



An Australian Government Initiative

# QUALITY IMPROVEMENT GUIDE & TOOLS

For General Practice

EDITION 1

## HUNTER NEW ENGLAND CENTRAL COAST LTD

Hunter New England Central Coast Limited is a not for profit organisation funded primarily by the federal government to operate a primary health network (PHN). PHNs are responsible for improving the health of their communities by working cooperatively with hospitals (both public and private), general practitioners, specialists and allied health professionals like optometrists, physiotherapists and dietitians.

HNECC covers a diverse geographical area reaching from the Queensland border in the north to Gosford in the south, and west past Narrabri and Gunnedah.

HNECC respectfully acknowledges the traditional owners and custodians of the land in the region that it covers which include the traditional nations of the Awabakal, Biripi, Darkinjung, Geawegal, Kamiliroi, Wonaruah and Worimi people.

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# GLOSSARY

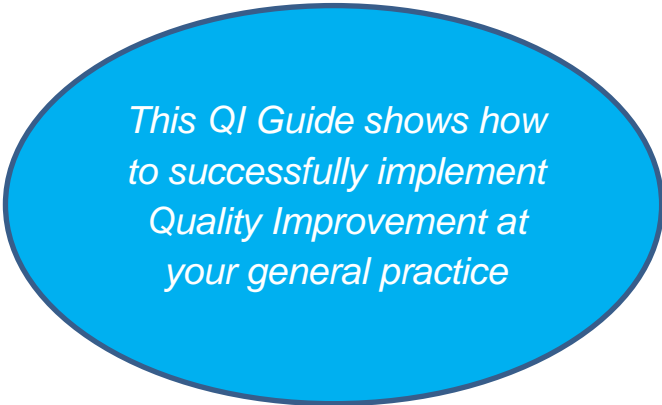
<b>AAPM</b>	Australian Association of Practice Managers
<b>ACRRM</b>	Australian College of Rural and Remote Medicine
<b>AHPRA</b>	Australian Health Practitioner Regulation Agency
<b>APCC</b>	Australian Primary Care Collaborative
<b>CAT4</b>	Clinical Audit Tool Version 4
<b>CPD</b>	Continuing Professional Development
<b>CPR</b>	Cardiopulmonary Resuscitation
<b>ED</b>	Emergency Department
<b>EOI</b>	Expression of Interest
<b>GP</b>	General Practitioner
<b>HNECC PHN</b>	Hunter New England Central Coast Primary Health Network
<b>IF</b>	Improvement Foundation
<b>IT</b>	Information Technology
<b>MBS</b>	Medicare Benefits Schedule
<b>MFI</b>	Model for Improvement
<b>NP</b>	Nurse Practitioner
<b>PATCAT</b>	Practice Aggregation Tool for the Clinical Audit Tool
<b>PENCAT</b>	PEN CS Clinical Audit Tool
<b>PDSA</b>	Plan Do Study Act
<b>PIP</b>	Practice Incentive Program
<b>PLAN</b>	Plan Learning and Need activity
<b>QI</b>	Quality Improvement
<b>QPA</b>	Quality Practice Accreditation
<b>Qualitative</b>	Measures that are descriptive or subjective (e.g. patient feedback)
<b>Quantitative</b>	Measures expressed in a numerical format (e.g. healthy weight)
<b>RACGP</b>	Royal Australian College of General Practitioners
<b>SIP</b>	Service Incentive Program
<b>SMART-A GOAL</b>	A goal that is Specific, Measurable, Achievable, Relevant, Time-based and Agreed

# 1. INTRODUCTION

## PURPOSE

This Guide is designed to help your practice complete Quality Improvement (QI) activities.

While it primarily focuses on QI activities that are for your practice, [Appendix 1: Professional development and QI Activities](#) contains information about how QI can also benefit different members of your practice.



*This QI Guide shows how  
to successfully implement  
Quality Improvement at  
your general practice*

## OUR COMMITMENT TO QUALITY IMPROVEMENT

Hunter New England Central Coast Primary Health Network (HNECC PHN) can provide you with practical advice and resources that will help you plan, implement and review QI activities in all areas of your practice (see [The Quadruple Aim](#)). Contact us to find out how we can help you.

One of the best-known programs in the primary health care sector is the [Australian Primary Care Collaboratives](#) (APCC), established in 2005. The APCC was delivered by the Improvement Foundation, with funding from the Commonwealth Department of Health, and we used many of their ideas to develop this guide.

## METHODOLOGIES AND APPROACHES

The methodologies and approaches in this guide have been developed by:

- [The Improvement Foundation](#) (IF)
- [The Institute of Healthcare Improvement](#) (IHI)
- [The Royal Australian College of General Practitioners](#) (RACGP)

HNECC PHN recognises these organisations as leaders in QI and we recommend that you contact them for any additional information you need about these methodologies and approaches.

## 2. QUALITY IMPROVEMENT

### WHAT IS QUALITY IMPROVEMENT?

Quality Improvement is a system of regularly reviewing and refining processes to improve them, and therefore improve the quality of care your patients receive and their health outcomes. A growing body of evidence demonstrates that Quality Improvement activities lead to positive change in practices, particularly when implemented using a whole-of-team approach.

Quality Improvement in your general practice can address one or more of the following six domains:

**Safety:** avoiding harm to patients.

**Effectiveness:** providing evidence-based care and only providing services that are likely to be of benefit.

**Patient-centricity:** providing care that is responsive to each individual patient's preferences, needs and values.

**Timeliness:** reducing waiting times for care and avoiding harmful delays.

**Efficiency:** avoiding waste.

**Equity:** providing care of the same quality regardless of personal characteristics such as gender, ethnicity, location or socio-economic status.

### WHY UNDERTAKE QUALITY IMPROVEMENT?

Improving all aspects of your primary care practice helps you deliver better care and health outcomes to your patients. Benefits and outcomes of QI are often categorised into the following areas:

- **Patient Experience:** Improving patients' access to care; quality and safety; and outcomes.
- **Care Team Wellbeing:** Improving staff satisfaction, morale, team-work, and workforce sustainability.
- **Population Health:** Reducing the burden of disease and health inequalities across your region.
- **Reducing Costs:** Reducing unnecessary hospital admissions; improving the return on innovative investments; and managing the cost of providing care to the population.

*Continuous quality improvement makes the practice a better place to work and a stronger more viable business*

### THE QUADRUPLE AIM

When an improvement affects all the four areas listed above, we say that it has achieved the 'Quadruple Aim'.

When developing ideas for QI in your practice, you should identify how each proposed improvement would affect each of the four areas below, and whether it would affect all four and therefore achieve the Quadruple Aim.



#### Improved Patient Experience

Better care: safe, quality care

Timely and equitable access

Patient and family needs met



#### Improved Provider Experience

Increased clinician and staff satisfaction

Leadership and teamwork

Quality improvement culture in practice



#### Population Health

Better health outcomes

Reduced disease burden

Improvement in physical and mental health



#### Sustainable Cost

Efficient and effective services

Increased resources for primary care

Commissioning effectively

## CASE STUDIES

### A better plan for patient care

Premier Health Partners developed and trialled a template for patient-centred care plans.

#### How it worked:

Patients with the greatest need (those with co-morbidities and a HbA1c greater than 7%) were identified using the Pen CS Clinical Audit Tool (known as CAT4). The practice nurse gave each patient a resource folder that contained:

- Their personal care plan
- Referrals made to allied health services
- Educational resources, such as brochures explaining their condition and treatments
- Relevant test results
- Other relevant material relating to the patients' needs.

Patients were asked to take the folder to all relevant appointments, including those with allied health and community health providers.

Providing clearly identified goals unique to each patient kept them motivated and engaged.

#### The outcomes:

- Patients addressed needs as they arose (instead of waiting for a crisis that resulted in intervention such as hospitalisation), indicating that patients' self-care management skills improved.
- Patient feedback indicated that they had:
  - An improved sense of satisfaction in achieving goals
  - Improved quality of life
  - Increased self confidence in their ability to manage their health.
- CAT4 data reported a significant improvement in biometric measurements.



Improved  
patient  
experience



Sustainable  
cost

### Holiday Clinics a healthy connection for refugees and asylum seekers

Clinicians at cohealth Fitzroy introduced dedicated school holiday sessions for young children and their families from refugee and asylum seeker communities. Because some parents found it difficult to access health care outside of school hours, their children were often missing catch-up immunisation and health assessment appointments. The sessions gave families an opportunity to access primary care more efficiently and achieve better health outcomes.

**The trial:** The first school holiday clinic service approximately 80 refugee patients.

Specialised nurses and support workers:

- Assessed physical and mental health needs
- Checked for vitamin D and iron deficiencies
- Gave catch-up vaccinations
- Provided other health and social services such as nutrition advice, dental services, and maternal and child health.



Population  
Health



Improved  
patient  
experience

### Outcomes:

- The Refugee Health Nurse advised that an unexpected, but welcome, outcome was through inviting families to the holiday clinics, she gained a better understanding of the strong sense of community amongst the refugee families. She also established relationships with local networking groups who work together across various services.
- The school holiday clinics have continued because of the success of the project.

## THE PRACTICE IMPROVEMENT PAYMENT - QUALITY IMPROVEMENT

The Practice Incentive Program Quality Improvement (PIP QI) is the Federal Government's new incentive payment for practices. As of August 2019, it replaces the following PIP incentives:

- Asthma
- Quality Prescribing
- Cervical Screening
- Diabetes.

The PIP QI allows your general practice to implement changes that are relevant to your patient population. This means you can focus on improving patient outcomes and access to care while also developing efficient business processes. As such, the new incentive aims to improve access to care, detection and management of chronic conditions, and quality, safety, performance and accountability.

The [PIP QI readiness tool](#) is a template that will help your team prepare for Quality Improvement, and includes the following:



- Identifying your current QI challenges and past successes
- Using CAT4 to ensure data quality
- Identify patient populations and establish baseline data
- Assigning a QI project lead and team responsibilities
- Identifying the tools and resources you need.

### 3. CONDUCTING A QUALITY IMPROVEMENT ACTIVITY

A Quality Improvement (QI) Activity is any activity your practice undertakes as part of your QI process.

#### THE MODEL FOR IMPROVEMENT AND PDSA

The Model for Improvement (MFI)<sup>1</sup> is a proven approach for developing, testing and implementing changes in general practice, and is the approach many peak health bodies prefer including the RACGP and the Improvement Foundation.

The MFI helps you to break down your change into manageable pieces, which are then tested to ensure that the change results in measurable improvements, and that minimal effort is wasted. Remember: although every improvement is a change, not every change is an improvement.

##### The benefits of using the Model for Improvement

- It is a method to plan, develop and implement change that anyone can apply
- It reduces risk by testing small changes before wider implementation
- By starting small, there is less resistance to change
- You can achieve team unity on common goals
- It encourages individual creativity and ideas from team members.

Implementations of MFI have shown that it will work best when you:




- Define the problem
- Think small and test
- Use a whole team approach
- Share success and lessons learned.

##### The Thinking Part and the Doing Part

The MFI is a two-step process compromised of the 'thinking' part, and the 'doing' part.

The **'thinking part'** asks you to answer these questions:





1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in an improvement?

	Goal
	Measure
	Idea

The aim of these questions is to help you develop a relevant goal, and the measures and ideas that will form the basis of your activity plan.

During the **'doing part,'** work through Plan Do Study Act (PDSA) cycles that will:

- Help you test the ideas
- Help you assess whether you are achieving your desired objectives
- Enable you to confirm which changes you want to adopt permanently.

	Plan
	Do
	Study
	Act

<sup>1</sup> Associates for Process Improvement, 1993

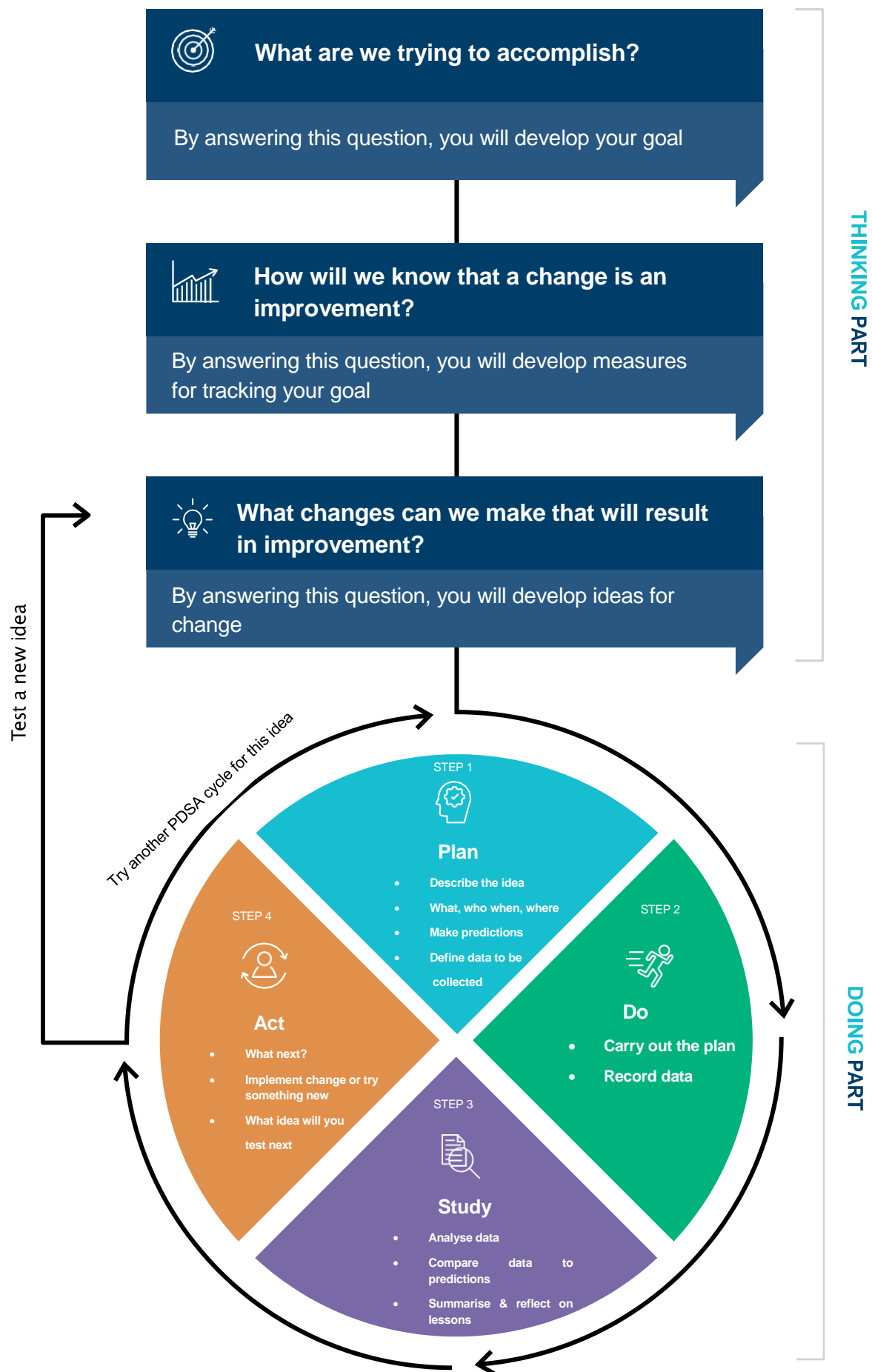


Figure 1 - The Model for Improvement

## The PDSA Cycle of Quality Improvement

Implementing the PDSA cycle allows you to use simple measurements to monitor the effect of multiple changes over time. You begin with small changes, which, once proven, can quickly become larger or be implemented more widely. As you go through the successive cycles of change (shown in *Figure 2: The PDSA Cycle: Plan Do Study Act*), you review the process and identify what you have learnt so far. And you can quickly and easily test a suggested improvement based on ideas, research, or changes that have worked elsewhere. The successive cycles of change are shown in *Figure 1: The Model for Improvement* and *Figure 3: Repeated Use of the PDSA Cycle*.

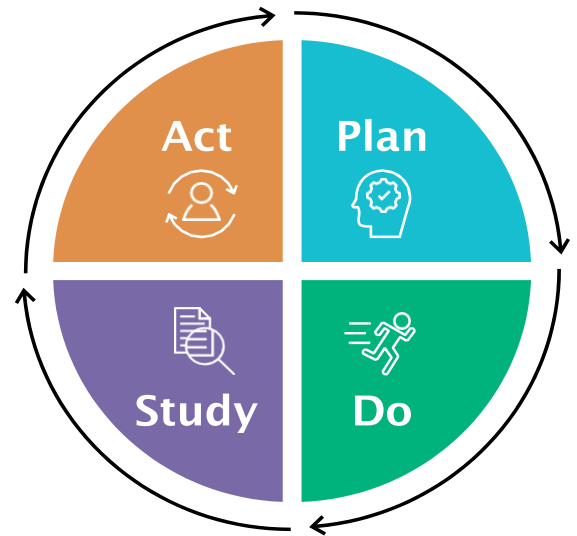


Figure 2 - The PDSA Cycle: Plan Do Study Act

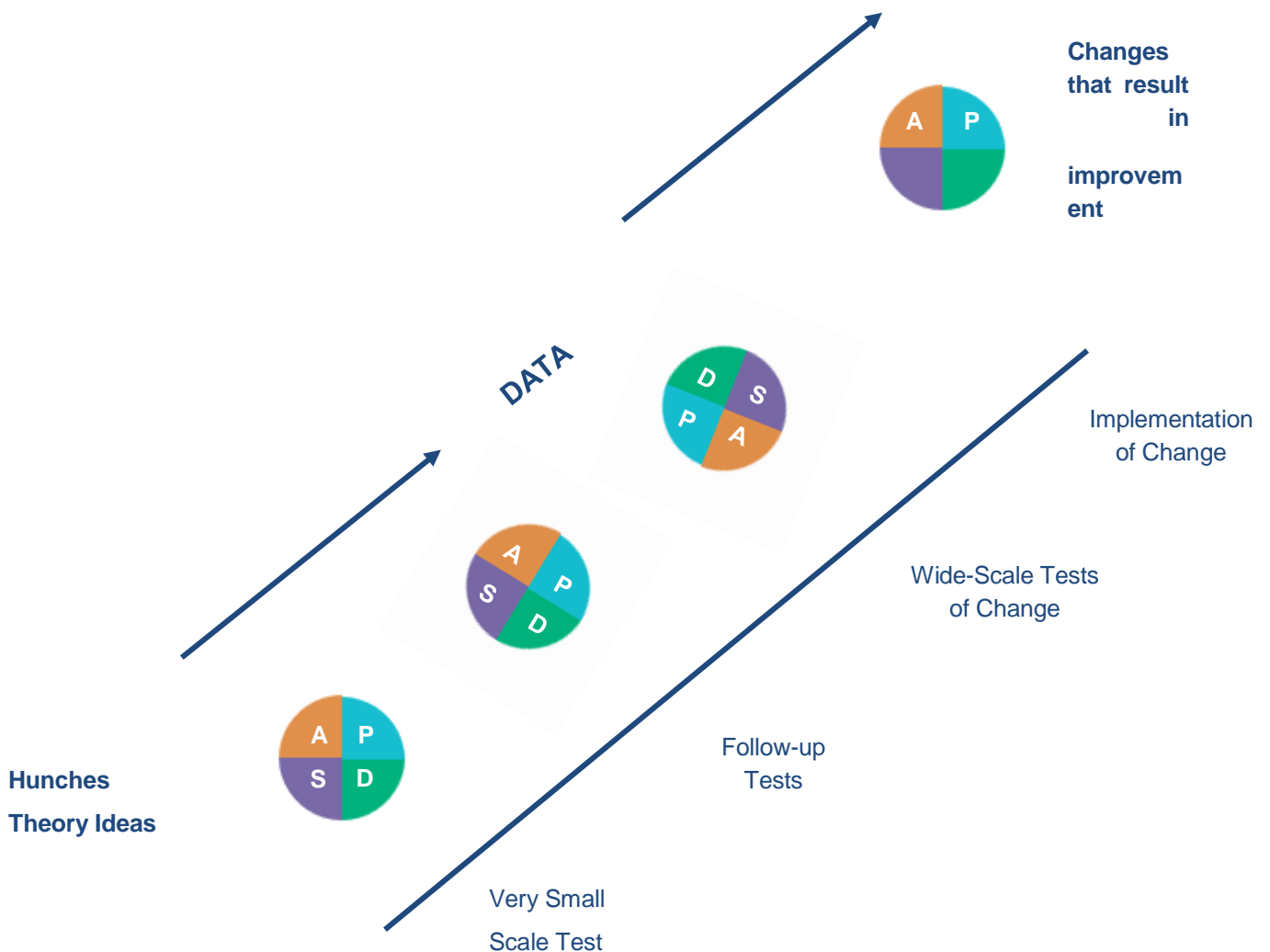


Figure 3 - Repeated Use of the PDSA Cycle

## AN OVERVIEW OF THE QI PROCESS

The following table lists the tasks you need to complete during a QI activity. An explanation of each task is included after the table. [Appendix 3](#) contains a checklist for completing all these tasks.

### The Thinking Part

### The Doing Part – PDSA Cycle

 Identify a change idea Develop a S.M.A.R.T. goal	<b>PLAN</b>  Establish the QI team Develop a QI project plan Collect baseline data
	<b>DO</b>  Implement the planned activities Monitor progress via process measures Inform and engage with whole of practice team
 Select measures	<b>STUDY</b>  Compare new data to baseline data Share outcomes with team
	<b>ACT</b>  Collect evidence of outcomes Review and continue or review and start next cycle
 Brainstorm ideas for implementing change Develop objectives	

## STEP 1: THE THINKING PART

### Identify a change idea

Use data and evidence to identify where you need to make an improvement, or where there is an opportunity for improvement. For example, you could examine:

- Practice feedback from patients, staff or accreditation
- Data (e.g. Routine practice data, CAT4 reports, PHN provided data)
- Periodic reviews or audits of system information (e.g. Review how thoroughly you identify Aboriginal and Torres Strait Islander status of patients, or the currency of your General Practice Management Plans)



When identifying a possible improvement, think about whether the improvement will:

- Address one or more of the [6 domains](#) of Quality Improvement
- Affect patient experience, population health outcomes, care team wellbeing and cost effectiveness. In other words, will it achieve a Quadruple Aim?

### Develop a goal

After you have identified a need, identify the overall goal of your QI activity.

You might need to complete several [PDSA cycles](#) to achieve this high-level goal.

Make your goal SMART-A<sup>2</sup> (Specific, Measurable, Achievable, Relevant, Time-bound and Agreed).



<sup>2</sup> <https://www.healthdirect.gov.au/smart-goals>

### Example – Change ideas to consider

Area	SMART Goal
Aboriginal Health	Increase the number of health assessments completed and claimed for Aboriginal patients attending our practice by 15% by December 2019.
Accreditation	Become an accredited practice against the 5th edition standards by July 2020.
After Hours	By February 2019, explore at least five potential opportunities to improve access to care outside of normal business hours.
Aged Care	Work with the local residential aged care service to increase the number of patients with Advance Care Plans, so that at least 20% have them by the end of 2019.
Alcohol and other Drugs	By June 2019, upskill all practice staff in how to best support patients experiencing harm from alcohol and other drugs.
Cancer	By June 2019, increase cancer screening rates by 20%, by upskilling all practice staff in cancer prevention, screening referrals and pathways.
Chronic Disease	By March 2019, increase uptake of asthma cycle of care plans by 20%.
Chronic Disease	By March 2019, decrease waist circumference and/or Hb1Ac levels for our patients with, or at risk of, type 2 diabetes.
Children and Families	During 2018, promote child vaccination, in order to achieve immunisation rates of 90% for children attending our practice before end of 2019.
Digital Health	Increase the number of Shared Health Summaries uploaded to a patient's My Health Record by December 2018 to 50% of active patients.
Mental Health	Provide professional development to all staff by end of December 2018, so that they can effectively manage patients experiencing mental ill-health.
Workforce	Complete a team health check before December 2018 and identify opportunities for continuing professional development for each team member.

### Select measures

Select measures that you can use to evaluate your progress towards your goal. This means that you need to 'measure' your current situation before you begin, and regularly 'measure' the changed situation during the project.

Follow these guidelines so that you select measures that will provide you with meaningful information:

- Collect measurements at the beginning of the project (these are called baseline measurements) and then at regular intervals throughout the project. For example, identify how many health assessments you complete and claim for Aboriginal patients now, in six months' time and in another six months' time.
- Use data that can be obtained easily. For example, data that you can easily extract from your clinical software or from other data extraction tools such as CAT4.
- Select a combination of process measures and outcome measures.

[Process measures](#) provide information about what is happening (e.g. what/how much is being done/delivered) and should be taken throughout the project. See [Section 4](#) for more information.

[Outcome measures](#) provide information about the results or performance of a process (e.g. beneficial changes) after the project.

- Collect a combination of qualitative data (e.g. comments and descriptions) and quantitative data (e.g. results of surveys and data collected from aggregation tools)
- Present data and findings visually (e.g. using graphs, tables and charts) so that your team can quickly and easily understand and use the information.

For more information on how to measure improvement, see [Section 4: Measuring Improvement](#).

## Brainstorm ideas

Developing high-level ideas (sometimes called ‘change concepts’) can help you to generate specific ideas that lead to improvement.



The following table shows examples of change concepts.

Example of change concepts	
Change concept	Examples
Eliminate waste	Waste of stock, inefficient use of time, repetitive work
Improve work flow	Improved planning, re-ordering steps in a process, prioritising steps differently
Strengthen workforce	Professional development, updating roles and responsibilities
Improve work environment	Improving team culture, change management, staff morale
Improve GP/patient communication	Understanding the customer's needs, understanding the practice's expectations
Manage time	Reducing waiting times, protecting staff time so they can complete work
Improve processes	Using standard templates, using HealthPathways for all referrals
Reduce errors	Redesigning a process, implementing more efficient technology

You may also need to **clarify what is in scope and what is out of scope**. In other words, are there any parts of the issue or processes that the improvement team should not address? For example, if your aim is to improve influenza immunisation rates, you may want to focus on children aged 6 months to 5 years and exclude other age brackets until you have evidence that your change idea is effective.



## Brainstorming Tools

During the Thinking Part, you can use a variety of tools to identify areas of your practice that would be relatively easy to improve.

Having identified these areas, you can move into the Doing Part and conduct your first PDSA.

Some brainstorming tools commonly recommended by IHI include:

- [Affinity Tool](#)
- [Five Whys](#)
- [Driver Diagram](#)
- [Flow Chart](#)
- [Cause and Effect \(Fishbone\)](#)

Versions of these tools can also be accessed [here](#).

## Develop objectives



To develop specific objectives:

- Identify what you need to **do** to achieve that outcome
- Identify what needs to **change** to achieve that outcome.

One way to do this is to brainstorm ways you could achieve the outcome. Each specific objective might become a PDSA cycle.

For each specific objective:

- Consider how your practice will implement it
- Identify (high-level) steps to achieve the objective
- Include these actions in the [Implementation Plan](#)
- Consider how to address concerns staff might have:
  - Consider possible apprehension or resistance in staff
  - Identify potential responses from each stakeholder group (e.g. non-clinical staff might feel that new technology will threaten their job security)
  - Identify actions you can take to reduce these concerns.

### Developing a specific objective: scenario

Evidence has shown that early intervention reduces the incidence, morbidity and management costs of chronic disease. You decide to check your CAT4 data and discover that only 2% of your active patients<sup>3</sup> aged 45-49 have attended for a health check in the past 12 months, even though there is Medicare item number for the 45-49-year-old health check.

You decide that the specific objective you want to achieve is to get 50% of all active patients aged 45-49 to attend for a health check over the next 12 months. Achieving this objective will deliver health benefits to patients, and financial benefits to your practice.



### KEYTIPS

- Use the Quadruple Aim to help inform your change ideas. Create a goal that is specific, measurable, achievable, relevant, time-based and agreed (S.M.A.R.T-A)
- Identify how you will measure change before, during and after the activity
- Use change concepts to help brainstorm ideas
- Use a tool such as HNECC PHN's QI **Implementation Plan** to turn your ideas into a PDSA.

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<sup>3</sup> According to RACGP standards, active patients are patients who have visited the practice at least 3 times in the past 2 years.

## STEP 2: THE DOING PART (PDSA CYCLES)



### PLAN – Involve your team, and develop a Project Plan

#### *Prepare your team*

Adopt a **whole-of-team approach** from the outset. Evidence has shown that improvement is most likely to occur when all staff support the change.<sup>4</sup>

Establish a QI Project Team:

1. Establish a QI Project Team that includes representatives of all stakeholders (e.g. the practice manager, reception and other administrative staff, nursing staff, GPs, allied health practitioners).
2. For each project, assign at least two project leads:
  - A lead GP to inform any clinical content
  - Another person in your team capable of managing the project, to whom you give projected time so that they can complete the work required.
3. Use the HNECC PHN and Improvement Foundation's [team health check](#) and [score sheet](#) to help you assess your team culture and identify roles and responsibilities. This will help you to identify:
  - Team members who might resist or influence change
  - Issues that could arise during the project
  - Concerns that need to be addressed before you begin an activity.

#### *Consider including a patient in your QI team*

*Including a patient's perspective in the planning, implementation and evaluation of a Quality Improvement project will help you achieve meaningful change and empower your patients to become decision makers of their own health.*

#### *Consider using other patients in QI activities*

*Although involving patients can be challenging, it can lead to greater behavioural change and the uptake of new processes. To include patients in your QI activities, you could:*

- *Invite them to participate in workshops as patient advisors*
- *Consult with them about specific issues they have knowledge or expertise in*
- *Ask them to help you develop resources*
- *Invite them to complete a survey or provide feedback*
- *Use previous patient experiences to identify changes you can make*
- *More information on patient feedback is available on the [RACGP website](#).*

#### *Develop a QI Project Plan*

Develop a plan that includes the what, who, when, where, possible outcomes, and the data to be collected during this QI project. The [project plan](#) should be an extension of the implementation plan you developed when considering the specific objectives (page 15).

For each PDSA cycle, identify:

- |   |                                  |
|---|----------------------------------|
| ○ The steps                                       | ○ IT system implications         |
| ○ Who will be involved                            | ○ How much time will be required |
| ○ What procedures need to be developed or updated | ○ Costs                          |
|   | ○ Any other ramifications.       |

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<sup>4</sup> Improvement Foundation, 2009

Develop a detailed timeframe of the whole project so you can clearly see how and when to assign resources to the project and what might affect its implementation (e.g. public holidays, scheduled leave, concurrent projects or activities). Remember that the 'T' in SMART-A goals refers to time-based, so for each step, you need to identify the proposed start and end dates.

Document how you will monitor the project by including:

- Performance indicators you will use to monitor the effectiveness of your activity.
- How the data will be collected, by whom, and how often
- Who the results will be reported to
- How long you will implement this project before you review its performance
- Who will be involved in the review.

When you have completed the activity plan:

- The practice leaders should endorse the plan and give authority to proceed
- Document that the plan has been endorsed.



**Another useful tool is an activity plan which helps to set and monitor specific timeframes as your progress through the project.**

## DO – Taking Action

Taking action may involve:

- Training
- Writing and updating procedures
- Making changes to systems
- Providing information about the change to patients and others affected by the change.



Implement the changes through a series of steps taken over time.

- Regularly review your progress towards the goal. Many teams set regular meetings to do this.
- Communicate with other practice members. Your project team needs to agree on the use of different communication channels and all staff must know of, and have access to, these channels. For example, you could give regular updates at staff meetings and display graphs showing improvements on the team notice board.
- Keep your project team informed and involved, recognise their efforts (big and small), and provide them with feedback. As well as keeping everyone on track, this will help them stay enthusiastic about the change and their work.
- Reflect on and review what you are doing as you go and monitor your progress towards achieving your goal.
- Document, publicise and demonstrate the support given by the practice leaders.

## STUDY – Review and communicate your performance

When you have fully implemented the implementation plan, collect relevant data to determine the results of the changes and measure them against the goals you have set.



To study the change, you should:

- Collect appropriate performance data
- Review and compare the new performance data to the baseline data
- Summarise the lessons learnt – did the change result in an improved performance? Was the improvement as large as expected?

Inform the rest of your practice team of the outcomes, and your patients if it is appropriate.

## ACT – Review and improve



Determine what to do next based on how successful the implementation was:

- If the project met or exceeded its overall goal, lock in the change and/or scale up the change.
- If the project did not meet its overall goal, consider why not and identify what can be done to improve performance. You need to clearly document the lessons learnt so you can determine how to implement the next PDSA cycle.

Start planning the next cycle sooner rather than later, so that you maintain your improvement momentum. In particular, consider what you will do different to achieve a better outcome.

Even if the change met or exceeded its overall goal, you should look for ways to improve the approach or how the project was implemented or monitored.

If you are going to implement a change more broadly, consider how to make the change sustainable, and how and when you will monitor its success in the future.

IHI's [Seven Spreadly Sins](#) has great tips for successfully sharing and embedding change.



### KEYTIPS

- Plan your PDSA cycles and document using a project plan.
- Remember to engage, communicate, reflect with your team.
- Compare new data to baseline data.
- Share outcomes and celebrate wins!
- Ensure your change is sustainable.

## 4. MEASURING IMPROVEMENT

Throughout the QI project, you need to monitor and evaluate your progress towards the overall goal, using the measures you decided on during the planning stage. You also need to assess processes and evaluate the outcomes and impacts of change activities you undertake.

You can collect a variety of data in a variety of different ways and from a variety of sources, including:

- CAT4
- Manual measure worksheets
- Clinical audit worksheets
- Patient feedback
- Staff surveys.

### TYPES OF DATA AND MEASURES

#### CAT4 data

CAT4 is the current version of the PEN Clinical Audit Tool (commonly referred to as PENCAT). This is a clinical audit tool that allows you to:

- Analyse data
- Devise the necessary strategies to improve patient care
- Report of Quality Improvement activities undertaken in your practice.

Compatible with most major clinical software platforms, CAT4 aims to give you the information you need to improve health outcomes for patients and business outcomes for your practice.

You can use CAT4 data to:

- Build registers of patients, set up and implement practice recall and reminder registers
- Investigate and identify population health issues that are specific to your practice
- Identify patients who are not meeting clinical targets
- Identify key health outcome measures for an individual patient
- Identify potential sources of income via MBA item numbers
- Provide evidence to support Quality Improvement initiatives as part of practice accreditation.



**Your staff might need basic training on how to best use CAT4, especially if they have not used earlier versions. PEN Computer Systems have several resources on their website that may be helpful, including videos, training manuals and webinars.**

## Baseline and progressive data

Begin collecting data while you are developing insight and ideas (as outlined in The Thinking Part and The Doing Part in [Section 3](#)) so that you can set realistic and relevant goals. For example, if you are aiming to increase the number of health assessments completed, you should know how many health assessments have been completed before the beginning of the project. You can then compare this baseline data with results during and after the project.

Identifying the long-term goal will help you determine what baseline data you might need to collect. The following table shows:

- Some of the best practice measures your practice should be aiming to achieve.
- The baseline data that you need to collect so that you can measure your progress.

### Example

Best practice measure	Baseline data to collect
90% of active patients have allergies recorded in the system	<i>The current number of active patients with allergies recorded</i>
75% of active patients' records contain an accurate health summary (smoking status, immunisations, medicines list)	<i>The current number of active patients with a completed health summary</i>
90% of active patients should have waist circumference recorded	<i>The current number of active patients with waist circumference recorded</i>
All patients with cardiovascular disease should have blood pressure recorded every 6 months	<i>The current number of cardiovascular disease patients with blood pressure recorded, and the date of each patient's most recent record</i>
All patients with diabetes should have HbA1c results recorded every 12 months	<i>The current number of diabetic patients with HbA1c recorded</i>

While you are implementing your project, your results should be progressively improving. Recording this progressively improving data is a process measure, as described below.

## Process Measures

Process measures allow you to identify whether current activities are working towards an achievement of intended outcomes and whether you need to change your plan. These measures should be taken at regular intervals during the project via PDSA cycles.

*Example: Measuring HbA1c levels in diabetic patients each quarter for 12-months to determine if a specific intervention is working. The 'process measure' might be the number of HbA1c's that are performed in a certain time period or per diabetic patient.*

## Outcome Measures

Outcome measures identify if the project aims have been achieved. They will identify the project's actual effect on the change concept such as patient outcomes, business processes, practice revenue.

*Example: The average HbA1c measure for patients with diabetes after an intervention. Having set a goal to improve the average long-term blood sugar of diabetic patients in your practice, your 'outcome measure' might be a comparison of the average for the last 3 months and the average for the previous three months (your baseline data).*

## Qualitative and quantitative measures

You should collect both qualitative and quantitative data at regular intervals.

**Qualitative data** refers to descriptive information. For example, you could collect information from satisfaction scales, Likert scales, answers to questions on a survey form, 'self-reported wellness', minutes from meetings, willingness to maintain the 'change'. This type of data may help you to identify patterns and gauge patients' level of satisfaction with the care they have received.

*Example: Responses to the question, what are the challenges that you face as a nurse when measuring HbA1c levels in patients each quarter.*

**Quantitative data** refers to definitive information that is expressed in terms of quality, amount or range, such as the number of diabetic patients with HbA1c recorded, the range of temperatures recorded on a thermometer in a refrigerator that stores vaccines.

CAT4 provides data to measure a change quantitatively (i.e. actual numerical changes in a data element such as blood sugar or blood pressure).

## Sampling measures

If a QI project targets a large population, using a small sample of that population is a simple and realistic way to measure its effectiveness.

*Example: Sampling just 10 patients over three months to measure the effectiveness of a new recall system for testing HBA1c levels.*

# PRESENTING EVIDENCE OF THE IMPROVEMENT

Presenting evidence of an improvement is an effective way of:

- Informing your team about the project
- Demonstrating outcomes
- Providing relevant evidence if you are participating in a QI activity that is being facilitated by another organisation (see [Appendix 2](#)).

Use graphs and diagrams, including those easily accessed from CAT4, to display information visually, so that people can quickly and easily understand the data.

When deciding which information to present, consider the following questions:

- What does the data say?
- What story are you trying to tell?
- How should it be summarised?
- Can it be used to motivate or influence?



## KEYTIPS

- Use a clinical audit tool such as CAT4 to improve the quality of your data, identify your population, and measure your results.
- Maintain accurate data so that your baseline data is reliable.
- Decide early on what measures you will use to determine the success of your project.
- Collect data progressively and display visually (e.g. graphs) so that it is clear and easy to understand.

## 5. SUMMARY

For your Quality Improvement activities to be successful, you need to **plan**, **implement** and **review** thoroughly and systematically. Using the methodology and processes in this guide means you are more likely to achieve this goal and meet the Quadruple Aim.

### Set up your practice for success:

- Ask us about how we can help you
- Identify and consider several ideas for improvement.
- Set SMART-A goals that are realistic
- Consider the effect of the change on patient experience, population health, care team wellbeing, costs (does the change achieve the Quadruple Aim?)
- Implement small changes first and work up to large changes, using the PDSA cycle.

### Collect useful, accurate and varied data:

- Collect feedback from your patients and team members
- Collect baseline data and progressive data
- Collect qualitative and quantitative data
- Keep stakeholders informed, involved and engaged
- Involve your staff, keep them informed, and acknowledge their contributions and successes
- Involve some of your patients in Quality Improvement activities
- Display information visually (e.g. graphs, charts and tables).

### Review your outcomes and learn from them:

- Monitor and assess the outcomes honestly, so you can improve your process and achieve real improvement
- Document your process and outcomes, including how the process could be improved, so you can learn from them.

## 6. APPENDICES

### APPENDIX 1: PROFESSIONAL DEVELOPMENT AND QI ACTIVITIES

Professional associations and Colleges offer a range of formal professional development opportunities. However, working on QI activities in your practice and in local or state health facilities can also be considered professional development. For example:

- Nurses and allied health staff can meet Continual Professional Development (CPD) requirements by completing practice-based QI activities and attending education sessions both within and outside the practice.
- GPs can participate in a clinical audit of their practice.

The websites of the two GP colleges (RACGP and ACRRM) have information and resources that can help you plan and conduct QI activities in your practice.

#### Professional development for GPs

Both the Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM) offers GPs a range of Continual Professional Development (CPD) programs. Completing these programs is one way that GPs can satisfy fellowship and credentialing requirements of the colleges and relevant agencies, including AHPRA.

#### *RACGP's Quality Improvement and Continuing Professional Development (QI & CPD) Program*

The RACGP's QI & CPD Program is recognised by many regulatory bodies, including AHPRA and Medicare Australia. After meeting AHPRA's formal requirements for medical registration, GPs can achieve professional credentials required in a range of situations and access preferential rates from Medicare.

The current 2017-19 Triennium requires that each GP participates in:

- At least two Category 1 activities, at least one of which needs to be a QI activity, which can include any of the following:
  - Clinical audit
  - PDSA cycles
  - Small group learning
  - Supervised clinical attachment
  - GP research.
- The development of PLAN (Plan Learning and Need) to identify their professional development needs, how they intend to achieve their goals and what evidence will prove that these needs are being met.
- Cardiopulmonary resuscitation (CPR) training.

The RACGP has several resources that can help you plan a QI activity. GPs may be able to apply for RACGP QI & CPD points if they participate in a QI activity that satisfies the requirements specified in the [RACGP's QICPD Handbook](#).

#### *ACRRM PDP Program (Individual QI and CPD program)*

The Australian College of Rural and Remote Medicine (ACRRM) has a Professional Development Program (PDP) for GPs, as well as resources that may help you to develop a QI activity.

More information can be found via the [PDP Handbook](#) or on the [ACRRM website](#).

## CPD Program for nurses and midwives

The Australian Nursing and Midwifery Board of Australia provides a range of resources and services that support the professional development needs of nurses and midwives working in primary health care. These include:

- [Registration standards: Continuing professional development.](#) These registration standards specify numerous measures and requirements of nursing competency. One of these is that all practicing nurses and midwives must complete at least 20 hours of continuing professional development (CPD) each year.
- [Guidelines: Continuing professional development.](#) These guidelines contain more information about the minimum annual CPD requirements and how nurses can meet these requirements.
- [Factsheet: Continuing professional development.](#) This fact sheet addresses common queries about the Registration standard: Continuing professional development.

### *AAPM CPD program for practice managers*

The Australian Association of Practice Managers (AAPM) has a Professional Development Program that supports and promotes a manager's personal and professional growth. This program focuses on:

- Core principles
- Qualifications
- Fellowship Program through certification.

They also offer Continuing Professional Development, which allows managers to maintain their Certified Practice Manager and Fellow membership status.

Although membership is not mandatory, managers with certification or fellowship must be members to participate in the CPD.

More information can be found on the [AAPM Website](#).

## APPENDIX 2: PREPARING PROJECT DOCUMENTS

When conducting a QI activity, the QI team must document activities and write reports that demonstrate the outcomes of improvement or changes made. In addition to plans, two key documents that you may need to produce are:

- Responses to Expressions of Interest
- Project Reports.

### Responses to Expressions of Interest

If you are planning to participate in a QI activity that is facilitated by an external organisation such as HNECC PHN, you may need to complete an application. An application is sometimes referred to as an expression of interest (EOI) or tender.

The HNECC PHN website and newsletters contain opportunities for EOIs and tenders. Please visit the [HNECC PHN website](#) for current opportunities.

Before applying:

- Check that your practice is eligible and meets all mandatory criteria listed.
- Note the duration and timing of the QI project and identify any other proposed activity that may affect your ability to complete every aspect of the project on time (for example, if your practice is undergoing accreditation during this period, this might affect your capacity to complete reporting).
- Calculate the amount of protected time staff will require to participate and commit to deadlines and workshops.

In your application:

- Discuss how your practice will benefit from the project
- Discuss how your patients will benefit from the project
- Keep your language simple, clear and to the point!

### Project Reports

To produce a useful Project Report, you need to document the QI process and provide evidence of the resulting change.

The Project Report will help you to:

- Identify gaps in the project
- Document the progress of the project
- Demonstrate success.

It will also allow others to use the change ideas you have trialled and tested.

Before compiling the report:

- Understand what others expect from the report
- Identify the key words in questions or criteria before writing your response.








When compiling the report:

- Use the STAR method when providing examples and case studies:
  - Situation – What was the situation, problem, issue or challenge
  - Task – What was required? What were the objectives?
  - Action – What did you do? How did you respond?
  - Result – What was the outcome? What did you learn? Did you meet the objectives?

- Write clear and concise responses to each question. Avoid using jargon, acronyms and complicated words
- Keep your answers relevant by referring to the action plan and goals
- Provide evidence of the outcomes, achievements and results. For example:
  - PENCAT data, graphs and timelines
  - Resources (such as a position description and fact sheet) that were developed and are being used
  - Demonstrated outcomes such as staff attendance at training
  - Minutes of staff meetings
  - Reports generated from medical software
  - Reports from stakeholders you have worked with (e.g. community health, allied health, pharmacy)
  - Feedback from patients
  - Details of patients' experiences.

## APPENDIX 3: PROCESS FOR CONDUCTING A QI ACTIVITY

The following [checklist](#) contains each task in the QI process outlined in Section 3: Conducting a Quality Improvement Activity.

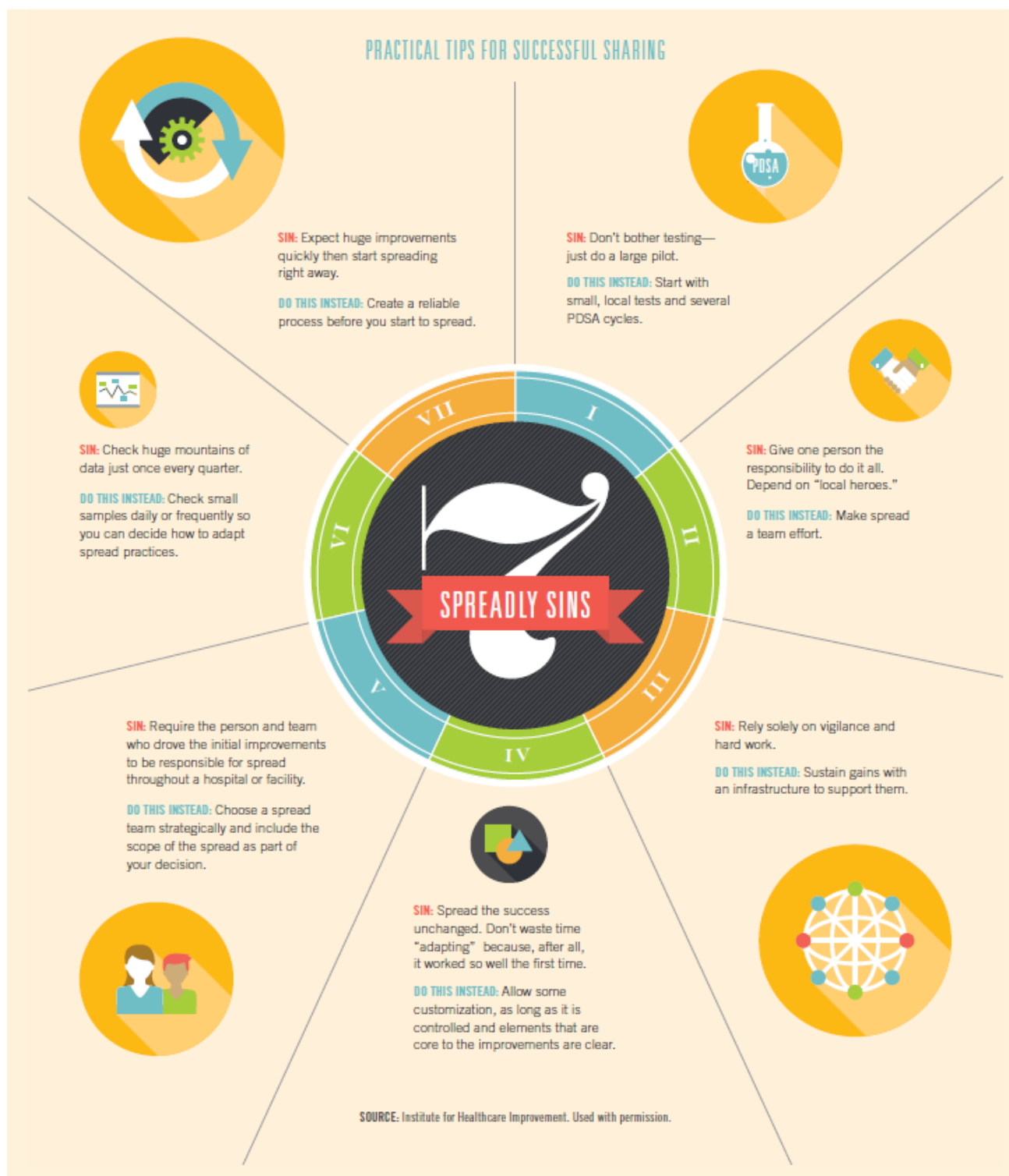
Task	Targeted Completion Date	Actual Completion Date
<b>The Thinking Part</b>		
	Identify a change idea	
	Develop a S.M.A.R.T. goal	
	Select measures	
	Brainstorm ideas for implementing change	
	Develop objectives	
<b>The Doing Part – PDSA Cycle</b>		
	Establish the QI team	
	Collect baseline data	
	Implement the planned activities	
	Monitor progress via process measures	
	Inform and engage with whole of practice team	
	Compare new data to baseline data	
	Share outcomes with team	
	Collect evidence of outcomes	
	Review and continue or review and start next cycle	

## APPENDIX 4: IDEAS FOR CHANGES YOU COULD IMPLEMENT

Area	Change ideas
<b>Aboriginal Health</b>	<p>Improve access to health services for Aboriginal patients in the region.</p> <p>Improve cultural awareness of practice staff.</p>
<b>Advance Care Planning</b>	<p>Improve the knowledge and skills of practice staff so that the aged population can make informed choices about their end of life wishes.</p>
<b>Chronic Disease Management</b>	<p>Reduce the risk of cardiovascular disease (CVD) in patients. Improve the quality of statin prescribing.</p> <p>Improve the current process of asthma diagnosis. Review the smoking status of asthma patients.</p> <p>Increase uptake of asthma cycle of care plans.</p> <p>Establish a chronic kidney disease (CKD) program to develop well defined processes and improve patient care.</p> <p>Improve the health of current patients over the age of 15 who have been diagnosed with a chronic condition.</p> <p>Develop a business model that will enable us to employ a nurse practitioner after hours.</p> <p>Establish a wellbeing clinic to provide patients with goal-centred care that includes disease prevention and making changes to health behaviour.</p> <p>Develop and trial a template of a patient-centered care plan for patients with co-morbidities and a HbA1c greater than 7%.</p> <p>Improve Type 2 Diabetic patient indicators such as waist circumference and Hb1Ac levels.</p> <p>Implement a nurse-led clinic to provide a more integrated service to patients with chronic disease.</p>
<b>Family Violence</b>	<p>Improve staff's understanding of family violence.</p> <p>Promote awareness in the local community of family violence.</p> <p>Engage with the local Maternal Health Centre to identify and help members of the community who are experiencing family violence.</p>
<b>Health Literacy</b>	<p>Implement the 'teach back' method to improve communication with patients, using specific resources and support for those working in a clinical setting.</p> <p>Deliver health education sessions to students at local secondary schools to increase young people's awareness of and access to general practice.</p> <p>Implement a men's health clinic in the general practice to increase health literacy skills for male patients aged 25-55.</p>
<b>Hepatitis C</b>	<p>Develop processes and upskill staff to identify and manage patients with Hepatitis C.</p> <p>Identify patients who are eligible for treatment.</p> <p>Increase vulnerable populations' uptake of Hepatitis C therapy and treatment.</p>

	Raise community awareness to destigmatise Hepatitis C.
<b>Immunisation</b>	Increase vaccine rates in older adults. Promote the benefits of being vaccinated.
<b>Information Technology</b>	Completely computerise the practice. Increase practice revenue by using clinical audit tools and software.
<b>LGBTIQ</b>	Develop tools or undertake training so the practice becomes a lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ) inclusive practice.
<b>Mental Health</b>	Provide support to adolescents and their families experiencing psychological stress in the lead up to, and during, the VCE exam period.
<b>Refugee Health</b>	Encourage new refugee patients into the clinic. Complete health assessments and plan vaccination catch ups for these patients, where required.
	Introduce dedicated school holiday sessions for young children and their families from refugee and asylum-seeker communities.
	Establish a culturally appropriate service that can conduct refugee health assessments as needed.
	Implement a nurse-led contact-tracing program for refugee patients at risk of Hepatitis B.
	Identify refugee patients, conduct refugee health assessments and provide interpreter facilities for patients and clinicians.
	Improve the practice's processes of identifying, treating and managing the health of refugee and asylum seeker patients.

## APPENDIX 5: IHI'S SEVEN SPREADLY SINS



## Your Feedback

We would like to hear what you think to help inform the second edition of the 'QI Guide and Tools'. Please email [info@hneccphn.com.au](mailto:info@hneccphn.com.au) to share your ideas and suggestions.

## Support for Quality Improvement

If you would like further support from HNECC PHN to prepare your practice for Quality Improvement or the Quality Improvement Practice Incentive Payment, please email: [info@hneccphn.com.au](mailto:info@hneccphn.com.au). Please provide your practice name, contact name, contact role and phone number. Alternatively, please contact your Primary Care Improvement Officer (PCIO) direct.

