

Quality Improvement Training Supplement

Introduction

TĒNĀ KOUTOU KATOĀ!
Welcome

This programme supports the use of quality improvement (QI) methodology to enable practice staff to develop planned and proactive approaches to improving health outcomes for patients.

Addressing inequities is an important role in quality planning. The QI tools and methods allow practitioners to form a deep understanding of the needs of the population. By scanning the available evidence, QI teams can work towards designing the structures and processes required to meet these needs.

This document brings together these tools and methods discussed in the HQSC online education sessions and Pinnacle online training, to support requirements for the Quality Improvement Programme.

Templates are included at the back of this document.

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Getting started: Complete the training

Training will consist of:

- Te Tāhū Hauora | Health Quality and Safety Commission (HQSC) Improving Together: Introduction course
- Pinnacle online training.

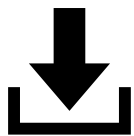
We would recommend 2-3 people within the practice complete the training, ideally from different perspectives e.g. data, process, equity, clinical. This group will look at the data and evidence to guide the practice in choosing an indicator (in addition to Immunisation) and working through the Model for Improvement.

Improving Together: Introduction Course (HQSC)

The Te Tāhū Hauora | Health Quality and Safety Commission (HQSC) Improving Together: Introduction course, is **accessed via LearnOnline**, the Ministry of Health learning platform.

How to access the modules

You will need a LearnOnline login if you don't have one already. Click here to access the home page and to set one up: <https://learnonline.health.nz/>



Access the course

Set up a login in here: <https://learnonline.health.nz/> Access the course directly here: <https://learnonline.health.nz/course/view.php?id=459>

For technical support with the HQSC Improving Together: Introduction course, please email learning.capability@hqsc.govt.nz.

Pinnacle online training

To consolidate the learning from HQSC, three lessons have been developed which takes the theory from HQSC and provides practical aspects to support the QI Programme and the development of your QI plan.

Course outline

Week 1: 30 minutes

- Builds on the HQSC training, introduces the five clinical indicators and steps you and your team through the process to identify the problem for one indicator of variation using the fishbone tool. You will also develop an aim statement for your first QI plan.

Week 2: 30 minutes

- Your team will build a driver diagram for your first QI plan, identifying change ideas and prioritising these.

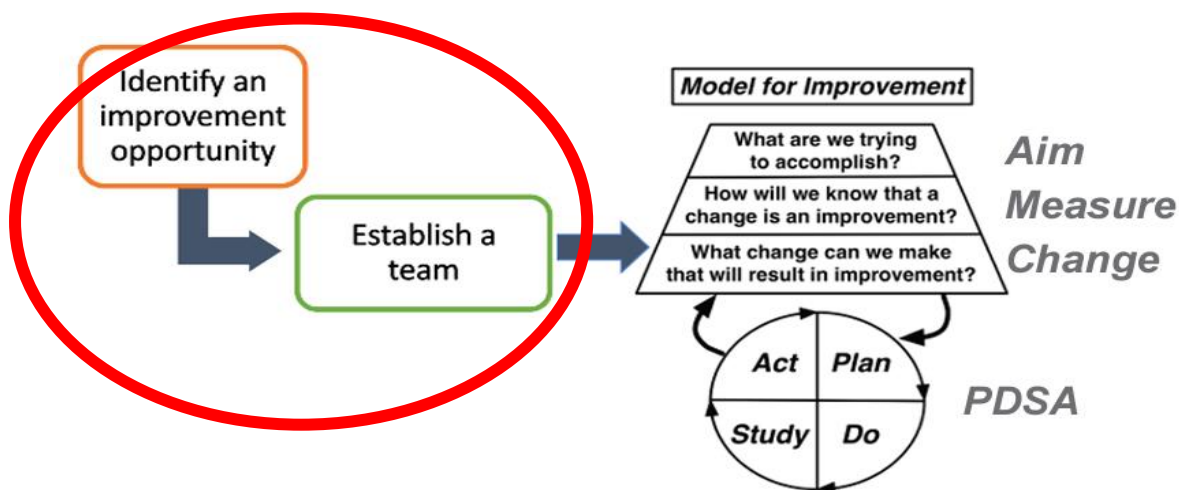
Week 3: 30 minutes

- We step you through building measures for your QI plan and PDSA cycles.

How to access the Pinnacle QI training

Each practice is allocated three licences. There are a limited number of licences for the network. For a co-ordinated approach, the Practice Manager will provide the names of the practice core QI team for Pinnacle QI training (via their Development or District Managers). These staff will subsequently receive a link to access the online training.

Steps 1 and 2: Identify an improvement opportunity and establish a team



There are many sources of data that can be used to identify your improvement opportunity. Dashboards, patient experience surveys, incident reports, patient and whānau voice, especially the lived experience, and of course, health professional/staff experience. These contribute to identifying which improvement opportunity is best for your practice.

For year one, conditions have been identified in the development of six clinical indicators¹ to focus attention on clinical issues for CVD, diabetes, respiratory and immunisation.

Clinical indicators – Year 1

Practices will choose **one** of five clinical indicators relating to CVD, diabetes or respiratory (#1-5) and **one** compulsory clinical indicator related to immunisation (#6).

1. Increasing the proportion of patients with past CVD who are prescribed triple therapy.
2. Increasing the proportion of patients with diabetes and a high risk of heart disease or stroke who are on lipid modifying therapy.
3. Increasing the proportion of eligible patients with diabetes who are taking SGLT 2 inhibitors / GLP1 receptor agonists.
4. Reducing the proportion of patients with asthma aged 12+ on a metered dose inhaler compared to a dry powder device.
5. Reducing the proportion of patients aged 12+ who are regularly using a short-acting beta agonist (reliever) who are not using a regular inhaled corticosteroid or inhaled corticosteroid/long-acting beta agonist combination inhaler.
6. Increasing the proportion of children fully immunised at 24-months of age.

¹ Clinical indicators were developed in a co-design process by GP cluster groups and GP leads facilitated by the Pinnacle Clinical Director.

Teamwork

A core QI team in general practice will ideally have a minimum of three members – although diversity of roles and perspectives rather than size is most important. These are people who will provide clinical leadership, technical/subject matter expertise and or day-to-day leadership for QI within the practice ([IHI Model for Improvement: Forming a Team](#)). As you move along the journey additional members may provide temporary expertise depending on the focus of QI at the time.

Use existing resources, which will include your practice management system, to commence your data search. The team member or members most competent with sourcing data types might gather the information first before bringing it back for wider discussion.

Dashboards supporting the QI Programme have been developed in Power BI for five of the six clinical indicators identified in the first year (excluding immunisation). Therefore, in the first year it is recommended a staff member who is competent in using Power BI is part of your team.

Information and resources for Power BI can be found on our website:
www.pinnaclepractices.co.nz/resources/power-bi-dashboards/.

Defining the issue and any equity gap (Training 1)

A number of tools are available to help you **define the problem**. Templates are available at the end of the supplement, and online:

<https://www.pinnaclepractices.co.nz/resources/quality-improvement-programme/>

Fishbone diagram

The **Fishbone diagram** is also commonly known as the Ishikawa or Cause and Effect diagram. It allows the team to identify, explore and graphically display, with increasing detail, all the possible causes related to a problem or condition to discover its root cause and helps to dig deeper into an issue from several aspects to formulate your problem statement.

Use it to:

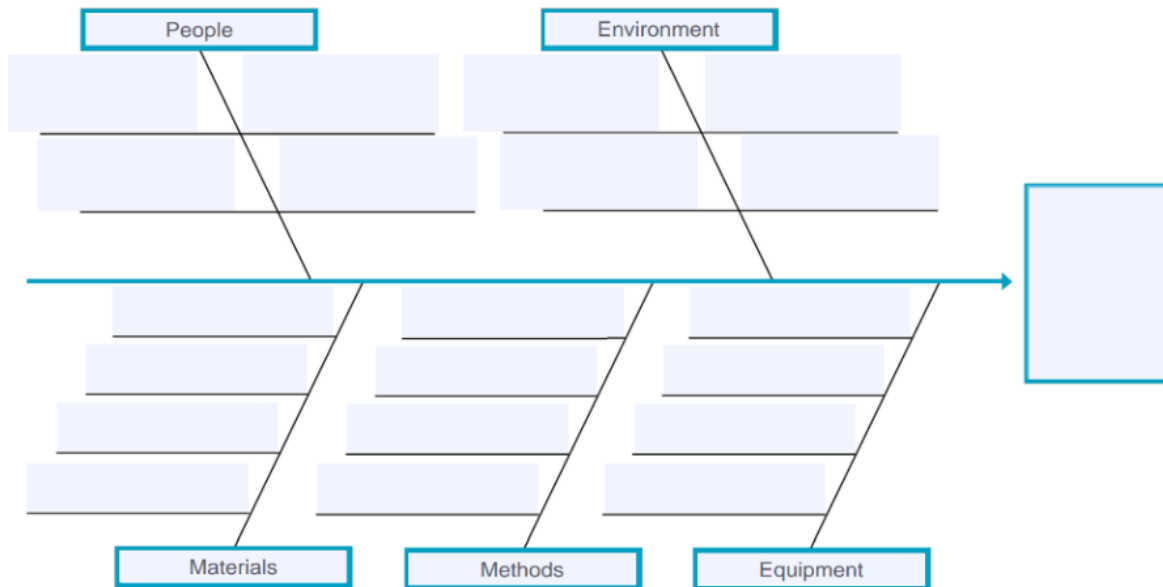
- collect and organise the current understanding of potential causes, issues or problems
- aid understanding that there are many causes contributing to the effect
- graphically display the relationship of the causes to the effect and to each other
- help identify potential changes to test for the quality improvement work.

Fishbone diagram procedure

- Identify the effect you would like to influence (key issue) and write it in the box at the head of the fish.
- We have used common healthcare headings along each of the scales. Brainstorm possible causes of the problem in these categories – this can be done in a group setting or using sticky notes placed under the headings and then collated.
- Input causes within each category. It should show all possible causes relating to the issue.

- Analyse the diagram – you can use the Five Whys (see later tools) to drill down further into the identified causes on the branches of the diagram.

A template can be found in the **Templates** section of this document. An example is found in the training.



Process map

A **process map** allows you to examine the processes currently in place and is a series of steps or actions performed to achieve a specific purpose. This is also a useful tool for identifying and defining the problem when examining specific change ideas as you progress to the testing stage.

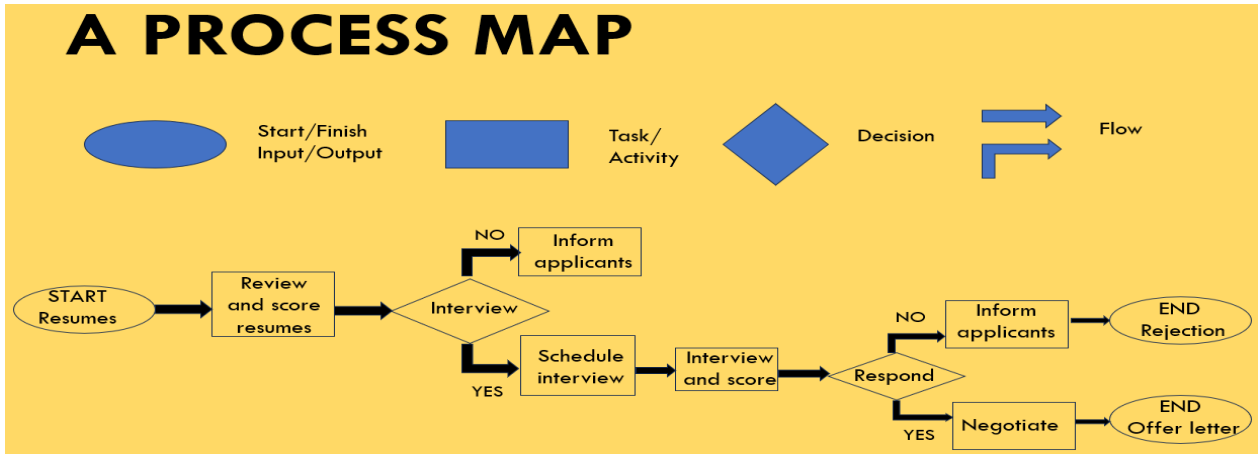
Identify potential opportunities for improvement. These could be:

- points where breakdowns occur,
- workarounds,
- variations in workflow,
- duplicate or unnecessary steps.

Process mapping procedure

1. Gather the team involved with working in the process.
2. Decide on the start and finish of the process you are going to map.
3. Use sticky notes to document the process steps as described by the team members as *they happen*.
4. Check the completed process map against how it happens in reality. Share the process map with other team members and get their input.
5. Identify the waste and duplication in the process map.
6. Remap the process to be the ideal process.

An example based on a recruitment process:



Five Whys

This method offers a simple, focused strategy for finding the root cause of a problem with minimal cost.

How to complete the Five Whys

1. Write down the specific problem. Writing the issue helps you formalise the problem and describe it completely. It also helps a team focus on the same problem.
2. Ask why the problem happens and write the answer down below the problem.
3. If the answer you just provided doesn't identify the root cause of the problem that you wrote down in Step 1, ask why again and write that answer down.
4. Loop back to step 3 until the team agrees that the problem's root cause is identified. Again, this may take fewer or more times than five whys.

Why 1	Why 2	Why 3	Why 4	Why 5	Root Cause
There is no computerized solution to handle job applications	There was staff resistance	They were not explained the full benefits of the system	There was a lack of communication.	We assumed that the benefits were obvious.	Insufficient communication
		They feared being made redundant	They thought the computer system was designed to replace them.	Because we didn't tell them how it would help make their jobs easier.	Insufficient communication
		They were uncomfortable about changing the way they worked	They had always been doing it this way	All the work was done manually prior	No culture of change and sense of insecurity among staff.
			The positive aspects of the change were not communicated.	We assumed that the benefits were obvious.	Assumptions made/insufficient communication.
There was no formal set of procedures to handle job requests, and procedures were passed on by mouth as opposed to being documented.	There was no system in place to do so.	The company grew at an exponential rate that there was no time to document anything.	There was insufficient planning	Top management were too busy fire fighting and dealing with operational work, rather than developing a strategy	Poor work delegation and advanced planning

A general example:

Problem:		Unsuccessful at keeping Māori children with asthma out of the hospital						
Why 1	Why 2	Why 3	Why 4	Why 5	Root Cause			
A lack adequate time to teach tamariki and their whānau about asthma management	→ Clinics are often overbooked	→ The asthma clinic is limited by the availability of the two part-time staff members	→ Demand supercedes supply	→ Workforce shortages	Workforce issue/			
				→ Budget limitations	Budget needs review			
Appointment times are not always suitable	→ Clinic times are within office hours	→ All clinics are held during this time	→ It suits the staff	→ Work/life balance	No considered change to status quo			

Ask the following questions for **each** clinical indicator².

- How are we doing in comparison to the Pinnacle benchmark*?
- Who might the current system not serve our patients equally?
- Is there a difference when the data is filtered, in other words, “*What inequities exist in relation to the health issue(s) under consideration?*”
- Is the difference acceptable? i.e. do we apply our QI plan to all our patients or a subset of patients?
- Will focusing on this clinical indicator lead to better quality of care?
- Has lived experience and/or patient and whānau voice enhanced your understanding of the issue?
- Are there lessons learned from other sources such as patient experience surveys, incident reports, learning from harm, that support your direction?

* The term ‘benchmark’ is used in Power BI. It is the Pinnacle network average.

Problem statement

Once you have identified which clinical indicator you want to address, develop a short description of what you have found, why it is important to address and the people you need to work with you on this (this is the problem statement or ‘elevator pitch’).

- Where does our analysis locate the problem?
- Do we locate it in people or recognise the ways that the current system produces outcomes?
- What assumptions or biases do we need to explore?

This next example is from a primary care improvement case study from Hutt Union and Community Health Services on the HQSC website. Other primary care examples can be found in the HQSC resource library www.hqsc.govt.nz/resources/resource-library/ filtered by primary care.

² Improvement Collective, Improvement Project Chartering Workbook (Oct 2020) <https://www.improvementcollective.com/resource-collection/improvement-project-chartering-workbook>

EXAMPLE: (not based on our clinical indicators)

Challenge: Reduce average blood glucose levels, as measured by HbA1c, in our low-decile and largely Pacific and Māori community.

Problem statement/elevator pitch:

BPI data showed that 574 of our patients had diabetes. Of these, 284 patients had an HbA1c above 64 mmol/mol or not recorded in the last 12 months.

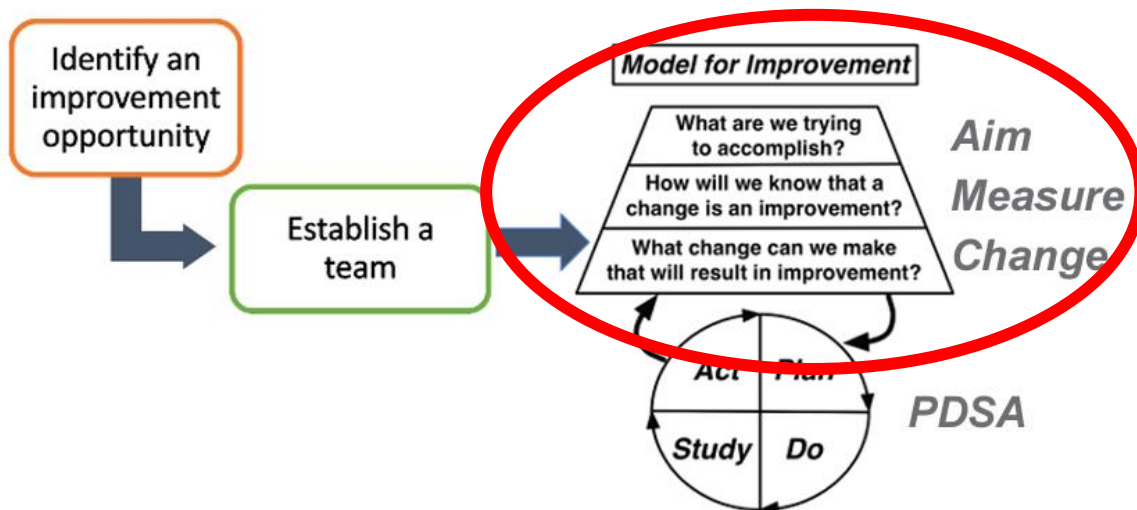
When we looked at the data by quintile and ethnicity it showed an inequity in groups with that enjoy good glycaemic control.

The target HbA1c level for people with diabetes is between 50 and 55 mmol/mol. Evidence shows that every 10 mmol/mol reduction in HbA1c is linked to a 21 percent decrease in diabetes-related death and significant decreases in other complications.

Tip: make sure everyone agrees on the problem statement, include as much information as possible on the “what”, “when”, and “how much” of the problem.

The template can be found in the **Templates** section at the back of this document. Once agreed, your problem statement can be transferred to your QI plan.

Step 3: ‘Model for Improvement’



The Model for Improvement asks three questions, which starts with an aim. The outcome measure is more easily identified from the aim statement, however, other measures may be clearer after change ideas are identified. Work in a way that suits you best.

Developing an aim statement

An AIM statement is a problem statement with no solution indicated. If we indicate solutions in the aim statement, the team may be inclined to steer towards them without any investigation as to the real root cause (bias). The aim statement is SMART i.e. specific,

measurable, achievable, relevant, and timely. Once developed, your aim statement can be transferred to your QI plan.

- When using quality improvement to pursue equity, it is important to name both the inequity and group experiencing it in your aim statement.

To **decrease** _____ **average HbA1c** _____ (process/outcome)

From _____ **65 mmol/mol** _____ (baseline per cent, rate, #, etc)

To _____ **55 mmol/mol** _____ (goal/target per cent, rate, #, etc)

By _____ **6 months** _____ (date, 3—6-month timeframe)

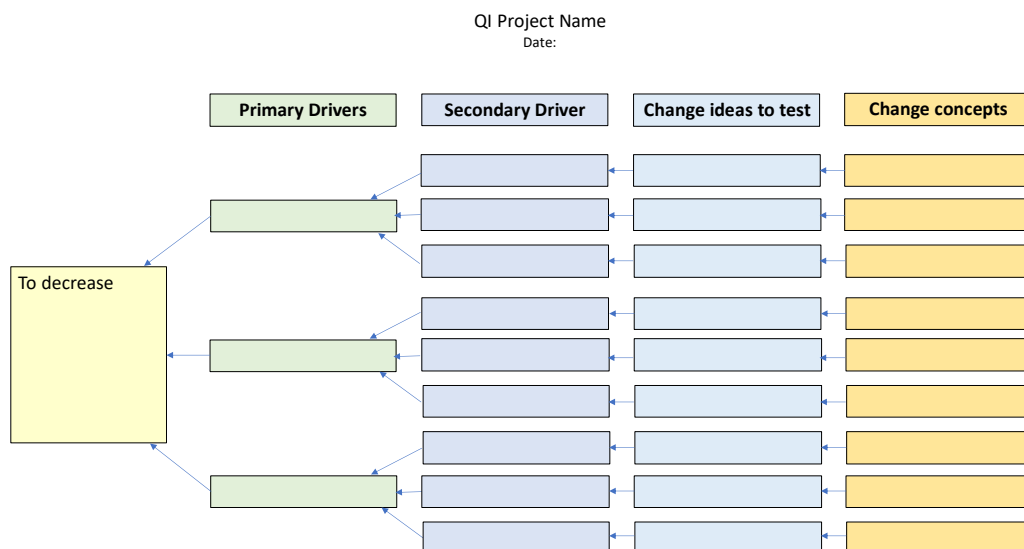
In: _____ **patients attending our practice** _____ (population impacted)

Driver diagrams³ (Training 2)

A driver diagram is a simple visual tool to help you plan and structure an improvement plan. It can be used to show your change ideas and how they will impact on the system and processes you are trying to improve.

In the training, some time is spent developing driver diagrams.

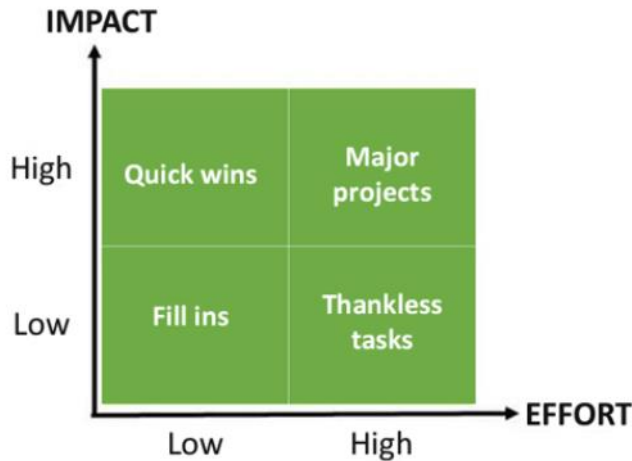
1. Brainstorm potential drivers – the areas where change will impact on your aim. Concentrate on generating ideas for drivers at this stage, don't try to allocate into primary or secondary straight away.
2. Cluster the ideas to create an agreed set of drivers. Check each driver is clearly defined (and potentially measurable).



³. Bennett B and Provost L (2015) What's your theory? Quality Progress 48 (7): 36-43
https://static1.squarespace.com/static/60e89aac48b904f71c08580/t/6193fb5f186c660b0e7e8c5b/1637088095607/QP_whats-your-theory_201507.pdf (used throughout this section).

A template can be found in the **Templates** section of this document. An example is found in the training.

Prioritising change ideas: Impact / effort matrix



Family of measures (Training 3)

The family of measures are a common set of measures that guide the learning journey for the improvement team.

Process measures	Outcome measures	Balancing measures
Are the parts of the system performing as planned?	How is the system performing? What is the result?	What’s happening to the parts of the system we aren’t currently focusing on?

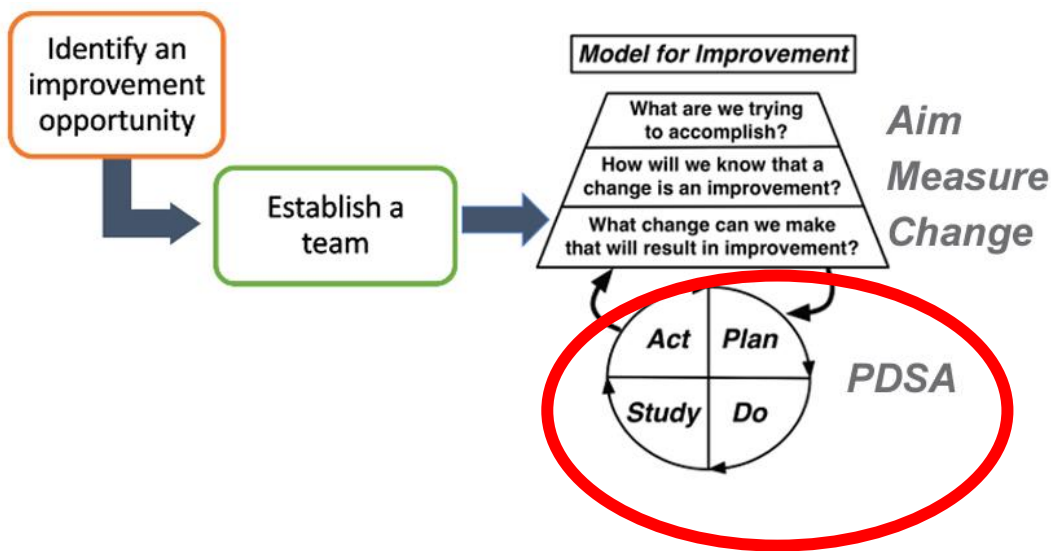
Start by identifying measures and creating operational definitions. Use a simple measures template like the example to identify your measures. Initially the QI team may be able to identify an outcome measure alone.

- If we explicitly identify an equity gap in our aim statement, how does our aim connect to the equity values and goals of our workplace/organisation? Will our measures reflect our aim for reducing inequity?
- How will you separate the data to visualise and track progress on equity gaps?
- How will the proposed changes specifically serve those who have been marginalized in the past? How might these changes actively or inadvertently reproduce inequities?
- Where do the change ideas come from? Have the “end-users” of the change effort been engaged as co-creators of the change ideas?

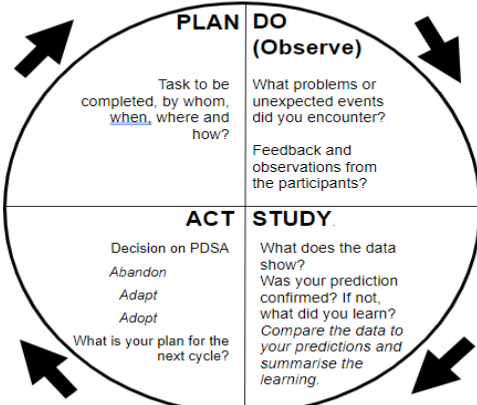
Summarise your measures into your QIP plan. The template can be found in the **Templates** section at the back of this document.

Data Collection Plan				
Type of measure	Operational definition	Data Source(s)	What, how, when	Who
(Outcome, process, balancing)	Definition of words used in measure	What is the source of data?	What are we going to collect? How will the data be collected? <u>When</u> , how often will the data be collected?	Who will collect the data?

Step 4: PDSA cycles



- Are you testing ideas that matters most to your patients?
- Are the interventions being tested likely to generate further inequalities?

PDSA#	PDSA Title:	PDSA Date:	Owner:
Objective of this PDSA:			
Change Idea: Briefly describe the specific change you plan to test			
Questions: What question(s) do we want to answer on this PDSA cycle?			Predictions: What do you think will happen? Prediction on change: Prediction on question(s)
Family of measures (Outcome, Process, Balancing):			

Submit your PDSA cycle in the first month of Q2, Q3 and Q4 **without having the Do-Study-Act sections completed.** (Continue to next page.)

Once you have tested the change, you will be able to identify the D-S-A sections. These will be discussed with your Pinnacle development manager or district manager.

To begin with you might capture at least four weeks of data and this should increase to six to eight weeks of data in Q3 and Q4. Review how this went after testing is completed and decide on the next course of action.

ACT

Adopt: This went well and showed improvement. Choose another change idea for the next quarter.

Adapt: Parts of this study went well but with a tweak or two could go better. Repeat change idea with adaptations.

Abandon: This did not make a bit of difference or worsened our findings. Choose another change idea for the next quarter.

End of year report

The end of year report is an opportunity to reflect and share what you have achieved through the year. The report is short, giving an overview of your progress and findings, and an opportunity to share your work. As a first-year programme we would invite you to discuss how you wish to disseminate your QI journey/work. Note: the majority of this report can be copied directly from your QI plan.

The template can be found in the **Templates** section at the back of this document.

QI storyboard

A QI storyboard is a one-page visual summary of a quality improvement initiative. The storyboard highlights key aspects of a quality improvement effort by documenting the project from beginning to end. Some practices may like a visual storyboard to show their progress.

The template can be found in the **Templates** section at the back of this document.

An A3 laminated template is available that can be used to write updates and changes as you progress through the QI journey.

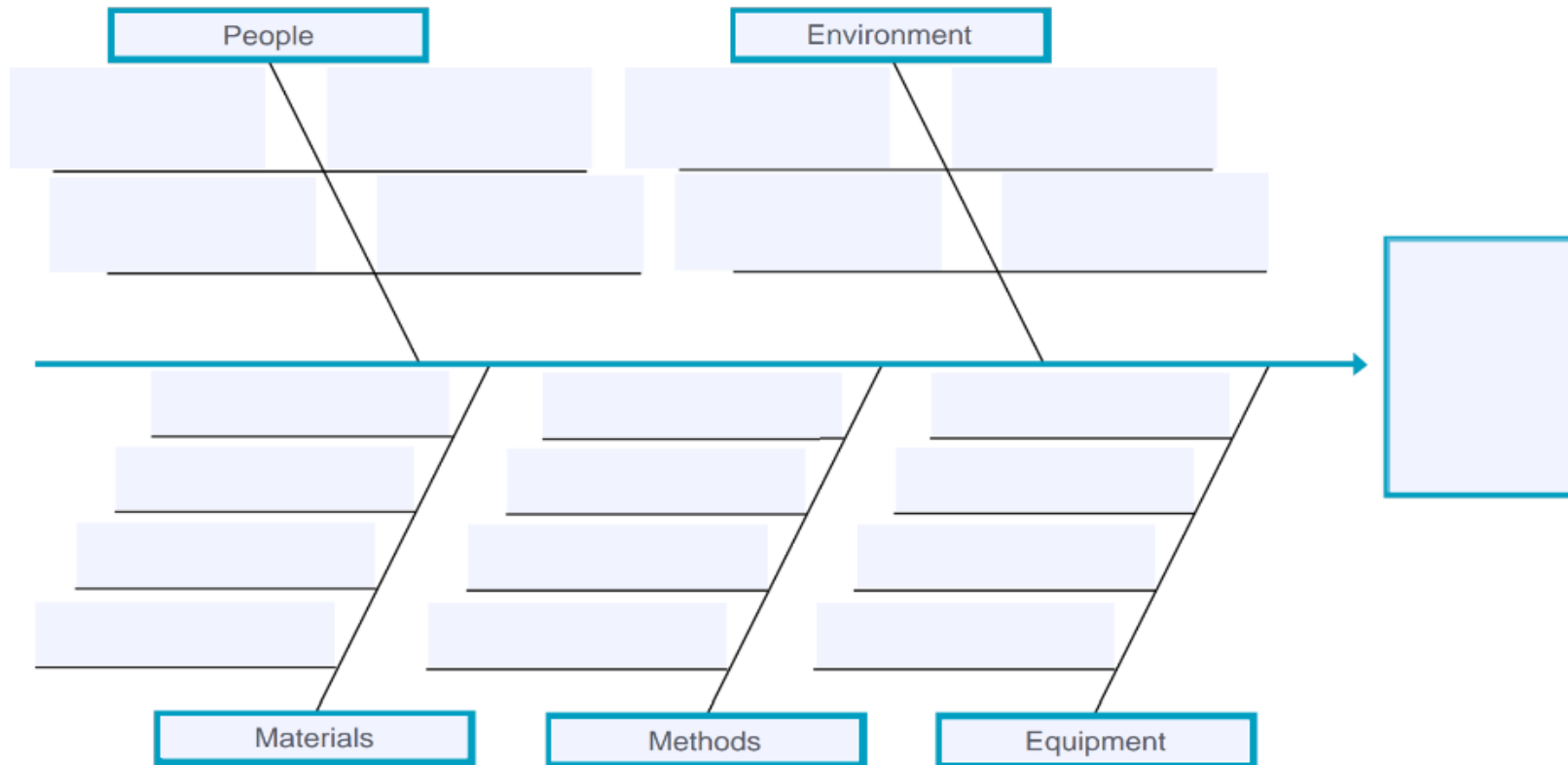
Templates

Fishbone diagram

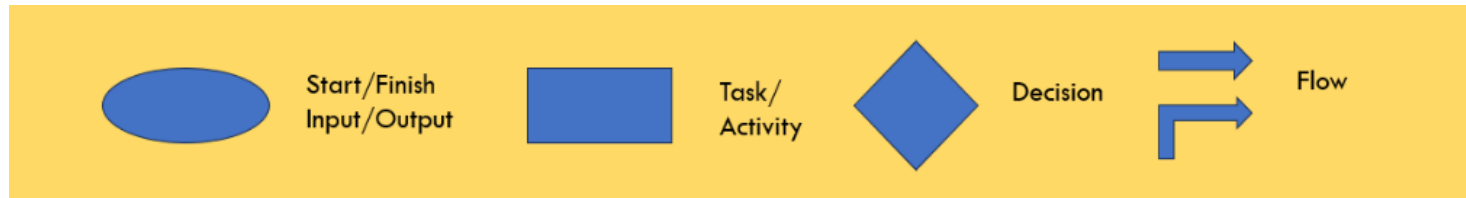
Team: _____

Project: _____

- 1) Input the effect you'd like to influence.
- 2) Input categories of causes for the effect (or keep the classic five).
- 3) Input causes within each category.



Process map



Draw your own process map using the symbols to identify what is happening.

Five Whys

Problem:							
Why 1	Why 2	Why 3	Why 4	Why 5		Root Cause	

Use arrows to indicate direction and relationships.

Problem statements and aim statements

Clinical indicator _____

Problem statement/elevator pitch:

To increase/decrease _____(process/outcome)

From _____ (baseline per cent, rate, #, etc)

To _____ (goal/target per cent, rate, #, etc)

By _____ (date, 3—6-month timeframe)

In: _____(population impacted)

Clinical indicator _____

Problem statement/elevator pitch:

To increase/decrease _____(process/outcome)

From _____ (baseline per cent, rate, #, etc)

To _____ (goal/target per cent, rate, #, etc)

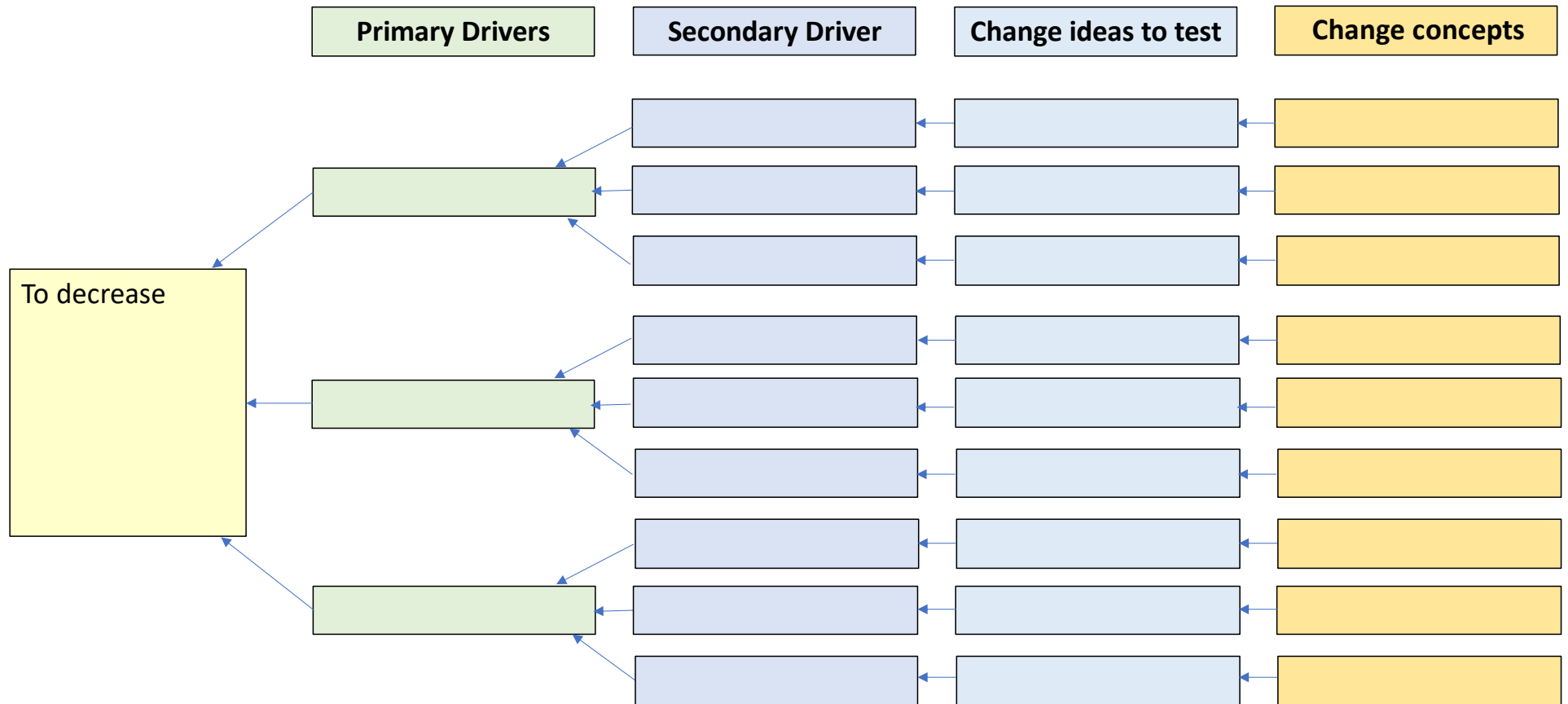
By _____ (date, 3—6-month timeframe)

In: _____(population impacted)

Driver diagram

QI Project Name

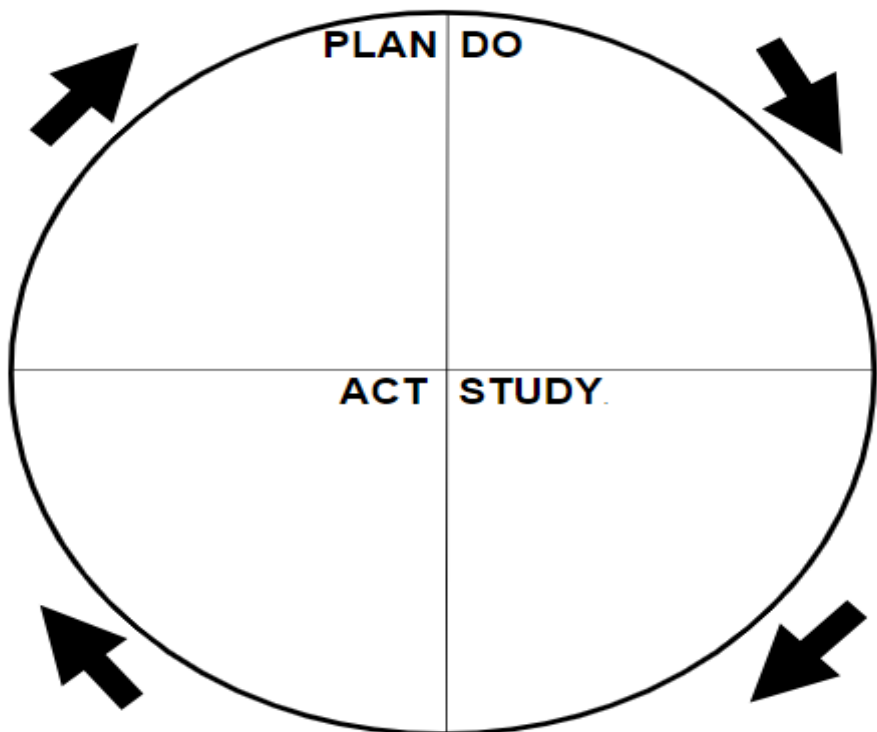
Date:



Measures template

Data Collection Plan				
Type of measure	Operational definition	Data Source(s)	What, how, when	Who
(Outcome, process, balancing)	Definition of words used in measure	What is the source of data?	What are we going to collect? How will the data be collected? When, how often will the data be collected?	Who will collect the data?

PDSA template

PDSA#	PDSA Title:	PDSA Date:	Owner:
Objective of this PDSA:			
Change Idea:			
Questions:			Predictions:
Family of measures (Outcome, Process, Balancing):			

Quality improvement plan (QIP)

Clinical indicator			
Name of practice			
Problem statement <i>What is the issue you have identified?</i>			
Equity considerations <i>What approaches and resources did you use?</i>			
Data sources			
Aim statement <i>What are we trying to accomplish?</i>			
Family of measures <i>How will we know that a change is an improvement?</i> Initially, you may only be able to identify the outcome measure. The process and balancing measures may be easier to define with your change ideas (Q2 onwards).	Outcome	Process	Balance
	<i>From the aim statement determine how you will measure data to show improvement</i>	<i>Helps you determine if you are doing the right things to achieve your outcome measures</i>	<i>Helps determine if the changes you are introducing in one part of the system are impacting another part of your system</i>
	<i>Numerator:</i>	<i>Numerator:</i>	<i>Numerator:</i>
	<i>Denominator:</i>	<i>Denominator:</i>	<i>Denominator:</i>
Primary drivers identified			
Change ideas <i>What change can we make that will result in an improvement?</i>	Change theme	Change idea	

End of year report

Clinical indicator	
Name of practice	
Problem statement <i>What is the issue you identified?</i>	
Equity considerations <i>What approaches and resources did you use?</i>	
Data sources	
Aim statement <i>What we were trying to accomplish</i>	
Findings (based on family of measures for each quarter)	
What went well? What were your successes?	
What could have been done better?	
Lessons learned	
Further dissemination of your QI journey/work	Would you be interested in any of the following: Presentation Poster Publication Pinnacle Forum Other Please provide who we can contact for this:

QI storyboard

Team information	Problem statement	Aim statement

Tools used	Gaps identified

PDSA – change idea	Issues	Findings (adapt, adopt, abandon)

A3 laminated copies of this storyboard will be available to each practice by the end of Q1.