

# CANCER SCREENING QUALITY IMPROVEMENT TOOL KIT 2019

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# Acknowledgements



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The community led cancer screening program funded by the Department of Health and Human Services forms part of the Victorian Under-Screened Program Strategic Directions 2016-2020. It builds upon learnings from the Under-Screened Recruitment Program 2014-2016 to address disparities in cancer screening.

The Department of Health and Human Services has funded a three year project (2018 - 2020) to the following Primary Health Networks: North Western Melbourne PHN, Murray PHN and Western Victoria PHN. The community-led cancer screening program aims to increase early detection of bowel, cervical and breast cancer by strengthening workforce capacity within primary care settings and targeted community-led interventions.

The Cancer Screening Quality Improvement Toolkit (the Toolkit) has been commissioned by this consortium of three PHNs and has been developed by the Improvement Foundation utilising, in part, information from North Cost PHN's Women's Cancer Screening Collaborative Handbook.

Version: 1.0

Publish Date: 18 February 2019

All information is accurate as of the date that this version was published.

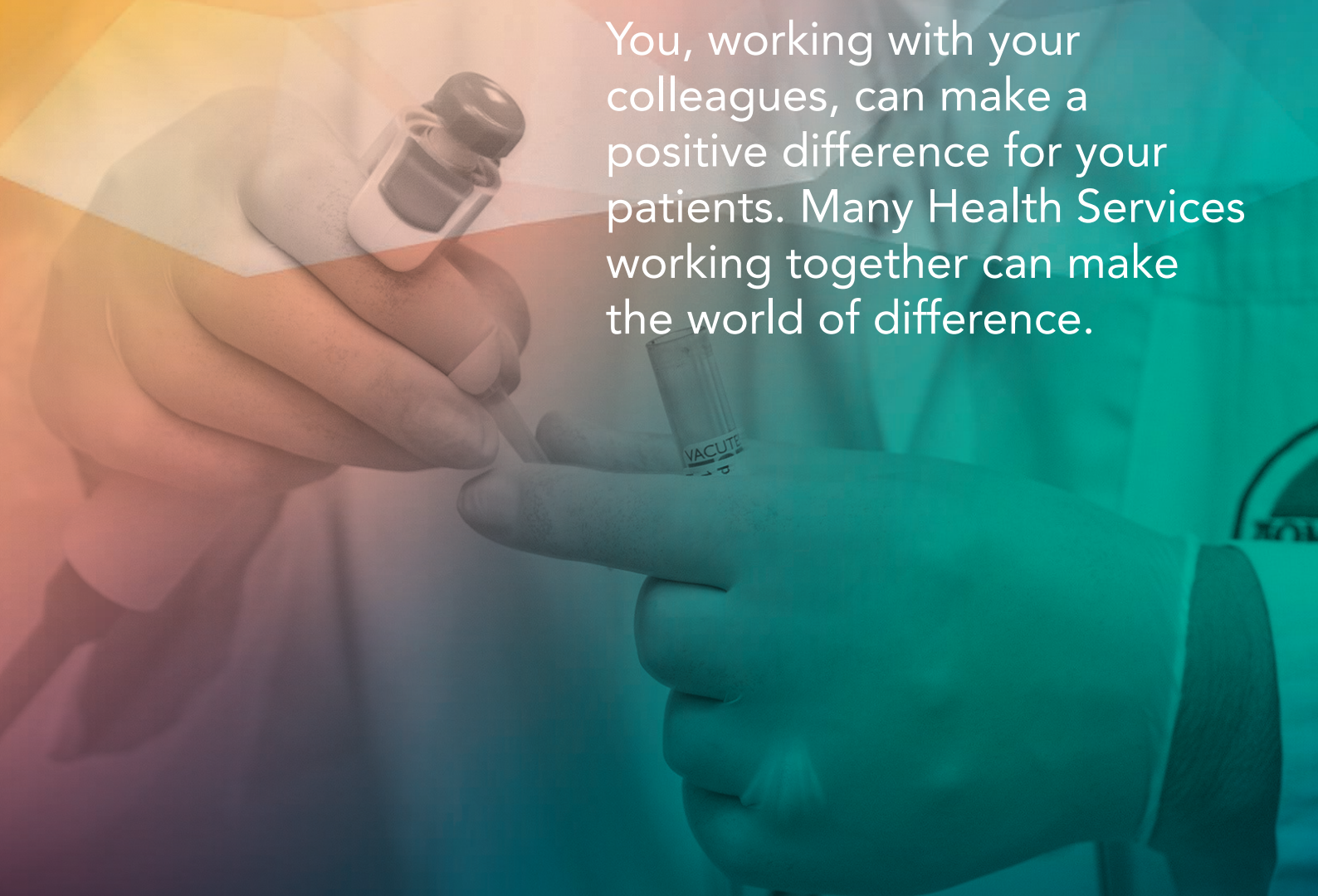


# Cancer Screening:

Is fundamental to person-centred care, because it...

- Reduces the incidence of cancer, and
- Makes sound business sense, for a range of reasons.

You, working with your colleagues, can make a positive difference for your patients. Many Health Services working together can make the world of difference.



# **INTRODUCTION TO QUALITY IMPROVEMENT**



## What is quality improvement?

# QI

Quality improvement (QI) in healthcare is based on the concept that health care is a system. Unlike a manufacturing line, which can be micron perfect, healthcare is about people (often one person at a time), but it is a system. On any day, in Australia, many thousands of people visit a Health Service. Most people

will return to their Health Service of choice and the Health Service will have considerable information (data) about them. These data provide a powerful insight into the person's current health state and potential future health state.

QI is the use of this information, at a health service level, combined with the use of QI tools and techniques by a health care team. This activity changes the health service's systems and processes to ensure that sustainable improvement is achieved.

Within health care, quality has been defined as:

"the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."<sup>1</sup>

QI is defined as a systematic approach that uses specific techniques to improve quality. It involves continuous efforts to implement systematic change and achieve stable and predictable results.

**"Health Service"** in this toolkit is a defined term and means any primary healthcare organisation that delivers services with a general practitioner, such as a general practice, Aboriginal Community Controlled Health Organisation, Aboriginal Medical Service or community health service.



### What can QI achieve?

- Effective standard operating procedures
- Improved outcomes for patients
- Improved outcomes for health care organisations<sup>2</sup>

### QI aims to:

- Make healthcare safe and effective
- Make healthcare person centred
- Make healthcare timely, efficient and equitable<sup>2</sup>

## Quality Assurance versus Quality Improvement

QI is sometimes confused with quality assurance. Quality assurance assesses whether health care services meet a set of requirements by comparing them to a set of pre-defined criteria. Quality assurance often involves a retrospective approach, which may include inspections. QI, on the other hand, is proactive and involves purposeful efforts and teamwork to improve processes, systems or outcomes.

1 Institute of Medicine, 1990, Crossing the quality chasm: a new health system for the 21st century, Washington DC: National Academy Press, p.244

2 The Health Foundation, 2016, Quality improvement made simple: What everyone should know, <https://www.health.org.uk/sites/health/files/QualityImprovementMadeSimple.pdf>

Quality Improvement is not a one-off action. It is a journey over time continuously making small, measurable improvements.



### Did you know?

35% of Australians, more than 7 million people, have a chronic condition

### The Challenge of Chronic Disease

An increasing number of patients with chronic disease have multiple conditions, making care more complex

## What is Continuous Quality Improvement?

Continuous Quality Improvement (CQI) is the regular review of the system by team members to continuously ask what can be done better, and then improve elements of the system. CQI emphasises that patient and team member satisfaction is paramount, and that problems are caused by processes, not people. CQI's focus is on measurement of various elements of the system to help find problems and to demonstrate when improvement has been achieved.

## Why is quality improvement important?

For most Australians, primary care is their first point of contact with the health care system. In mid 2015, it was reported that approximately 20% of the Australian population has two or more chronic conditions<sup>3</sup>. Patients with multiple chronic conditions often receive treatment from a number of health providers, many of whom work in different locations and often in different parts of the health system. As a result, effective communication between the health care team can be challenging, leading to gaps in the quality and safety of patient care<sup>4</sup>.

Generally, the primary health care system performs well and most health care is associated with good clinical outcomes. However, some people do not receive all the care that is recommended to them; there is considerable variation in access to health care around the country and the outcomes of this care. Additionally, preventable adverse events continue to occur across the entire health care system.<sup>5-6</sup>

In order to frame improvement in the primary health care setting, Health Services can adopt the Quadruple Aim, an approach to optimising health system performance by:

1. pursuing improvements in population health
2. enhancing the patient experience of care
3. reducing the per capita cost to the health care system
4. improving the work life of health care providers.<sup>7</sup>

When working in any of the four Quadruple Aim areas, it's important to remember that improving patient care remains at the core.

3 Australian Institute of Health and Welfare, (AIHW), 2015, Chronic Disease Web Update, <https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/chronic-disease/overview>

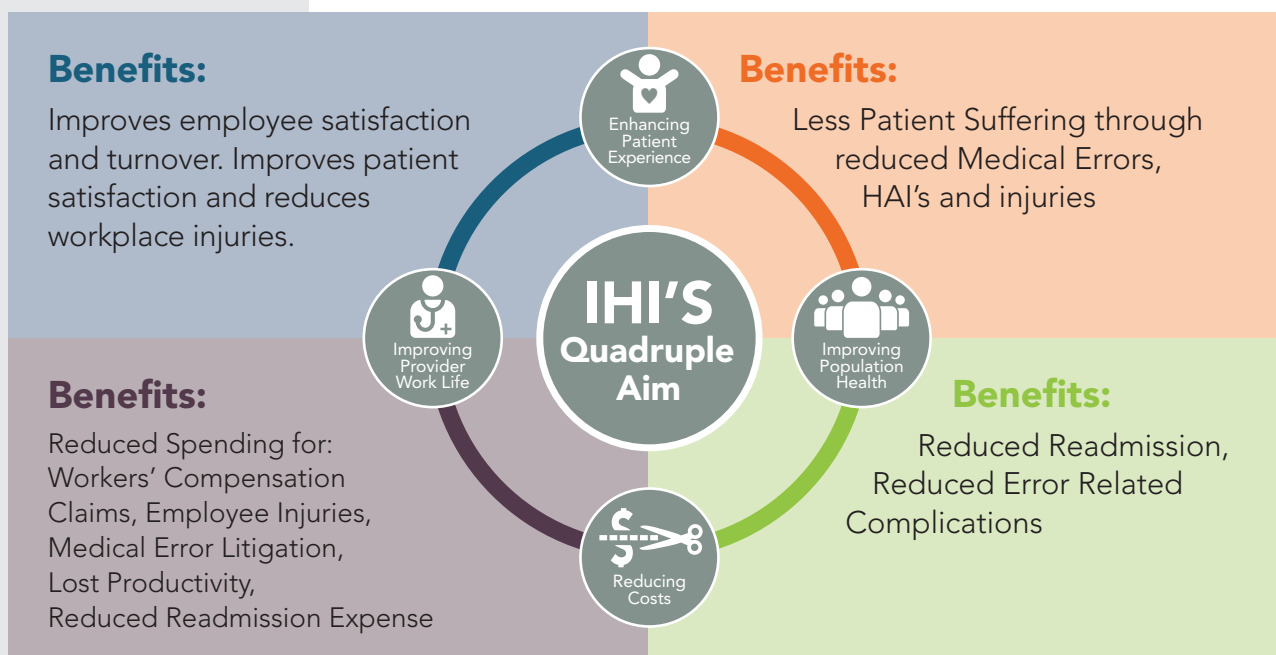
4 Primary Health Care Advisory Group, 2016, Final Report: Better Outcomes for People with Chronic and Complex Health Conditions, [http://www.health.gov.au/internet/main/publishing.nsf/Content/76B2BDC12AE54540CA257F72001102B9/\\$File/Primary-Health-Care-Advisory-Group\\_Final-Report.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/76B2BDC12AE54540CA257F72001102B9/$File/Primary-Health-Care-Advisory-Group_Final-Report.pdf)

5 Australian Institute of Health and Welfare, 2014, Australia's Health 2014: Australia's Health Series, <https://www.aihw.gov.au/getmedia/d2946c3e-9b94-413c-898c-aa5219903b8c/16507.pdf.aspx?inline=true>

6 National Health Performance Authority, March 2013, Healthy Communities: Australians' experiences with primary health care in 2010-11, <https://www.myhealthycommunities.gov.au/our-reports/australians-experiences-with-primary-health-care/march-2013>

7 Bodenheimer T, and Sinsky C, 2014, From Triple to Quadruple Aim: Care of the Patient Requires Care of the Provider, *Annals of Family Medicine*, Vol. 12, No. 6, pp. 573-576, <http://www.annfam.org/content/12/6/573.full>





Health Services can use the four areas of the Quadruple Aim to guide the development of cancer screening initiatives, and by doing so expect to collectively realise significant improvements.

There is real opportunity for health care services to:

- build a whole of team approach
- improve cancer screening rates
- improve patient outcomes via early detection and intervention, and
- contribute towards reducing cancer related burden of disease and associated costs to the healthcare system.



## Want to learn more about quality improvement?

There are a number of additional resources available that provide a deeper understanding of QI and assist teams to implement QI activities within their own settings, including:

- The "Six Rules of Improvement" ([Appendix 1](#))
- Templates and cheat sheets developed by the Clinical Excellence Commission ([Appendix 5 - Quality Improvement section](#))
- "Getting Started" guide developed by the Australian Commission on Safety and Quality in Health Care (ACSQHC) see [Appendix 5 - Quality Improvement section](#)

# QUALITY IMPROVEMENT PLANNING



## How to plan for quality improvement

To drive your improvement work, it is important to develop and implement a Quality Improvement Plan (QIP).

A QIP clearly identifies priority area(s) and “sets the scene” for what you and your team hope to achieve through your improvement work. It provides the team with a document to focus their efforts on your chosen QI priorities over time. In this example, cancer screening will be the focus, however, your QIP can be expanded to include other areas over time.

Ideally, the QIP you use will include the following:

1. an overview of the plan and how the team will approach the improvement work
2. the overarching aim(s) of the plan
3. the principal measures to track progress against the aims
4. the change areas that will guide the improvement work.

Please see [Appendix 9](#) for a QIP template.

## Developing your Quality Improvement Plan

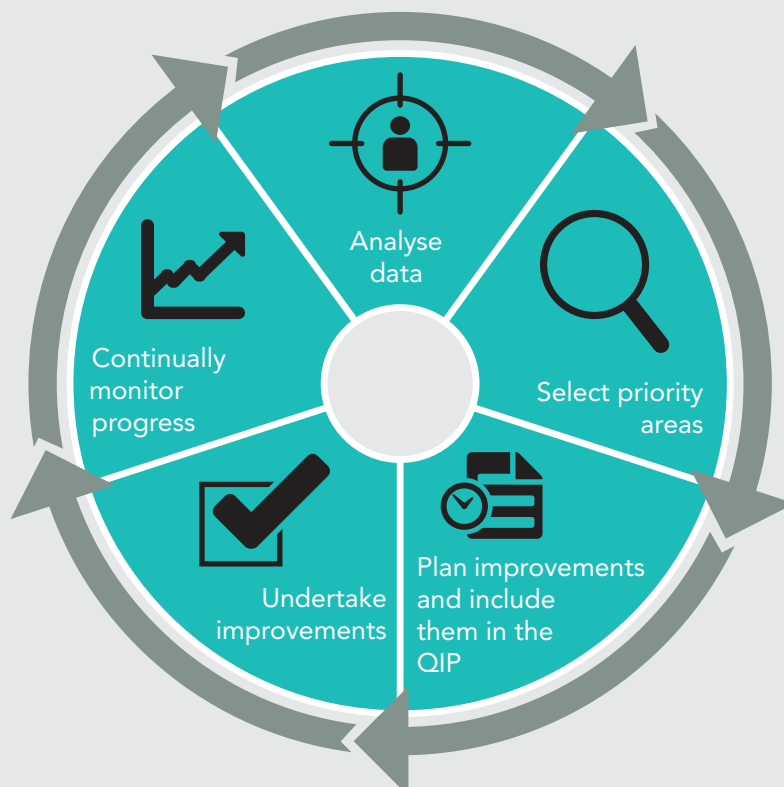
The first step is to clearly define why you would like to make improvements to the current rates of cancer screening for your Health Service's population and to share the reasons with the whole team. Consider what benefits you may realise both during, and as a result, of undertaking this work. For example, you could enhance teamwork and communication within the team, make improvements to specific internal processes and systems, that improve cancer screening rates.

To effectively determine the most important areas for improvement, it is essential to understand whether there are issues with patient outcomes or satisfaction, business processes, financial outcomes or organisational capacity. Analysing the data you currently have will help to determine the type and the extent of the issue(s). Understanding what the issues are, and thinking about why these issues are occurring, will assist you with the selection of your priority areas.

Next, select the individuals and/or team who will be responsible for developing, implementing and monitoring the QIP. The initial development may be undertaken by a small team or subset of the Health Service team. However, the whole team should be engaged in the QIP development so they're aware of the overall goals and how these will be brought about. Overtime it's likely that the whole team will be involved.

The following diagram shows the process for developing and implementing a QIP, which includes:

- **Analyse data:** undertaking a review of your baseline results to identify possible areas for improvement
- **Select priority areas:** selecting relevant cancer screening priority areas and determining aims for each area
- **Plan improvements:** planning improvements and documenting this in the QIP
- **Undertaking improvements:** implementing improvements using the Model for Improvement
- **Continually monitor progress:** ongoing review of progress against the QIP and outcomes/learnings from completed PDSA cycles.





## Reviewing your Quality Improvement Plan

It is extremely important that you regularly monitor, review and record progress in meeting your aims. Sometimes, the aim, measures or change areas that were initially chosen are not leading to the intended improvement and amendments to the QIP are required.

Please see [Appendix 9](#) for a QIP template.

When undertaking your QIP reviews, make sure you have all relevant information at hand so that you can objectively determine your progress.

Monitor the target dates for achieving the overarching aim(s). If it has not been possible to achieve an aim by the anticipated date, document the progress achieved so far and set new strategies and a new target date. The aim may need to be rewritten so that it is realistic and achievable.

Once an aim has been reached, document this and move on to the next aim.

Consider scheduling regular reviews of the QIP at team meetings so that progress can be shared and everyone stays focused on what needs to be completed. Reviewing your QIP does not need to be time consuming; discussing progress as a group is a time efficient strategy. The insights and input of other team members will enhance this process.

You may also wish to consider the following questions in your review process:

- Has there been a change in staffing? New staff may require upskilling and often bring new ideas and different experiences that could be included.
- Has new research and/or resources become available to support assessment of your current processes against best practice?
- Can you delegate identified actions to other staff to build leadership skills and share the knowledge across the whole team?

## RACGP - Standards for general practices - 5th Edition

RACGP standards include a range of requirements relating to QI. This toolkit, if followed correctly, will help Health Services demonstrate that the Health Service can meet or exceed the indicators documented by the RACGP for quality improvement activities.

### **Criterion QI1.1 - Quality improvement activities - Indicators<sup>8</sup>**

- QI1.1 A Our practice has at least one team member who has the primary responsibility for leading our quality improvement systems and processes.
- QI1.1 B Our practice team internally shares information about quality improvement and patient safety.
- QI1.1 C Our practice seeks feedback from the team about our quality improvement systems and the performance of these systems.
- QI1.1 D Our practice team can describe areas of our practice that we have improved in the past three years.

# THE MODEL FOR IMPROVEMENT



## The Model for Improvement

Your QIP, discussed above, provides you with a high-level plan whilst the Model for Improvement is a tool to support you with implementing your QIP. The Priority Areas identified in your QIP will give you a clear focus for using the Model for Improvement to test and implement small scale changes.

The Model for Improvement<sup>9</sup> provides a framework for developing, testing and implementing changes in any setting or system, and on any scale. It involves setting specific and measurable goal(s); selecting objective measures of improvement that can be tracked over time; and identifying key changes that will result in an improvement. The change effort is broken down into manageable steps, which are tested to determine whether improvement is being achieved.

### Overview of the Model

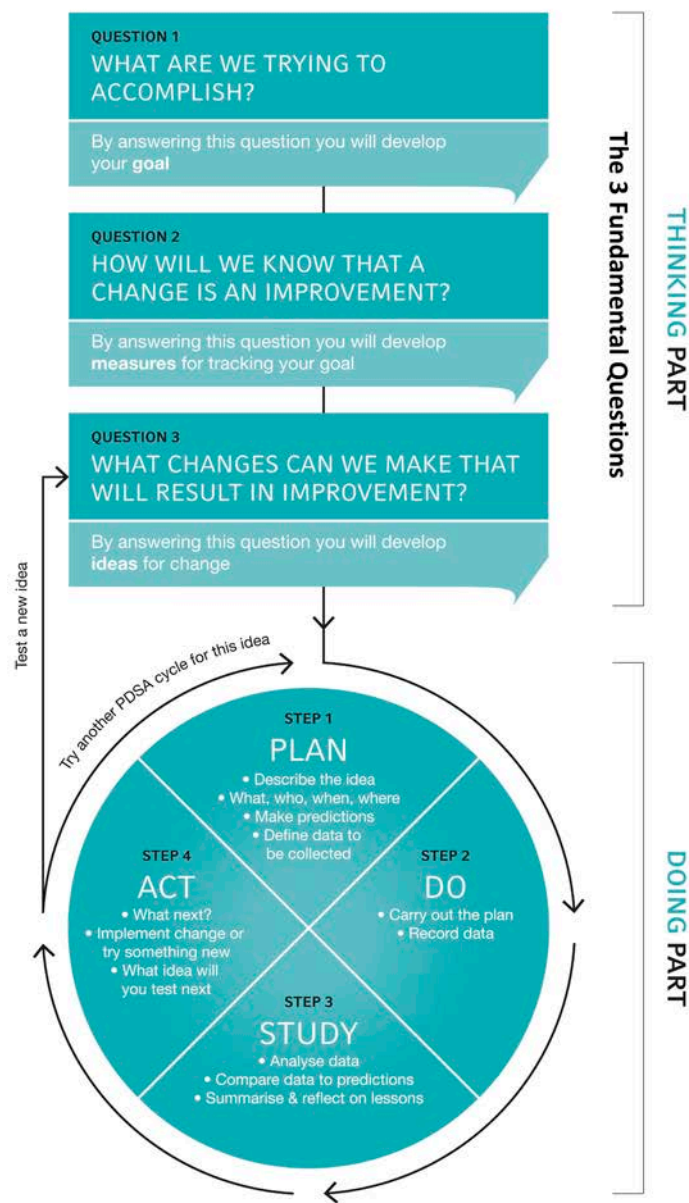
The Model for Improvement (MFI) consists of two equally important parts (Figure 1):

1. The “thinking part” consists of “The 3 Fundamental Questions” that are essential for guiding your improvement work:
  - Q1 - What are we trying to accomplish? (to identify the goal)
  - Q2 - How will we know that a change is an improvement? (to identify measures)
  - Q3 - What changes can we make that will result in an improvement? (to identify change ideas)
2. The “doing” or “testing” part is made up of Plan, Do, Study, Act (PDSA) cycles that will help you test and implement change.
  - Not every change is an improvement. By making small, incremental changes you can test the change on a small scale and learn about the risks and benefits before implementing the change more widely. A number of PDSA cycles may be required to achieve your improvement goal.

NOTE: Please refer to [Appendix 10](#) for a MFI Template for you to use

Figure 1: The Model for Improvement

### THE MODEL FOR IMPROVEMENT DIAGRAM



Improvement Foundation © 2012  
Source: Langley G, et al, 2009



For an overview of the Model for Improvement, take a look at the video on YouTube:  
[https://www.youtube.com/watch?v=lZAx-69Vn\\_Y&t=130s](https://www.youtube.com/watch?v=lZAx-69Vn_Y&t=130s)

<sup>9</sup> Langley GL, Nolan KM, Nolan TW, Norman CL & Provost LP, 1996, The improvement guide: a practical approach to enhancing organisational performance, San Francisco: Jossey-Bass

**Problem found through data:**

There is a noticeable under-screening in male clients compared with female clients.

**Example Goal**

Within 3 months increase FOBT screening for eligible male Regular Clients who are between 50 and 74 (inc) to 50 %.

**Example Measure:**

The proportion of 'eligible' male Regular Clients who are between 50 and 74 (inc) and have a recorded FOBT in the last two years.



## The 3 Fundamental Questions

### Question 1: What are we trying to accomplish?

We often launch into change without stopping to think about what we are trying to achieve. The first question provides an opportunity to consider exactly what it is you are seeking to change. Once you and your team have agreed on the goal, it will guide you and keep you focused and motivated. To answer the first of The 3 Fundamental Questions, you will need to write a clear and concise goal for improvement. Begin by:

- Defining the problem. Understanding the problem and its root cause will help you with developing your goals
- Setting bold but realistic goals that are specific and have a defined timeframe. Use plain language and avoid jargon, so that the meaning is clear to everyone
- Use SMART Goals (Specific, Measurable, Attainable, Realistic and Time-bound)

### Question 2: How will we know that a change is an improvement?

Without measuring, it is impossible to know whether changes being tested are leading to improvement and achieving your goal. Measures should be collected before you commence making change, this is often referred to as baseline data. Measures should be sensitive enough to allow you to monitor progress at regular intervals.

Try to find measures that show progress towards the goal; however, you may have to accept that your measures are not perfect. Spending too much time trying to create the perfect measurement set is a common pitfall.

- Don't collect more measures than you need
- Make the collection of measures as simple as possible. If you choose a measure that must be collected manually, create a simple data collection form and ensure someone is made responsible for completing the form.
- Everyone in your team needs to know what you are measuring, how, when and who is responsible for collecting the data
- Use diagrams and charts to show your measures to the team. Presenting data in a simple format helps with communicating this information to the whole team





### **Question 3: What changes can we make that will result in improvement?**

By the time you answer this question, you should know your goal and how you will measure progress towards achieving it. Here's when you and your team become creative. Encourage the whole team to contribute ideas!

After answering this question, you will have a range of useful ideas, which can be tested in PDSA cycles.

- You and your team know your health service best, so keep your goal in mind and use your knowledge and experience to identify the ideas that suit your unique situation
- Adapt ideas from others. Ask your PHN support officers to share successful change ideas other Health Services have trialled and implemented
- Use creative QI tools to help your team generate ideas that may be able to influence a positive change
- Achieving your goal may take successful testing (and implementation) of more than one idea generated by your team

Following this step, you should have several ideas that may contribute to achieving your goal. You will need to select one to test and generally there are some ideas that have greater support from the team.

## **Does every idea need a PDSA cycle?**

There may be some ideas generated that do not need to be tested as they are straight forward and sensible ideas or administrative tasks. An example in this context could be putting up a poster(s) that seek to grow awareness of, and promote, cancer screening. PDSA's are designed to test process or system changes to ensure that the change results in the expected improvement.

## **Plan, Do, Study, Act Cycles (PDSA)**

The 3 Fundamental Questions will prepare you for the next stage, during which you will use PDSA cycles to test the ideas for change that you developed to answer the third Fundamental Question. By testing ideas, you will find that some changes lead to improvements, while others aren't successful. Analyse why they didn't work and learn from this. By carrying out small tests, you can avoid implementing unsuccessful changes on a wide scale.

Think big and test small. The idea could involve quite a large change, however, the test needs to be on a small scale. Think about testing a change with one GP, or one health worker, or a select group of patients over a short period of time. The knowledge gained from this small test will help you determine if the change had the desired effect and is suitable for wider implementation, or whether adjustment(s) to the idea may be required. In some cases the idea may fail and therefore you will need to try another idea and test this in the same way.

**P****Plan**

A well-developed plan includes the what, who, when, where, predictions on the possible outcome and the data to be collected. For best results, make your plan as clear and detailed as possible.

Ask yourselves:

- What exactly will we do? (Remember to only test one idea in a small way)
- Who will carry out the plan?
- When will it take place? (This should be in a short timeframe, generally no more than a week.)
- Where will it take place?
- What do you predict will happen?
- What data/information will we collect to know whether there is an improvement? These data should be specific to the change that you are testing.

Note: the data you plan to collect to test your change idea may be different from the measures chosen in answer to the second Fundamental Question.

**D****Do**

Write down what happens when the plan is implemented. Also document any other observations. Sometimes there are unintended consequences, positive or negative, and these should be captured as they can lead to other ideas for improvement.

**S****Study**

Reflect upon what happened. Think about and summarise what you have learnt, analysing the data collected and comparing the data with your predictions. If there was a difference between your predictions and what happened, consider why.

At this point you should be confident about the outcome and whether the idea will contribute towards achieving your goal.

**A****Act**

In light of the results from your test, will you implement the tested change, test on a larger scale, amend and test again, or try something else?

Write down the next idea you will test. What will you do differently? Be sure to start planning the next cycle as soon as you can to keep up the momentum.

## Implementing a Change

Once you have tested a change, determined that it is effective, and your team supports this new way of working, you will need to implement the change.

Implementing a change means making it a sustainable process within the organisation. For simple changes, implementation will be relatively straightforward. For other changes, effective implementation will require training and on-going monitoring to ensure that the team does not return to the old way of doing things.

When considering implementation, ask yourself these questions:



### **What other changes are needed to support implementation of this change long term?**

Your new way of working may require an alteration in support structures such as job descriptions or standardised procedures, as well as updating your policy and procedures manual. For example, you could add regularly reviewing the accuracy of patient registers as a part of the Practice Nurse's role to ensure routine coding by staff is maintained.



### **Does the wider team need to be involved in the implementation of the change?**

Testing a change may have involved a small group of people. However, implementing the change may affect others that were not involved in the testing process. You will need to consider how to engage these individuals, identify any resistance and promote the benefits of the new way of working. You may find that the data you collect through testing provides valuable information to convince the wider team about the benefits of the proposed change. For instance, you could print monthly graphs showing the improvement achieved after implementing the ideas tested in your PSDA cycles and display them in the staff room or present them at staff meetings.



### **Will a regular review process be needed to make this change permanent?**

You may consider that a bi-annual audit of the new system or process is needed. This could be a component of the standardised procedures that are developed to support the new system. For example, an audit of whether the patient registers are being appropriately maintained.

# MEASURING YOUR PROGRESS THROUGH DATA





Measuring your improvement progress over time will motivate your team and inspire other improvement work.



## QI and Measurement

How do you know if the changes you are making are leading to improvement? The only way is to measure. Successful measurement is a cornerstone of QI. Measurement allows a team to demonstrate current performance, set goals and monitor the effects of changes made. It also enables teams to:

- identify performance gaps and safety issues
- understand patterns and trends
- make decisions and undertake planning
- understand unintended consequences

In addition, measurement allows for benchmarking against others, which is often a great motivator for change.

As you start the QI journey, it is important to understand that not all measurement is the same. You will typically need to conduct measurement at different times in an improvement project and at different levels. For QI, there are essentially three basic levels of measurement:

1. Measures that provide consistent measurement over time for your chosen improvement area (sometimes referred to as a topic), such as cervical cancer screening
2. Measures that answer the second question in The 3 Fundamental Questions in the Model for Improvement, i.e. "How will we know that a change is an improvement?"
3. PDSA cycle level measures that help you assess the idea being tested in each PDSA cycle.

Measurement does not need to be difficult or time-consuming. The key is to pick the right measures so that you can see results quickly and are able to adapt your actions accordingly, putting less strain on your resources and a greater focus on outcomes.

A set of measures (also known as quality indicators) for cancer screening have been developed for you to use to monitor improvement in each of the three topic areas. These measures are explained later in this section.

## Introduction to Data and Measurement for QI

Measurement is a fundamental part of QI and business in general. To produce sound and reliable measurement you will need well defined measures and good data quality.

Data is talked a lot about in QI. "Data" is information in raw or unorganised form (such as alphabets, numbers or symbols) that refer to, or represent, conditions, ideas, or objects. Data are transformed into measures using a set of rules and often these rules will not be visible as they are coded into software. For example, the proportion (or percentage) of women who have received a cervical screen is an existing measure within a lot of clinical software. The result produced by the software is filtered in a number of ways, such as:

- Including only women within the age range that is recommended
- Excluding women with a coded condition of Hysterectomy, or where the Health Service has ticked the check box to exclude
- Whether the woman is considered a "Regular Client" and/or an "Active" client can often play a part in measurement.

In some cases, the "rules" can be quite complex and if you refer to the user guides of the software, you will be able to find these rules explained. In this toolkit, we mostly refer to Pen CAT software as a tool to help with measurement and data cleaning. Licensing for Pen CAT software is available through your PHN.

Measurement can only be reliable if your Health Service has good quality data. In this section, we'll work through how your Health Service can ensure that it has good quality data, and then we'll talk about how to produce measurement for QI.

## Data cleaning or cleansing

Data cleaning or cleansing refers to a process where staff at a Health Service specifically work on ensuring that the data within the clinical information system are complete, correct and coded properly.

Data quality in this context refers to the completeness, accuracy and consistent coding of data in the clinical information system.

This process will look for instances where data are missing or inaccurate, and add missing data or correct (or remove) corrupt or inaccurate data from the clinical information database. If the data collection, recording and maintenance process at your Health Service is not robust, poor collection and/or recording will continue and specific data cleaning efforts will be needed to correct poor work practices over time.


Your team is critical to ensuring that your Health Service's data are clean. Your Health Service should have an agreed approach to the collection and recording of data including:

- A process to ensure that patient demographic, contact and billing details are complete and current
- An agreed approach to coding conditions and ensuring that the patient's clinical record is complete
- Ensuing that all pathology providers are supplying results electronically in an atomic format such as HL7 (not a letter scanned as a PDF)
- A clear understanding of each team member's responsibility to ensure the data collection, recording and maintenance process remains robust.

If your Health Service does not have a robust data collection, recording and maintenance process, then you will never have clean data.

Garbage in,  
garbage  
out!





If it can  
be  
coded...  
it must be  
coded.

Data collection and recording processes will vary between Health Services depending on the staff profile and size of the Health Service. However, each staff member should have a clear understanding of their responsibility so that when each patient interacts with a staff member, they can do their part in the data collection, recording and maintenance process. Specific data collection, recording and maintenance responsibilities for employment roles should be included in all position descriptions.

## Coding data

Coding data wherever the system allows for such is paramount. If you do not code, for example conditions or allergies, then data will not be considered “clean” and the clinical information system cannot function in the way it is intended. For example, when uploading a Shared Health Summary, if conditions and allergies are not coded, they will not be included in the upload.

## Data cleaning specific to cancer screening

Identifying people for cancer screening and communicating with them relies on:

- accurate patient contact and demographic information, such as sex, ethnicity, date of birth, address, mobile phone number
- coded conditions so that the software can exclude people with certain conditions, for example exclusions for FOBT include bowel cancer, cancer of the colon, carcinoma of the colon and 20 other coded conditions
- Test results recorded, and data (any text) recorded in the result area of the test record.

For effective cancer screening all of these data elements must be accurate and recorded in the correct place within the clinical information system.

Please refer to the [Appendix 8](#) for specific detail on how to approach data cleaning for cancer screening.

### Recommended approach to sustainable quality data

1. Implement a sustainable data collection, recording and maintenance process
  - 1.1. Using Pen CAT, gain an understanding of how clean and complete your clinical database is and understand where the gaps are
  - 1.2. Work with your team and discuss any missing or inaccurate data you’ve found and then identify gaps in the collection, recording and maintenance process
  - 1.3. Use the Model for Improvement to improve your processes. You could also process map the patient journey through your Health Service, specifically as it relates to data collection, recording and maintenance
  - 1.4. Make sure that your clinical software system is configured appropriately and that you are receiving pathology electronically in HL7 format wherever possible. You will need to contact pathology providers and check the delivery preferences that are set for your Health Service. All software is different so please consult your vendor for assistance or PHN practice support staff

- 1.5. Ensure that you include a regular audit as part of the process, so you can monitor data quality over time
        - 1.6. When the process is sound, document the process and include roles and responsibilities in relevant position descriptions
  2. Agree on an archiving approach that is suitable for your Health Service. Ensure that someone is responsible for archiving on a regular basis
  3. Work with your team on retrospective data cleaning
    - 3.1. Determine your strategy to approach data cleaning. If you now have a sound data collection, recording and maintenance process in place, your data will become clean over time. You'll need to determine where to start on data cleaning and how much effort to commit, given your improved collection process will overtake the need for data cleaning at some point
    - 3.2. Focus on cleaning data required for identifying patients who have not been screened for cancer. Refer to [Appendix 8](#) for tips on how to do this

## Audit Process

Your Health Service should have a regular audit process in place to assess the completeness and accuracy of data. This should be done at least quarterly to monitor your process to ensure that it remains robust and reliable. If not, your data quality will reduce over time and your hard work in this area will be wasted.

Please refer to [Appendix 8](#) for information on how to use Pen CAT as an audit tool as part of this process.

An "audit" in this context is the process of evaluation or analysis in the clinical information system to assess its accuracy and completeness. Pen CAT can assist with this process, however, Pen CAT cannot determine whether some data are correct, such as ethnicity, phone number, address. Some data are sensitive to change over time and therefore, your audit process should include testing the accuracy of data that Pen CAT cannot help with. This does not need to be an onerous process and can simply be calling 20 patients that have recently visited the Health Service (as their data should be up-to-date) and asking them to confirm a few details. If you find any gaps, then it's likely that your data maintenance process is not effective and correction is required.

## How to measure your progress

Now you have confidence in your Health Service's data quality, you can have confidence in the measurement produced from the data.

You can start measuring straight away. Just be aware that as your data quality improves over time, there may be changes to the measurement results that are due to data cleaning and not your improvement work.

This toolkit provides measurement for bowel, breast and cervical cancer screening. The first step however is to determine your Health Service's cancer screening population.

## Determine your Health Service's cancer screening population

It is important that you take time to determine your Health Service's screening population. The approach is likely to vary between Health Services due to local context and is an important step.

There is a "Regular Patient" concept used widely, including the Indigenous National Key Performance Indicators (nKPIs) and in Pen CAT. The Regular Patient (or client) is generally defined as a person that visits the Health Service 3 or more times in any 2 year period. This concept is useful to filter on patients that are regularly visiting the Health Service, however, may not be suitable for cancer screening. For example, younger women are not likely to qualify as a Regular Client and therefore if you filter using this definition, then you may exclude patients that should be included.

In some Health Services, such as major rural services or Health Services in popular holiday destinations, it may be appropriate to limit the population by post codes that your Health Service would primarily service. Some Health Services have a policy to mark people that are not considered part of the Health Service's population through location as inactive as they complete their visit.

Archiving is important, and your Health Service should have an agreed approach to archiving patients that have not visited the Health Service within a specific period of time. If your archiving period reflects your answer to "Which patients are considered the Health Service's responsibility for cancer screening?", then the approach is simple, you will include all active patients in the searches.

Working with your team, decide how your Health Service will determine the screening population for bowel cancer, breast cancer and cervical cancer. Once you have done this, you can use your Health Service Population in search criteria in Pen CAT and save a search for bowel cancer screening, breast cancer screening and cervical cancer screening. By saving these searches they remain consistent over time and you can reliably measure your Health Service's progress in each cancer screening area.

## Pen CAT Search Criteria

To start your cancer screening measurement journey, you will need to establish these three Pen CAT searches and save these so that they can be used routinely and remain consistent across the journey.

These searches will measure the high-level cancer screening measures recommended and will be based on your Health Service's definition of the cancer screening population.

Please refer to [Appendix 8](#) on how to set and save these searches.

## Cancer Screening Measures

The following measures all use the defined term "Health Service Population". This means the population of patients (relevant to your chosen cancer screening topic/s) recorded on your clinical information system as defined by your Health Service. Refer to the earlier step. Please bear in mind the Pen CAT - Data Set Reports for screening are already filtered for age, sex and to remove exclusions.

### Bowel Cancer Screening Measure

<b>DESCRIPTION</b>	The proportion of Health Service Population patients, aged between 50 and 74, who have: <ol style="list-style-type: none"> <li>1. had a FOBT recorded in the previous 2 years, OR</li> <li>2. who have had a colonoscopy examination in the previous 2 years (bowel cancer screening)</li> </ol>
<b>DENOMINATOR (A)</b>	The number of Health Service Population patients, aged between 50 and 74
<b>NUMERATOR (B)</b>	The number of Health Service Population patients, aged between 50 and 74, who have: <ol style="list-style-type: none"> <li>1. had a FOBT recorded in the previous 2 years, OR</li> <li>2. who have had a colonoscopy examination in the previous 2 years (bowel cancer screening)</li> </ol>
<b>CALCULATION</b>	<p>B divided by A will calculate the proportion (percentage) of Health Service Population patients, aged between 50 and 74, who have had a FOBT recorded in the previous 2 years OR who have had a colonoscopy examination in the previous 2 years (bowel cancer screening).</p> <p>In Pen CAT, once you have filtered for your Health Service Population and recalculated (or used the saved search), make sure "Show Percentage" is unchecked and then use the results displayed as follows:</p> <ul style="list-style-type: none"> <li>• A = Recorded 0-2yrs + Recorded &gt;2-3yrs + Recorded &gt;3-4yrs + Recorded &gt;4yrs + Not Recorded</li> <li>• B = Recorded 0-2yrs</li> </ul>

### Breast Cancer Screening Measure

<b>DESCRIPTION</b>	The proportion of Health Service Population women, aged 50 to 74 years, who have had a bilateral breast screen mammogram within the previous 2 years (breast cancer screening)
<b>DENOMINATOR (A)</b>	The number of Health Service Population women, aged 50 to 74 years
<b>NUMERATOR (B)</b>	The number of Health Service Population women, aged 50 to 74 years, who have had a bilateral breast screen mammogram within the previous 2 years (breast cancer screening)
<b>CALCULATION</b>	<p>B divided by A will calculate the proportion (percentage) of Health Service Population women, aged between 50 and 74, who have had a bilateral breast screen mammogram within the previous 2 years (breast cancer screening).</p> <p>In Pen CAT, once you have filtered for your Health Service Population and recalculated (or used the saved search), make sure "Show Percentage" is unchecked and then use the results displayed as follows:</p> <ul style="list-style-type: none"> <li>• A = Recorded 0-2 years + Recorded &gt;2-3 years + Recorded &gt;3-4 years + Recorded &gt;4 years + Not Recorded</li> <li>• B = Recorded 0-2 years</li> </ul>



## Cervical Cancer Screening Measure

<b>DESCRIPTION</b>	The proportion of Health Service Population women, aged between 25 and 70 years (inclusive), who have not had a hysterectomy or are otherwise excluded, and who have had a Pap test within the previous two years or a HPV test within the previous 5 years (cervical cancer screening)
<b>DENOMINATOR (A)</b>	The number of Health Service Population women, aged between 25 and 70 years (inclusive), who have not had a hysterectomy or are otherwise excluded
<b>NUMERATOR (B)</b>	The number of Health Service Population women, aged between 25 and 70 years (inclusive), who have not had a hysterectomy or are otherwise excluded, and who have had a Pap test within the previous two years or a HPV test within the previous 5 years cervical (cancer screening)
<b>CALCULATION</b>	<p>B divided by A will calculate the proportion (percentage) of Health Service Population women, 25 and 70 years (inclusive), who have not had a hysterectomy or are otherwise excluded, and who have had a Pap test within the previous two years or a HPV test within the previous 5 years cervical (cancer screening).</p> <p>In Pen CAT, once you have filtered for your Health Service Population and recalculated (or used the saved search), make sure "Show Percentage" is unchecked and then use the results displayed as follows:</p> <ul style="list-style-type: none"><li>• A = HPV &lt;= 5yrs + Pap &lt;= 2 yrs + HPV&gt;5yrs or Pap&gt;2yrs (no HPV) + Not Recorded</li><li>• B = HPV &lt;= 5yrs + Pap &lt;= 2 yrs</li></ul>

The background features a gradient from teal on the left to orange on the right. In the lower-left quadrant, there is a complex, low-poly geometric pattern of overlapping triangles in various shades of teal and light blue.

# **CANCER SCREENING IN AUSTRALIA**

## About Cancer Screening Programs in Australia

The aim of population based screening for a disease, or a risk marker for a disease, is to reduce the burden (incidence, morbidity and mortality) of the disease in the community. This is achieved by intervening to reduce an individual's risk of the disease or detecting the disease earlier than is usually the case in the absence of screening. Earlier identification and delivery of treatment improves disease outcomes.

The Australian Population Screening Framework for cancer and other chronic diseases has been adapted from the World Health Organisation's criteria and also takes into account:<sup>10</sup>

- the need for a strong evidence base when deciding to introduce a screening program, including evidence of the safety, reproducibility and accuracy of the screening test to be performed and the efficacy of treatment(s)
- the requirement for a screening program to offer more benefit than harm to the target population.

### Who is eligible for the National Cancer Screening Programs?

Table 1: Eligibility criteria for the national cancer screening programs

**Table 1: Eligibility criteria for the national cancer screening programs**

PROGRAM	WHO SHOULD CONSIDER SCREENING?	TEST TYPE & FREQUENCY
<b>National Bowel Cancer Screening Program (NBCSP)</b>	Available to all people aged between 50 and 74	FOBT every 2 years
<b>National BreastScreen Program</b>	Recommended for women between 50 and 74 years. Women in this age range are actively invited to screen.  Women aged between 40 and 49, or 75 and older should talk to their GP about whether they should have a free screening mammogram.	Mammogram every 2 years
<b>National Cervical Screening Program (NCSP)</b>	All women between 25 and 70 years of age with an intact cervix who have engaged in sexual activity.  Women aged 70 to 74 will be invited to have an exit test.	HPV test every 5 years

## The National Cancer Screening Register

The launch of Australia's first National Cancer Screening Register (the Register) occurred in September 2018. The Register has been designed to:

- create a single electronic record for each Australian participating in cervical and bowel cancer screening; meaning, for the first time, one participant = one record
- enable invitations to be sent to women when they turn 25 years to participate in cervical screening, along with reminders. From early 2019 under screened women and women who have never been screened will also receive invitations
- enable follow-up with health care providers and patients if required
- be capable of supporting additional population screening programs into the future
- record and report screening data in a nationally consistent manner and inform timely clinical decisions.

There are a range of patient benefits for being part of The Register, including:

- Patient information is automatically obtained from Medicare, so there is no paperwork
- Patients receive invitations and reminders to screen when due
- Test results are recorded and monitored to ensure patients receive appropriate follow up and treatment, as needed
- Participation is easy to manage wherever patients are located in Australia, including the ability to update personal information, check dates of previous and next tests, change the date of the next test and to choose a healthcare provider to receive their results.

The Register will eventually replace the existing National Bowel Cancer Screening Register currently managed by the Department of Human Services.

- To access the register, make an enquiry, access forms, or request a document or other information, please use this link:  
<https://www.ncsr.gov.au/content/ncsr/en/forms-and-guidelines.html>
- To access a quick start guide on the Register for health care providers, please use this link:  
<https://www.ncsr.gov.au/content/ncsr/en/quickstart-guide.html>
- To access an individual's national record, please call: 1800 627 701



## About Bowel Cancer Screening in Australia

Australia's NBCSP involves inviting eligible Australians, aged 50 to 74 years, to complete a FOBT in their own homes and mailing it to the pathology laboratory for analysis. Participant details are obtained from either Medicare or Department of Veterans' Affairs, therefore it is important patients keep their address up to date. Since the beginning of the NBCSP (2006) to June 2017 over 4.3 million Australians have been screened<sup>11</sup>.

People diagnosed through the NBCSP have a 59% lower risk of dying from bowel cancer compared to people who have never been invited to screen. However, Australia has one of the highest rates of bowel cancer in the world. Around one in 23 Australians will develop bowel cancer during their lifetime.

### Why focus on bowel cancer screening?

The age standardised incidence rates (per 100,000 persons) for bowel cancer between 2009-2013 were as follows:

- Murray PHN - **68**
- North Western Melbourne PHN - **58**
- Western Victoria PHN - **66**

In 2015-2016, the bowel cancer screening participation rate was lower among males (39.0%) than females (42.9%).

The screening participation rate among eligible persons living in very remote areas was 28.0%.

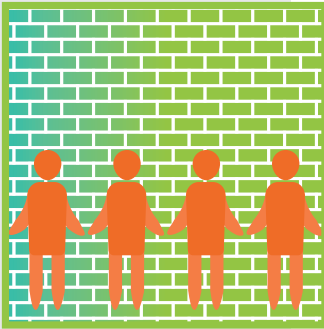


For national statistics relating to bowel cancer screening, please use this link:  
<https://ncci.canceraustralia.gov.au/screening/colorectal-screening-rates/colorectal-screening-rate-participation>

'Australian National Bowel Cancer Screening Program reports found lower participation rates among men and socioeconomically disadvantaged, Indigenous and non-English-speaking populations'

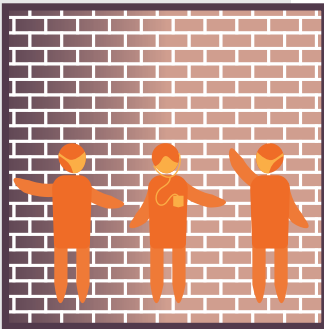


<sup>11</sup> Australian Institute of Health and Welfare, 2018, Analysis of cancer outcomes and screening behaviour for national cancer screening programs in Australia, available:  
<https://www.aihw.gov.au/reports/cancer-screening/cancer-outcomes-screening-behaviour-programs/contents/table-of-contents>



### Participant barriers to bowel cancer screening

- Lack of knowledge about the test
- The FOBT is difficult to schedule into busy lives
- People feel uncomfortable about sampling and/or storing their own waste
- Lack of symptoms, no family history of cancer and doubt about test accuracy
- Language barriers and belief systems
- Fear of a cancer diagnosis
- Some Aboriginal and/or Torres Strait Islander peoples and culturally and linguistically diverse (CALD) people lack privacy in their own homes



### Health Service barriers to bowel cancer screening

- Perception of screening as for those assessed at higher risk rather than for the asymptomatic population to enable prevention and early detection of bowel cancer
- Concerns re: the accuracy of the FOBT, particularly about the number of false positives



## About Breast Cancer Screening in Australia

BreastScreen Australia invites women aged 50-74 to have free two-yearly screening mammograms. Women in this age bracket are targeted because the risk of breast cancer has been found to increase with age, and screening mammography is known to be effective in reducing breast cancer deaths in this age group. Women aged 40-49, and 75 and over, are also eligible to attend.

### Why focus on breast cancer screening?

The age standardised incidence rates (per 100,00 persons) for breast cancer between 2009-2013 were as follows:

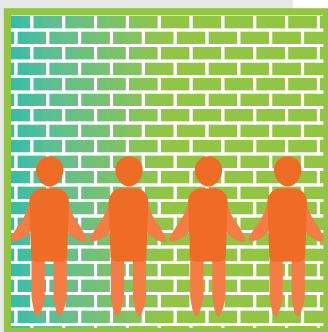
- Murray PHN - **188**
- North Western Melbourne PHN - **110**
- Western Victoria PHN - **119**

In 2015-2016, the age-standardised breast screening participation rate for Indigenous females aged 50-74 years (39.1%) was lower than for non-Indigenous females (54.3%).

The screening participation rate among eligible women living in very remote areas was 44.1%, followed by residents of remote areas (53.0%), major cities (53.3%), inner regional areas (56.5%) and outer regional areas (56.9%).



For national statistics relating to breast cancer screening, please use this link:  
<https://ncci.canceraustralia.gov.au/screening/breast-screening-rates/breast-screening-rates>



### Participant barriers to breast cancer screening

- Low knowledge, awareness or understanding of mammography
- Self-consciousness and embarrassment, especially among Aboriginal and/or Torres Strait Islander and CALD women
- Complacency among women e.g. "it won't happen to me" or "I live a healthy active lifestyle" or "I have no family history"
- Underlying fear of what may be found
- Perceived or experienced pain of the mammogram
- Scheduling issues for full time working women
- Transport and/or access issues
- BreastScreen bus timetabling



### Service barriers to breast cancer screening

- Reluctance by some groups, e.g. CALD women to discuss breast cancer screening
- BreastScreen bus timetabling limiting access
- Inaccurate contact details for postal reminders

## About Cervical Cancer Screening in Australia

Australia's NCSP was revised on 1 December 2017, based on recommendations by the Medical Services Advisory Committee. The Pap test was replaced by the Cervical Screening Test, which detects infection with human papillomavirus (HPV).

Other changes included:

- the age at which testing commences, which was raised to 25 years
- the test interval increased from two years to five years
- the introduction of an exit test for women aged 70 to 74 years
- updating of MBS item numbers
- submission of new HPV vaccinations to the AIR site.

### Why focus on cervical cancer screening?

The incidence of cervical cancer has halved since the National Cervical Cancer Screening Program began in 1991<sup>12</sup>



The age standardised incidence rates (per 100,000 persons) for bowel cancer between 2009-2013 were as follows:

- Murray PHN - **68**
- North Western Melbourne PHN - **58**
- Western Victoria PHN - **66**



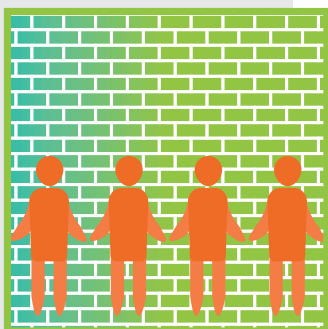
For national statistics relating to cervical cancer screening, please use this link:  
<https://ncci.canceraustralia.gov.au/screening/cervical-screening-rates/cervical-screening-rates>

In 2015-2016, 56.3% (age-standardised) of eligible women aged 20-69 years participated in the NCSP.

The screening participation rates were lower in very remote areas (51.8%), and in the lowest socioeconomic status areas (SES 1, 51.4%).

2-year participation rates were more than 20 percentage points lower for Indigenous women than for non-Indigenous women.

<sup>12</sup> Emery J, Trevena L, Mazza D, Fallon-Ferguson J, Shaw K, Williams B & Varlow M, 2012, The role of primary and community-based healthcare professionals in early detection and follow-up in cancer care: a rapid review of best practice models, commissioned by the Sax Institute on behalf of the Cancer Institute NSW, [https://www.saxinstitute.org.au/wp-content/uploads/REPORT\\_Role-of-PHC-cancer-early-detection-2smallpdf.com\\_.pdf](https://www.saxinstitute.org.au/wp-content/uploads/REPORT_Role-of-PHC-cancer-early-detection-2smallpdf.com_.pdf)




### Participant barriers to cervical cancer screening

- Lack of knowledge about the test
- Lack of understanding who needs to be screened e.g. "I have had the cervical cancer vaccination" or "I am no longer sexually active" or "I've only had one partner"
- Lack of culturally appropriate screening services
- Shame and embarrassment, especially among Aboriginal and/or Torres Strait Islander and CALD women
- Lack of services for homeless women
- Access issues for women with a disability
- Fear, especially for women who have experienced a history of sexual violence
- Anxiety about the possible results
- Busy lifestyles
- Financial constraints



### Service barriers to cervical cancer screening

- Lack of knowledge of when and where women have been screened
- Lack of understanding of culturally appropriate screening services
- Lack of access to a female GP or Practice Nurse

The background features a gradient from teal on the left to orange on the right. In the lower-left quadrant, there is a complex, low-poly geometric pattern composed of various shades of teal and green triangles and polygons, creating a faceted, crystalline appearance.

# **HOW CAN WE IMPROVE PARTICIPATION IN CANCER SCREENING?**

## Improving cancer screening rates

Research shows that strong primary health care involvement is associated with greater screening participation rates. In particular, the following primary care activities have led to higher participation rates:

- having a GP endorse an invitation to take a screening test
- use of recall and reminder systems
- participation in quality improvement programs incorporating audit and feedback on screening.

### Strategies to improve cancer screening participation rates

#### Reminder Letters



As GP reminder letters have been shown to increase the rates of screening, consider developing your own template letters for use and/or modifying the examples included in this Toolkit.



For a NBCSP template letter to support people to undertake bowel cancer screening, please see here: <http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/gp-template-letter>

- Alternatively you may wish to send the following SMS to your 49 year old patients close to their 50th birthday:



*Around your 50th birthday you will be sent a free bowel cancer screening kit. Please do this test - screening saves lives.*  
GP NAME

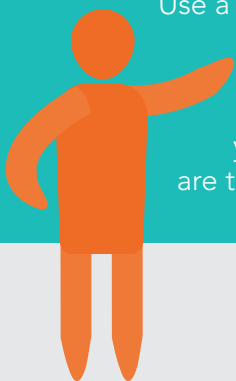
- Or the following SMS to those aged between 50 and 74 years of age:



*If you're aged 50-74 and eligible you will be sent a free bowel cancer screening kit. Please do this test - screening saves lives. Check when your kit will arrive at [www.cancerscreening.gov.au/bowel](http://www.cancerscreening.gov.au/bowel)*  
GP NAME

### Hot Tip!

Use a readability tool to assess how easy your letters are to read.



- To access a draft reminder letter for bowel cancer screening, please see [Appendix 2](#)
- To access a sample template reminder letter for breast cancer screening, please see [Appendix 3](#)
- To access a sample template reminder letter for cervical cancer screening, please see [Appendix 4](#)

These samples can also be amended for use in SMS reminders.

## 2

**Recall and Reminder Systems**

Essential to the success of any Health Service's recall and reminder systems are well-defined and controlled lists of eligible patients.

1. Make sure your team codes appropriately in your clinical information software and you are receiving results in electronic format so that electronic registers (in Pen CAT) for breast, bowel and cervical cancer screening are accurate
2. Hold a team meeting to update/develop cancer screening recall and reminder systems and identify who will do what and when
3. Train the team on how to use all aspects relating to your recalls and reminder system in your clinical information software
4. If using SMS for reminder follow ups and recalls, ensure that your system is aligned to the appropriate age ranges and testing intervals for each of the three cancer topics
5. Review and action outstanding recalls and reminders in your patient records to follow-up or remove them
6. Continuously monitor the effectiveness of these systems and make changes, as required.

In line with best practice, the RACGP Accreditation Standards specify the need for Health Services to remind patients when they need to have another screening and not rely on patients receiving reminders from the register (Accreditation: RACGP Core Standard 2, criterion C2.2 B and C).

**Make the most of opportunities to screen!**

## 3

- 715 health assessments
- Health assessment for refugees and other humanitarian entrants
- Health assessment for people with an intellectual disability
- Health assessment for people aged 45 to 49 years

**Quality Improvement Activities**

By accessing this toolkit, you have already started considering ways to improve your cancer screening rates.

Use the cancer screening quality improvement checklists in this toolkit to assess your processes and systems. Following this, utilise quality improvement frameworks and tools such as the Model for Improvement to begin trialling changes to make improvements.

As you make changes keep your whole team up-to-date with your progress to keep the team engaged, focused and motivated to continue this valuable improvement work.



## Cancer Screening Recall and Reminder Systems Activity Checklist

Please use the following checklist to ensure your recall and reminder systems for cancer screening are fit for purpose.



- Do we need to clean our data to establish an up-to-date list of people who are eligible for breast, bowel and cervical cancer screening and those who are due for screening?
- Do our registers capture new patients effectively and archive patients effectively?
- Do our registers monitor attendance and have systems to follow-up patients who do not attend?
- Is maintaining our cancer screening registers part of our Health Service's policy and guidelines?
- Do we have a register manager and a contingency plan for when this person is away?
- Does our whole team understand our recall and reminder system?
- Do we have systematic reminder systems?
- Do we use prompts in the appointment system or clinical software to identify individuals with specific needs? (e.g. those for whom English is a second language, women with disabilities)
- Do we have multiple channels for communicating reminders depending on the needs and preferences of the patient? (e.g. letter, SMS, phone call, letters translated into other languages, etc.)
- Have we put our reminder letter through a health literacy check? (please refer to 'Take a person centred approach' [Appendix 5: Useful Resources](#) for more information)
- Can individuals who don't want to participate in screening opt out from ongoing reminders?

# **A TEAM APPROACH TO IMPROVING CANCER SCREENING**



## Successful Teams

Engaged and effective Health Service teams are the absolute foundation for achieving sustainable improvements. Experience has shown that building the team's engagement and commitment to quality improvement work is often overlooked, and it becomes a weakness that affects the ability for Health Services to achieve sustainable change.

If you want to change the cancer screening outcomes for your Health Service, you will need to change what you are doing. It's important not to assume that the benefits of these changes will be understood or accepted by everyone. Facts are usually not enough, you need to get the "hearts and minds" on-side for real engagement and enthusiasm.

## Roles and Responsibilities of the Health Service Team

Consider how your Health Service team currently operates. Is your team working together effectively and efficiently? It's not unusual for Health Service teams to be working in silos, which can lead to gaps, errors, assumptions, duplication and other inefficiencies. To achieve sustainable improvement, you will likely need to do some work on achieving a whole of team approach to cancer screening.

There are a range of responsibilities for the effective management of cancer screening within a Health Service. Documented role clarity is of high importance to ensure efficiency and accountability. Below is an example of how responsibilities could be shared across the Health Service team. As there is a great deal of diversity between Health Services, consider what will work best for your team.

On the following pages we've listed examples of role based activities related to cancer screening. However, it is important that your team discusses the range of actions or tasks that are needed to make sure that your Health Service population receives appropriate cancer screening. Then, based on comparative advantage, which role(s) in the team is best placed to undertake which action(s).

### General Practitioners (GP)

- Respond to recall/reminder systems and engage in opportunistic discussions to encourage participation with eligible patients
- Support eligible patients to participate in screening, including addressing potential barriers to screening (e.g. fear, embarrassment, lack of knowledge, access etc)
- Perform cervical screening tests and/or work with Practice Nurses to do so
- Assess and support patients with follow up care following a positive result. Additionally, for bowel cancer screening, assist by reporting referrals for further investigation back to the Register
- Work in accordance with clinical guidelines, including managing patients at increased risk of breast, bowel or cervical cancer:
  - NHMRC approved Guidelines
  - RACGP Standards for General Practice - Criterion GP2.2 - Follow up systems

Do you have the  
right staff, doing  
the right job,  
at the  
right  
time?





## Practice Nurses

- Work with reception staff to promote the screening programs within the Health Service
- Respond to recall/reminder systems and engage in opportunistic discussions to encourage participation with eligible patients
- Support eligible patients to participate in screening, including addressing potential barriers to screening (e.g. fear, embarrassment, lack of knowledge, access etc)
- Demonstrate to patients how to use the bowel screening test kit. Kits can be ordered by emailing NBCSP@health.gov.au
- Perform cervical screening tests
- Refer patients of any age with cancer symptoms or a family history to a GP for further investigation
- Enter any screening results received, and an appropriate re-screen reminder, into the clinical software
- Contact and provide support to patients following a positive result and arrange a GP appointment
- Follow up patients who did not attend GP and/or colonoscopy appointment(s), addressing potential barriers to participation (e.g. fear, embarrassment, lack of knowledge, access etc)



## Practice Managers

- Maintain up to date cancer screening registers
- Undertake screening audits of Health Service records to identify eligible patients due for screening as well as targeting those never screened, under screened and/or specific vulnerable groups
- Establish and oversee recall/reminder systems
- Support GPs with the flow of information to and from the Program Register
- Manage payments such as the cervical screening Practice Incentive Program (if eligible) and payment for providing information to the Program Register i.e. colonoscopy (or other examination) referral/non-referral via the GP Assessment Form for bowel cancer screening
- Support/manage reception staff responsibilities
- Manage succession planning
- Document policy and procedures for cancer screening
- Monitor progress against cancer screening goals and measures



## Reception Staff

- Promote the screening programs within the Health Service
- Order and maintain supplies of program resources
- Display brochures, flyers and posters
- Respond to recall/reminders opportunistically when a patient phones for an appointment and/or by handing relevant resources to patients in the waiting area
- Send GP signed recall/reminder letters (and/or text messages and phone calls) to eligible (or soon to be eligible) patients to encourage participation. Provide resources and support information in alternative languages as needed.



## Work with your team

### Educate the team on the value of population-based screening

- Does our team have a good understanding of the difference between population screening and risk-based screening?
- Does our team have a good understanding of cancer screening guidelines?\*
- Does our team have a good understanding of our breast, bowel and cervical cancer screening systems?
- Does our Health Service have a good understanding of the target populations for each screening program?
- Does our Health Service have documented processes for breast and cervical cancer screening?

### Involve the whole team

- Can we give the whole team opportunities to generate ideas for improving cancer screening systems during team meetings or in other ways?
- Do we have a clinical and non-clinical leader (e.g. our principal clinician and Practice Manager) driving this activity?
- Have we assigned roles, responsibilities and timeframes for carrying out tasks?
- Do our team members have the skills they need, or is more training required?

### Ensure team members have protected time to complete tasks

- Does the way in which we assign roles make efficient use of our entire team?
- Have we assigned people realistic tasks in light of any resource or time constraints?
- Have team members been given "protected" time to regularly complete tasks?

### Set realistic goals and use data to drive improvement

- Will our whole team be involved in setting our Health Service's goals for this work?
- Are our goals SMART: Specific, Measurable, Attainable, Realistic and Time-bound?
- Do we have tools to measure progress against our goals?
- Are we using data to frequently review progress against our goals?

### As a team, regularly reflect, review and adjust what you are doing

- Is reviewing progress against our goals and generating new ideas part of our regular team meeting agenda?
- Are we regularly reviewing our progress and adjusting our goals and strategies?
- Are we rewarding and acknowledging success and working as a team to problem-solve any challenges?

In this section, where you see an asterisk \*, please refer to '[Appendix 5: Useful Resources](#)' for more information. (page 75)





## Develop a systematic approach to cancer screening



### Consider to whom, how and when you will offer screening

- Does our Health Service have a clear idea of who talks with people about screening and when (for example: during health checks, as part of routine appointments, during specific information sessions, via written information)?
- Have we documented who will talk about screening and when?
- Do our team members have the skills they need to offer cervical screening to women with a history of sexual abuse, women with a disability, women whose comfort with screening is impacted by cultural sensitivity or language barriers?

### Undertake awareness raising

- Does our Health Service display cancer screening materials? \*
- Do we regularly review the health promotional materials available in relation to cancer screening and order the posters/pamphlets relevant to our Health Service?
- Is our team aware of the most up-to-date “key messages” for cancer screening?
- Does our Health Service use events such as Daffodil Day, Pink Ribbon Day and Australia’s Biggest Morning Tea to promote cancer screening initiatives?

### Identify at risk individuals and provide them with additional support

- Has our Health Service reviewed our cancer screening registers to identify patterns in individuals who are under-screened or who have never screened? (e.g. by gender, age, cultural background, location, employment status, disability, etc.)
- Has our Health Service used the “Deliver person centred” checklist to identify actions that will strengthen engagement with individuals at-risk of under-screening?
- Does our Health Service offer the self-collection method of cervical cancer screening to eligible women who have previously refused screening?

### Develop systems that support patient safety

- Does our Health Service have a near miss and adverse outcome register for cancer screening?

### Support individuals who have a positive screening test

- Do we use appropriate pathways for people who require further investigation after a positive screening test or diagnosis?
- Does our Health Service have resources and a team to support individuals with a positive screen or subsequent diagnoses?
- Does our Health Service use HealthPathways and Optimal Care Pathways? \*



# 3



## Deliver person centred care

### Understand individual's perspectives, and design and deliver your services accordingly

- Has our team mapped the cancer screening pathway from the individual's point of view to understand which aspects of the "patient journey" may be difficult to access, inconvenient, unclear or psychologically distressing for our patients?
- Does our Health Service co-design service delivery with patients and incorporate their perspectives into our delivery of care?

### Improve your organisation's health literacy

- Does our whole team understand the components of health literacy?
- Have our team members undertaken health literacy training?
- Does our Health Service display cancer screening materials designed for specific cohorts of patients?
- Do we ask and record all new patients about their language preferences, and offer and use appropriate language services? (Accreditation: RACGP Core Standard 1, criterion C1.1, C1.3, C1.4, C1.5)
- Has our Health Service developed, or do we use audio-visual materials to support patients with better understanding cancer screening e.g. "The Pap test has changed" video? \*
- Do our team members have the counselling skills to support all individuals to make informed choices about screening? \*
- Does our Health Service have a clear system for communicating screening results with individuals in a way that helps them make an informed decision on treatment?
- Do our team members understand this system? Can they explain it?

### Use patient reported measures to drive improvement

- Does our Health Service request feedback from patients about their experience of care? (Accreditation: RACGP criterion Q1.2)
- Do patient reported measures form part of how we assess our Health Service's performance? \*

### Work in partnership to address environmental, cultural and other barriers to screening

- Does our Health Service partner with community organisations or leaders to better engage hard to reach groups and support referrals to screening services?
- Does our Health Service use interpreter services appropriately?
- Is our Health Service a safe place for Aboriginal or culturally diverse people?
- Have our staff members read the Australian Indigenous Doctors "Cultural Safety Factsheet"? \*

## HealthPathways

HealthPathways is a web-based information portal supporting primary care clinicians to plan patient care through primary, community and secondary health care systems within your local area. It is like a “care map”, so that all members of a health care team - whether they work in a hospital or the community - can be on the same page when it comes to looking after a particular person.

HealthPathways are designed to be used at the point of care, primarily for GPs, but is also available to hospital specialists, nurses, allied health practitioners and other health professionals within the region.

Please note that you need a username and password to access your local HealthPathways. If you do not have access, please contact your local HealthPathways team to request this:



- Murray PHN:  
<https://murray.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>
- North Western Melbourne PHN:  
<https://melbourne.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>
- Western Victoria PHN  
<https://westvic.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>  
email: [healthpathways@westvicphn.com.au](mailto:healthpathways@westvicphn.com.au)

## Case Study 1: Working with the team to improve cancer screening



Robinson Street Medical Centre decided to join the Cancer Screening Collaborative because they saw it as an ideal opportunity to improve the rate of cervical cancer screening and to learn more about the renewal of the cervical screening program. Participation in the Collaborative enabled the team to undertake a review of their current cervical screening processes; identify women who were under-screened; update promotional materials and patient education systems and contact women individually to discuss the importance of cervical cancer screening.

*Photo courtesy of  
Western Victorian PHN*

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"It worked really well - we had a 10% increase in just six months and we're continuing to build on that," Beth Royal, PN, said.

The success of their involvement in the program was acknowledged when Beth was awarded the Western Victoria Primary Health Network's Primary Health Care Nurse Excellence Award in November 2018.

**Robinson Street Medical Centre, Camperdown, Vic**

## Case Study 2:



**Attention Ladies!**  
5 minutes every 5 years can **TOTALLY** save lives!

THERE'S A NEW 3 LETTER ACRONYM ON THE BLOCK!

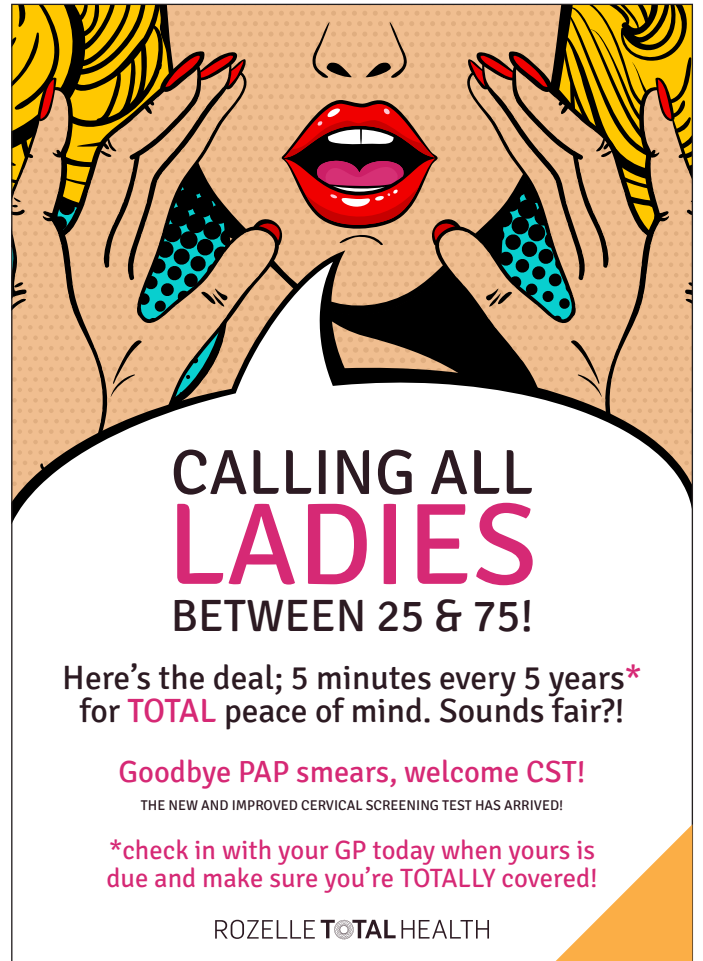
**Move over PAP...  
welcome CST.**

The new Cervical Screening Test is an improved screening method to keep you **TOTALLY** covered.

The good news is your standard screening will only be every 5 years. **BUT** you need to **CHECK** with your GP when **YOU** are due to make sure!!

**TOTALLY** better. **TOTALLY** covered.

ROZELLE **TOTAL** HEALTH



**CALLING ALL  
LADIES  
BETWEEN 25 & 75!**

Here's the deal; 5 minutes every 5 years\*  
for **TOTAL** peace of mind. Sounds fair?!

**Goodbye PAP smears, welcome CST!**  
THE NEW AND IMPROVED CERVICAL SCREENING TEST HAS ARRIVED!

\*check in with your GP today when yours is  
due and make sure you're **TOTALLY** covered!

ROZELLE **TOTAL** HEALTH

## Raising awareness of the changes to cervical cancer screening

Images courtesy of  
Rozelle Total Health

Rozelle Total Health realised that in order to encourage more women to undertake cervical cancer screening, they needed to do something different.

"We used a sandwich board that sat outside the practice with posters either side promoting the change to the PAP/CST screening. This worked really well and stirred up women's interest, especially when the message included information that the test would be every 5 years.

We would definitely use the sandwich board for future campaigns as it had the desired effect for gaining women's attention that then converted into CST screening in the doctors' consults", Lis Akhust, PN, said.

**Rozelle Total Health, Sydney, NSW**



## Case Study 3: Working in partnership to deliver person centred care



**Coffs Harbour Women's Health Centre provides cancer screening services to a broad range of women. They found they needed a pro-active partnership approach to meet the diverse needs of their patients.**

"We have found that we need more than our recall and reminder service to meet the needs of our more vulnerable patients. We try to be very person centred in the way we deliver our screening service for vulnerable women. We work with a number of partners to build the support and linkages we need to deliver appropriate services.

For example, we have an informal arrangement with the Local Health District's Refugee Clinic and they refer to us. Clearly, language is a barrier (amongst a myriad of physical, emotional and social problems), but we use the interpreting service well and work closely with other resettlement services.

We have electronically controlled examination couches to support the needs of women with impaired mobility and have, on occasion, delivered cervical screening outside the centre for women whose physical needs make it difficult for them to access our service.

Previously we've worked with the Local Health District's Drug & Alcohol service to deliver a couple of cervical screening clinics a year on their premises. We also provide five outreach clinics per year to Dorrigo, Bellingen and Woolgoolga to support women who find access difficult due to transport disadvantage. These clinics are in demand and always filled.

Generally speaking, vulnerable women are significantly under screened. We found taking the service to a place they visit had merit. This helped the women to be comfortable and to minimise "no show" rates."

**Bronwyn Chalmers, CEO, Coffs Harbour Women's Health Centre, NSW**

# Health Literacy

Health literacy is about how well people understand information about health and health care, and how well they are able to apply that information to their lives, use it to make decisions and act on it. Health literacy also involves the ability of health services to “make it easier for people to navigate, understand, and use information and services to take care of their health”<sup>13</sup>

Research has shown that limited health literacy is associated with lower levels of cancer screening and later stage cancer diagnoses.<sup>14</sup> Health literacy is therefore an important area for us to address if we want to improve screening rates.

## Health literacy for clinicians

**60%**  
OF PEOPLE



**LOW**  
HEALTH LITERACY

Having low health literacy means your patients don't have the knowledge they need to find, understand and use information about their health and health care. You can help change this.

### Know your patients



### Consider how you present information



### Ensure understanding



### Improve your health service



How can I help my patients understand their health better?

**AUSTRALIAN COMMISSION**  
ON SAFETY AND QUALITY IN HEALTH CARE

[www.safetyandquality.gov.au](http://www.safetyandquality.gov.au)

13 Brach C, Keller D, Hernandez L, Baur C, Parker R, Dreyer B, Schyve P, Lemerise AJ & Schillinger D, 2012, Ten attributes of health literate health care organisations, Washington, DC: Institute of Medicine, The National Academies Press, <https://www.jointcommission.org/assets/1/6/10attributes.pdf>

14 Friedman DB and Hoffman-Goetz L, 2008, Literacy and health literacy as defined in cancer education research: A systematic review, Health Education Journal, December 2008 vol. 67 no. 4 285-304



### So, what can you do?

- Develop a list of ideas for action from the “Deliver person centred care” checklist and use the Model for Improvement to test your ideas.
- Review your current patient information resources to ensure they are appropriate, e.g. they use plain language.
- To access more information on health literacy, please use this link: <https://www.safetyandquality.gov.au/publications/health-literacy-a-summary-for-clinicians/>
- To access a guide on creating plain language resources, please use this link: <https://www.ipchealth.com.au/wp-content/uploads/Health-literacy-guide-for-client-resources-Final-2017.pdf>



### How can we involve our patients?

- Ask specific cohorts of patients, their families or carers to review your information resources
- Consider asking a group of individuals to form a Health Literacy Advisory Group

For more information, tools and resources from ACSQHC, please visit: <https://www.safetyandquality.gov.au/our-work/patient-and-consumer-centred-care/health-literacy/tools-and-resources-for-health-service-organisations/>

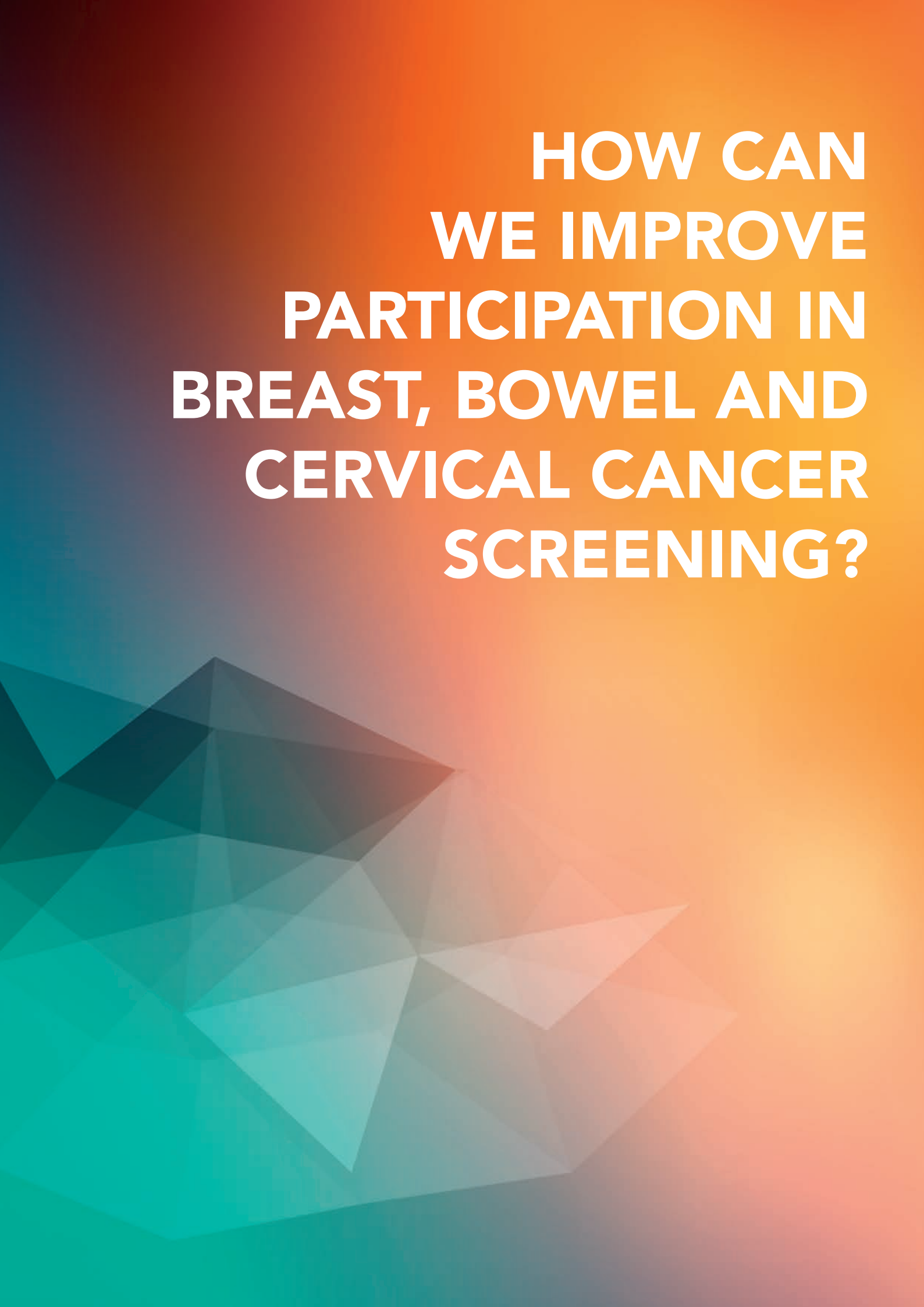
### Readability Tools

There are a range of readability tools that can be used to assess the complexity of your information. Both SA Health and Department of Health and Human Services Tasmania recommend using the SMOG Tool.

[https://www.dhhs.tas.gov.au/publichealth/about\\_us/health\\_literacy/health\\_literacy\\_toolkit/assessing\\_readability](https://www.dhhs.tas.gov.au/publichealth/about_us/health_literacy/health_literacy_toolkit/assessing_readability)

<https://www.sahealth.sa.gov.au/wps/wcm/connect/fcb907004e455125ab8eaf8ba24f3db9/HLT-AssessingReability-T7-PHCS-SQ20130118.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-fcb907004e455125ab8eaf8ba24f3db9-IG4ZGVM>



The background features a gradient from teal on the left to orange on the right. In the lower-left quadrant, there is a complex, low-poly geometric pattern of overlapping triangles in various shades of teal and green.

# **HOW CAN WE IMPROVE PARTICIPATION IN BREAST, BOWEL AND CERVICAL CANCER SCREENING?**



## How do we improve participation in bowel cancer screening?

- Tailor and/or update resources on bowel cancer screening and display materials such as posters in the waiting room
- Work with a small cohort of your patients to review and/or co-design promotional materials
- Consider incorporating bowel cancer screening as a discussion point in the 45-49 year old health assessment

## Strategies for improving screening rates for under-screened individuals

1. For Aboriginal and Torres Strait Islander people, access information, advice and resources here:  
<https://www.indigenousbowelscreen.com.au/health-professionals/>
2. For individuals from low SES areas, consider a follow-up telephone call after a consultation and/or a reminder letter has been sent<sup>15</sup>
3. Provide specific, clear information to those with lower health literacy<sup>16</sup>

## Enablers for under-screened groups

- Culturally and linguistically appropriate information
- Opportunistic reminders
- Planned follow-up to assess if individuals have undertaken the FOBT



## Enablers for health services

- GP recommendation
- Information on the effectiveness of routine screening programs, including the proportion of false negatives and false positives, in order to effectively promote screening
- Special clinics that focus on preventative activities or involve Practice Nurses in screening activities
- Ask patients to complete a bowel cancer screening self-assessment
- Provide screening information in an appropriate format e.g. easy English, different languages, videos
- Provide demonstrations of FOBT
- Allow time to discuss and address their concerns



<sup>15</sup> Phillips L, Hendren S, Humiston S, Winters P & Fiscella K, 2015, Improving Breast and Colon Cancer Screening Rates: A Comparison of Letters, Automated Phone Calls, or Both, <http://www.jabfm.org/content/28/1/46.full>

<sup>16</sup> Courtney RJ, Paul CL, Sanson-Fisher RW, Carey ML, Macrae FA & Yoong SL, 2012, Community approaches to increasing colorectal screening uptake: A review of the methodological quality and strength of evidence, [https://cancerforum.org.au/wp-content/uploads/2015/06/CFMAR2012\\_Forum7.pdf](https://cancerforum.org.au/wp-content/uploads/2015/06/CFMAR2012_Forum7.pdf)



## Resources

- For health care provider information about your role in the NBCSP:  
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/role-of-GPs>
- For Cancer Australia clinical practice guidelines and care pathways for bowel cancer:  
<https://bowel-cancer.canceraustralia.gov.au/health-professionals>
- To access a multitude of resources from Cancer Council Victoria, please use this link: <https://screeningresources.cancervic.org.au/search/>
- For national bowel cancer screening resources for consumers:  
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-bowel>
- For RACGP clinical guidelines on bowel cancer screening:  
<https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/red-book/early-detection-of-cancers/colorectal-cancer>



## How do we improve participation in breast cancer screening?

- Tailor and update resources on breast cancer screening and display materials such as posters in the waiting room
- Work with a small cohort of your female patients to review and/or co-design promotional materials
- Develop and provide information to women that promotes the importance of updating personal contact details held by the BreastScreen program

## Strategies for improving screening rates for under-screened women

1. For older women, consider following up reminder letters with phone calls
2. For migrants and refugees, liaise with relevant community groups, offer language-specific education sessions and assist with transport requirements<sup>17</sup>
3. For Aboriginal women, liaise with your local ACCHO or Aboriginal medical service. Establish connections with female Aboriginal Health Workers and hold specific “yarning” sessions.<sup>18</sup>
4. For CALD women, hold language specific information sessions<sup>19</sup>; liaise with BreastScreen Victoria to send written invitations<sup>20</sup>

## Enablers for under-screened groups

- Local interpreter services
- Accessible, appropriate information and resources about breast screening
- Information on the BreastScreen bus timetable or location
- Localised health services guide for women



17 Dunn SF, Lofters AK, Ginsburg OM, Meaney CA, Ahmad F, Moravac M, Nguyen CTJ & Arisz AM, 2017, Cervical and Breast Cancer Screening After CARES: A Community Program for Immigrant and Marginalized Women, <https://www.sciencedirect.com/science/article/pii/S0749379716306249>

18 Cancer Institute NSW, Increasing breast cancer screening participation among Aboriginal women in the Lithgow LGA, <https://www.cancer.nsw.gov.au/about-us/events/innovations-in-cancer-treatment-and-care/2017-innovations-in-cancer-treatment-and-care-conf/increasing-breast-cancer-screening-participation-a>

19 Cancer Institute NSW, Improving breast and cervical screening participation rates amongst CALD and Indigenous women in regional Australia: Evaluation of the implementation of pop-up amalgamated clinics, <http://www.ruralhealth.org.au/6rrhss/sites/default/files/2018-04/Catherine%20Harding%20and%20Dianna%20Jonasson.pdf>

20 Phillipson L, Larsen-Truong K, Jones S & Pitts L, 2012, Improving cancer outcomes among culturally and linguistically diverse communities: a rapid review of the literature, The Sax Institute, <https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=https://www.google.com.au/&httpsredir=1&article=1485&context=sspapers>



## Enablers for health services

- GP recommendation
- Access to female GP or nurse if required
- Shared consultations with female GP or nurse
- Access to current health services guide for women, including details of women's health centres
- Provide screening information in an appropriate format e.g. easy English, different languages, videos
- Demystify breast cancer screening and the screening process and allow time to discuss their concerns

## Resources



- For Cancer Australia breast cancer guidelines, guides and resources: <https://breast-cancer.canceraustralia.gov.au/health-professionals>
- To access a multitude of resources from Cancer Council Victoria, please use this link: <https://screeningresources.cancervic.org.au/search/>
- For national breast cancer screening publications and resources for women: <http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-breast?OpenDocument&CATEGORY=Consumer+resources-2&SUBMIT=Search>
- For RACGP clinical guidelines on breast cancer: <https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/red-book/early-detection-of-cancers/breast-cancer>



## How do we improve participation in cervical cancer screening?

- Offer the self-collection method to relevant women
- Implement a Health Service disability policy and processes to ensure appropriate access and equipment is available
- Liaise with local women's health centres to promote access
- Work with others to provide community-based promotion campaigns

## Strategies for improving screening rates for under-screened women

1. For Aboriginal women, send regular invitations to screen; ensure accessible and culturally appropriate services are available<sup>21</sup>
2. For CALD women, engaging with non-medical and family networks to encourage screening; holding education sessions that address specific fears<sup>22</sup>
3. For people who identify as LGBTIQ, ensure all staff use inclusive language and demonstrate non-judgement attitudes; discuss sexual orientation and gender identity<sup>23</sup>
4. For women with a history of sexual assault, support the woman to attend with a relative or friend; elevate the pelvis with a cushion; offer the women the choice to insert the speculum<sup>24</sup>
5. For women who have undergone female genital circumcision, support the woman to attend with a relative or friend; encourage calming and deep breathing techniques to help support relaxation<sup>25</sup>
6. For women with a disability, book longer consultations; offer assistance with undressing, dressing and positioning<sup>26</sup>

## Enablers for under-screened groups

- Access to a female GP and/or PN
- National Interpreter services - 13 14 50 (TTY 13 36 77)
- Local transport options



21 Cancer Council, Cancer Council Guidelines: 12. Screening in Aboriginal and Torres Strait Islander Women

22 Federation of Ethnic Communities' Councils of Australia, 2010, Cancer and Culturally and Linguistically Diverse Communities, [http://www.fecca.org.au/images/stories/pdfs/cancer\\_cald\\_communities\\_report2010.pdf](http://www.fecca.org.au/images/stories/pdfs/cancer_cald_communities_report2010.pdf)

23 PapScreen Victoria, Lesbian, gay, bisexual, transgender, intersex, queer (LGBTIQ) people and cervical screening: a guide for health professionals, [http://www.papscreen.org.au/downloads/research\\_eval/LGBTIQ\\_PAPSCREEN\\_INFO\\_SHEET\\_for\\_GPs.pdf](http://www.papscreen.org.au/downloads/research_eval/LGBTIQ_PAPSCREEN_INFO_SHEET_for_GPs.pdf)

24 Cancer Council Victoria, Sexual assault & cervical screening: A resource for health care professionals, <https://www.cancerciv.org.au/downloads/health-professionals/cervical-screening/casa-nurses-card.pdf>

25 Cancer Council Victoria, Female genital cutting (FGC) & cervical screening: A guide for practitioners, <https://www.cancerciv.org.au/downloads/health-professionals/cervical-screening/fgc-card.pdf>

26 Halcomb EJ, Peters K & Smyth E, 2018, Health screening for women with physical disability in Australian general practice: A survey, <https://www.sciencedirect.com/science/article/pii/S132276961730241X>



## Enablers for services

- GP recommendation
- Formalised reminders and opportunistic prompts
- Provide screening information in an appropriate format
- Allow time to discuss the screening process and discuss their concerns
- Liaison with women's health centres
- Liaison with community groups to promote screening to specific groups, e.g. CALD women



## Resources

- For health care provider information about your role in the NCSP:  
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/healthcare-providers>
- For information on HPV and cervical cancer:  
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/about-HPV-and-cervical-cancer>
- To access a toolkit for engaging under-screened and never-screened women, please use this link:  
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/cervical-toolkit-engaging-under-and-never-toc>
- To access a multitude of resources from Cancer Council Victoria, please see:  
<https://screeningresources.cancervic.org.au/search/>
- To access national cervical cancer screening patient publications and resources:  
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=2Consumer+Resources-3&SUBMIT=Search>
- For RACGP clinical guidelines on cervical cancer screening:  
<https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/red-book/early-detection-of-cancers/cervical-cancer>



## Cancer Screening Model for Improvement Examples

### MFI Example for Bowel Cancer Screening

A Health Service reviews their cancer screening data and decides to focus their initial efforts on improving the rates of **bowel cancer screening** for eligible patients in their Health Service population.

As a team, in early February 2019, they plan and undertake their first Model for Improvement. To begin, they answer the three Fundamental Questions.



#### Question 1: What are we trying to accomplish?

**Q1.** What are we trying to accomplish?  
**(Goal)**

**Our goal is to:**

Increase the number of people who undertake bowel cancer screening

This is a good start, but how will they measure whether they have achieved this goal? The team will be more likely to embrace change if the goal is more specific and has a time limit.

So, for this example, a better goal statement would be:

**Q1.** What are we trying to accomplish?  
**(Goal)**

**Our goal is to:**

Increase the proportion of our Health Service Population patients aged 50 (first timers) that participate in bowel cancer screening by 15% by 31 May 2019



#### Question 2: How will we know that a change is an improvement?

Next the team selects measures to track progress against meeting their goal.

**Q2.** How will we know that a change is an improvement?  
**(Measures)**

We will measure the percentage of eligible regular patients aged 50 who have a FOBT result recorded:

- A - The number of Health Service Population patients on our clinical database aged 50 years (denominator)
- B - The number of Health Service Population patients on our clinical database aged 50 with a recorded FOBT result (numerator)
- B divided by A produces the percentage of Health Service Population patients aged 50 who have a FOBT result recorded

This is a good measure, however, please note that as you measure this over time, some people who were included in earlier results (say February 2019) will have turned 51 (in say March 2019) and will not be included in the results measured in March. In later measurement, people who have just turned 50 will be included where they would have been excluded in earlier counts. Therefore, for this particular measure, if the team focusses on those people who have just turned 50 and who would have just received their FOBT test, it's likely that the results will show greater improvement when compared with focussing on people who are about to turn 51.



### Question 3: What changes can we make that will result in improvement?

Then the whole team is asked for ideas to reach the goal.

**Q3.** What changes can we make that will lead to an improvement?  
**(Ideas)**

#### Our ideas for change:

1. Audit patients aged 49 and send letters encouraging participation in the NBCSP
2. Audit patients aged 50 years and 2 months and send letters to those who have not yet had an FOBT result recorded
3. Create an ongoing system for sending a letter to people aged 49 to encourage their participation in the screening program
4. Clinicians to discuss and encourage opportunistic screening
5. Add bowel cancer screening to templates for chronic disease management and 45-49 year old health assessments
6. Source and provide endorsed patient education resources (in waiting rooms, toilets, distributed) and demo kits
7. Run an awareness campaign for bowel cancer awareness month

Finally, the team selects one idea to begin testing with a PDSA cycle.

#### Idea 2: Cycle 1:

Audit patients aged 50 years and 2 months and send letters to those who have not yet had an FOBT result recorded

PLAN	DO	STUDY	ACT 1 - POSSIBLE NEXT PLAN	ACT 2 - ALTERNATIVE NEXT PLAN
<p><b>What:</b> John to use Sue's office to conduct audit using Pen CAT and identify regular patients aged 50 years and 2 months who have not had an FOBT result recorded</p> <p><b>Who:</b> Practice Manager</p> <p><b>When:</b> 17 March</p> <p><b>Where:</b> At the Health Service</p> <p><b>Prediction:</b> 30% of these patients will have an FOBT result recorded</p> <p><b>Data to be collected:</b> Number of regular patients aged 50 years and 2 months and the status of their FOBT result. This can be achieved by using Pen CAT and then exporting the search to Excel. In Excel the date of birth can be used to identify those that are 50 years and 2 months old and also their FOBT result status.</p>	<p>Done - completed 17 March</p> <p>While the test went smoothly, the Practice Manager needed to contact the PHN for support with Pen CAT and the export function.</p>	<p>Total 152 patients aged 50yrs and 2 months / 36 have had an FOBT = 24%, lower than predicted.</p>	<p>Send a letter to patients aged between 50yrs-50yrs and 2 months to encourage participation</p>	<p>Audit and identify patients aged 49 years, 11 months and send letter to encourage participation</p>

Following on from the first PDSA cycle, the team select the first Act (Act 1) to trial in their next PDSA cycle.

### Idea 2: Cycle 2:

Audit patients aged 50 years and 2 months and send letters to those who have not yet had an FOBT result recorded

PLAN	DO	STUDY	ACT - NEXT PLAN	ACT - NEXT MFI
<p><b>What:</b> Sue to draft a letter template &amp; John to post letters to patients aged 50yrs-50yrs and 2 months who have not had an FOBT result recorded</p> <p><b>Who:</b> Practice Nurse and Practice Manager</p> <p><b>When:</b> Sue - by 20 March 20, John - by 27 March</p> <p><b>Where:</b> At the Health Service</p> <p><b>Prediction:</b> There will be an increase in participation noticeable within one month and by the end of May 2019, 35% will have an FOBT result recorded</p> <p><b>Data Collected:</b> Number of patients aged 50yrs-50yrs and 2 months who have had an FOBT result recorded</p>	<p>Done - completed by 27 March</p>	<p>38 letters sent. Using the same data collection method as in the earlier test, it was noted that within three weeks, 8 of the 38 had a recorded FOBT result.</p>	<p><b>Idea 1:</b> Audit and identify patients aged 49 years and 11 months and send letters to encourage participation.</p>	<p>Consider same/ similar/different approach for other eligible ages</p>

The team is continuing to work towards their goal to 'Increase participation in bowel cancer screening by 15% for patients aged 50 (first timers) by 31 May 2019'. To do so, they decide to test another idea from their original list of change ideas (in response to the third fundamental question) and will start a new PDSA cycle.

An example PDSA cycle for this new idea is shown below:

### Idea 1: Cycle 1:

Audit and identify patients aged 49 years, 11 months and send letters to encourage participation

PLAN	DO	STUDY	ACT - NEXT PLAN	ACT - NEXT MFI
<p><b>What:</b> John to identify regular patients aged 49 years, 11 months, download the NBCSP letter template, customise and post to identified patients</p> <p><b>Who:</b> Practice Manager</p> <p><b>When:</b> By April 10</p> <p><b>Where:</b> At the Health Service</p> <p><b>Prediction:</b> 50% of these patients will have an FOBT result recorded at 50 years and 2 months.</p> <p><b>Data to be collected:</b> Number of regular patients aged 49 years, 11 months who will become eligible for a FOBT in one month.</p>	<p>Done - completed 8 April</p>	<p>12 letters sent</p>	<p>Identify how many of these people had an FOBT and ascertain whether the response rate was as expected, higher, or lower than predicted</p>	<p>Consider same/ similar/ different approach to establish an ongoing system to encourage first time participation</p>



## MFI Example for Breast Cancer Screening

### Question 1: What are we trying to accomplish?

**Q1.** What are we trying to accomplish?  
(Goal)

#### Our goal is to:

Increase the percentage of Aboriginal or Torres Strait Islander women, aged between 50 and 74, who've had a breast screen mammogram in the last two years by 30% by May 2019



### Question 2: How will we know that a change is an improvement?

**Q2.** How will we know that a change is an improvement?  
(Measures)

We will measure the percentage of Aboriginal or Torres Strait Islander women aged 50 to 74 on our clinical database with an active status who are recorded with a mammogram performed within the last two years:

- A - The number of Aboriginal or Torres Strait Islander women aged 50 to 74 on our clinical database with an active status
- B - The number of Aboriginal or Torres Strait Islander women aged 50 to 74 on our clinical database with an active status who are recorded with a mammogram performed within the last two years
- B divided by A produces the percentage of Aboriginal or Torres Strait Islander women aged 50 to 74 on our clinical database who are recorded with a mammogram performed within the last two years



### Question 3: What changes can we make that will result in improvement?

**Q3.** What changes can we make that will lead to an improvement?  
(Ideas)

#### Our ideas for change:

8. Ensure all women who identify as Aboriginal or Torres Strait Islander have their status recorded in the correct field in the software
9. Liaise with private radiography providers to request a list of your Indigenous female patients who've had a mammogram
10. Check free text fields and results to identify Aboriginal or Torres Strait Islander women who have had a mammogram recently and are not coded correctly in the system
11. Ask Aboriginal or Torres Strait Islander women whether they have had a mammogram, when they had the screen and where
12. Promote mammography services using culturally appropriate resources
13. Discuss mammography services with Aboriginal or Torres Strait Islander women when they attend the Health Service
14. Source and provide endorsed patient education resources (in waiting rooms, toilets, distributed)
15. Run an awareness campaign for breast cancer awareness month

### Idea 1: Cycle 1:

Ensure all women who identify as Aboriginal and/or Torres Strait Islander have their status recorded in the correct field in the software

PLAN	DO	STUDY	ACT - NEXT PLAN	ACT - NEXT MFI
<p><b>What:</b> Run a search in Pen CAT to identify all women currently coded as being of Aboriginal and/or Torres Strait Islander descent</p> <p><b>Who:</b> Practice Manager</p> <p><b>When:</b> Friday 17th March</p> <p><b>Where:</b> At the Health Service</p> <p><b>Prediction:</b> We will have a small number of women who are coded as being of Aboriginal and/or Torres Strait Islander descent; only about 6</p> <p><b>Data to be collected:</b> Number of women coded as being of Aboriginal and/or Torres Strait Islander descent.</p>	<p>This was a quicker process than we expected; only taking 20 minutes.</p>	<p>8 women have been recorded as Aboriginal and/or Torres Strait Islander. This is a little more than expected, however it is well below the relative number of Aboriginal and/or Torres Strait Islander women expected for this area.</p>	<p>Identify the current error rate in recording of ethnicity by asking all patients that attend through the course of one week and review results.</p>	<p>We will check free text fields and results to identify Aboriginal women that have had a mammogram recently and are not coded correctly in the system.</p>

### Idea 1: Cycle 2:

Ensure all women who identify as Aboriginal or Torres Strait Islander have their status recorded in the correct field in the software

PLAN	DO	STUDY	ACT	ACT - NEXT MFI
<p><b>What:</b> For one week we will ask every patient whether they identify being of Aboriginal and/or Torres Strait Islander descent and also confirm their recorded ethnicity. We will provide resources, training and support for reception staff on how to ask this question in an appropriate way.</p> <p><b>Who:</b> Practice Manager and Reception Staff</p> <p><b>When:</b> Week commencing 21 March 2019</p> <p><b>Where:</b> At the Health Service</p> <p><b>Prediction:</b> We will find some errors; however, we believe these will be immaterial in number</p> <p><b>Data Collected:</b> When the staff identify a recorded error, or update missing information, they will mark it down on a tally sheet, collected by ethnicity.</p>	<p>We found quite a few resources online related to asking the question and we also put up a poster at reception. Every patient was asked and there were a couple of instances where people wanted to know why, and some people were not comfortable when asked. The Practice Manager needed to provide support on 2 instances through the week.</p>	<p>2 Aboriginal and/or Torres Strait Islander people identified where their record was coded incorrectly. On 16 other cases, ethnicity was either corrected or completed.</p> <p>18 records had ethnicity up-dated of 455 unique patients seen that week, a 3.96% error rate. While not a material percentage, an important part of the record is either missing or contains an historical error.</p>	<p>Work with reception staff to identify whether any improvements can be made to the process and re-test for another week in three weeks' time.</p>	<p>NA</p>



## MFI Example for Cervical Cancer Screening

### Question 1: What are we trying to accomplish?

**Q1.** What are we trying to accomplish?  
(Goal)

**Our goal is to:**

Increase awareness of the importance of cervical cancer screening in under and never screened women to improve screening rates by 10% by 30 April 2019



### Question 2: How will we know that a change is an improvement?

**Q2.** How will we know that a change is an improvement?  
(Measures)

We will measure the proportion of eligible women on the clinical database, with an active status, with a cervical screening result within the required time frame:

- A - The number of eligible women recorded on the clinical database with an active status
- B - The number of eligible women recorded on the clinical database, with an active status, with a cervical screening result within the required time frame
- B divided by A will produce the proportion of eligible women on the clinical database with a cervical screening result within the required time frame

The results of this measure can be recorded at baseline and over time. The results recorded at baseline can be compared with the results at the end of April 2019 to see whether the goal has been achieved.



### Question 3: What changes can we make that will result in improvement?

**Q3.** What changes can we make that will lead to an improvement?  
(Ideas)

**Our ideas for change:**

Undertake awareness raising by:

1. putting up new cervical screening poster and brochures in waiting room
2. Hold an awareness week campaign, including cervical screening clinics with female GPs or women's health nurse practitioner
3. Add information to our waiting room tv regarding changes to cervical screening

Two of the ideas generated for this MFI were relatively straight forward (1 & 3) and therefore the team chose to act on these and not use a PDSA. It was expected they would contribute to achieving the goal and this could be measured over time. Idea number 2 was considered a good idea, but represented a number of challenges. The team decided to proceed with the idea and include this in the QIP to action over time. However, in the first instance the team chose to test operating a cervical screening clinic on a small scale.

**Idea 2:  
 Cycle 2:**

Hold a cervical screening clinic with a female GP

PLAN	DO	STUDY	ACT	ACT - NEXT MFI
<p><b>What:</b> On Wednesday 13 March, in the morning session, hold a cervical screening clinic with Dr Jones. The Practice Manager will identify 30 women who have not been screened using Pen CAT and send invitations to attend. On the morning, the team will also offer opportunistic screening to any eligible women who attend the Health Service.</p> <p><b>Who:</b> Dr Jones, Practice Manager and Reception Staff</p> <p><b>When:</b> Wednesday morning, 13 March 2019</p> <p><b>Where:</b> At the Health Service</p> <p><b>Prediction:</b> The morning will be booked out but there will be a few no shows.</p> <p><b>Data Collected:</b> Number of women invited, number of women who respond and make an appointment and the number of opportunistic cervical screens that were completed.</p>	<p>Generally things went smoothly but there was a slight waiting time which caused 2 walk outs.</p>	<p>Of the 30 women invited for a cervical screen, 8 responded and made an appointment.</p> <p>Of the 8 attending, 2 walked out due to a slight wait.</p> <p>2 women who were attending for other reasons were opportunistically screened.</p> <p>A change to improve workflow through better preparation was suggested by the nurse.</p>	<p>It was decided to repeat the test and make the change suggested to workflow.</p>	<p>NA</p>



# CONTINUOUS QUALITY IMPROVEMENT



## How do we embed a culture of Continuous Quality Improvement?

CQI involves creating a system to reflect on and refine improvement efforts that aim to provide a better experience of care, improve population health, minimise per capita health care costs and improve the working life of health care providers. This requires teams to create a culture that supports a constant review by your team of the health service's processes and systems in order to meet these aims.

The UK National Health Service's Institute for Innovation and Improvement developed a sustainability model (and accompanying guide) that helps health care providers to implement and maintain successful improvement initiatives.<sup>27</sup> The model consists of ten sustainability factors relating to processes, staff and the organisation. The team selects the description that best represents the improvement initiative for each factor. The model uses a weighted scoring system to obtain an overall score, and outlines strengths and weaknesses for each factor. The ten sustainability factors are briefly described below.

# CQI

### Process Considerations

- Benefits beyond helping individuals - reducing waste or avoiding duplication; improving working life
- Credibility of the benefits - identifying the benefits of improvement; communicating the evidence of the benefits
- Adaptability of the new processes - meeting needs; succession planning
- Ability of the new system(s) to monitor effectiveness - measuring for improvement; feedback processes; whole of team involvement

### Staff Considerations

- Involvement and training - creating a culture of involvement with all staff; training and development infrastructure
- Behaviour towards sustaining change - engaging with staff for change ideas; giving staff training in, and responsibility for, testing change ideas
- Senior leadership engagement and support - influencing change; taking personal responsibility
- Clinical leadership engagement and support - influencing change; taking personal responsibility

### Organisation Considerations

- Alignment with business vision and goals - aligning the change aims with overall strategic aims
- Infrastructure - aligning roles and job descriptions with the new processes; communicating effectively; resourcing appropriately

This model can be used by teams to identify the current state of readiness for undertaking and implementing continuous quality improvement work and to identify the areas the team most needs to work on.

Aligning with the sustainability model, there are several features that health care organisations need to ensure are in place to support an ongoing focus on improvement work. These have been listed as<sup>28</sup>:

- improvement leadership
- a culture supportive of improvement
- knowledge of improvement methods
- motivation to change
- team diversity
- physician involvement
- subject matter expertise
- team familiarity and experience.

To support the spread and sustainability of CQI in your health service, consider how you will:

1. Develop a new approach to leadership that moves away from the imposition of solutions from top down to recognise that team members are often better placed to make improvements through a process of discovery
2. Provide the required resources and time to enable ongoing improvement activity
3. Ensure that patients, families and carers are involved in improvement activities
4. Enable team members to take ownership of the improvement process and to celebrate successful initiatives, and
5. Commit to making continuous quality improvement central to the way care is provided<sup>29</sup>

There is no single way to ensure that the benefits achieved by QI initiatives last. Developing a culture of CQI requires a commitment to maintaining an innovative approach to change, consistently measuring for improvement, and re-evaluating processes regularly to identify what does and does not work. Team members need the knowledge, resources and time to undertake improvement work and to be supported by skilled leaders who enable and empower their teams<sup>30</sup>.

28 Silver SA, McQuillan R, Harel Z, Weizman AV, Thomas A, Nesrallah G, Bell CM, Chan CT & Chertow GM, 2016, How to Sustain Change and Support Continuous Quality Improvement, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858491/>

29 The King's Fund, 2017, Embedding a culture of quality improvement, <https://www.kingsfund.org.uk/sites/default/files/2017-11/Embedding-culture-QI-Kings-Fund-November-2017.pdf>

30 NHSScotland Quality Improvement Hub, The Spread and Sustainability of Quality Improvement in Health care, 2014, <http://www.qihub.scot.nhs.uk/media/596811/the%20spread%20and%20sustainability%20of%20quality%20improvement%20in%20healthcare%20pdf%20.pdf>



# APPENDICES

The background features a smooth gradient from teal on the left to orange on the right. In the lower-left quadrant, there is a stylized, low-poly mountain range silhouette composed of various shades of teal and light blue.

# 6

## Appendix 1: The Six Rules of Improvement

The “six rules of improvement” provide a helpful guide to undertaking QI work.

### 1. Think in systems

Build processes and systems that support health care workers to provide reliable care. If you want a different result than you are currently achieving, then you need to adapt your system.

### 2. Explicitly state your aim and anticipated benefits

Often, change is attempted without a clear discussion about what is trying to be achieved. Meaningful and measurable aims are important. The team will be more engaged and motivated to participate in change if they are involved in planning for the improvement effort.

### 3. Continually make small incremental changes

Large scale change is difficult to achieve and has potential for unintended consequences. Progress can be made in small steps, checking the outcomes at every step. Large scale change is achieved from the culmination of continual small steps.

To plan and undertake improvement activities, use the Model for Improvement framework to help set aims and track progress against small changes that you think will help you reach your goal of improving cancer screening rates.

### 4. Keep score - measure your progress

All improvement requires change, but not all change is an improvement. Only measurement will tell you if a change is leading to a desired improvement. A set of measures to track your progress has been developed for you to use.

### 5. Steal shamelessly

It's important to look outside your own Health Service, or even the health system, to learn from the experience of others. You and your peers will improve faster by learning from each other. When we are all willing to share our success stories generously, everyone benefits.

### 6. Inspire a culture of “falling forward”

Sometimes in the busy environment of health care, we tend to do things a certain way because that's how we have always done them. By giving ourselves and our team(s) permission to change, we can do better.

Constant change can be exhausting but continuous improvement can be invigorating. This is why we should cultivate a culture of always doing things a little bit better; of falling forward.

## Appendix 2: Sample Bowel Cancer Screening Letter

The following letter template is available at:

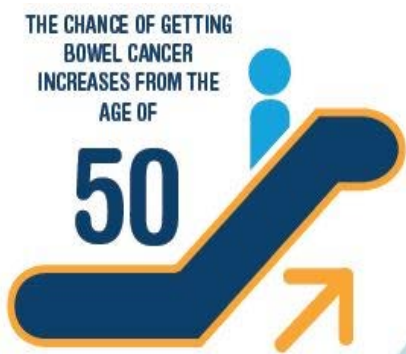
<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/gp-template-letter>

[Practice Letter Head]

### National Bowel Cancer Screening Program - please do your free test

Dear [Patients Name],

We are {or I am} writing to encourage you to do a test which looks for the early signs of bowel cancer.



You will get your first National Bowel Cancer Screening Program test kit in the mail around your 50<sup>th</sup> birthday. The test is free and easy to do in your own home.

Bowel cancer is one of the most common cancers in Australia, especially for people aged over 50. If found early, bowel cancer can be successfully treated 90% of the time.

We {or I} strongly recommend you do the test - even if you don't have any symptoms or family history.

You should talk to your GP {or me} before doing the test if you have:

- a significant family history of bowel cancer,
- had a bowel condition in the last year which is under treatment, or
- had a colonoscopy in the last 5 years or have one scheduled.

Symptoms of bowel cancer can include:

- blood in your bowel motion,
- persistent diarrhoea or constipation,
- unexplained tiredness or weight loss, or
- abdominal pain.

Symptoms do not mean that you have bowel cancer, but if you have any please talk to your GP {or me} -don't wait to get a test in the post.

For more information call the Program Information Line on 1800 118 868 or go to [www.cancerscreening.gov.au/bowel](http://www.cancerscreening.gov.au/bowel). And of course, you can also always visit your GP {or me} to discuss.

**Remember, the test could save your life. Please do it when you get it.**

Yours sincerely



**BECAUSE IT CAN  
DETECT BOWEL CANCER BEFORE  
SYMPTOMS APPEAR**



## Appendix 3: Sample GP Reminder Letter for Mammography

Date of letter

GP of Health  
Service logo/  
address  
header

GP NAME

Dear [name]

Our records show that it's time for your next mammogram. A mammogram every 2 years is the best way to find breast cancer early when treatment is most likely to be successful.

### What you need to do:

Phone 13 20 50 to make an appointment with your nearest BreastScreen Victoria location.

ADD A MAP HERE OF THE NEAREST LOCATION

Visit <https://www.breastscreen.org.au/locations/> and enter your postcode to check if there is a closer location or mobile bus.

If you have noticed any changes in your breasts such as lumps, nipple discharge or persistent new breast pain, please make an appointment with your GP immediately

### Cost: Free

BreastScreen Victoria is a free breast screening program. All women over 40 are eligible for free breast screening with BreastScreen Victoria.

**For an interpreter's assistance:** Phone 13 14 50 (TTY 13 36 77)

Yours sincerely

SIGNATURE

## Appendix 4: Sample GP Reminder Letter for Cervical Cancer Screening

Date of letter

GP of Health  
Service logo/  
address  
header

GP NAME

Dear [name]

Our records show that it's time for your next cervical screening test.

**[OR** Our records show that your cervical screening test is overdue.]

Cervical screening is a way of preventing cancer by finding and treating early changes in the neck of the womb, the cervix. These changes could lead to cancer if left untreated. The test only takes five minutes and is the best way to reduce your risk of cervical cancer.

We encourage you to consider booking an appointment to come in for the test.

Please call us on [insert your Health Service's number] to make an appointment with the GP or the nurse at a time to suit you. If you want more information or if you have any concerns, the doctor or Practice Nurse is here to help.

You can also contact us if you would like to talk about the test or for more information.

Yours sincerely

SIGNATURE

## Appendix 5: Useful Resources

### Breast Cancer Screening

#### Australian Government Department of Health

Breast Cancer Screening - Resources for Aboriginal and Torres Strait Islander peoples:

<http://cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-breast?OpenDocument&CATEGORY=Indigenous-resources-2&SUBMIT=Search>

Breast Cancer Screening - Resources in other languages:

<http://cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-breast?OpenDocument&CATEGORY=resources-in-other-languages-2&SUBMIT=Search>

### BreastScreen Victoria

Screening with a disability:

<https://www.breastscreen.org.au/get-involved/in-your-community/disability/>

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### Bowel Cancer Screening

#### Australian Government Department of Health

Bowel Cancer Screening - Resources for Aboriginal and Torres Strait Islander peoples:

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-bowel?OpenDocument&CATEGORY=indigenous-resources-1&SUBMIT=Submit>

Bowel Cancer Screening - Translated consumer resources:

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu-bowel?OpenDocument&CATEGORY=Translated+Consumer+Resources-1&SUBMIT=Submit>

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### Cervical Cancer Screening

#### Australian Government Department of Health

Cervical Cancer Screening - Self collection fact sheet:

[http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/74386777BD0BEC64CA2581C30010BFFD/\\$File/CAN176%20-%20Self%20Collection%20and%20the%20Cervical%20Screening%20Test%20V2.pdf](http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/74386777BD0BEC64CA2581C30010BFFD/$File/CAN176%20-%20Self%20Collection%20and%20the%20Cervical%20Screening%20Test%20V2.pdf)

Cervical Cancer Screening - Resources for Aboriginal and Torres Strait Islander peoples:

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=7Indigenous+Resources-3&SUBMIT=Search>

Cervical Cancer Screening - Resources in other languages:

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=6Resources+in+Other+Languages-3&SUBMIT=Search>

Cervical Cancer Screening - Video resources:

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=8Video+Resources-3&SUBMIT=Search>

Cervical Cancer Screening - Vision impaired resources:

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=4Vision+Impaired+Resources-3&SUBMIT=Search>

### **Victorian Cervical Cytology Registry**

Information for health professionals:  
<https://www.vccr.org/health-professionals>

### **VCS Pathology**

Cervical screening self-collection resources:  
<http://www.vcspathology.org.au/practitioners/self-collection-resources>

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## **General Screening**

### **Australian Institute of Health and Welfare**

Analysis of cancer outcomes and screening behaviour for national cancer screening programs in Australia:  
<https://www.aihw.gov.au/reports/cancer-screening/cancer-outcomes-screening-behaviour-programs/contents/summary>

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## **Care Pathways**

### **Cancer Council Victoria**

Optimal care pathway for women with breast cancer:  
[https://www.cancervic.org.au/downloads/health-professionals/optimal-care-pathways/Optimal\\_care\\_pathway\\_for\\_women\\_with\\_breast\\_cancer.pdf](https://www.cancervic.org.au/downloads/health-professionals/optimal-care-pathways/Optimal_care_pathway_for_women_with_breast_cancer.pdf)

Optimal care pathway for people with colorectal cancer:  
[https://www.cancervic.org.au/downloads/health-professionals/optimal-care-pathways/Optimal\\_care\\_pathway\\_for\\_people\\_with\\_colorectal\\_cancer.pdf](https://www.cancervic.org.au/downloads/health-professionals/optimal-care-pathways/Optimal_care_pathway_for_people_with_colorectal_cancer.pdf)

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## **General**

### **Australian Indigenous Doctors' Association**

Cultural safety factsheet:  
[https://www.aida.org.au/wp-content/uploads/2018/07/Cultural-Safety-Factsheet\\_08092015.docx.pdf](https://www.aida.org.au/wp-content/uploads/2018/07/Cultural-Safety-Factsheet_08092015.docx.pdf)

### **Royal Australia College of General Practitioners**

Standards for general practices, 5th edition:  
<https://www.racgp.org.au/download/Documents/Standards/RACGP-Standards-for-general-practices-5th-edition.pdf>

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## **Health Literacy**

### **Australian Commission on Safety and Quality in Health Care**

Health Literacy Fact Sheet 1 - An introduction to improving health literacy in your organisation:  
<https://www.safetyandquality.gov.au/wp-content/uploads/2017/07/Health-Literacy-Fact-Sheet-1-Introduction-to-improving-health-literacy.pdf>

Health Literacy Fact Sheet 2 - Making health literacy part of your policies and processes:  
<https://www.safetyandquality.gov.au/wp-content/uploads/2017/07/Health-Literacy-Fact-Sheet-2-Making-health-literacy-part-of-policies-and-processes.pdf>

Health Literacy Fact Sheet 4 - Writing health information for consumers:  
<https://www.safetyandquality.gov.au/wp-content/uploads/2017/07/Health-Literacy-Fact-Sheet-4-Writing-health-information-for-consumers.pdf>

## HealthPathways

### Murray PHN

HealthPathways Murray:

<https://murray.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>

### North Western Melbourne PHN

HealthPathways Melbourne

<https://melbourne.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>

### Western Victoria PHN

HealthPathways Western Victoria:

<https://westvic.healthpathways.org.au/LoginFiles/Logon.aspx?ReturnUrl=%2f>

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## Patient Feedback

### Royal Australia College of General Practitioners

Standards for general practices, 5th edition: Patient feedback guide:

<https://www.racgp.org.au/download/Documents/Standards/5th%20Edition/patient-feedback-guide-racgp-standards-for-general-practices-5th-ed.pdf>

### NSW Agency for Clinical Innovation

Patient Reported Measures - Outcomes that matter to patients:

<https://www.aci.health.nsw.gov.au/make-it-happen/prms>

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## Quality Improvement

### Australian Commission on Safety and Quality in Health Care

Australian Safety and Quality Framework for Health Care - Putting the Framework into action: Getting started:

<https://www.safetyandquality.gov.au/wp-content/uploads/2011/01/ASQFHC-Guide-Healthcare-team.pdf>

### Clinical Excellence Commission

Cheat sheet for quality tools:

[http://www.cec.health.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0008/258398/cheat-sheet-for-quality-tools-sessions-for-team-leaders.pdf](http://www.cec.health.nsw.gov.au/__data/assets/pdf_file/0008/258398/cheat-sheet-for-quality-tools-sessions-for-team-leaders.pdf)

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## Workforce Development - Motivational Interviewing

### Australian Government Department of Health

Topic 4: Motivational Interviewing:

<http://www.health.gov.au/internet/publications/publishing.nsf/Content/drugtreat-pubs-front9-wk-toc~drugtreat-pubs-front9-wk-secb~drugtreat-pubs-front9-wk-secb-4>

### Royal Australia College of General Practitioners

Motivational Interviewing Techniques:

<https://www.racgp.org.au/afp/2012/september/motivational-interviewing-techniques/>

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## Translating and Interpreting Services

### Australian Government Department of Health

Frequently asked questions for agencies:

<https://www.tisnational.gov.au/Agencies/Frequently-Asked-Questions-for-agencies.aspx>

## Appendix 6: MBS Item Number Guide for Cervical Cancer Screening

### MBS Item numbers for cervical cancer screening in general practice

These item numbers should be used instead of the usual attendance item where the consultation includes the collection of a sample for cervical screening from a person between the ages of 24 years, 9 months and 74 years (inclusive) who has not had a cervical smear in the past **four** years.

When providing this service, the GP must be satisfied that the person has not had a cervical screening test in the last four years by:

- asking the person if they can remember having a cervical screening test in the last four years
- checking the individual's medical record
- checking the National Cancer Screening Register.

ITEM NO.	DURATION OF CONSULTATION	SCREENING BY WHOM	NOTES
2497 A		GP	Short patient history and, if required, limited examination and management; and a cervical screening sample is collected from the patient
2501 B	< 20 minutes	GP	Can include any of the following: taking a patient history; performing a clinical examination; arranging any necessary investigation; implementing a management plan; providing appropriate preventive health care; for one or more health-related issues.
2504 C	> 20 minutes	GP	Including any of the following that are clinically relevant: taking a detailed patient history; performing a clinical examination; arranging any necessary investigation; implementing a management plan; providing appropriate preventive health care; in relation to one or more health-related issues, with appropriate documentation
2507 D	< 40 minutes	GP	Including any of the following that are clinically relevant: taking an extensive patient history; performing a clinical examination; arranging any necessary investigation; implementing a management plan; providing appropriate preventive health care; for one or more health-related issues
2598	<5 minutes	Non-GP	When providing this service, the GP must be satisfied that the person has not had a cervical screening test in the last four years
2600	>5 minutes, <25 minutes	Non-GP	
2603	>25 minutes, >45 minutes	Non-GP	
2606	>45 minutes	Non-GP	

NOTE: Where a PN has collected the cervical screening sample, the GP cannot bill any of the above items. The GP can claim an attendance item, however, any of the PN's time is not to be included in the "timed" attendance item.

### Cervical cancer screening performed by a non-GP in an eligible area

These item numbers relate to professionals who are not medical practitioners, specialists or consultant physicians, for example nurse practitioners. These item numbers should be used instead of the usual attendance item

ITEM NO.	DURATION OF CONSULTATION	NOTES
251	<5 minutes	
252	>5 minutes, <25 minutes	Professional attendance at consulting rooms by a practitioner in an eligible area at which a specimen for a cervical screening service is collected from the patient, if the patient is at least 24 years, 9 months of age but is less than 75 years of age and has not been provided with a cervical screening service or a cervical smear service in the last four years
254	>25 minutes, >45 minutes	
256	>45 minutes	
253	>5 minutes, <25 minutes	Professional attendance at a place other than consulting by a practitioner in an eligible area, at which a specimen for a cervical screening service is collected from the patient, if the patient is at least 24 years, 9 months of age but is less than 75 years of age and has not been provided with a cervical screening service or a cervical smear service in the last four years
255	>25 minutes, >45 minutes	
257	>45 minutes	



## Appendix 7: Information Payment Guide for Bowel Cancer Screening

Standard GP attendance items apply to consultations with program participants.

The following information payments will be made for each correctly completed form that provides information to the National Bowel Cancer Screening Register about the progress of a Program participant through the screening pathway following a positive FOBT result:

- \$14.30 (GST inclusive) for each Colonoscopy Report or Histopathology Report
- \$7.70 (GST inclusive) for each GP Assessment Form or Adverse Outcomes Report.

**SOURCE:**

<http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/information-on-provision-payments>

## Appendix 8: Guide to Data, Data Cleaning and Measurement

In this section we'll discuss how to ensure that your data are collected and stored correctly in the clinical software and how to use Pen CAT to support work outlined in this toolkit.

If you have not already done so, please contact your pathology providers and ensure that they are sending results to you electronically and in the correct format (HL7). Some pathology providers will have preferences set for your Health Service and it's essential that these are set correctly. If you are receiving pathology results electronically in the right format your software will process these results into the collect location and no human intervention is needed.

For Pen CAT to extract, report and visualise cancer screening data, data must be recorded in the clinical information software properly. Pen CAT will only recognise cancer screening data when it is entered in the correct format and in the expected location. The location(s) and format(s) vary slightly across clinical information software (and sometimes between software versions). In some cases, you may need to enter data manually, before doing this please check they meet Pen CAT requirements (location and terminology). Pen CAT has a detailed user guide available online that shows how to manually record cancer screening data for clinical information software (in the mapping sections). The following pages provide links to the inclusions and test names that Pen CAT will extract for bowel, breast and cervical cancer screening for the common clinical software programs.

The Pen CAT user guide can be access via the following link:  
<http://help.pencs.com.au/display/CG>

### Clinical software recording of cancer screening data

#### Best Practice

##### Bowel Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+BP>

##### Breast Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+BP>

##### Cervical Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/Pathology+Data+Mapping+BP>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP>

Exclusions

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+BP>

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+BP>

## Medical Director

### Bowel Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mapping+MD3>

### Breast Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3>

### Cervical Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/Pathology+Data+Mappings+All+Systems>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Category+Mappings+MD3>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mapping+MD3>

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## MedTech

### Bowel Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details>

### Breast Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/Medtech+Data+Mapping?preview=/1477037/5636107/CAT4%20Data%20Mapping%20Medtech.pdf>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details>

Exclusions

None

### Cervical Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/Medtech+Data+Mapping?preview=/1477037/5636107/CAT4%20Data%20Mapping%20Medtech.pdf>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/Mapping+Medtech+Appendix+-+Details>

## ZedMed

### Bowel Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+ZEDMED>

### Breast Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+ZEDMED>

### Cervical Cancer Screening

Pathology Data Mapping

<http://help.pencs.com.au/display/ADM/Pathology+Data+Mapping+Zedmed>

General Data Category Mappings

<http://help.pencs.com.au/display/ADM/General+Data+Mapping+Zedmed>

Exclusions

<http://help.pencs.com.au/display/ADM/Conditions+Data+Category+Mappings+ZEDMED>



## Pen CAT Cancer Screening Reports

Pen CAT provides bowel, breast and cervical screening reports and these can be found under the "Screening" tab.

In the first instance, please set and save each report for your Health Service Population as discussed in the "Measuring Your Progress Through Data". Make sure you "Clear Filters" in the top right and then set filters as appropriate, such as post codes you may want to include or exclude. Once you have set the appropriate filter(s), click on "Recalculate" in the top left and then save your search by clicking on "Saved Filters" On the top menu bar and then "Save New Filter". Enter a name for your search and click "OK".

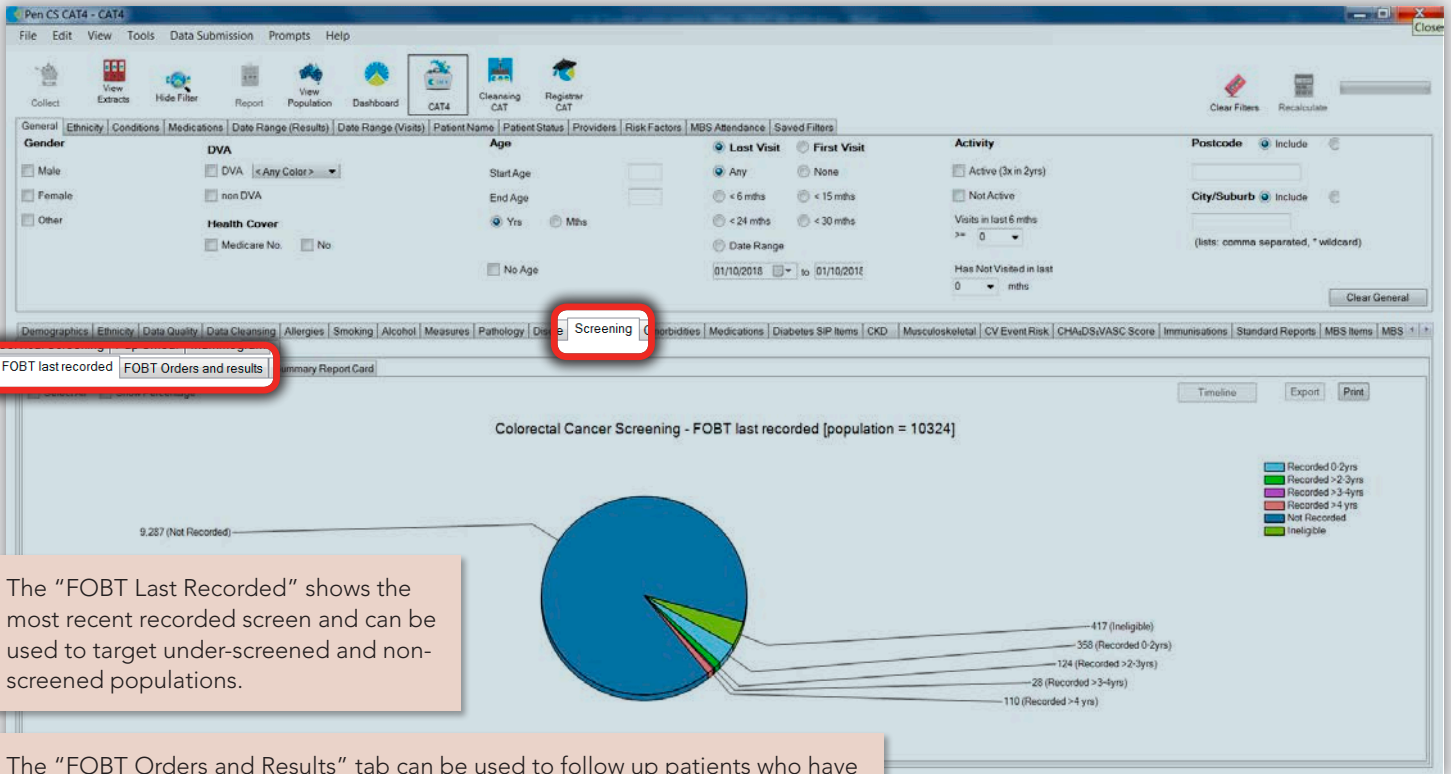
Once you've saved a search for bowel, breast and cervical cancer screening, you will be able to use these searches over time to monitor your progress in each area.

Data can be further filtered, if required, to target specific patient groups to support measurement you may want to use in MFI and/or PDSA work.

The general data for each of the screening types are shown next.

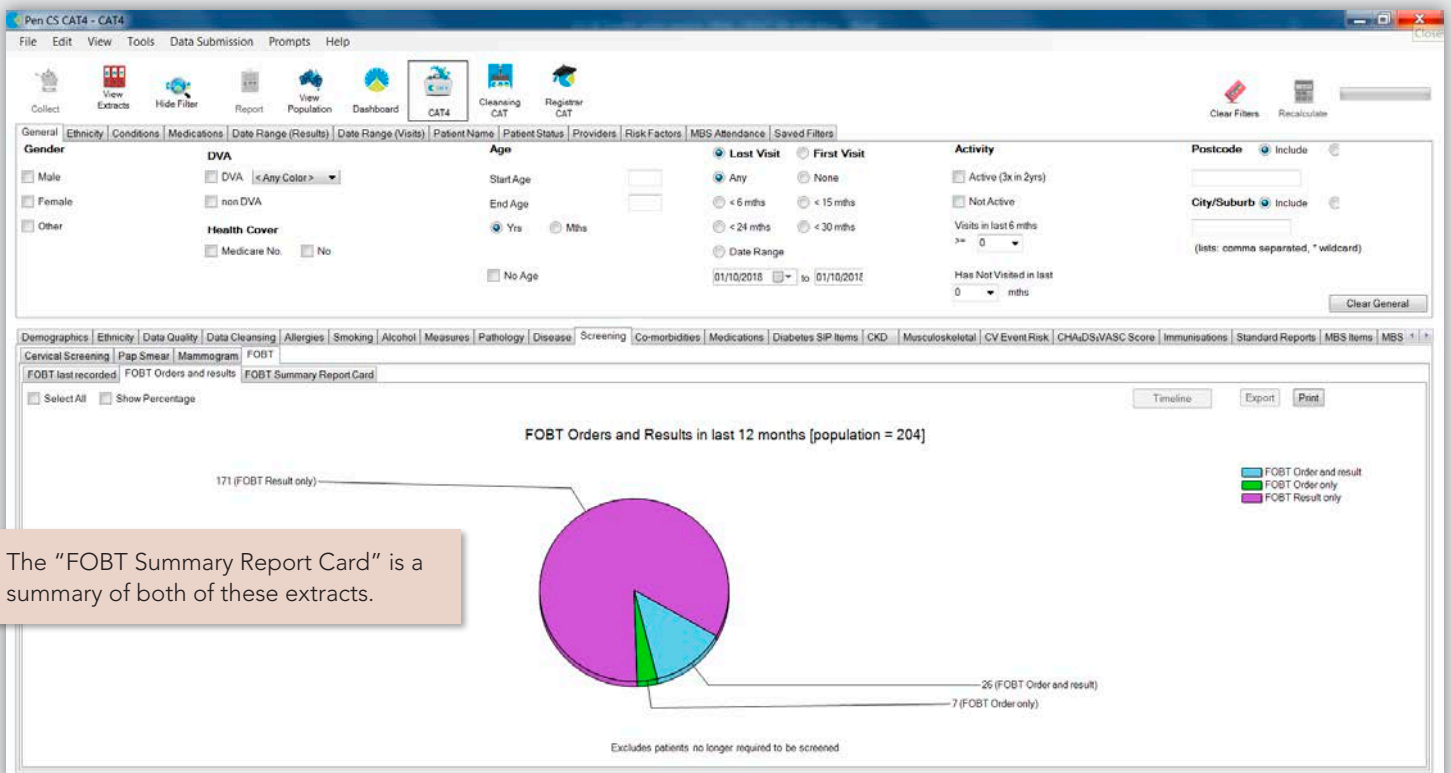
## Bowel Cancer

Three different extracts are available for bowel screening.



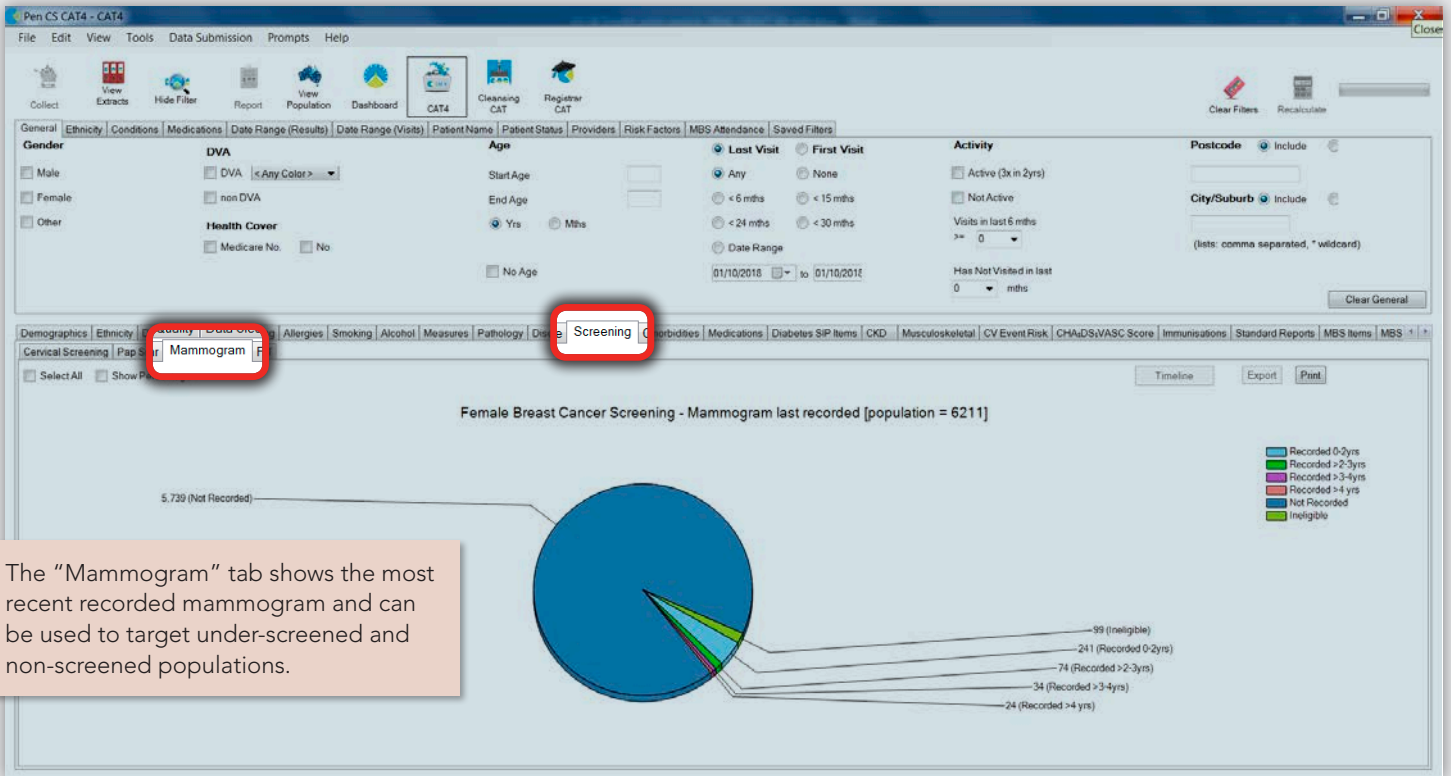
The "FOBT Last Recorded" shows the most recent recorded screen and can be used to target under-screened and non-screened populations.

The "FOBT Orders and Results" tab can be used to follow up patients who have an ordered FOBT tests but have no results. The number of results is likely to be much greater than the number of tests ordered due to the various ways FOBT tests can be undertaken (for example, GP-ordered or government-issued tests).



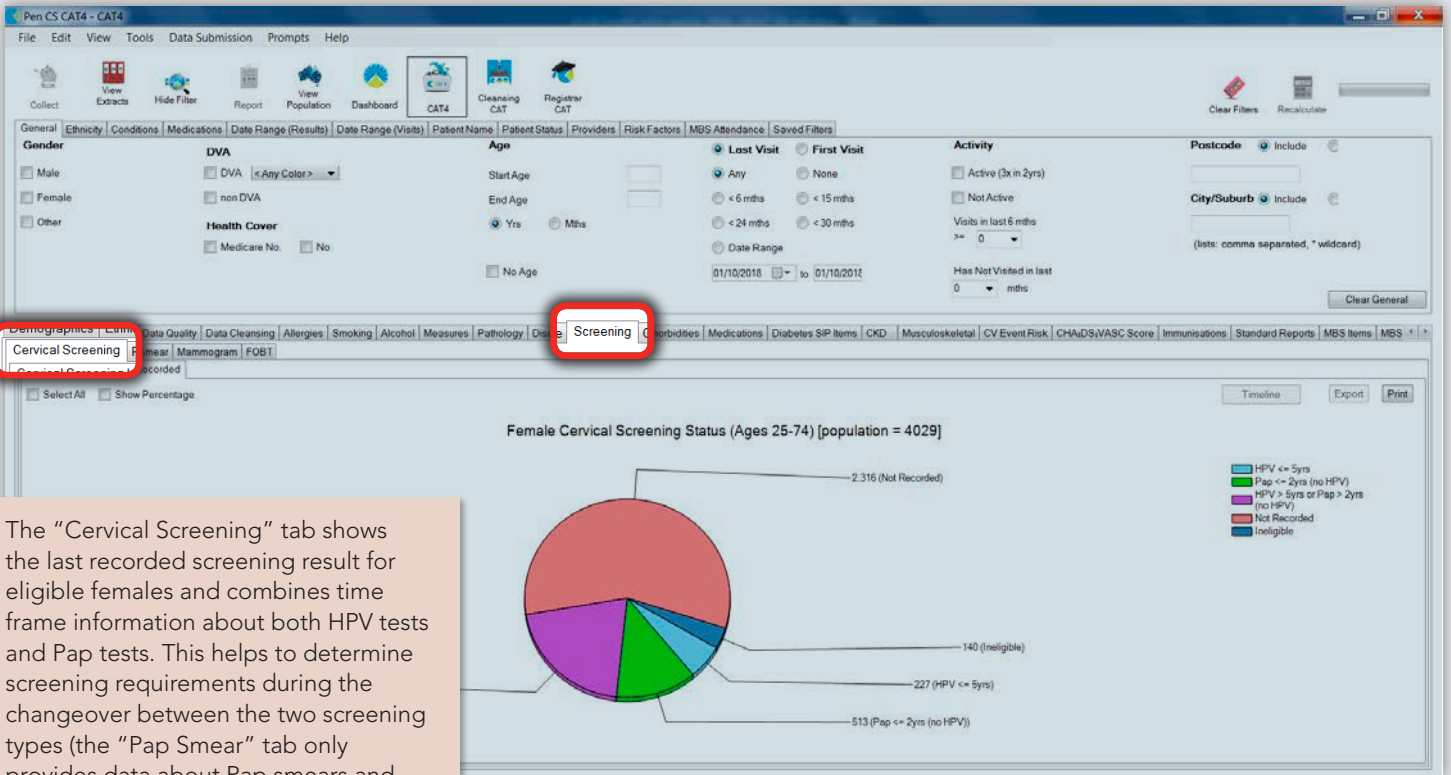
The "FOBT Summary Report Card" is a summary of both of these extracts.

Breast Cancer



The "Mammogram" tab shows the most recent recorded mammogram and can be used to target under-screened and non-screened populations.

Cervical Cancer



The "Cervical Screening" tab shows the last recorded screening result for eligible females and combines time frame information about both HPV tests and Pap tests. This helps to determine screening requirements during the changeover between the two screening types (the "Pap Smear" tab only provides data about Pap smears and therefore will miss anyone screened under the new protocol).



## Pen CAT Cancer Screening Searches

Pen CAT provides detailed instructions on how to identify patients who are eligible for cancer screening but have no results recorded. Please use the links below to access these instructions.

### Bowel Cancer

<http://help.pencs.com.au/display/CR/Find+patients+who+do+not+have+an+FOBT+recorded>

### Breast Cancer

<http://help.pencs.com.au/display/CR/Find+patients+who+have+not+had+a+mammogram+recorded>

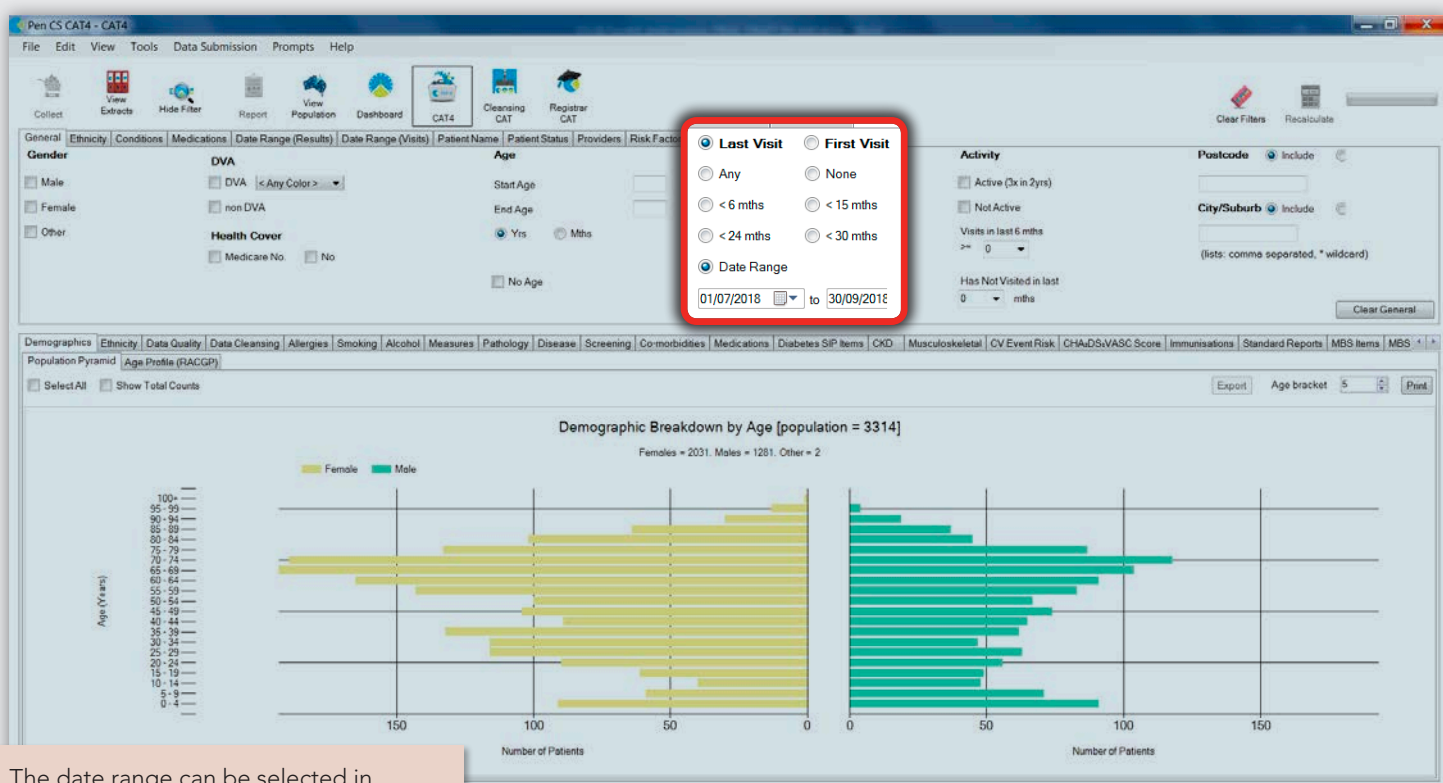
### Cervical Cancer

<http://help.pencs.com.au/display/CR/Find+patients+eligible+for+cervical+screening>

## Data Filtering

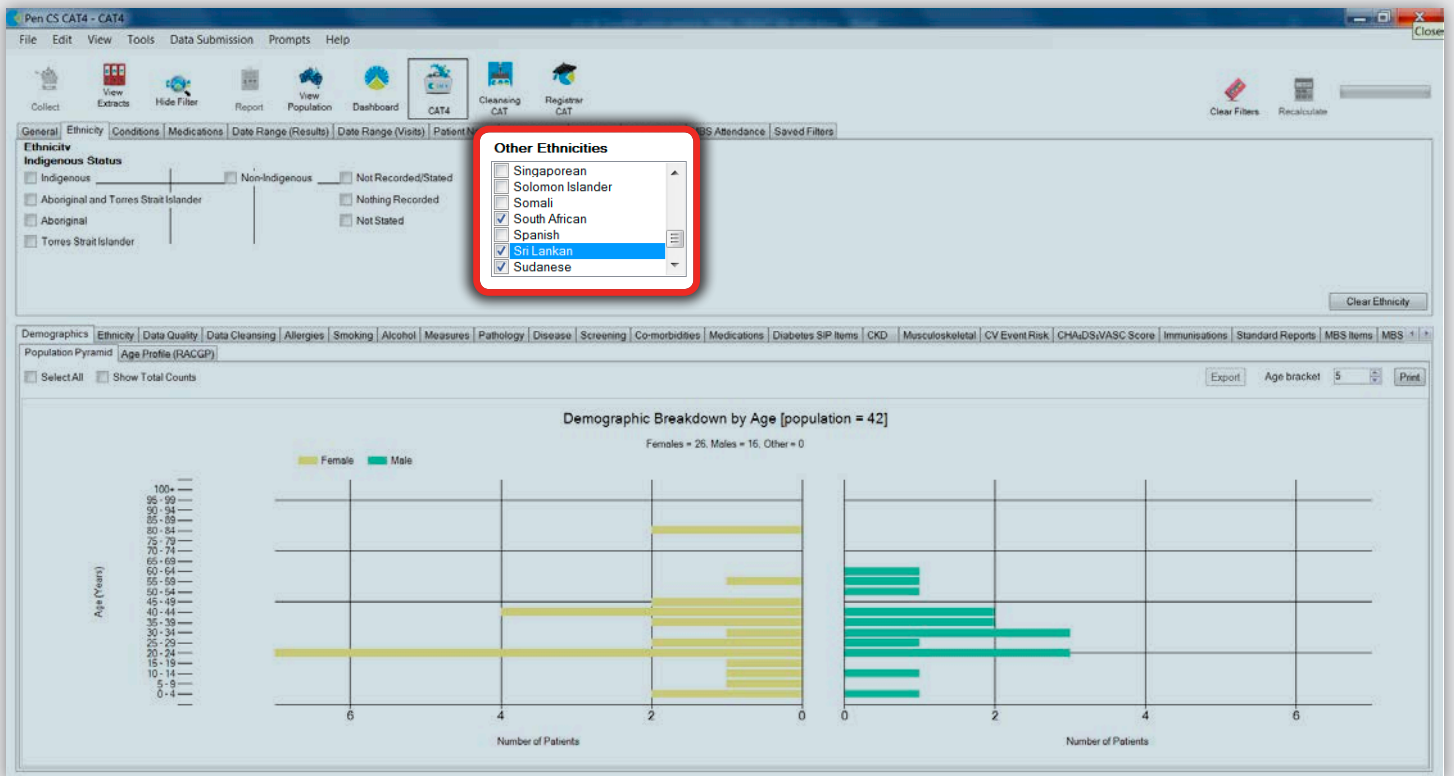
Pen CAT reports can be filtered by the timing of the patient's visit (first or most recent visit). Filtering can also target high-risk or under-screened populations based on variables such as ethnicity or age.

### Date Range



The date range can be selected in several ways, either via last visit or first visit. Default "Last Visit" options are either <6 months or <12 months, or a specific date range. The date range can also be selected when filtering for the first visit.

## Ethnicity



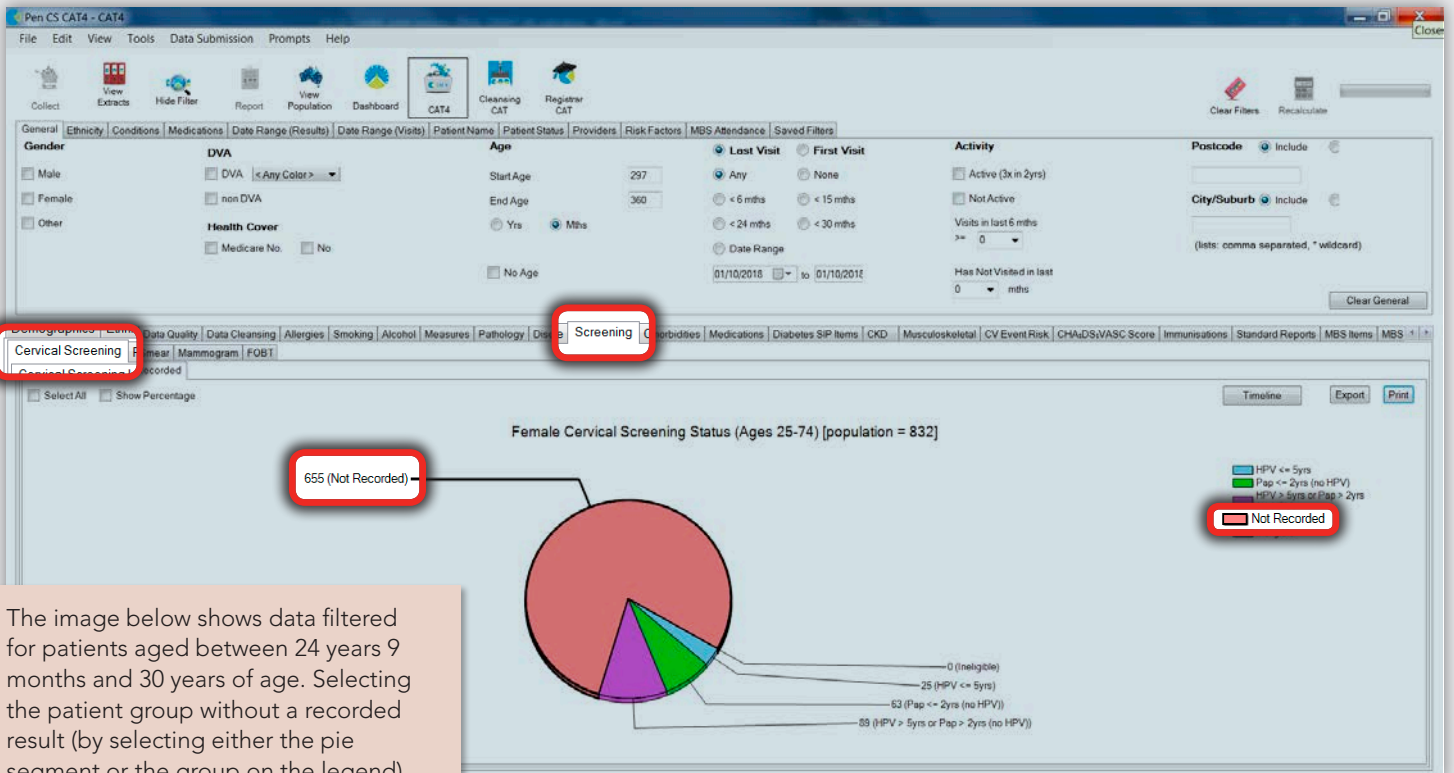
Apart from the standardised four ethnicity options (Non-Indigenous, Aboriginal, Torres Strait Islander, Aboriginal and Torres Strait Islander), other ethnicity options will be available depending on the clinical information software used. Multiple selections are possible, if needed.

The ethnicity filtering is limited by the list of ethnicities used in your clinical information software system and the data quality. There may also be mismatching of data when converting from one clinical information software system to another.

Where available, you will be able to use this filter to identify vulnerable populations.

## Age

Filtering via age can also be used to target specific populations. Entering the age in months rather than years can help when allowing for a lead time prior to the patient reaching the target age (for example, using 297 months allows an alert to be sent to a patient for an HPV test 3 months before their 25th birthday).



The image below shows data filtered for patients aged between 24 years 9 months and 30 years of age. Selecting the patient group without a recorded result (by selecting either the pie segment or the group on the legend) allows for these patients to be targeted.

## Data Cleaning

Prior to undertaking any data cleansing procedures, it is important to have processes and procedures in place to prevent the same data issues from reoccurring. All staff need to be made aware of any changes to procedures, and regular monitoring of the data can help address issues early.

Time can be saved during data cleansing when processes are completed in an efficient order. This reduces the time spent on cleaning, or trying to clean, records that are then archived. For this reason, archiving inactive records should be the first activity undertaken.

## Archiving

The approach used to archive will be decided by your Health Service and is generally based on the time lapsed since the patient has last visited the Health Service. You can then use Pen CAT to find patients that need to be archived.

For example, if no visit in the past 48 months is the level at which patients are archived, they can be filtered as below:

The screenshot shows the Pen CAT software interface. The top menu includes File, Edit, View, Tools, Data Submission, Prompts, and Help. Below the menu are icons for Collect, View Extracts, Hide Filter, Report, View Population, Dashboard, CAT4, Cleansing CAT, and Registrar CAT. The main interface is divided into several sections:

- General:** Includes tabs for General, Ethnicity, Conditions, Medications, Date Range (Results), Date Range (Visits), Patient Name, Patient Status, Providers, Risk Factors, MBS Attendance, and Saved Filters.
- Gender:** Radio buttons for Male, Female, and Other.
- DVA:** Checkboxes for DVA and non DVA, with a dropdown for 'Any Color'.
- Age:** Input fields for Start Age and End Age, and radio buttons for Yrs and Mths.
- Activity:** A red-bordered box highlights the 'Activity' section, which includes:
  - Active (3x in 2yrs)
  - Not Active
  - Visits in last 6 mths:  (dropdown)
  - Has Not Visited in last 48 mths (dropdown)
- Postcode and City/Suburb:** Input fields with 'Include' checkboxes and a note '(lists comma separated, \* wildcard)'. A 'Clear General' button is at the bottom right.
- Demographics:** A red-bordered box highlights the 'Export' button.
- Age Profile (RACGP):** A bar chart titled 'Demographic Breakdown by Age [population = 536]'. The chart shows the number of patients by age group, split by Female (yellow) and Male (teal). The Y-axis is 'Age (Years)' from 0-4 to 95-99. The X-axis is 'Number of Patients' from 0 to 30. The chart shows a higher number of patients in the 20-40 age range for both genders.

This list can then be exported. Patients on the list can then be archived in the clinical information software (the software may also have a utility that enables bulk archiving on last visit date).

Depending on need, patients may also be excluded and archived due to postcode. This is most likely in areas with high levels of tourism, for example coastal towns. Patients may only have a single visit and, therefore, are more likely to have missing information. These patients can also skew rates of conditions and management and should be removed to improve data quality.

Pen CS CAT4 - CAT4

General | Ethnicity | Conditions | Medications | Date Range (Results) | Date Range (Visits) | Patient Name | Patient Status | Providers | Risk Factors | MBS Attendance | Saved Filters

Gender: Male, Female, Other

DVA: DVA, non DVA, Health Cover: Medicare No., No

Age: Start Age, End Age, Yrs, Mths, No Age

Last Visit: Any, < 6 mths, < 24 mths, Date Range

First Visit: None, < 15 mths, < 30 mths

Activity: Active (3x in 2yrs), Not Active, Visits in last 6 mths, Has Not Visited in last 0 mths

Postcode:  Include  Exclude   
City/Suburb:  Include  Exclude   
(lists: comma separated, \* wildcard)

Demographics | Ethnicity | Data Quality | Data Cleansing | Allergies | Smoking | Alcohol | Measures | Pathology | Disease | Screening | Co-morbidities | Medications | Diabetes SIP Items | CKD | Musculoskeletal | CV Event Risk | CHA2DS2VASc Score | Immunisations | Standard Reports | MBS Items | MBS

Population Pyramid | Age Profile (RACGP)

Select All | Show Total Counts

Demographic Breakdown by Age [population = 10324]  
Females = 6039, Males = 4113, Other = 172

Age (Years): 100+, 95-99, 90-94, 85-89, 80-84, 75-79, 70-74, 65-69, 60-64, 55-59, 50-54, 45-49, 40-44, 35-39, 30-34, 25-29, 20-24, 15-19, 10-14, 5-9, 0-4

Number of Patients

To generate a list of potential non-local patients, the local postcodes can be entered as "excluded". These patients can then be checked and archived, if required.

Archiving can create problems with the creation of duplicate patients if staff are not aware to check archived patients when a patient isn't initially found in the system. This is one of the most common causes of ongoing data issues. Potential duplicate patients can be identified using Pen CAT under the "Data Quality" tab. As these lists are generated using an algorithm, many may not be duplicates (for example, twins will have multiple duplicate demographics and therefore will appear on the list), however they are a very useful place to start when undertaking initial data cleaning activities.

Pen CS CAT4 - CAT4

General | Ethnicity | Conditions | Medications | Date Range (Results) | Date Range (Visits) | Patient Name | Patient Status | Providers | Risk Factors | MBS Attendance | Saved Filters

Gender: Male, Female, Other

DVA: DVA, non DVA, Health Cover: Medicare No., No

Age: Start Age, End Age, Yrs, Mths, No Age

Last Visit: Any, < 6 mths, < 24 mths, Date Range

First Visit: None, < 15 mths, < 30 mths

Activity: Active (3x in 2yrs), Not Active, Visits in last 6 mths, Has Not Visited in last 0 mths

Postcode:  Include  Exclude   
City/Suburb:  Include  Exclude   
(lists: comma separated, \* wildcard)

Demographics | Ethnicity | Data Quality | Data Cleansing | Allergies | Smoking | Alcohol | Measures | Pathology | Disease | Screening | Co-morbidities | Medications | Diabetes SIP Items | CKD | Musculoskeletal | CV Event Risk | CHA2DS2VASc Score | Immunisations | Standard Reports | MBS Items | MBS

Demographic Dashboard | Data Completeness Report | Data Completeness Patient | Duplicate Number Patient Report | Patient Name Patient Report

of 265 | 100%

**Duplicate Number Patient Report**

Report Date: 01/10/2018 3:04 AM  
Practice Name: Deidentified Practice

Match on ANY of: Medicare number, HCC number or DVA number

Number Matches [patient count = 10324]

Surname	First Name	Sex	D.O.B.	Age	Address	City	Postcode	Medicare	HCC No	DVA No	ID
Surname	First Name	M	01/08/2012	6	12 Jogger St	Suburb Town	5992	123412341234			9886
Surname	First Name	F	01/10/1983	35	12 John St	Suburb Town	5708	123412341234			1032
Surname	First Name	M	01/10/1951	67	12 Jogger St	Suburb Town	5930	123412341234			7711
Surname	First Name	M	01/10/1971	47	12 Jogger St	Suburb Town	4292	123412341234			5231
Surname	First Name	F	01/10/1974	44	12 John St	Suburb Town	3434	123412341234			3238
Surname	First Name	F	01/10/1977	41	12 John St	Suburb Town	4220	123412341234			9964
Surname	First Name	F	01/10/1987	31	12 John St	Suburb Town	3350	123412341234			3479
Surname	First Name	M	01/10/1994	24	12 Jogger St	Suburb Town	5476	123412341234			9960



The "Duplicate Name Patient Report" tab checks for duplication of all of the surname, first name initial, gender and date of birth.

**Duplicate Name Patient Report**

Report Date: 01/10/2018 3:04 AM  
Practice Name: Deidentified Practice

Match on ALL of: surname, first name initial, gender and DoB

Surname	First Name	Sex	D.O.B.	Age	Address	City	Postcode	Medicare	HCC No	DVA No	ID
Surname	Firstname	M	01/08/2012	6	12 Jogger St	Suburb Town	5992	123412341234			9886
Surname	Firstname	F	01/10/1983	35	12 John St	Suburb Town	5708	123412341234			1032
Surname	Firstname	M	01/10/1951	67	12 Jogger St	Suburb Town	5930	123412341234			7711
Surname	Firstname	M	01/10/1971	47	12 Jogger St	Suburb Town	4292	123412341234			5231
Surname	Firstname	F	01/10/1974	44	12 John St	Suburb Town	3434	123412341234			3238
Surname	Firstname	F	01/10/1977	41	12 John St	Suburb Town	4220	123412341234			9964
Surname	Firstname	F	01/10/1987	31	12 John St	Suburb Town	3350	123412341234			3479

### Missing Demographics

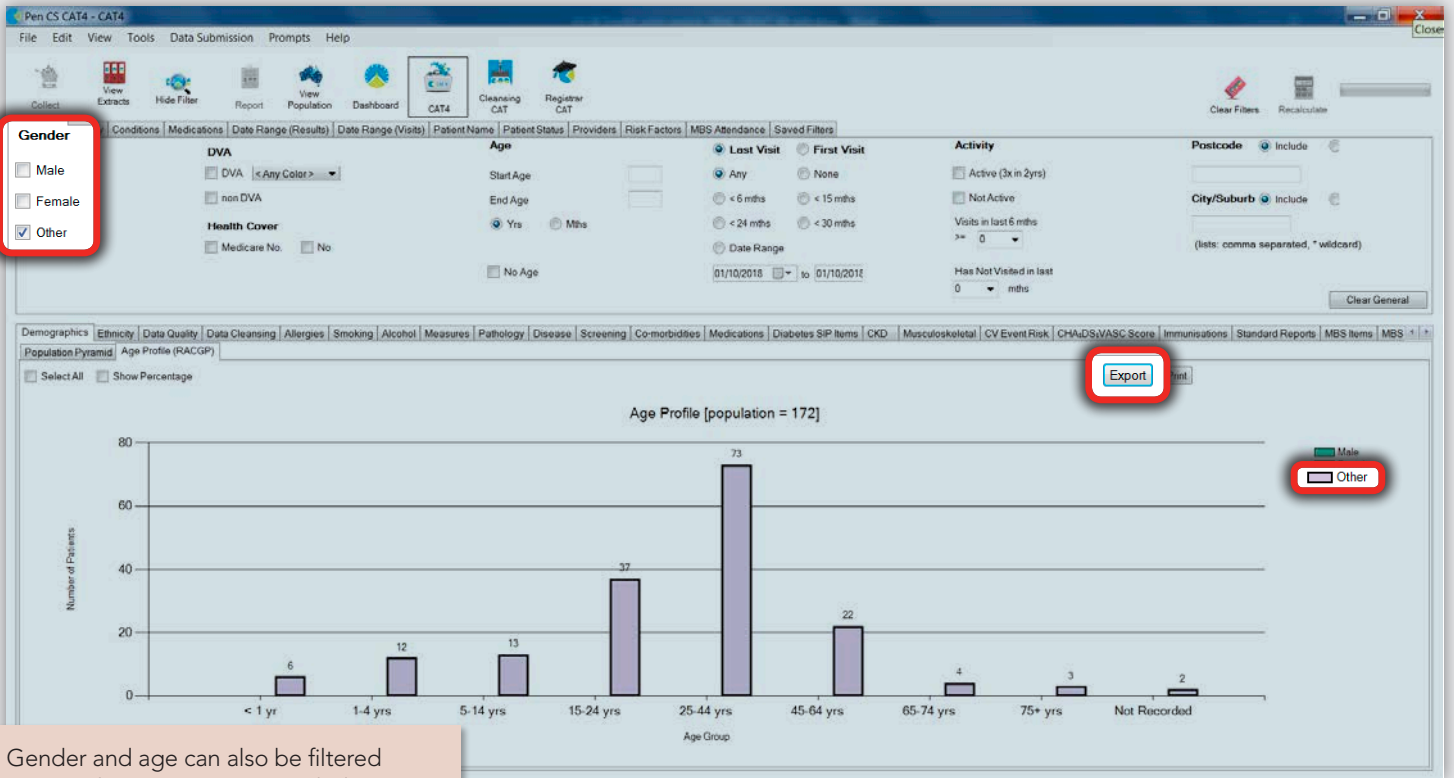
As cancer screening is dependent on age, and, for cervical and breast cancer, gender, it is important to complete this missing demographic data. This can be done either via the "Data Cleansing" tab or separately via gender and age.

**Data Cleansing**

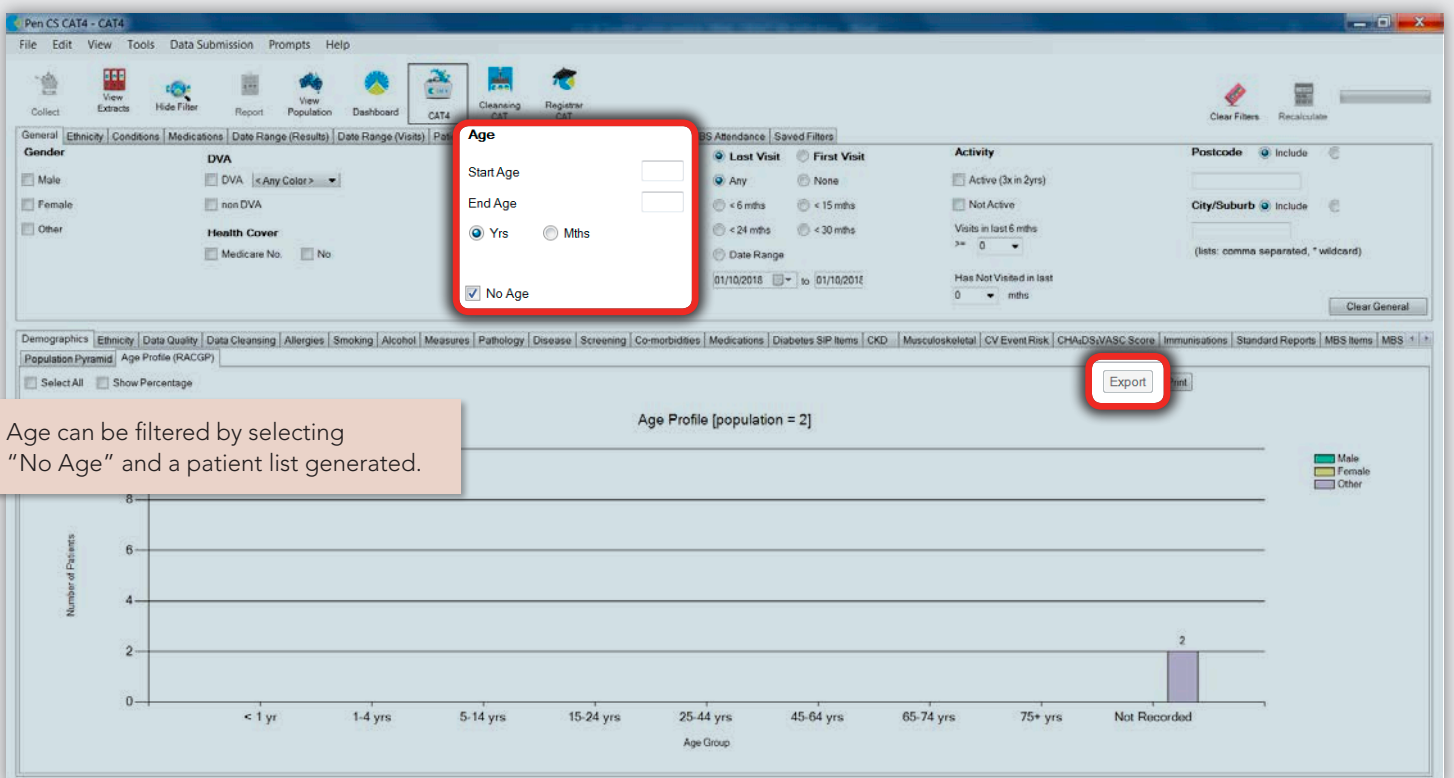
Missing Demographics [count = 172]

Surname	First name	Date of Birth	Sex	Address	Suburb	Postcode	Home Phone	Work Phone	Mobile Phone	Assigned Provider
Surname	Firstname_10_	01/10/1983		12 Jogger St	Suburb Town	5932	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/06/2015		12 Jogger St	Suburb Town	4164	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1972		12 Jogger St	Suburb Town	3834	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1985		12 Jogger St	Suburb Town	5275	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1996		12 Jogger St	Suburb Town	2595	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1993		12 Jogger St	Suburb Town	4964	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1989		12 Jogger St	Suburb Town	5199	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1984		12 Jogger St	Suburb Town	4583	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1997		12 Jogger St	Suburb Town	2576	07 50505050	07 50509999	0444444444	
Surname	Firstname_10_	01/10/1992		12 Jogger St	Suburb Town	4117	07 50505050	07 50509999	0444444444	
Surname	Firstname_124	01/03/2014		12 Jogger St	Suburb Town	3338	07 50505050	07 50509999	0444444444	
Surname	Firstname_13_	01/10/1999		12 Jogger St	Suburb Town	2254	07 50505050	07 50509999	0444444444	
Surname	Firstname_13_	01/10/1984		12 Jogger St	Suburb Town	2390	07 50505050	07 50509999	0444444444	
Surname	Firstname_13_	01/10/1999		12 Jogger St	Suburb Town	3812	07 50505050	07 50509999	0444444444	
Surname	Firstname_13_	01/10/1992		12 Jogger St	Suburb Town	5602	07 50505050	07 50509999	0444444444	
Surname	Firstname_14_	01/10/1986		12 Jogger St	Suburb Town	3301	07 50505050	07 50509999	0444444444	

The "Data Cleansing" tab will list all patients with missing demographics, not just gender and/or date of birth. Any missing data will be represented by a red box. If Pen CAT has been set-up to do so, double-clicking on a patient in the list will open that patient within the clinical software allowing for immediate updating of patient information.



Gender and age can also be filtered separately. Patients not recorded as either male or female can be filter by selecting the gender as "other". Depending on the clinical software used, this may also flag patients who have a non-male/female gender recorded.



Age can be filtered by selecting "No Age" and a patient list generated.





## Diagnoses in free text form

Diagnoses that are not entered correctly, particularly due to free text entries, greatly reduce the functionality of your clinical information software and the ability for Pen CAT to report and visualise data accurately. Although there are methods for mapping these entries to specific diagnoses within the clinical information software, it is time-consuming and may be less accurate when mapped. This is one area where time spent cleaning the data can be wasted if a Health Service wide procedure is not implemented and recording diagnosis in free text is allowed to continue, as data will need frequent cleansing.

Pen CAT has recipes available for bulk cleaning of free text diagnoses for both Best Practice and Medical Director. Other clinical software may also have systems for bulk cleaning - check with your software provider.

### Best Practice

<http://help.pencs.com.au/display/CR/Bulk+clean+up+of+free+text+diagnosis+-+BP+users>

### Medical Director

<http://help.pencs.com.au/display/CR/Bulk+clean+up+of+free+text+diagnosis+-+MD3+users>

### Zedmed

Diagnoses mapping from free text to ICPC coding is also available in Zedmed. It can be found in: Clinical Records > Utilities-Clinical > ICPC Problem Mapper

## Tips for Clean Data

- Keep staff informed and involved
- Decide on changes to processes with input from those who perform the task (there may be unseen issues that can be picked up before a procedure is changed)
- Check your patient registration sheet and ensure it captures all the required information and matches the clinical software options
- Always check archived patients prior to creating a new patient
- Use data management tools, such as TopBar, for alerts for missing data at the time of patient presentation
- Decide on the coding to be used for diagnoses, screening, etc.
- Develop cheat sheets and make them easily accessible (for example, data entry/checking archived patients at the front desk, or coding in the consultation rooms)
- Set up regular archiving and data monitoring processes (check for duplicates, free text diagnoses, etc.)
- If recurring problems are noted, confirm processes with staff (does a procedure need to be changed?)







## Appendix 10: The Model for Improvement Template

The Model for Improvement is a tool for developing, testing and implementing change.

The Model consists of two parts that are of equal importance:

1. The **'thinking part'** consists of The 3 Fundamental Questions that are essential for guiding your improvement work.
2. The **'doing'/'testing'** part is made up of Plan, Do, Study, Act (PDSA) cycles that will help you test and implement change.

This guide will take you through the following steps:

**Step 1:** The 3 Fundamental Questions

**Step 2:** PDSA Cycle

### Step 1: The 3 Fundamental Questions

#### 1. What are we trying accomplish?

By answering this question, you will develop your **GOAL** for improvement

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.....

.....

.....

.....

#### 2. How will we know that a change is an improvement?

By answering this question, you will develop your **MEASURES** to track the achievement of your goal

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.....

#### 3. What changes can we make that will lead to an improvement? - list your small steps/ideas

By answering this question, you will develop the **IDEAS** that you can test to achieve your goal

**Idea 1:**

.....

**Idea 2:**

.....

**Other Ideas:**

.....

.....

## Step 2: Plan-Do-Study-Act cycle

You will have noted your IDEAS for testing when you answered the third fundamental question in Step 1.  
You will use this sheet to test an idea.

### Idea

Describe the idea you are testing: refer to the 3rd Fundamental Question

.....

.....

.....

.....

PDSA cycle number: \_\_\_\_\_

### Plan

What exactly will you do? Include what, who, when, where, predictions & data to be collected.

.....

.....

.....

.....

### Do

Was the plan executed? Document any unexpected events or problems.

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### Study

Record, analyse and reflect on the results.

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### Act

What will you take forward from this cycle? (What is your next step/PDSA cycle?)

.....

.....

.....

.....

Repeat Step 2 for other ideas

## PDSA Cycle Planning Sheet

This is only the '**Plan**' part of your PDSA cycle, you will need to implement the plan before completing the 'Do', 'Study' & 'Act' parts.

Describe the idea you are testing: refer to the third fundamental question 'What changes can you make that will result in an improvement?'

**What** exactly will you do?

.....

.....

.....

.....

**Who** will carry out the plan?

.....

.....

**When** will it take place? (specify a date)

.....

**Where** will it take place? (please circle)

Health Service      Other

Other (please specify):

.....

**What** do you predict will happen?

.....

.....

.....

.....

**What** data/information will you collect to know whether there is an improvement?

.....

.....

.....

.....



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## Appendix 12: Abbreviations

<b>ACSQHC</b>	Australian Commission on Safety and Quality in Health Care
<b>AIHW</b>	Australian Institute of Health and Welfare
<b>AIR</b>	Australian Immunisation Register
<b>AMS</b>	Aboriginal Medical Service
<b>CALD</b>	Culturally and Linguistically Diverse
<b>CQI</b>	Continuous Quality Improvement
<b>CST</b>	Cervical Screening Test
<b>FOBT</b>	Faecal Occult Blood Test
<b>GP</b>	General Practitioner
<b>HPV</b>	Human Papillomavirus
<b>LGBTIQ</b>	Lesbian, gay, bisexual, transgender, intersex, queer
<b>MBS</b>	Medicare Benefits Schedule
<b>MFI</b>	Model for Improvement
<b>NBSCP</b>	National Bowel Cancer Screening Program
<b>NCSP</b>	National Cervical Screening Program
<b>PDSA</b>	Plan, Do, Study, Act cycle
<b>PHN</b>	Primary Health Network
<b>PN</b>	Practice Nurse
<b>QA</b>	Quality Assurance
<b>QI</b>	Quality Improvement
<b>QIP</b>	Quality Improvement Plan
<b>RACGP</b>	Royal Australian College of General Practitioners
<b>SES</b>	Socioeconomic status
<b>SMS</b>	Secure Messaging Service

