
10. Will resources be committed to fixing this?			
11. We will be the only ones studying this?			
	Total:	Total:	Total:

Project with the most "yesses" is the first project to work through the Quality Improvement Pathway!

Example: CRITERIA / PROJECTS	Identify gap between FNIHB Standards and Accreditation Process	Increase efficiencies between Community Health Plan / Accreditation / Evaluation Process	Improve the monitoring and evaluation process within the Accreditation program
1. Is it aligned with the FNIHB Strategic Plan?	yes	yes	yes
2. It is a high priority for management?	yes	yes	yes
3. Getting data is easy?	yes	yes	no
4. Does the problem happen often? (not rarely)	yes	yes	no
5. Do we know what an error looks like?	yes	yes	yes
6. Does it have a clear objective with a specific target?	yes	no	no
7. Does the problem lie within our control?	no	no	yes
8. Does the solution lie within our control?	yes	no	yes
9. Is there a clear time frame for completion?	yes	no	no
10. Will resources be committed to fixing this?	yes	no	no
11. We will be the only ones studying this?	yes	no	yes
	Total: 10	Total: 5	Total: 6

TOOLS TO ANSWER THE QUESTION: WHAT IS HAPPENING?

Process Mapping (60-90 min)

What is it?

A process map is essentially a road map which allows you to visualize the steps required to develop a product or produce an outcome within a particular unit, program, organization, or health system.

The process map will show exactly where the issues/problems exist in the process.

Real life example included following the description!

What can it be used for?

- ⇒ To create a visual overview of the complete process
- ⇒ To understand the current processes from the perspective of those who do the work
- ⇒ To bring a team to agreement on the steps of the process and to examine which activities may impact the process performance
- ⇒ To determine a starting point for any improvement project, large or small.
- ⇒ To uncover issues/problems, redundancies and hidden inefficiencies

What you will need?

- Roll of paper/Chart paper
- Multicolor post-it notes
- Markers
- Space

How to conduct a process-flow mapping activity?

1. Assemble a team
2. Choose a process to map out (15 minutes)
   a. Name it
   b. Define its scope (start and end, includes and excludes)
   c. Decide who will describe how the current process (not the ideal process) unfolds (Storyteller)
   d. Choose a scribe, symbologist, an issue/problem spotter, graph creator, and a verifier.
3. While the story teller describes the process step by step, the scribe writes each step in the process on individual post-it notes (i.e. step # – description – symbol – issue/problem disease?) and places each note on the chart paper, with the help of the rest of the team.

   For a decision that is required in the process insert a **Diamond** with a closed question, yes or no?

   For an action, insert **Box** with an action verb and object

   Red = Disconnect

   Yellow = Delay

   Green = Duplication

   Blue = Don't know/Fog

   Black=Dumps/wasted non-value added activity

For more information regarding process-flow mapping check online!

4. When all steps, issues/problems are recorded the graph creator attempts the first draft of the process map by transferring all the info into a graph format; the verifier keeps an eye on the logical flow. The first draft of the process map is posted for all to see with colour codes for issues/problems.

Keep in mind

The team should include those involved in delivering the process (i.e. regional and national partners, individual team members, working groups, etc.).

Example: Health Canada's PDP Process

AFFINITY DIAGRAM – GATHERING AND GROUPING OF IDEAS (60-90MIN)

What is it?

An Affinity Diagram is a tool that gathers large amounts of ideas, opinions, and issues then organizes them into groupings based on their natural relationships.

Real life example included following the description!

Why use it?

To gain clarity when confronted with:

- ⇒ Issues which seem too large and complex to grasp;
- ⇒ Situations that are unknown or unexplored by a team;
- ⇒ Circumstances that seem confusing or disorganized (i.e. when people with diverse experiences form a new team, or when team members have incomplete knowledge in area of analysis);
- ⇒ Too many facts or ideas with no order; and
- ⇒ When a group consensus is needed.

Creating an Affinity Diagram

1. Formulate Question
2. Brainstorm ideas / responses
3. Display ideas
4. Sort ideas into groups
5. Create header cards
6. Draw finished diagram

What does it do?

- ⇒ Encourages creativity by everyone on the team at all phases of the process;
- ⇒ Breaks down long-standing communication barriers
- ⇒ Encourages nontraditional connections amongideas/issues
- ⇒ Allows breakthroughs to emerge naturally, even on long-standing issues
- ⇒ Encourages "ownership" of results that emerge because the team creates both the detailed input and general results
- ⇒ Overcomes "team paralysis" which is brought on by an overwhelming array of options and lack of consensus

How to do it?

1. **Formulate Question:**

   Formulate the question you are looking to answer / discuss in a full sentence.
   Example: **What are the issues involved in implementing QI?**

2. **Without talking, brainstorm ideas / responses to question**

   Record each idea on a post it note in bold, large print to make it visible 4-6 feet away. Avoid using single words – four to eight words work best.

For more information regarding process-flow mapping check online!

3. **Without talking, display ideas.**

⇒ Post the ideas on a wall or a table in a random manner.

4. **Without talking, sort ideas simultaneously into 5-10 related groupings (6 is ideal).**

⇒ Start by looking for two ideas that seem related in some way. Place them together in a column off to one side.

⇒ Look for ideas that are related to those you've already set aside and add them to that group,

⇒ Look for other ideas that are related to each other and establish new groups.

Sorting will slow down or stop when each group feels comfortable with the groups.

Note: Ideally, all ideas can be sorted into related groups. If there are some "loners" that don't fit any of the groups, don't force them into groupings where they don't really belong. Let them stand alone under their own headers.

Handle disagreements simply: If a team member doesn't like where an idea is grouped, he or she moves it. This creates an environment in which it is okay to disagree with people have a difference viewpoint. If consensus cannon be reached (i.e. the same card gets moved back and forth multiple times), make a duplicate of the idea and place one copy in each group.

5. **Create summary / header cards for each grouping**

⇒ Gain a quick team consensus on a word or phrase that captures the central idea/theme of each grouping: record it on a sticky note, and place it at the top of each grouping – draft header.

⇒ For each grouping, agree on a concise sentence that combines the grouping's central idea and what all of the specific sticky notes add to that idea; record it, and replace the draft version – final header.

6. **Draw finished diagram**

⇒ Write a problem statement at the top of the diagram.

⇒ Place the header cards about the groups of ideas.

⇒ Review and clarify ideas and groupings.

finished diagram »

Rules of Engagement

1. **Silent Process –** the most effective way to work is to have everyone move through the first half of the exercise is in silence…
2. **Follow your "Gut" reactions –** speed rather than deliberation is the order of the day, keep the process moving!
3. **Handle disagreements simply:** the process provides a simple way to handle disagreement over the placement of ideas: If a team member doesn't like where an idea is grouped, he or she moves it. This creates an environment in which it is okay to disagree with people have a difference viewpoint. If consensus cannot be reached (i.e. the same card gets moved back and forth multiple times), make a duplicate of the idea and place one copy in each group.

Next Step

Interrelations Diagram – skip to step 3; or Nominal Voting Technique


Culture Change
Improved Quality Improvement Planning
Organizational issues
Competing management styles
Enhance quality improvement knowledge
Some people will never change
Focused on outcome not process
Lack of follow-up
Competition versus cooperation
Data collection process needs
Need to be creative
Which comes first, composing the team or stating the problem?
Lack of training at all levels
Pressure for success
Need new data collection system
Everybody needs to change but me
Don't know what client wants
Too busy to learn
What are the rewards for using tools
Unrealistic allotment of time
Behavior modifications may take longer than time available
Want to solve problem before clearly defined
Short-term planning mentality
Not using collected data
Lack of trust in the process
Lack of management understanding of need for it
Too many projects at once

TOOLS TO ANSWER THE QUESTION: WHY IS THIS HAPPENING?

The Five Why's – Root Cause Analysis (10 min)

What is it?

The 5 Why's is one of the simplest tools to complete. It involves looking at any problem and asking: "Why?" and "What caused this problem?" It is a method of diagramming the continual search for cause by asking "why" and descending into a root or actionable cause.

Although this technique is called "5 Why's," the FNIHB team may need to ask the question fewer or more times than five before it finds the issue related to a problem.

What it can be used for?

- ⇒ Separate symptoms for cause and effect
- ⇒ Reduce the level of action against problems to increase effectiveness.
- ⇒ Prevent premature action which will not solve problem
- ⇒ Using the experience of others in problem solving.
- ⇒ Determine the relationship between different root causes of a problem.

Real life example included following the description!

How to do it?

1. The team leader, or team member who first identified the problem, describes the problem to the rest of the team.
2. The team asks "Why" and each answer to the "Why" question is followed by another "Why". Each answer is used to further refine the next questions by asking "Why?" after each answer.

Keep in Mind

- ⇒ It usually takes "5Why's" to get to the clearly defined problem and/or issue.
- ⇒ There are frequently different paths for causes.
- ⇒ Each problem may break into multiple why/why paths.
- ⇒ Know when to stop!
- ⇒ Always determine that the next level is necessary to correct the problem.
- ⇒ The causes are usually experiential.

For more information regarding 5 Why's check online!

Use of 5 Why's at FNIHB

FNIHB should look at problems at all levels. Employing the "5 Why" process will help push past solution jumping and will require the organization to examine assumptions about why the problem continues.

Next Step

Interrelations Diagram – skip to step 3; or Nominal Voting Technique

Example 1:

- ⇒ X Region did not meet program uptake targets for the 2010/11 fiscal year. **Why?**
- ⇒ No new communities registered in the last 2 quarters. **Why?**
- ⇒ The communities that expressed interest did not follow through with the enrollment process. **Why?**
- ⇒ Community leaders did not see the value of adding of this program. **Why?**
- ⇒ Community leaders did not fully understand the program and its benefits to their community. **Why?**

Of the five why questions, the primary root cause is the community leaders not fully understanding the program. We need to develop resources and tools to better explain the program to community leaders.

Example 2:

- ⇒ Our partner is unhappy. **Why?**
- ⇒ We were we unable to meet the agreed-upon timeline or schedule. **Why?**
- ⇒ Our portion of the project took much longer than we thought it would. **Why?**
- ⇒ We underestimated the complexity of the project. **Why?**
- ⇒ We made a quick estimate of the time needed to complete it, and didn't include all the individual steps needed to complete the project. **Why?**

We were running behind on other projects. We clearly need to review our time estimations.

Of the five questions, the primary root cause is identified as running behind on other projects.

CAUSE AND EFFECT DIAGRAM (ISHIKAWA OR FISHBONE DIAGRAMS) (60-90 MIN)

What is it?

A diagram used to visually display the possible causes for a problem. The tool helps identify major causes and indicate areas for further investigation. It will help you understand the problem more clearly. By going through the process of building the diagram with colleagues, everyone involved gains insights into the problem and potential solutions. The people involved benefit from shared contributions, leading to a common understanding of the problem.

What it can be used for?

- ⇒ To get big picture
- ⇒ To enable a team to apply their personal knowledge and experiences to the problem
- ⇒ To force a wider range of causes than the obvious few
- ⇒ To graphically display the relationship of the causes to the effect in an easy to read format
- ⇒ To provide structure to a team discussion about a problem
- ⇒ To identify areas for improvement.

Real life example included following the description!

How to do it?

1. Assemble team to work on QI issues.
2. Draw the basic structure
3. Discuss / agree on the problem statement ending with the words: "why is this?". Place the statement at the head of the fish.
4. Go around the table and systematically collect each person's reason as to "why this is happening?" (NO DISCUSSION ALLOWED). The person who proposes a cause decides where to write it, and physically writes it, not the other team members. If the person does not know where to write his/her cause, other team members may as again: "why does this happen?" to help that person focus their decision. The same cause can be written on different bones. Duplication may indicate critical cause.
5. Count the causes on each bone. What component of the system contributes most to the problem?
6. Decide for each cause, do I have….
   - ⇒ Control ✓
   - ⇒ No control ×
   - ⇒ Some Influence ?

For more information regarding Fishbone or Ishikawa check online!

Keep in mind

- ⇒ The Fishbone diagram shows only theoretically possible causes. If in doubt, verify your ideas with data
- ⇒ It is not of great importance where on the diagram you put a particular cause
- ⇒ Fishbone diagrams are very useful when displayed publicly. You can invite people to add causes and you can show what progress is being made by eliminating causes.
- ⇒ You may want to make a second or third Fishbone based on the first fishbone
- ⇒ Try to write complete statements of causes, not just a single word.

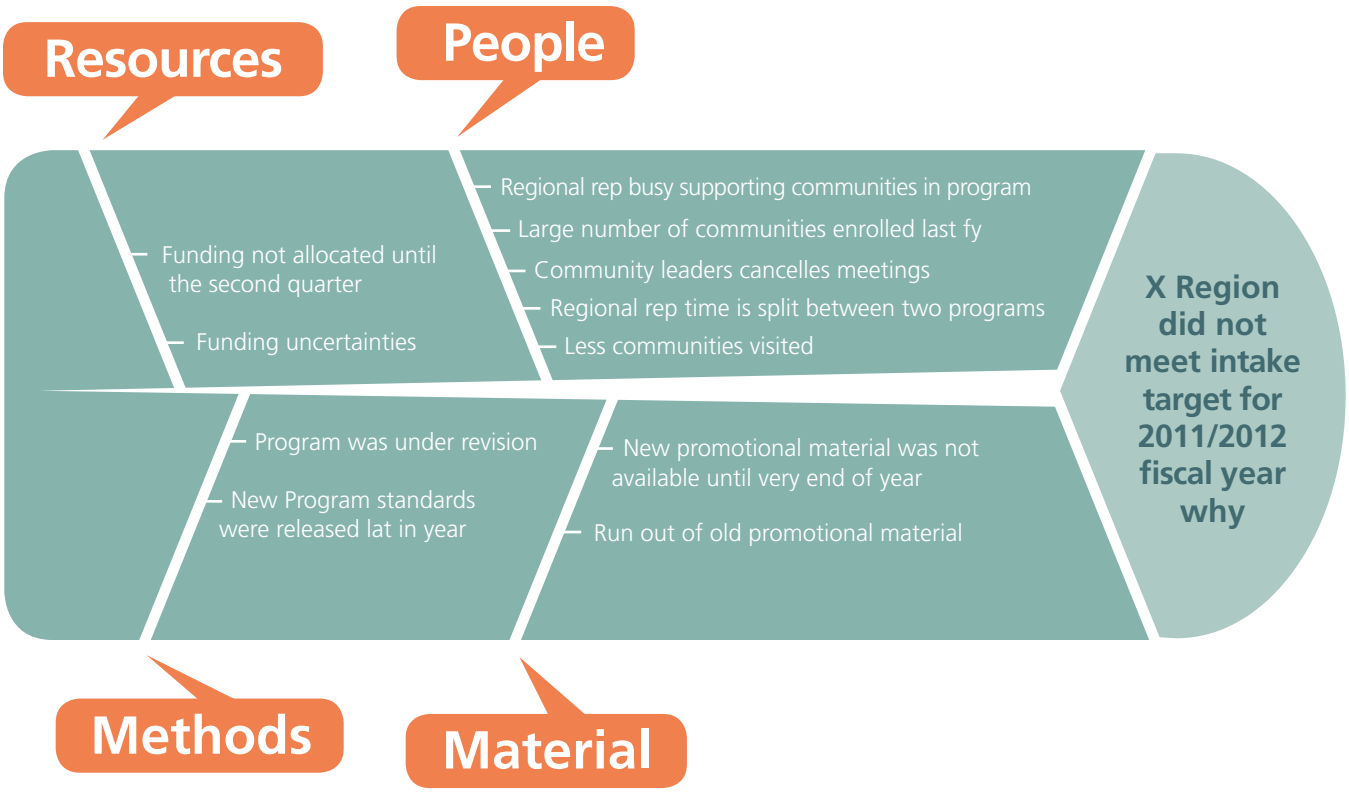
Using both tools

The 5 Why's can be used as part of a fishbone diagram. The Fishbone helps uncover all the potential causes of a problem and 5 Why's can be applied to determine the root causes.

Next Step

Interrelations Diagram – skip to step 3; or Nominal Voting Technique

Example:



TOOLS TO ANSWER: WHAT TO DO FIRST?

Nominal Group Technique (15 – 45 min)

What is it?

A weighted ranking method that allows a team to prioritize a large number of issues within a structure that gives everyone an equal voice.

When to use it?

- ⇒ To reduce the number of issues for easier handling
- ⇒ To solicit input from all team members.
- ⇒ To rank items in priority order.
- ⇒ To achieve consensus about the relative importance of issues.
- ⇒ To address controversial or emotional issueWhen a group is stuck
- ⇒ Following the fishbone or affinity diagram process

How to do it?

1. **Develop Problem Statement** (may be the same as your Affinity Diagram or Ishikawa Diagram). Write on card or sticky note and place at top of work surface
2. **Brainstorm** Record each idea on a post it note in bold, large print to make it visible 4-6 feet away. Avoid using single words – four to eight words work best

   If the **Affinity diagram or **fishbone** preceded this tool, take the header cards from the affinity diagram or the final branches on the fishbone diagram.

Real life example included following the description!

Steps to Nominal Group Technique

1. Develop Problem Statement
2. Brainstorm
3. Assign letters to ideas
4. Rank ideas independently
5. Collate the rankings
6. Add the rankings
7. Rewrite the list in priority order
8. Perform a sanity check

3. **Assign letters to ideas:** Assign a letter designation to each separate idea. The team leader assigns a letter to avoid confusion with the vote tally.
4. **Rank ideas independently:** Each team member writes down the items by their letter designations and assigns them a numeric value based on his or her judgment of what is most important and what is least important. The highest number is assigned to the most important idea and the lowest to the least important idea
5. **Collate the rankings:** The team leader transcribes the team members' rankings on chart paper, writing each number next to the corresponding idea.
6. **Add the rankings:** The team leader adds the numbers across. The idea with the highest point total is the one of most importance to the whole team. It is the highest priority item.
7. **Rewrite the list in priority order:** The team leader rewrites the list of ideas in the order of their importance to the team.
8. **Perform a sanity check:** Does the prioritization make sense?

For more information regarding process-flow mapping check online!

Example:

What are the issues involved in implementing QI?

Previous tools identified the following issues:

A. Culture Change
B. Improved Quality Improvement Planning
C. Organizational issues
D. Conflicting management styles
E. Enhance quality improvement knowledge

Each team member writes the letters A through E on a piece of paper. Then, each member ranks each issue from 1 to 5 (with the most important receiving 5 and the least important receiving 1), using each number only once.

The results can be summarized as shown:

ISSUE	JON	PAUL	SUE	LINDA	JOHN	TOTAL	PRIORITY
A	2	1	5	4	3	15	3
B	4	4	2	1	5	16	2
C	1	2	1	3	1	8	5
D	3	3	3	2	2	13	4
E	5	5	4	5	4	23	1

The issues were prioritized as:

E. Enhance quality improvement knowledge
B. Improved Quality Improvement Planning
A. Culture Change
D. Conflicting management styles
C. Organizational issues

The issue the team will tackle first is item E "Enhance quality improvement knowledge."

INTERRELATIONSHIP DIAGRAM (30-60MIN)

What is it?

The relations diagram is an analysis tool that allows a team to identify the cause and effect relationships between critical issues. It can also identify natural links between difference aspects of a complex situation / critical issue. It helps a team distinguish between issues that serve as drivers and those that are outcomes.

This tool can also be used to determine where to start?

Real life example included following the description!

When to use it?

- ⇒ When trying to understand links between ideas or cause–and–effect relationships, such as when trying to identify an area of greatest impact for improvement.
- ⇒ When a complex issue is being analyzed for causes.
- ⇒ When a complex solution is being implemented.
- ⇒ After generating an affinity diagram or the Ishikawa /Fishbone diagram, to more completely explore the relations of ideas.

Steps to create an Interrelations Diagram

1. Develop problem statement
2. Brainstorm ideas / responses
3. Arrange issues in circle
4. Identify relationship
5. Analyze Diagram

What you need

- ⇒ Sticky notes or cards
- ⇒ Large paper surface (newsprint or two flipchart pages taped together)
- ⇒ Marking pens
- ⇒ Tape

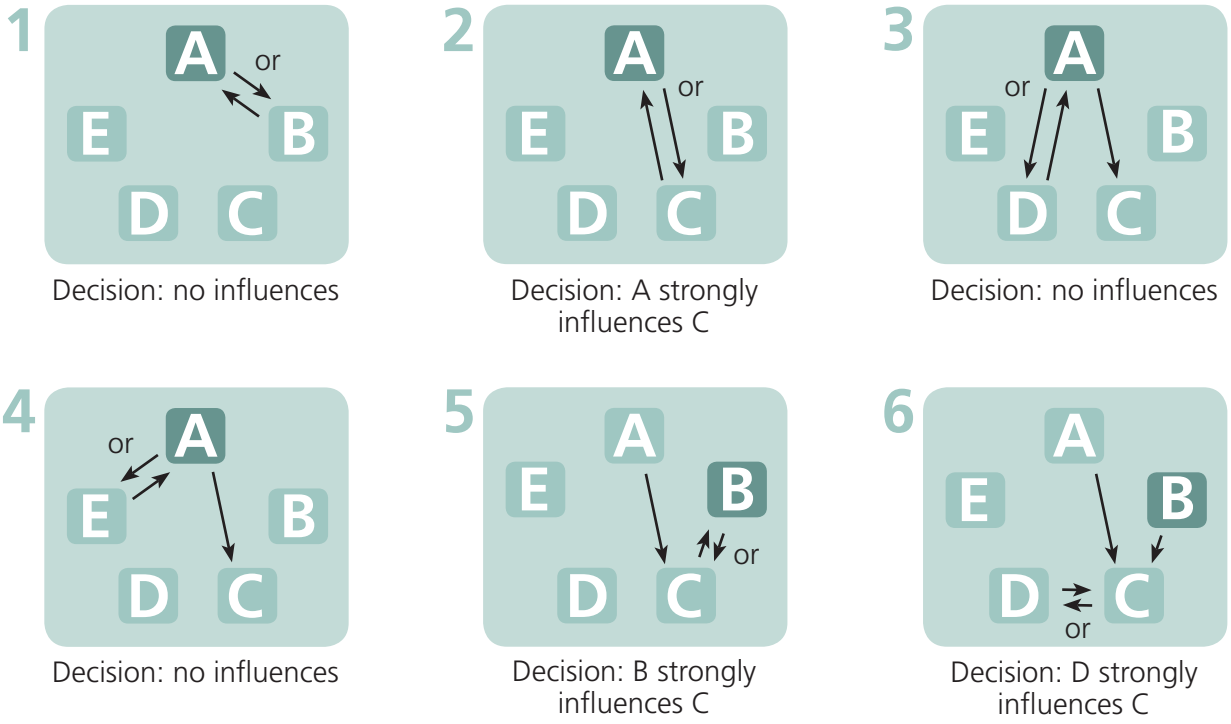
How?

1. **Develop Problem Statement** (may be the same as your Affinity Diagram or Ishikawa Diagram). Write on card or sticky note and place at top of work surface
2. **Brainstorm**
   Record each idea on a post it note in bold, large print to make it visible 4-6 feet away. Avoid using single words – four to eight words work best

   If the **Affinity diagram or **fishbone** preceded this tool, take the header cards from the affinity diagram or the final branches on the fishbone diagram.
3. **Arrange ideas/issues in circle**
   Arrange cards in a large circular pattern. Use large, bold printing, including a large letter on each idea for a quick reference. Leave space between cards to allow for drawing arrows later.

For more information regarding Interrelationship Diagram check online!

4. **Identify relationship**
   Choose the idea labeled A as a starting point. For each idea, ask, "Does this idea cause or influence another idea?" For each relationship, draw arrows from the idea that is the cause to the idea that is influenced. Repeat the question for every idea. See below for an example of the process:



Source: web2.concordia.ca/Quality/tools/17interdiagram.pdf

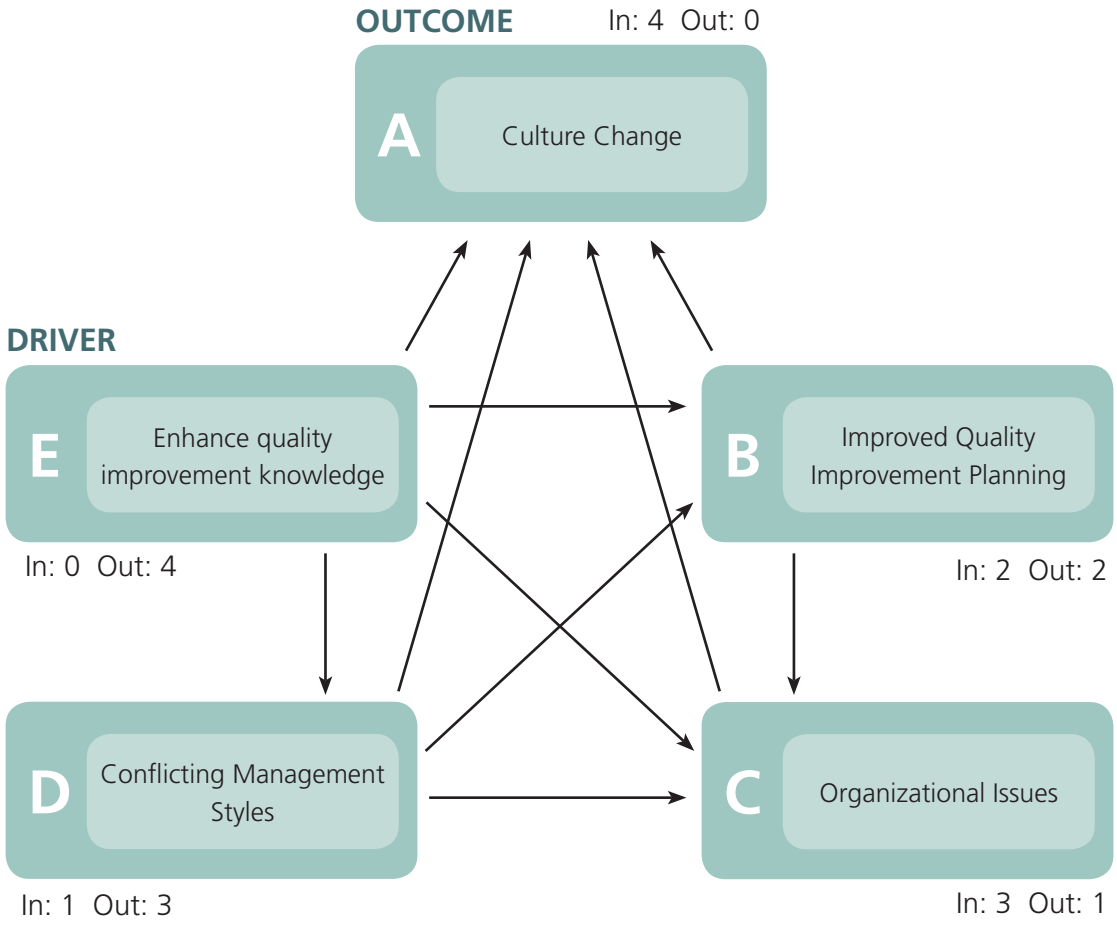
5. **Analyze the diagram:**
   - ⇒ Count the arrows in and out for each idea. Write the counts at the bottom of each box. The ones with the most arrows are the key ideas.
   - ⇒ A high number of outgoing arrows indicates that an issue is a possible driver or root cause.
   - ⇒ A high number of incoming arrows indicates that an issue is an outcome. These uses may serve as measures of success.

Keep in Mind

Be sure to check whether ideas with fewer arrows also are key ideas. The number of arrows is only an indicator, not an absolute rule. Draw bold lines around the key ideas.

Example:

What are the issues involved in implementing QI?



Analysis:

A high number of outgoing arrows indicates that an issue is a possible driver or root cause.

⇒ Enhance Quality Improvement: 4 outgoing arrows / 0 incoming arrows

A high number of incoming arrows indicates that an issue is an outcome.

⇒ Culture Change: 0 outgoing arrows / 4 incoming arrows

Therefore, we would focus our QI efforts in the following order:

⇒ Enhance Quality Improvement
⇒ Conflicting Management Styles
⇒ Organizational Issues
⇒ Culture Change

TOOLS TO WORK THROUGH THE MODEL FOR IMPROVEMENT CYCLE:

MODEL FOR IMPROVEMENT WORK SHEET	
QI Lead	
QI Team Members	
Quality Improvement Issue	
Quality Dimension(s)	
Objective (GOAL) – What are we trying to accomplish, by how much, and by when?	
Measures – How will we know that a change is an improvement?	
Change Plan – What changes can we make that will result in an improvement?	
Who (Target population)	
What (change/test)	
Where (location)	
How (Description)	
Data Collection Plan	
Who (will collect)	
What (measures)	
When (time period)	
Where (location)	
How (method)	

DO – Carry out change / test

Describe what actually happened when you ran the test. Note when completed, observations, problems encountered, and special circumstances. Include names and details.

STUDY – Summarize and analyze data (quantitative and qualitative)

Describe the measured results and how they compared to the predications.

ACT – Document / summarise that was learned

Did you meet your goals? Did you answer the questions you wanted to address? What major conclusions did you draw from this cycle?

Define Next Steps

Are you confident that you should expand size / scope of the test or implement? What changes are needed for the next cycle?

4 Quality Improvement in Action

FNIHB Quality Improvement plans (QIP) promote individual groups (i.e. teams, working groups, program areas, etc) to think strategically about quality improvement and commit to formal action. The QIPs provide an opportunity for groups to focus on how and what to improve. The QIP's are individual plans designed to address the specific quality improvement needs of the program, team, or organization at large.

Departmental Alignment could include activities to implement FNIHB Strategic Plan and Accountability Framework, respond to audit and evaluations recommendations, implement and attain FNIHB core generic and program specific standards

* Refer to the QI User Guide – Criteria for Selecting a QI Project.

Program / Region	Quality Dimension(s)	Departmental Alignment *	Priority project **	PLAN		DO		STUDY	ACT	DATE STUDY STARTED	DATE STUDY COMPLETED	DATE(S) FOR FOLLOW-UP ACTION
				QI IMPROVEMENT GOAL (What will be accomplished and by when)	QI Team Lead Human Resources Involved Financial Resources Involved	**KEY OBJECTIVES/ ACTIVITIES** that will contribute to achieving the improvement goal	**QUALITY IMPROVEMENT INDICATOR(S) FORMULA(S) AND DATA SOURCE(S)** (How will you know you successfully achieved you goal?)	**RESULT(S) - SYNOPSIS** Analyse data and compare predictions Did the process produce the improvement(s) as expected in the plan?	**NEXT STEPS** Implement/re-do/ Abandon How will you hold/sustain your gains ?			