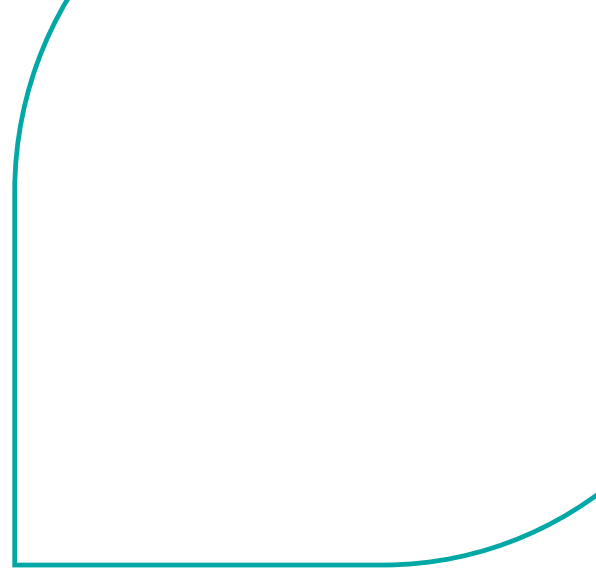


Quality Improvement Workbook





Healthcare Excellence Canada is an independent, not-for-profit charity funded primarily by Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.



Hello!

This foundational workbook was developed by Healthcare Excellence Canada and in partnership with Health Quality BC. It is intended to assist your quality improvement learning journey and guide quality improvement efforts.

The term participant/client is used throughout the workbook to reference individuals who receive service from your organization. Please feel free to substitute with the appropriate language that your organization uses to refer to those you care for and serve.

How to Use This Workbook:

You have the option to complete this workbook either digitally or by hand. If you prefer to print the document and fill it in manually, simply print the entire workbook and use a pen to complete each section.

If you'd like to fill in the workbook digitally, please keep in mind that each text box has a set character limit. Be sure to check that your answers fit within the provided space. Once you've filled in the text fields, you can print the digital version with your responses included.

**Quality improvement is
about understanding
what we do and testing
ways to do it better.**



Foundations of Quality Improvement

Before launching a quality improvement (QI) project, it is worth ensuring there is a common understanding on what QI is. There are various definitions, but there are common components of QI:



Systematic

It is more than the introduction of a new change.



Guided by data

It is more than implementing changes and assuming things get better.



Emphasizes immediate action

It is about testing new ways to do things and making changes right away.

Five fundamental principles of improvement

1. Know why you need to improve and specifically what you need to improve.
2. Have a way to tell if the change is making an improvement (data).
3. Develop an effective change that you believe will result in an improvement.
4. Test changes multiple times, adapting, adopting or abandoning based on their efficacy. Do not just jump to implementing the idea!
5. Know when and how to make the changes an ongoing part of your system (sustainability).



Action

As a team, watch the following video:

[Quality Improvement in Health Care – Mike Evans](https://youtu.be/jq52ZjMzqyl)

(<https://youtu.be/jq52ZjMzqyl>) and consider the following questions:

- What benefits do you think quality improvement methods might bring to your sector/organization?
- What might some of the challenges be?
- Can you think of any opportunities for improvement in your area?
- How might you get started?

The concepts of improvement and change are closely linked. Changes that result in improvement:

- Alter how the work or activities are done
- Produce visible, positive differences compared to how things were
- Have lasting impact.

Problem and Aim Statements

Problem Statement – what you want to improve.

Explain what you want to improve in 4–5 sentences (e.g. what is the gap in quality). Where possible, reference the following information in your problem statement:

- Baseline data and/or information (e.g., current satisfaction, numerical data)
- The source of information about the problem/area of opportunity (e.g. do participants/clients, families and/or caregivers and staff see this as a problem?).

How will you learn more about what is causing the problem you want to improve (e.g., interviews with staff, participants/clients, families and caregivers who experience the process)?

Aim Statement – what measurable improvements you expect.

Specify how much improvement you are aiming to achieve, for whom and by when (e.g., what improvements will be made to the gap in quality)?

Create a Team

Convene a team and empower them with the time, resources and accountability to help lead the improvement initiative. The team should include people with diverse skills, professional backgrounds, cultures and perspectives to promote shared understanding of the opportunity for improvement, including:

Participants/clients, families and caregiver partners, who can (for example):

- Bring perspectives on how the improvement initiative will improve their personal experience and the experience of others
- Advise on education, evaluation, and strategies to promote sustainability and long-term success planning and adaptations over time
- Fulfill leadership roles, such as on governance committees or as evaluation leads to identify how change should be assessed and monitored
- Help to ensure a diverse set of lived-experience perspectives are consulted and considered (e.g., people of different ages, and from different cultures and different socio-economic backgrounds)
- Serve as champions for other participants/clients, families/caregivers and staff to ensure the lived experience perspectives are fully considered and incorporated.

Senior leaders, who can (for example):

- Ensure the initiative is, and remains, a strategic organizational priority (this will justify associated staffing and budget allocations, and can increase the chance it will sustain through competing priorities)
- Support culture change, to identify how people feel about the initiative and ensure it is introduced in a way that acknowledges and responds to the concerns of everyone affected
- Champion, role model and set expectations for partnership with people with lived experience (including providing fair compensation and removing barriers for participation)
- Ensure staff have the time, resources and infrastructure to support the change
- Champion the initiative with staff, board members and other interest holders
- Create/inform and support processes to ensure appropriate oversight and monitoring.

In addition, team members should include:

- A **team lead** who has time, resources and accountability to coordinate and oversee the day-to-day activities, serve as a key coordinator and motivator of the team and ensure regular and ongoing communication with staff, participants/clients, caregivers and relevant committees/councils.
- An **evaluation and measurement lead** who has time, resources and accountability to support the tracking and reporting of results over time, support the team to understand and interpret data over time to inform whether changes are leading to improvement.
- **Staff from all departments** and **external interest holders (including community partners)** who will be impacted by and/or who can influence the change.

Complete **Table 1** to list the members of your team, describe their roles and how they will have the time, resources and accountability to fulfill their roles.

Table 1: Team members and roles

Team member	Role and description of how the person will have the time and resources to fulfill their role

Engagement

In the design, delivery and evaluation of an improvement initiative, it is important to engage with staff, participants/clients, families and any others who may be affected by, and/or who can influence, the change. Ideally, they will be key members of the core team or steering committee to ensure that they are equal partners in raising, discussing and addressing issues.

Ensure you engage with people with diverse perspectives and experiences including, but not limited to, different cultural backgrounds, socioeconomic status, education levels, and more. You should also consider equity, which may include removing barriers for participation such as meeting times and locations, and offering assistance when needed, such as compensation for participation.

Regularly seek and consider views of people with diverse skills, professional backgrounds, cultures and perspectives who may be affected by or who can influence the change. Broad, inclusive engagement can help lead your improvement by:



Identifying and resolving possible challenges, such as the possibility the staff may not agree the initiative is necessary or the best option; feel other initiatives should take priority; or feel that extra work will be required.



Providing an open forum to express concerns, such as the possibility that the desired tests of change need to be adjusted to support the community's needs, as they present them.



Bringing perspective on how staff feel the initiative will change/improve their work life and the outcomes for participants/clients, families and caregivers.



Helping establish process for embedding the improvement in the long- term (e.g., documentation; education for new and temporary staff; policies and guidelines).



Creating awareness and excitement about the change.

Collaborative efforts with people with lived/ living experience should include engaging a diverse set of perspectives (that is, people of different ages, and from different cultures and different socio-economic backgrounds) from many individuals, rather than continuously working with the same people. This approach is meant to ensure new ideas are generated and alleviates potential burden on lived/ living experience partners in terms of feeling pressured to represent others.⁶

Examples of evidence-informed frameworks and tools to support efforts to engage and partner with participants/clients, families and caregivers include the Carmen Framework⁹ and the IAP2 Spectrum of Public Participation.¹⁰ **Table 2** is an example of a patient/client, family and caregiver engagement framework – IAP2 Spectrum of public participation¹⁰ – that provides different goals and promises for methods of engagement.

Table 2: IAP2 Spectrum of Public Participation Goals of Engagement¹⁰

	Inform	Consult	Involve	Collaborate	Empower
Goal	To provide balanced and objective info in a timely manner	To obtain feedback on analysis, issues, alternatives and decisions	To work with the public to make sure outcomes and aspirations are considered and understood	To partner with the public in each aspect of the decision-making	To place final decision-making in the hands of the public
Promise	"We will keep you informed."	"We will listen to and acknowledge your concerns."	"We will work with you to ensure your concerns and aspirations are deeply reflected in the decisions made."	"We will look to you for advice and innovation and incorporate this in decisions as much as possible."	"We will implement what you decide."

Considering the goals of engagement outlined in **Table 2** (inform, consult, involve, collaborate and empower), describe how you will meaningfully engage participants/clients, families and caregivers in your improvement initiative, and your strategies for ensuring meaningful, purposeful engagement.

List and describe any structures in place to enable meaningful partnership with participants/clients, families and caregivers.

What support will you seek from senior leaders to plan, launch, implement and sustain the improvement initiative? How will you ensure their ongoing support?

Measurement

Tracking Performance – is the Change an Improvement?

Measurement is an essential part of improvement. Measurement informs needed adjustments and provides evidence that supports the case for change, increases engagement and excitement among those involved.

Using **Table 4**, identify a family of measures you will track to monitor your progress toward your aim(s). Determine your measures in partnership with people who will be impacted by the change, including participant/client, family and caregiver partners and staff. It will be important to include measures to assess the impact of the improvement initiative across diverse population groups, including but not limited to; populations who struggle to access care generally (e.g., live in rural or remote areas), potentially at-risk or vulnerable populations (e.g., complex medical needs); underserved; First Nations, Inuit and Métis communities; immigrants; refugees; LGBTQ2+; or racialized groups. HEC's Improvement Resources including the [Healthcare Improvement Planner](#)¹⁵ can be used to help create detailed improvement and measurement plans.

1. List the outcome measure(s) you ultimately want to improve.
2. List process measure(s) (e.g., the activities you are doing to achieve your desired outcomes/aims. Process measures can include, for example, number of staff and participant/client, family and caregiver partners who receive education to support the initiative.
3. List the balancing measure(s) to monitor possible unintended consequences or problems.
4. For each of your measures, identify:
 - a. The data collection method, which includes identifying the data source, frequency of collection and who is responsible to collect, track and report the data over time.
 - b. Baseline data (if available), to identify the current information on the measures you will use to monitor progress toward your improvement aims. This will allow you to detect changes in the measures over time.
5. Target/expected change of the measures with a specified time period for your targets/expected changes.

Table 3: Types of Measures

Aim:

By December 31, 2026, we will increase compliance with evidence-based hypoglycemia management protocols from 70% to 95% for all diabetic patients with hypoglycemia attended by our paramedic team.

Outcome Measures	Process Measures	Balancing Measures
Tells us if what we are ultimately trying to improve is really getting better.	Tells us if we are consistently doing the things we said we were going to do that we believe will push forward our ultimate aim (outcome measure).	Helps us monitor possible unintended consequences or problems. These measures tell us if we have impacted any other part of the system positively or negatively through the changes we are making.
• Number of hypoglycemic patients seen per month • Percentage of hypoglycemic patients who have a blood glucose > 4 mmol/L at handover or discharge from care.	• Percentage of hypoglycemic calls where the protocol checklist was completed • Percentage of patients who received repeat glucose measurement 10–15 minutes after treatment • Percentage of cases where SBAR/structured hand off regarding hypoglycemia management is provided to the receiving facility • Percentage of cases where relevant treat and refer/non-transport documentation fields were complete.	• Average scene time for hypoglycemic events • Paramedic staff satisfaction with the new checklist/process • Re-contact rates within 24-hours.

Tip!

Learn more about using data and measurement approaches in improvement by completing the [Measuring and Using Data in the Engaging People in Improving Quality \(EPIQ\) module](#).²

Improvement Charter

A written plan, sometimes called an Improvement Charter, is a documented plan to guide the work of your team. Charters are useful for projects because they:



Improvement Charter Example

Organization, facility or site:

Executive sponsor:

A QI team must have leadership support in order to make system wide, lasting change. Make sure that you have leadership engagement from the start to make it easier and be clear on the frequency and content of the updates they expect.

Team lead(s):

It is often good to have co-leads on the work so it can continue if there are any staffing challenges. Be clear on how decisions will be made.

Team members:

A QI team should generally have 5-8 people (at least three) to support diverse opinions and experiences, as well as share the work, making it a team effort. Be clear what their responsibilities, contribution and commitment will be.

What are we trying to accomplish?

Aim statement – What will improve? By when? By how much?

Example: By December 31, 2026, we will increase compliance with evidence-based pain management protocols from 70% to 95% for all patients with pain attended by our paramedic team.

How will we know that a change is an improvement?

Measures – what can we track to show us how we are doing? For example:

Outcome measures:

- Percentage of patients who have a pain score that has decreased from baseline at hand over or discharge from care
- Participant/caregiver satisfaction with pain control strategy and management
- Percentage of patients who received appropriate dosing of pain management medications
- Percentage of cases where SBAR/structured handoff regarding pain management is provided to the receiving facility

Process Measures:

- Percentage of calls where the pain management protocol checklist was completed
- Percentage of calls where pre and post pain scores are documented for patients who receive pain management
- Percentage of patients who received appropriate choices (escalation) of pain management medications

Balancing Measure:

- Average scene time for all events with complaints of pain
- Paramedic staff satisfaction with the new checklist/process

Table 4: Measurement Plan

How will we manage the improvement project?

How will our team work together? Who will do what? What are key dates?

Your team should work to come up with a plan that works for you and your timeline. Please note that you should be meeting to review the data at least once a month to determine if you should adapt, adopt or abandon the changes that you are testing, and see if you are making progress toward your aim (without negatively impacting other parts of the system).

	Measure Name & Operational Definition	Data Collection Method: Sources, Frequency and Who is Responsible	Baseline Data (if available)	Target/Expected Change (specify time period)
	Outcome Measures: Main outcomes to improve.			
1				
2				
3				
	Process Measures: The activities you are doing to achieve your desired outcomes/aims. (For example, number of staff who received education.)			
1				
2				
3				
	Balancing Measures: These are to assess for unintended consequences.			
1				
2				
3				

What changes can we make that will result in improvement?

Change ideas – what changes can we test to improve care? Example:

Our change ideas include:

1. Run a targeted education and/or refresher training on pain management for all paramedics.
2. Implement a standardized checklist for pain management calls.
3. Use visual cues (stickers or ePCR prompts).

PDSA Worksheet

Testing Ideas for Change



Plan, Do, Study, Act (PDSA) cycles turn ideas into action and learning. By planning a test of change, trying the plan, observing the results, and acting on what you learn, you will progressively move towards your aim.

Team name:

Date of test:

Cycle number:

Objective for this PDSA cycle:

What question do we want to answer this cycle?

Plan

Plan for change or test: (Who, what, when, where)

Plan for collection of data: (Who, what, when, where)

Plan

Predictions: (What do we expect to happen?)

Do

Carry out the change or test; Was there any difference from what was planned?

Study

Complete analysis of data collected; summarize what was learned. Do the results agree with the predictions? What new questions or issues arose? What are our updated theories?

Under what conditions could the results be different?

Act

What action are we going to take as a result of this cycle (Adopt, Adapt or Abandon)?
Are we ready to implement?

**Objectives
of the next
cycle(s):**

Planning for Sustainability Worksheet

Questions to consider			
Process	Factors related to the change itself – what about the new process will prevent things from reverting to the old way?	Benefits beyond helping patients	In addition to helping patients, what are the other benefits? For example, does this change reduce waste, help things run more smoothly? Will staff notice a difference in their daily work?
		Credibility of benefits	Are benefits to patients, staff and the organization visible? Do staff believe in the benefits? Can staff clearly describe the full range of benefits? Is there evidence that this type of change has been beneficial elsewhere?
		Adaptability	Can the new process overcome internal issues, or will this disrupt the change? Does this change continue to meet ongoing needs effectively? Does the change rely on a specific individual or group of people, technology, or funding to keep it going? Can it keep going when these are removed?
		Monitoring progress	Does the change require special monitoring systems to identify and measure improvement? Is anything in place to continue to monitor progress? Is there a feedback system to reinforce benefits and guide further action? Are the results of the change communicated to patients, staff, and the wider community?

Questions to consider		
Staff	Factors related to people involved – are they supportive of the change and willing to continue on with the new way of doing things?	Training and involvement Do staff play a part in designing, testing, and implementing the change? Have they used their ideas to inform the change from the beginning? Is there training available to build staff members' knowledge and skills to take this change forward?
		Behaviours Do staff express their ideas regularly throughout the change process and is their input taken into account? Do staff think that the change is a better way of doing things? Are staff able to run PDSA cycles based on their ideas to learn if additional improvements should be recommended?
		Senior leaders Are senior leaders trusted and respected? Are they involved in the initiative? Do they understand and promote it? Are they respected by their peers and can they influence others to get on board? Are they helping to break down barriers and provide support to ensure the change is successful?
		Clinical leaders Are clinical leaders trusted, respected, and influential? Are they involved in the initiative? Do they understand and promote it? Are they respected by their peers and able to influence others? Are they helping to break down barriers and giving their time to help ensure the change is successful?
Organization	Factors related to the organization – are there resources and systems in place to maintain the change?	Alignment Are the goals of the change clear and shared? Are they clearly contributing to organizational strategic aims? Is improvement important to the organization? Has the organization successfully sustained improvements in the past?
		Fit with culture Are the staff fully trained and proficient in the new way of working? Are there enough facilities and equipment to support the new process? Are new requirements built in to job descriptions? Are their policies and procedures supporting the new way of working? Is there an effective communication system in place?

Adapted from: NHS Institute for Innovation and Improvement Sustainability Guide

Additional Resources

1. Canadian Foundation for Healthcare Improvement. *CFHI's Sustainability and Long-Term Success Primer*. PDF. 2020. Accessed May 22, 2025. <https://www.healthcareexcellence.ca/en/resources/long-term-success-tool/>
2. Health Quality BC. *Engaging People in Improving Quality Teaching Toolkit*. Accessed May 22, 2025. <https://healthqualitybc.ca/resources/epiq-teaching-toolkit/>
3. Richards DP, Jordan I, Strain K, Press Z. *Patient partner compensation in research and health care: the patient perspective on why and how, 2018*. doi: [10.35680/2372-0247.1334](https://doi.org/10.35680/2372-0247.1334)
4. Patient Experience Journal. 5(3), 6–12. doi: [10.35680/2372-0247.1334](https://doi.org/10.35680/2372-0247.1334)
5. Government of Canada, Canadian Institutes of Health Research. *Considerations when Paying Patient Partners in Research*. May 27, 2019. Accessed March 26, 2020. <https://cihr-irsc.gc.ca/e/51466.html>.
6. SPOR Networks in Chronic Diseases and the PICHI Network. *Recommendations on Patient Engagement Compensation*. PDF. 2018. Accessed May 22, 2025. https://diabetesaction.ca/wp-content/uploads/2018/07/TASK-FORCE-IN-PATIENT-ENGAGEMENT-COMPENSATION-REPORT_FINAL-1.pdf.
7. Cancer Care Ontario. *Equity in Engagement Framework*. PDF. Accessed May 22, 2025. <https://www.hqontario.ca/Portals/0/documents/pe/cco-equity-in-engagement-framework.pdf>
8. Alberta SPOR Support Unit. *Patient Engagement in Health Research: A How-to Guide for Researchers*. PDF. May, 2018. Accessed May 22, 2025: <https://albertainnovates.ca/wp-content/uploads/2018/06/How-To-Guide-Researcher-Version-8.0-May-2018.pdf>.
9. Carmen KL, Darde ss P, Maurer M, Sofaer S, Adams K, Bechtel C, & Sweeny J. *Patient and Family Engagement: A Framework for Understanding the Elements and Developing Interventions and Policies*. Health Affairs, 223-231. 2013. Accessed October 23, 2020. <https://pubmed.ncbi.nlm.nih.gov/23381514/>.
10. IAP2 Canada Spectrum of Public Participation. 2018. Accessed May 22, 2025. https://cdn.ymaws.com/www.iap2.org/resource/resmgr/pillars/Spectrum_8.5x11_Print.pdf.
11. Newfoundland and Labrador Support for People and Patient Oriented Research and Trials. *Patient and Public Engagement Planning Template*. PDF. 2016. Accessed May 22, 2025. <https://absporu.ca/wp-content/uploads/2020/05/Patient-and-Public-Engagement-Planning-Template.pdf>.
12. Health Quality Ontario. *Implementing and Sustaining Change. Quality Improvement Primers*. Toronto. 2013. Accessed May 22, 2025. <https://www.hqontario.ca/Portals/0/documents/qi/qi-implementing-and-sustaining-changes-primer-en.pdf>
13. Health Quality Ontario. *Spread Primer*. PDF. April 2013. Accessed May 22, 2025. <http://www.hqontario.ca/Portals/0/Documents/qi/qi-spread-primer-en.pdf>.

14. Canadian Foundation for Healthcare Improvement. *Healthcare Improvement Planner*. Accessed May 22, 2025. <https://www.healthcareexcellence.ca/en/resources/improvement-charter/>
15. Healthcare Excellence Canada. *Appropriate Use of Antipsychotics*. Accessed May 22, 2025. <https://www.healthcareexcellence.ca/en/what-we-do/all-programs/appropriate-use-of-antipsychotics/>
16. Institute for Healthcare Improvement. *QI Project Charter*. Boston, MA. Accessed May 22, 2025. <https://www.ihl.org/resources/tools/qi-project-charter>

Notes

Notes

Notes

