



# ABSOLUTE CARDIOVASCULAR DISEASE RISK ASSESSMENT TOOLKIT

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# INTRODUCTION

## HNECC PHN Absolute Cardiovascular Disease Risk Assessment Toolkit

### Purpose:

This Quality Improvement Toolkit is designed to be used as a resource by general practice and Aboriginal Community-controlled Health Service primary health care professionals to increase the recording of absolute cardiovascular disease risk assessment for their patients. Initially, key risk factors need to be recorded in the patient record, including Aboriginal & Torres Islander origin, gender, age, diabetes status, smoking history, blood pressure, cholesterol levels and echo-cardiograph findings. Included in this Toolkit is a cardiovascular disease-specific Practice Readiness Tool combined with generic Quality Improvement techniques to leverage practice systems, primary health care professionals' skills and business models to increase the recording of a patient's cardiovascular disease risk. Practice readiness ideas are grouped within the framework of *The 10 Building Blocks to High-Performing Practices* to help focus each readiness idea within known characteristics of high-performing practices (Bodenheimer, Ghoreb, Willard-Grace and Grumbach, 2014).

### Alignment with HNECC PHN Strategic Plan

This cardiovascular disease Quality Improvement approach is underpinned by HNECC PHN's Strategic Plan 2018-2023, with the vision: **Healthy People and Healthy Communities**.

The Strategic Plan includes a key area, delivered, in part, through engaging clinicians and focusing on health system improvement.

A key objective in meeting this priority can be tailored to cardiovascular disease risk by:

**Demonstrating improved cardiovascular disease outcomes and experiences in primary care services through primary care improvement.**

HNECC PHN aims to achieve this objective by **'supporting the effective use of health information by primary care practices to facilitate quality improvement and improve their ability to deliver high quality health care and outcomes'**.

### Values-Based Organisation

HNECC PHN is a values-based organisation and our values apply to the cardiovascular disease risk

assessment approach as well:

- to be **accountable** for driving quality improvement of Absolute cardiovascular disease Risk Assessment rates;
- to **cooperate** with primary care health professionals in awareness, education and training of Absolute cardiovascular disease Risk Assessment;
- to **recognise** that primary health care professionals are enablers to people's cardiovascular disease health;
- to **respectfully** engage with primary health care professionals as pivotal members of multi-disciplinary teams;
- to demonstrate **innovative** ways of applying cardiovascular disease risk assessment tools;
- and to maintain **integrity** in the implementation of high-standard cardiovascular disease quality improvement tools.

### What is Absolute Cardiovascular Disease Risk Assessment?

A person's absolute cardiovascular disease risk is

the numerical probability of cardiovascular disease event occurring within the next 5 years.

Cardiovascular disease events include myocardial infarction, stroke, death from a vascular cause (including coronary, pulmonary embolism, haemorrhage) or any arterial revascularisation procedure.

An individual's absolute cardiovascular disease risk assessment results up to 9% are considered low-risk, up to 15% are considered moderate-risk and 16% and above are considered high-risk for a person having a cardiovascular disease event within 5 years.

Absolute cardiovascular risk assessment is based on the Framingham Risk Equation which has been validated to assess cardiovascular risk based on age, gender, smoking status, diabetes, systolic blood pressure, total cholesterol:high-density-lipoprotein ratio, and left ventricle hypertrophy on echocardiograph.

Risk assessment using the combined effect of these risk factors is more accurate than using individual risk factors due to risk synergy

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## Secondary Prevention

Fortunately, cardiovascular disease is mainly preventable by the management of risk factors through lifestyle changes and/or medication (NVDPA, 2012). In Australia, 64% of the adult population have three or more modifiable risk factors for chronic disease (AIHW, 2011 in NVDPA, 2012). Therefore, the goal of cardiovascular disease risk management is to cumulatively reduce the patient's level of absolute cardiovascular disease risk by treatment and monitoring of individual modifiable risk factors.

Cardiovascular disease risk assessment accompanied by treatment and monitoring is negatively correlated with morbidity/mortality from cardiovascular disease. One could hypothesize that as cardiovascular disease risk assessment, treatment and monitoring rates increase, morbidity and mortality from cardiovascular disease would decrease.



## Potentially Preventable Hospitalisations

Further, as cardiovascular disease events decrease, potentially preventable hospitalizations (PPH's) would decrease.

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## Quadruple Aim of Health Care

Ultimately, assessing cardiovascular disease risk and preventing cardiovascular disease, events and hospitalisation contributes to successfully attaining the **Quadruple Aim of Health Care**:

- Improved patient experience,
- Improved population health outcomes,
- Reduced per capita cost of health care and
- Improved clinician experience.

The National Heart Foundation has suggested "Assessing patients' absolute cardiovascular disease risk could prevent 76,500 heart attacks (9,100 of these fatal) and save \$1.5 billion health dollars over the next five years." (News Corp, 24 Feb 2019).

## At a glance: Absolute Cardiovascular Disease Risk Assessment Statistics

There are compelling statistics for embarking on quality improvement activities to increase rates of absolute cardiovascular disease risk assessment of patients within HNECC PHN.

There is a higher burden of cardiovascular disease morbidity and mortality within HNECC PHN borders than the rest of NSW. Persons living within HNECC PHN borders were in the 3rd worst of 10 NSW PHN's for circulatory disease death in 2015-2016. The rate of death from circulatory disease deaths in HNECC PHN was 165.5 per 100,000 (3,285 persons) in 2015-2016, compared to 146.3 per 100,000 for the rest of NSW (Centre for Epidemiology and Evidence. HealthStats NSW. Sydney: NSW Ministry of Health.

The 10 NSW Local Government Areas with the worst rates of deaths by heart disease are Gilgandra, Walgett, Tenterfield, Narrabri, Coonamble, Gunnedah, Inverell, Glen Innes-Severn, Hawkesbury, and Liverpool Plains. Six of these 10 LGA's are within HNECC PHN boundaries (Heart Foundation Heart Maps, 2019).

Of particular concern is the increasing trend of death for males within HNECC PHN from peripheral vascular disease, which has risen to 8.6 (70) deaths per 100,000 in 2015-2016, compared to a low of 7.1 (57) deaths per 100,000 in 2014-2015. (HealthStats NSW).

At the same time, YouGov Galaxy Poll results indicated that only 3 % of the 1000 Australians surveyed stated they had a full Heart Health Assessment in the last year (News Corp, 24 Feb 2019). National Heart Foundation figures reveal that just one third of GPs are conducting these assessments with fewer than 4 out of 10 of their patients aged over 45, and only a quarter of GPs are performing them with the majority of their patients aged over 45 (Heart Foundation, 2018).

Locally, there are low rates of absolute cardiovascular disease risk assessments coded in patient records. As at February 2019, PenCS PATCAT data indicates that across 419,956 active patients in HNECC PHN eligible for absolute cardiovascular disease risk assessment, 33% (142,743) do not have the required risk factor measures recorded in their patient record to allow calculation of risk (PATCAT, accessed 15/4/19).

The National Heart Foundation has set a target that 600,000 more persons in Australia will have a Heart Health Check by 2020 (Heart Foundation, 2018b), with 194,000 of these undertaken in NSW, which is supported by the Baker Heart & Diabetes Institute in their call for encouraging the wider use of the absolute cardiovascular disease risk assessment.

The absolute cardiovascular disease risk assessment benchmark has been set by New Zealand and Northern Territory. The health professionals in these areas have performed an absolute cardiovascular disease risk assessment for 91% and 72% respectively of eligible persons living in these areas.

## Objective:

It is HNECC PHN's aim to support practices in an improvement of the number of absolute cardiovascular disease risk assessments coded within patients' records. The aim is for 90% of eligible persons (aged > 45; Aboriginal & Torres Strait Islander patients aged > 35) who are active at their general practice/AMS within HNECC PHN boundary to have an absolute cardiovascular disease risk assessment by June 2021.

There is now an enabler in the funded MBS Item 699 Heart Health Assessment which has bi-partisan support and was released in Budget Measures 2019-2020 to "establish a new Medicare heart check item that recognises the importance of cardiovascular disease health and is designed to assist in reducing the prevalence of heart disease by enabling assessment of cardiovascular disease risk" (Australian Government, 2019).

In addition, there is an incentive to improve the

"proportion of patients with the necessary risk factors assessed to enable CVD Risk Assessment" in the Australian Government Department of Health Quality Improvement Practice Incentive Payment.

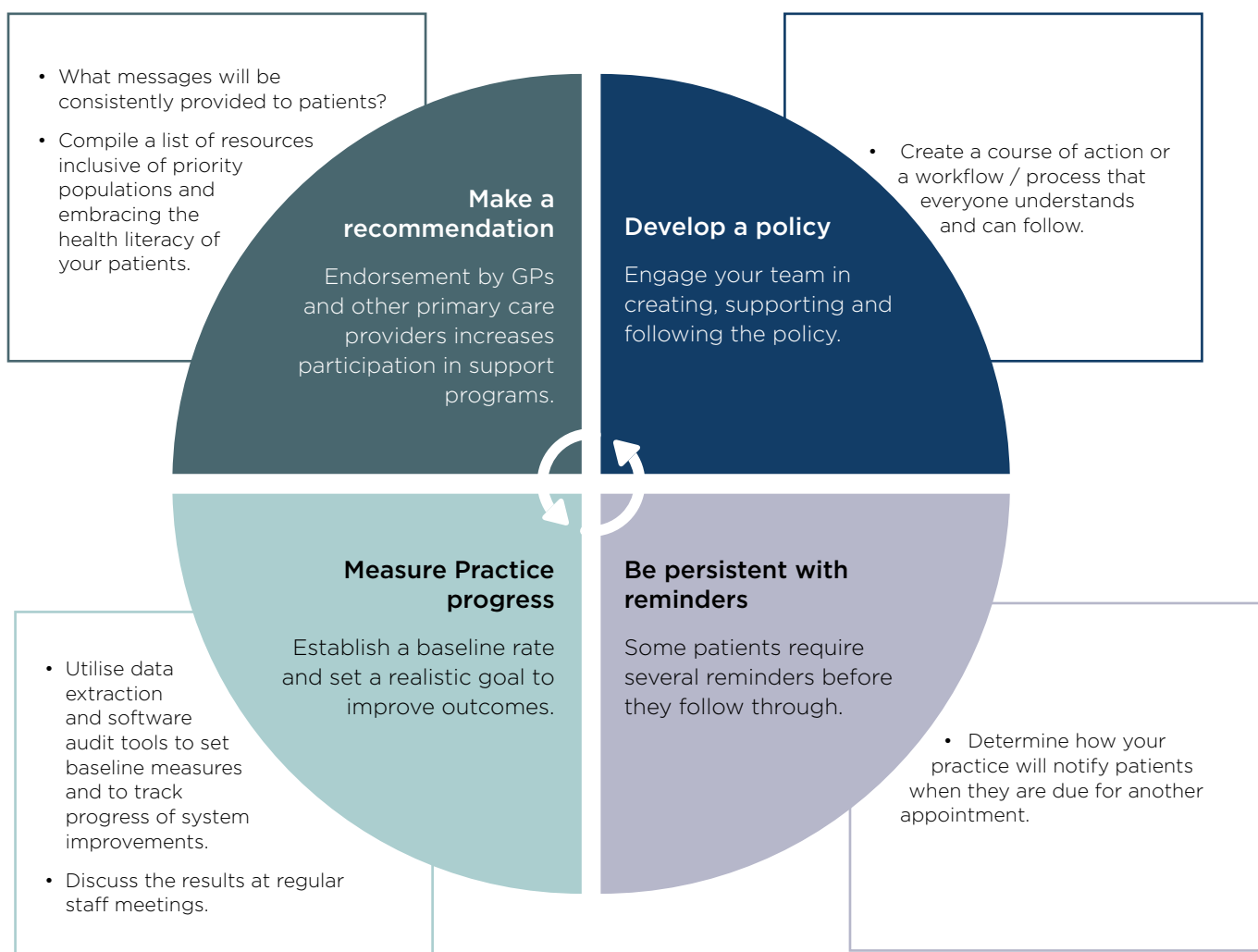
To support this objective, HNECC PHN has designed a cardiovascular disease-specific data Dashboard displaying 12 patient demographic and cardiovascular disease risk factors, available on request for each general practice/AMS committing to cardiovascular disease quality improvement.

Note: The treatment, monitoring and management of patients with cardiovascular risk is outside the scope of this toolkit.



## Four essentials to improving Absolute Cardiovascular Disease Risk assessment in Primary Care

1. **Develop a policy**
2. **Be persistent with reminders**
3. **Measure Practice Progress**
4. **Make a recommendation.**



# DEVELOPING A SYSTEMATIC APPROACH

## Data cleansing

The information available in clinical software is invaluable when developing streamlined practice systems and providing quality patient care. For practice data to be useful, information within your clinical database must be accurate and up to date.

Ensuring electronic results are received correctly is key to providing effective and efficient patient care.



### HELPFUL TIPS

- Regularly mark patients as 'inactive'.
- Merge duplicate patient records.
- Ensure pathology results are received in the correct format , eg. atomized HL7.
- Develop and agree on processes to ensure data quality is maintained.
- Clean up reminder lists: Ask your Primary Care Improvement Officer for instructions on 'Bulk Reminder Clean Up'.
- Document processes clearly in your Policy and Procedure Manual.
- Regularly discuss clinical coding in team meetings to develop clear standards and requirements for patient files.

## Workflow

Workflow is defined as a series of steps, frequently performed by different staff members that accomplishes a task. Workflows represent how work gets done, not the protocols that have been established to do the work.

Workflow mapping is a way of making the invisible "visible" to a practice to improve processes to increase efficiency, reduce errors, and improve outcomes.

Workflow mapping is the process of documenting the specific steps and actions that take place in completing a task. Creating a workflow map allows the opportunity to see what is currently happening, identify opportunities for improvement or change, and design new, more effective processes. It is helpful to consider workflows associated with the following three processes:

1. Perceived process (what we think is happening).
2. Reality process (what the process actually is).
3. Ideal process (what the process could be).



### HELPFUL TIPS

Important rule of mapping: the person who controls the process controls the pen. Meaning whoever carries out the process, maps the steps.

- Be realistic: map what is happening not what is desired.
- Identify each step of the activity and person responsible.
- Communicate: ensure all involved team members understand how the activity is executed.



### HELPFUL LINKS & RESOURCES

Train IT Medical have sample workflows for:

[Correspondence Management](#)

[Inbox Management](#)

[Train IT Medical Practice Management resources](#)



## Implementing robust recall and reminder systems

The RACGP Standards for General Practice view a **reminder** as an offer to provide patients with systematic preventative care. A **recall** is when it is paramount for a patient to attend the clinic, usually in the instance of an abnormal result. A recall is further defined as a system to make sure patients receive further medical advice on matters of clinical significance.

**Clinical significance** is determined by:

- the probability that the patient will be harmed if further medical advice is not obtained; and
- the likely seriousness of the harm.

It will be up to each practice to design a system which effectively differentiates between their general preventive reminders and their true recalls (RACGP, 2017).



### HELPFUL TIPS

- Ensure there is a written policy which is communicated to the practice team which outlines a consistent and validated process for recording results, entering recalls and sending reminders.
- Define roles and responsibilities for individual team members.
- Review systems for managing overdue patient recall and reminders.



### HELPFUL LINKS & RESOURCES

Speak to your Primary Care Improvement Officer to gain access to best practice resources:

[Medical Director: Recall, Reminders Action Fact Sheet](#)

[The Dos and Dont's of Patient SMS](#)

[AMA Recall Systems and Patient Consent](#)

It is recommended that GPs who are coordinating patient-centred care should not assume that clinically significant test results ordered by others have been adequately followed up.

Clear and agreed systems for receiving and following up on test results are needed to ensure safe and effective continuity of patient care. For further information regarding RACGP's position on non-GP initiated testing [click here](#).

## How can PEN CS support patient-based outcomes in General Practice?

When leading change in a General Practice, you will require data to help guide your thinking, discussions and planning.

PEN Clinical Audit Tool (PenCAT) is a user-friendly software tool that interrogates the data contained within GP clinical and management software. The extracted data can be then filtered to select a specific target group and viewed through a range of clinically relevant patient reports to support quality improvement.

### PEN CS and your Practice

A significant number of General Practices across the HNECC PHN already use PenCAT to investigate and report against their patient data. Using PenCAT to extract relevant data provides practices a range of benefits including:

- Improving the quality of patient care by identify patients requiring periodic screening and ensuring the appropriate treatment or referral is delivered proactively.
- Identifying patients “at risk” of developing certain diseases or conditions and offering preventative treatment.



### HELPFUL TIPS

- Use current data by performing monthly data collection.
- Ensure correct coding principles are implemented to ensure data can be extracted.
- Upskill; participate in PenCAT and [TopBar webinars](#) and speak with your Primary Care Improvement Officer to assist in understanding your practice data.



### HELPFUL LINKS & RESOURCES

PEN CS has developed ‘recipes’ which are simple step by step guides to extract meaningful data correctly.

Visit [www.pencs.com.au](http://www.pencs.com.au) to source recipes identifying patients eligible for absolute cardiovascular disease risk assessment.

# WHAT IS QUALITY IMPROVEMENT?

The RACGP Standards for General Practice describes quality activity undertaken within a general practice where the primary purpose is to monitor, evaluate or improve the quality of health care delivered by the practice. The Standards recommend practices engage in quality improvement activities that review structures, systems and processes to aid the identification of required changes to increase the quality of healthcare delivery and safety of patients.

Quality improvement consists of systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups.

Engaging in quality improvement activities is an opportunity for the practice's GPs and other staff members to come together as a team to consider quality improvement. Quality improvement can relate to many areas of a practice and achieving improvements will require the collaborative effort of the practice team.

## Standards for General Practice - 5th Edition

The RACGP 5th Edition Standards have been released with a new module specifically identified for Quality Improvement. Criterion QI 1.1 identifies four indicators that relate to practice-based activity around Quality Improvement and reference a team-based approach. The criterion recommends having at least one team member responsible for leading quality improvement in the practice, which establishes clear lines of accountability. Please refer to the guidelines.

Criterion QI 1.3 relates to improving clinical care, specifically practice use of relevant patient and practice data to improve clinical practice. Establishing and utilising robust reminder and recall systems could be a focus under this criterion.

The Quality Improvement process is divided into two manageable parts: thinking and doing. This process allows ideas to be broken down into manageable sections which can be tested and reviewed to determine whether improvement has been achieved prior to implementing on a larger scale.

## The 'Thinking' part

The thinking part consists of three fundamental questions that are essential for guiding improvement.

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

**By answering this question, you will develop your aim for the activity.**

Consider exactly what it is you are seeking to change.

- Define the problem. Success comes through preparation, understanding what the problem is and thinking about why there is a problem helps in developing your aim.
- Set realistic objectives which are specific, have a defined timeframe and are agreed (SMARTA). Use plain language and avoid jargon so that the meaning is clear to everyone.
- Include information that will help keep the team focused.

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

By answering this question, you will develop measures for tracking your goal.

Without measuring, it is impossible to know whether the change you are testing is an improvement.

- Communicate to the team what you are measuring, how, when and who is responsible (see 'Measuring Success').
- Make the measurement as simple as possible.
- Only collect the data that is required.

## 3. What changes can we make that will result in an improvement?

By answering this question, you will develop ideas for change.

Encourage the whole team to contribute ideas. Be creative. Think outside the box.

- You know your General Practice and your patients best. Keep this in mind and use your knowledge and experiences to guide your ideas.
- Adapt from others.
- Think small and test. Think about testing a change with one GP or a select group of patients. This will assist in determining if the change had the desired effect and suitable for wider implementation.

**FOR EXAMPLE - your General Practice may decide to focus on absolute cardiovascular disease risk assessment.**

**You may have an aim like this:** To increase assessment of absolute cardiovascular disease risk in patients.

We will measure through PenCAT:

**Numerator:** The number of non-Indigenous active patients aged 45 and over with all necessary risk factors assessed to enable Absolute Cardiovascular Disease Risk Assessment.

**Numerator:** The number of Indigenous active patients aged 35 and over with all necessary risk factors assessed to enable Absolute Cardiovascular Disease Risk Assessment.

**Denominator:** The number of non-Indigenous active patient aged 45 and over.

**Denominator:** The number of Indigenous active patients aged 35 and over.

**Your response may be:**

**Your outcome may include:**

1. Use PenCAT to extract the number of Indigenous active patients aged 35 and over, and the number of non-indigenous active patients aged 45 and over.
2. Provide training to ensure both clinicians and non-clinicians have the necessary skills and confidence to discuss absolute cardiovascular disease risk with patients.
3. Perform an Absolute Cardiovascular Disease Risk Assessment for eligible patients.
4. Ensure active patients \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ are recorded in the correct location in Clinical Software (no free text).
5. Send absolute cardiovascular disease risk assessment invitation letters to eligible active patients.

## The 'Doing' part

The doing part is made up of rapid, small Plan, Do, Study Act (PDSA) cycles to test and implement change in real work settings.

**Not every change is an improvement, but by making small changes you can test the change on a small scale and learn about the risks and benefits before implementing change more widely. Several PDSA cycles may be required to achieve your improvement goal.**

You will find through PDSA cycles some changes lead to improvements. If so, these improvements can be implemented on a wider scale. You may also find that some improvement ideas are not successful. Analyse why they didn't work and learn from this. By carrying out small tests in PDSA cycles, you have avoided implementing unsuccessful change on a wider scale.

### Step One: Plan

A well-developed plan includes what, who, when, where and your predictions and what data is to be collected.

Make your plan as clear and as detailed as possible:

- What exactly will you do?
- Who will carry out the plan?
- When will it take place?
- Where will it take place?
- What do you predict will happen?
- What data/information will we collect to know whether there is an improvement?

### Step Two: Do

Write down what happens when the plan is implemented (both negative and positive) and other observations.

Collect any data you identified in the plan phase.

### Step Three: Study

Reflect on what happened.

Think about and summarise what you have learnt. Analyse the data collected and compare with your initial predictions. If there is a difference in the data and predictions, consider what happened and why.

### Step Four: Act

Considering the results from your tests; will you implement the tested change or amend and test or try something else?

Write down the next idea you will test. Be sure to start planning the next cycle early to keep up the momentum of change.



**FOR EXAMPLE - your General Practice may decide to focus on absolute cardiovascular disease risk assessment.**

<b>Idea</b>	Use PenCAT to extract the number of active Indigenous patients aged 35 and over and non-Indigenous aged 45 and over with all necessary risk factors assessed and coded in patient record to enable an absolute cardiovascular disease risk assessment.
<b>Plan</b>	<p><b>What:</b> Use PenCAT to extract data</p> <p><b>Who:</b> Practice Manager</p> <p><b>When:</b> Wednesday 3 November 2019</p> <p><b>Where:</b> General Practice</p> <p><b>Data to be collected:</b> Extract or record the number of active Indigenous patients aged 35 and over and non-Indigenous aged 45 and over with all necessary risk factors assessed and coded in patient record to enable an absolute cardiovascular disease risk assessment.</p> <p><b>Prediction:</b> Expect _____ of eligible active patients to have all necessary risk factors assessed and coded in patient record to enable an absolute cardiovascular disease risk assessment. _____ (PenCS).</p>
<b>Do</b>	Practice Manager extracted data as planned using PenCAT Recipe to ensure correct data was extracted.
<b>Study</b>	Percentage of patients with all necessary risk factors assessed and coded in patient record to enable an absolute cardiovascular disease risk assessment was much lower than expected
<b>Act</b>	Data presented to practice team to discuss absolute cardiovascular disease risk assessment strategies that could be implemented within the practice.



## HELPFUL TIPS

- Practices need to engage in quality improvement activities to improve quality and safety for patients in areas such as practice structures, systems and clinical care.
- Decisions on changes should be based on practice data (PEN CS and clinical database audits, near misses and patient and/or staff feedback).
- Achieving improvements requires the collaborative effort of the practice team and all members of the team should feel empowered to contribute.
- Utilise the Readiness Tool to assist identify ideas and areas for improvement.
- No PDSA cycle is too small; keep it simple.
- You may complete a series of PDSA cycles to achieve your goal. Results will be achieved through building on previous cycles.
- Set aside protected time to complete the agreed upon tasks.
- Document your PSDA cycles and present findings at team meetings.
- Improvement is a team effort.

See Criterion C4.1 – [Health Promotion and Preventative Care RACGP 5th Standards](#)

# CHANGE IDEAS TO CONSIDER

**Idea 1: Encourage person-centred care by encouraging patients to discuss absolute cardiovascular disease risk assessment with their GP.**

- Display promotional material in the waiting room.
- Have the reception team give eligible patients a flyer asking them when they were last assessed. The patient can then take the flyer into their appointment with them, opening the door for a discussion with their Doctor or Nurse about relevant programs to assist.

**Idea 2: Engaging the General Practice Team- Develop and maintain an effective recall and reminder system: staff education.**

There is often a lot of work that needs to be done to improve how practices use software to maintain effective recall and reminder systems. Staff education is the first step towards improvement. Ask your Primary Care Improvement Officer to provide a short information session to staff and provide reminder and recall resource manuals.

**Idea 3: Appoint a staff member who is responsible for creating and maintaining an Absolute Cardiovascular Disease Risk Assessment register, add this role to their job description.**

This staff member may become the Practice Champion for absolute cardiovascular disease risk assessment. Providing professional development opportunities to this staff member will assist with rewarding and recognising this person's contribution to the team.

**Idea 4: Have a team meeting to brainstorm how recall and reminder systems could improve income generation and patient care.**

(e.g. by linking together multiple recalls such as GP Management Plans, Health Assessments, Absolute Cardiovascular Disease Risk Assessment etc.)

Dedicate some time at a staff meeting to discuss how health assessments can include absolute cardiovascular disease risk assessment prompts. Review health assessment templates to ensure that absolute cardiovascular disease risk assessment calculation is included.

**Idea 5: Draft a written procedure for recall and reminder systems.**

If your Practice has a policy/procedure for recalls and reminders, check that there is a process for absolute cardiovascular disease risk assessment. If there is not a current policy, contact GPA or AGPAL as a starting point to generate conversation and development of a policy.

**Idea 6: Send absolute cardiovascular disease risk assessment reminder letter to eligible patients due for assessment.**

- Following the establishment of your absolute cardiovascular disease risk assessment patient register, identify patients due for assessment.
- The absolute cardiovascular disease risk assessment initiative suggests two key times where Practice reminders can really add value:  
1. For patients who have never been assessed  
2. On a patient's actual re-screen due date.
- Utilise the suggested template reminder letter available through your Primary Care Improvement Officer.

# RESOURCES FOR UNDERTAKING QUALITY IMPROVEMENT

## Quality Improvement Goal Setting

### *The Thinking Part*

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

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

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

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

#### **3. What changes can we make that can lead to an improvement?**

*List your ideas for change. By answering this question, you will develop the ideas you would like to test towards achieving your goal.*

IDEA 1.

IDEA 2.

IDEA 3.

IDEA 4.

## Quality Improvement Action Worksheet

*PLAN, DO, STUDY, ACT*

### *The Doing Part*

Please complete a new worksheet for each change idea you have documented on the previous page.

Where there are multiple change ideas to test, please number the corresponding worksheet(s).

	<b>Describe the idea you are testing.</b>
IDEA	
	<b>Must include what, who, when, where, predictions &amp; data to be collected.</b>
	What:
	Who:
PLAN	When:
	Where:
	Data to collect/record:
	What do we think will happen?
	<b>Was the plan executed? Document any unexpected events or problems.</b>
DO	
	<b>Record, analyse and reflect on the results.</b>
	<b>Extract same data to measure for improvement:</b>
STUDY	
	<b>What will you take forward from this cycle (next step or next PDSA cycle)</b>
ACT	



## Measuring Success

The overall aim of undertaking an absolute cardiovascular disease risk assessment Quality Improvement activity is to increase participation in absolute cardiovascular disease risk assessment.

Choosing an activity or idea to explore will have its own measure of success. It is important to identify in each activity what you are wanting to change and how you will know when the change has occurred. This is identified in Question 2.

Applying a SMARTA (Specific, Measurable, Attainable, Realistic, Timebound and Agreed) goal setting process will assist you.<sup>1</sup>

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### SMARTA Goal Setting

- Specific. Goals that are too vague and general are hard to achieve, for example 'be a better parent'. Goals that work include specifics such as 'who, where, when, why and what'.
- Measurable. Ideally goals should include a quantity of 'how much' or 'how many' for example drinking 2 litres of water per day. This makes it easy to know when you have reached the goal.
- Achievable. Goals should be challenging, but achievable. Goals work best when they are neither too easy or too difficult. In many cases setting harder goals can lead to better outcomes, but only if the person can achieve it. Setting goals which are too difficult can be discouraging and lead to giving up altogether.
- Relevant. The goal should seem important and beneficial to the person who is assigned the goal.
- Time-related. 'You don't need more time, you just need a deadline.' Deadlines can motivate efforts and prioritise the task above other distractions
- Agreed.

Reflect on the absolute cardiovascular disease risk assessment activity identified on page 15. Here you have undertaken a data analysis utilising PenCAT and this has shown the percentage of eligible patients who have all the necessary risk factors assessed to enable Absolute Cardiovascular Disease Risk Assessment.. This forms your baseline measure.

The next step is to decide on an activity and set a goal. For this example, you may like to set a goal to increase recording of absolute cardiovascular disease risk assessment to 90%. When this has been implemented within a set time frame, you can then repeat the data analysis to see the change in status has increased.

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<sup>1</sup>Health Direct November 2016 <https://www.healthdirect.gov.au/smart-goals>

### An Example of Measuring Success: Absolute cardiovascular disease risk assessment

Practice X has 600 active patients aged  $\geq 45$  years of non-Indigenous ethnicity. Of these patients, following the use of PenCAT, 200 patients in this age group have all required measures for absolute cardiovascular disease risk assessment coded in the patient record.

Numerator	The number of patients aged $> 45$ years of non-Indigenous ethnicity with all required measures for absolute cardiovascular disease risk assessment coded in the patient record	200
Denominator	The number of active patients aged $> 45$ years of non-Indigenous ethnicity	600

**Result: [Numerator of 200]  $\div$  [Denominator of 600] = 33%**

Practice X then decides as a QI activity to undertake a data cleansing and improvement activity for absolute cardiovascular disease risk assessment. The measurement of change will be the increase in recording of all risk factors assessed. This could be a measure after 3 months.

#### Measurement for absolute cardiovascular disease risk assessment

**Excluded from absolute cardiovascular disease risk assessment in non-Indigenous patient record (existing high risk due to coded CV disease).**

**NUMERATOR** The number of non-Indigenous active patients aged  $> 45$  years excluded from absolute cardiovascular disease risk assessment.

**DENOMINATOR** The number of non-Indigenous active patients aged  $> 45$  years.

**Excluded from absolute cardiovascular disease risk assessment in Aboriginal and Torres Strait Islander patient record (existing high risk due to coded CV disease).**

**NUMERATOR** The number of Aboriginal and Torres Strait Islander active patients aged  $> 35$  years excluded from absolute cardiovascular disease risk assessment.

**DENOMINATOR** The number of Aboriginal and Torres Strait Islander active patients aged  $> 35$  years.

**All necessary risk factors assessed and coded in non-Indigenous patient record to enable an absolute cardiovascular disease risk assessment.**

**NUMERATOR** The number of non-Indigenous active patients aged  $> 45$  years with all necessary risk factors assessed and coded in patient record to enable an absolute cardiovascular disease risk assessment.

**DENOMINATOR** The number of non-Indigenous active patients aged  $> 45$  years.

**All necessary risk factors assessed and coded in Aboriginal & Torres Strait Islander patient record to enable an absolute cardiovascular disease risk assessment.**

**NUMERATOR** The number of Aboriginal and Torres Strait Islander active patients aged  $> 35$  years with all necessary risk factors assessed and coded in patient record to enable an absolute cardiovascular disease risk assessment.

**DENOMINATOR** The number of active Aboriginal and Torres Strait Islander patients aged  $> 35$  years.

# READINESS TOOL

There are many ways to improve patients' participation in absolute cardiovascular disease risk assessment.

This Readiness Tool is designed as a starting point to encourage General Practice to generate ideas and strategies in absolute cardiovascular disease risk assessment that may be applied to a quality improvement activity. This may assist with the 'thinking part' of the quality improvement cycle.

In working through the Readiness Tool, start by identifying if the practice or clinicians are undertaking activity in the identified area. In the action column identify any ideas you may like to consider changing.

## Absolute Cardiovascular Disease Risk Assessment Readiness Tool

<b>General Practice Name:</b>	
<b>Completed by:</b>	
<b>Date:</b>	

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 1: Engaged Leadership</b>		
A. Value and allow protected staff time for cardiovascular disease Continuous Professional Development.		
B. Get involved & give input into Local Government Area physical activity environments.		
C. Become a member on multi-disciplinary cardiovascular disease Community's of Practice or Health Working Groups, e.g. Heart Foundation Heart Ambassadors, PHN, CPMC Obesity Summit.		
D. Consider presenting your practice's Quality Improvement experiences at a Health Conference.		
E. Participate in Research opportunities; BEEM Study; Staree study; Auspice study; Health SMaRT; RuralCVD Study; Quit study;		
F. Lobby State and Commonwealth Government and Opposition Health Ministers for increased Cardio-vascular health funding.		
G. Attend the Women and Heart Disease Forum		

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 1: Engaged Leadership cont.</b>		
H. Dedicate a Quality Improvement Activity in your practice to cardiovascular disease health.		
I. Quality Improvement in absolute cardiovascular disease risk assessment is valued in organisational goals by practice leaders.		
J. Review of absolute cardiovascular disease risk assessment practice data is a standing agenda item at Clinical Meetings.		
K. Cardiovascular disease quality improvement has infrastructure, such as dedicated resources, lead staff, protected time, and data audit tool.		
L. Cardiovascular disease quality improvement is a shared responsibility of all practice staff.		
M. Consider formal public engagement of your patients as consumers in cardiovascular health quality improvement.		
N. Enrol in NPS cardiovascular disease <a href="#">Webinar</a>		

<b>Building Block 2: Data-driven Improvement</b>		
A. Utilise PenCAT software to illustrate your practice's "CV Event Risk" - Total population, eligible population, count of patients assessed, count of patients with incomplete data and excluded patients. <a href="http://help.pencs.com.au/display/CG/CV+%28Cardiovascular+disease%29+Event+Risk">http://help.pencs.com.au/display/CG/CV+%28Cardiovascular+disease%29+Event+Risk</a>		
B. Utilise the PenCAT tool to demonstrate number of Absolute CVD Risk Assessments of Indigenous patients and risk level populations: (Standard Reports>Indicator Sets>National KPI>Chronic Disease Risk Factors>Absolute CVD Risk Result PI-21) <a href="http://help.pencs.com.au/display/CG/Chronic+Disease+Risk+Factors">http://help.pencs.com.au/display/CG/Chronic+Disease+Risk+Factors</a>		
C. Contact your HNECC PHN Primary Care Improvement Officer for assistance with PenCAT.		

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
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### Building Block 2: Data-driven Improvement cont.

D. Generate a CAT4 Timeline RunChart to illustrate the practice's improvement in recording all the necessary risk factors to enable CVD Risk Assessment.

E. Have an awareness of regional-level cardiovascular disease disease burden; see HNECC PHN Regional Snapshots; HealthStats NSW; AIHW; AHPC;

F. Commit to cardiovascular disease quality improvement and request HNECC PHN-designed CVD-specific Data Dashboard for your individual practice. (Sample in Appendix)

G. Set PenCAT Prompts in TopBar to opportunistically identify patients without a cardiovascular disease status.

H. Run [Medical Director Insights](#) for CVD and set bulk recalls

I. Upgrade practice clinical information software to current version.

J. Record complete data to enable Absolute Cardiovascular Risk Assessment tool – Gender, Age, BP, Lipids, diabetes diagnosis, smoking status.

K. Mark patients as inactive or deceased, as appropriate.

L. Use coded diagnosis in software for Cardio-vascular Disease in patients to indicate ineligible for Absolute Cardio-vascular Risk Assessment due clinically determined high-risk.

### Building Block 3: Empanelment

A. Assign a usual GP provider to each patient in practice software.

B. Filter CAT4 reports by GP Provider when identifying patients by complete, incomplete, and excluded co-horts.

C. Know your individual GP Provider's size of patient panel.

D. Stratify patients into CVD risk level cohorts and give a higher weighting in your panel of patients with cardiovascular disease risk.

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 4: Team-based Care</b>		
A. Create a teamlet of receptionist, nurse and GP to be the patients usual care team.		
B. Commence Nurse-led cardiovascular disease Clinics.		
C. Employ a non-prescribing Pharmacist.		
D. Provide sessional allied health professional care eg. dietitian, exercise physiologist, diabetes educator.		
E. Encourage and support new, and existing, nurses to enroll in APNA Cardiovascular Disease Risk Assessment and Management 2-hour Online Training <a href="https://www.apna.asn.au/product/detail/aa9abc31-4823-e811-80d4-005056be66b1">https://www.apna.asn.au/product/detail/aa9abc31-4823-e811-80d4-005056be66b1</a>		
F. Encourage and support new, and existing, nurses to enrol in APNA Foundations of General Practice Nursing Workshop.		
G. Attend HNECCPHN Education events, such as CVD Risk Assessment training, Motivational Interviewing, 2000 Hearts Symposium.		
H. Attend “ <a href="#">Think GP</a> ” cardiovascular disease education event.		
I. Value the input of Australian Primary Health Care Nurses Association (APNA) by purchasing Organisational Membership.		
J. Utilise MBS Item 11700 for ECG measurement and MBS Item 11610 for Ankle Brachial Index measurement. (may be attended by Nurse/Medical Practice Assistant).		

#### Building Block 5: Patient-team Partnership

A. Obtain training and apply Motivational Interviewing techniques with patients to address modifiable cardiovascular disease risk factors.		
B. In presence of patient, assess cardiovascular disease Risk in Practice Software to visually demonstrate improvement in risk if modifiable risk factors improved.  <a href="https://www.betterquestions.com.au/flex/lindsay-tighe/5/1">https://www.betterquestions.com.au/flex/lindsay-tighe/5/1</a> <a href="https://www.gpcounsellingtraining.com.au/">https://www.gpcounsellingtraining.com.au/</a>  <a href="https://www.flinders.edu.au/medicine/sites/fhbhr/education/wk_practisingmi.cfm">https://www.flinders.edu.au/medicine/sites/fhbhr/education/wk_practisingmi.cfm</a>		

C. Utilise Chronic Disease Management Plan, Team Care Arrangements and Review Items for patients with existing co-morbidities.		
D. Make available printed and AV cardiovascular disease risk health promotion materials <a href="https://www.heartfoundation.org.au/campaigns/heart-week/toolkit">https://www.heartfoundation.org.au/campaigns/heart-week/toolkit</a>		
E. Consider the health literacy and cultural & linguistic diversity of patient and the appropriateness of health literacy promotion materials.		

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 5: Patient-team Partnership cont.</b>		

F. Access multicultural health resources from <http://www.mhcs.health.nsw.gov.au/>

G. Request patient health promotion resources from The Heart Foundation  <a href="https://heartfoundationshop.com/products/bulk_order_form.pdf?_ga=2.71430740.637591030.1554178920-481096414.1536040194">https://heartfoundationshop.com/products/bulk_order_form.pdf?_ga=2.71430740.637591030.1554178920-481096414.1536040194</a>		
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H. Ensure medical practitioner enrolment in Telephone Interpreting Service <https://www.tisnational.gov.au/>

I. Promote patient use of the National Heart Foundation “Heart Age Calculator” <a href="https://www.heartfoundation.org.au/your-heart/know-your-risks/heart-age-calculator?gclid=EAlaIqObChMlnIm42Ofn4QIVGyQrCh2e1gxdEAAYASAAEgLN8vD_BwE">https://www.heartfoundation.org.au/your-heart/know-your-risks/heart-age-calculator?gclid=EAlaIqObChMlnIm42Ofn4QIVGyQrCh2e1gxdEAAYASAAEgLN8vD_BwE</a>		
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J. Import the GPMP for Coronary Heart Disease Template into your practice software <https://www.heartfoundation.org.au/for-professionals/clinical-information/gp-practice-resources>

K. Provide patient with HNE <a href="#">Patient Info</a> resources		
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L. Assess Physical Activity and print Physical Activity Prescription in clinical software to save.

M. Provide culturally-appropriate healthy eating resources <a href="https://www.eatforhealth.gov.au/">https://www.eatforhealth.gov.au/</a>		
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N. Lodge [NSW Quitline On-Line Referral Form](#) while patient is present.

O. Perform a smoking cessation assessment in social history in clinical software.		
P. Populate your clinical system with patient education leaflets and provide patient health information from Clinical Software resources.		
Q. Run Health Promotion event in practice during May "Heart Week" and in September during Stroke Awareness Week.		
R. Utilise Heart Health Assessment (MBS Item 699) templates in Clinical software.		
S. Obtain and record patient preference and consent for preventative reminders recalls method.		
T. Refer patients with Risk of Diabetes to NSW subsidised Lifestyle Prevention Programs "Beat It" or "Live your Life Workplace Health Programme"		
U. Obtain HNECCPHN Healthy Weight Initiative Software Licence.		

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 6: Population Management (*consider clinically-determined existing high-risk of CVD)</b>		

A. Apply evidence-based clinical guidelines from peak bodies and professional colleges (National Vascular Disease Prevention Alliance; Diabetes Australia, Kidney Health Australia; Heart Foundation; Stroke Foundation, RACGP; NHMRC; DOH)

B. *Patients of Aboriginal & Torres Strait Islander origin <a href="https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Resources/National-guide-3rd-ed-Sept-2018-web.pdf">https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Resources/National-guide-3rd-ed-Sept-2018-web.pdf</a>		
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C. \*Patients with Diabetes - Goals for optimum management [https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Guidelines/Diabetes/General-practice-management-of-type-2-diabetes\\_1.pdf](https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Guidelines/Diabetes/General-practice-management-of-type-2-diabetes_1.pdf)

D. Patients using Tobacco <a href="https://www.racgp.org.au/download/documents/Guidelines/smoking-cessation.pdf">https://www.racgp.org.au/download/documents/Guidelines/smoking-cessation.pdf</a> ; <a href="https://www.icanquit.com.au/?gclid=EAlaIqObChMI4Pn36b34QIVS42PC h1VPgsfEAAAYASAAEgLqVPD_BwE&amp;gclsrc=aw.ds">https://www.icanquit.com.au/?gclid=EAlaIqObChMI4Pn36b34QIVS42PC h1VPgsfEAAAYASAAEgLqVPD_BwE&amp;gclsrc=aw.ds</a>		
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E. \*Patients with Hypertension [https://www.heartfoundation.org.au/images/uploads/publications/PRO-167\\_Hypertension-guideline-2016\\_WEB.pdf](https://www.heartfoundation.org.au/images/uploads/publications/PRO-167_Hypertension-guideline-2016_WEB.pdf)

F. \*Patients with Hyperlipidaemia <https://www.heartfoundation.org.au/for-professionals/clinical-information/lipid-management>

G. Patients overweight or obese <https://www.nhmrc.gov.au/about-us/publications/clinical-practice-guidelines-management-overweight-and-obesity>

H. \*Patients at risk of/diagnosed familial hyperlipidaemia <https://www.heartfoundation.org.au/images/uploads/publications/familial-hypercholesterolaemia.pdf>  
  
<https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Guidelines/Red%20Book/Appendix-2B.pdf>

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
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#### Building Block 6: Population Management (\*consider clinically-determined existing high-risk of CVD) cont.

I. Patients with Family Hx of Premature CVD in relatives including parents, grandparents, uncles and/or aunts before the age of 55 years.

J. \*Patients with Chronic Kidney Disease <https://kidney.org.au/health-professionals/prevent/chronic-kidney-disease-management-handbook>

K. Patients with Physical Inactivity <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines>

L. Patients with evidence of Atrial Fibrillation [https://www.heartlungcirc.org/article/S1443-9506\(18\)31778-5/fulltext](https://www.heartlungcirc.org/article/S1443-9506(18)31778-5/fulltext)

M. Patients' nutrition status/habits (Attend in SNAP) <https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/snap>; <https://www.nhmrc.gov.au/about-us/publications/australian-dietary-guidelines>

N. For Defence Forces Veterans, offer Heart Health Program <https://www.dva.gov.au/health-and-wellbeing/wellbeing/heart-health-programme>

O. Gender of patients-Consider commencing absolute cardiovascular disease risk assessment in Well Women's Screening, eg. provide Lipid Pathology Request form.

P. Ensure patient's social and family history is assessed and recorded. (Recorded for at least 75% of patients, RACGP Accreditation Standard).

Q. Incorporate absolute cardiovascular disease risk assessment into all Health Assessments and Comprehensive Medical Assessments (MBS Item 701-707, 715) for Aboriginal & Torres Strait Islander; 40-49 y.o at high risk of developing Type 2 diabetes; 45-49 y. o at Risk of Developing Chronic Disease; 75 y.o. and older; Intellectual Disability; Former Australian Defence Force member; Refugees and other Humanitarian entrants; and Residents of Aged Care Facilities.

Indicator	Implementation Status - YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 6: Population Management (*consider clinically-determined existing high-risk of CVD) cont.</b>		
<p>A. Perform a Heart Health Assessment for persons who haven't had another Health Assessment this year to assess risk, identify modifiable factors, and create a preventative heart health care plan. (Indigenous patients &gt;=30 years; non-Indigenous patients &gt;=45 years)</p> <p><a href="https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Resources/National-guide-3rd-ed-Sept-2018-web.pdf">https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Resources/National-guide-3rd-ed-Sept-2018-web.pdf</a></p> <p><b>Associated Note 14.2</b>  <a href="http://www9.health.gov.au/mbs/fullDisplay.cfm?type=note&amp;q=AN.14.2&amp;qt=noteID&amp;criteria=699">http://www9.health.gov.au/mbs/fullDisplay.cfm?type=note&amp;q=AN.14.2&amp;qt=noteID&amp;criteria=699</a></p> <p><b>MBS Item 699</b>  <a href="http://www9.health.gov.au/mbs/fullDisplay.cfm?type=item&amp;q=699&amp;qt=item&amp;criteria=699">http://www9.health.gov.au/mbs/fullDisplay.cfm?type=item&amp;q=699&amp;qt=item&amp;criteria=699</a></p>		
<b>Building block 7: Continuity of Care</b>		
A. Use Clinically-significant Recall function in software for annual health assessments, reviews of CDM items, pathology.		
B. Consider uploading a My Health Record Event Summary to communicate patients' calculated Absolute Cardiovascular Disease Risk level.		
C. Follow-up patient after receipt of Hospital Discharge Summaries within agreed timeframe of practice policy.		
D. Gain patients' agreement to see usual, named health professional.		
E. Receptionists encourage patient to see usual, named health professional.		

F. Review written reported feedback from Allied Health Professional named in Team Care Arrangement as per MBS requirements.

Indicator	Implementation Status – YES / NO	If No, include as an Idea in QI PDSA Cycle
<b>Building Block 8: Prompt Access to Care</b>		
A. Follow-up test results in holding file/in-box in agreed timeliness and communicate required follow-up actions.		
B. Agree on Standing Orders/Clinical Protocol for clinical team-members to contribute to Heart Health Assessment.		

<b>Building Block 9: Comprehensiveness &amp; Care Coordination</b>		
A. Refer to Diabetes Prevention Lifestyle Modification Programs ie Get Healthy NSW, Beat It, Live Well at Work.		
B. Follow-up Team Care Arrangements for co-morbidities with TCA Review (3-6 monthly).		
C. Communicate the patient's absolute cardiovascular disease risk assessment result in all Referrals, Team Care Arrangements and Multi-disciplinary Case Conferencing.		
D. Organise or participate in Multi-disciplinary Case Conference with 2 other care providers (MBS 735,739,743).		

<b>Building block 10: Template of the Future</b>		
A. Apply for Practice Incentive Program Quality Improvement performance payments.		
B. Apply for Workforce Incentive Program reimbursement payments, pending Guidelines from January 2020.		
C. Utilise Telehealth consultation MBS items.		
D. Utilise Group Allied Health Diabetes Type 2 MBS Items for Exercise Physiology, Diabetes Education or Dietician input.		
E. Expand workforce to include emerging classifications such as Medical Practice Assistant.		
F. Consider reconfiguring practice software appointment template to incorporate nurse-led cardio-vascular clinic.		

## Bibliography:

- Australian Government, 2019. Budget Measures 2019-2020. Canberra.
- Australian Institute of Health and Welfare 2011. Health determinants, the key to preventing chronic disease. Cat No. PHE 157. Canberra: AIHW.
- Australian Government Department of Health. MBS Online. <http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Home>. Accessed 30 April 2019.
- Bodenheimer, T., Ghoreb, A., Willard-Grace, R., Grumbach, K., 2014. The 10 Building Blocks of High-Performing Primary Care. *Annals of Family Medicine*. 12(2), 166-171.
- Baker IDI Heart & Diabetes Institute, 2016. Change of heart: Time to end cardio-vascular complacency. Melbourne.
- Burgess, C., Sinclair, G., Ramjan, M., Coffey, P., Connors, C., Katekar, L. 2014. Strengthening Cardiovascular disease Disease Prevention in Remote Indigenous Communities in Australia's Northern Territory. *Heart, Lung and Circulation* (2015), 24, 450-457.
- Centre for Epidemiology and Evidence, HealthStats NSW. Sydney: NSW Ministry of Health. Available at: [www.healthstats.nsw.gov.au](http://www.healthstats.nsw.gov.au)
- Dunbar, JA, Duggan, M, Fetherston, H, Knight, A, Mc Namara, K, Banks, E, Booth, K, Bunker, S, Burgess, P, Colagiuri, S, Dawda, P, Ford, D, Greenland, R, Grenfell R, Knight S & Morgan, M. Heart Health: the first step to getting Australia's health on track. Australian Health Policy Collaboration technical paper No. 201702. AHPC: Melbourne.
- Hunter New England Primary Health Network, 2018, Strategic Plan 2018-2023
- Hooper, C., Hardie-Boys, N., White, E., Cumming, J., McDonald, J., Wilson, D., Mann, S. (2016). More heart and diabetes checks Evaluation. Final Report. Allen & Clarke. Wellington.
- National Heart Foundation of Australia, 2018b. The Heart Foundation's 2018-2020 Strategy. National Heart Foundation of Australia.
- National Vascular Disease Prevention Alliance. 2012 Guidelines for the management of Absolute cardiovascular disease disease risk. National Stroke Foundation.
- News Corp, 24 February 2019, "National heart disease screening program unites both sides of politics" in News Corp, [www.news.com.au](http://www.news.com.au). Accessed 28 March 2019.
- News Corp, 24 February 2019, "Medicare to fund a New Heart Health Check from April 1", in News Corp, [www.news.com.au](http://www.news.com.au). Accessed 28 March 2019.
- National Heart Foundation of Australia, Australian Heart Maps, at <https://www.heartfoundation.org.au/for-professionals/heart-maps/australian-heart-maps>. Accessed 28 March 2019.
- National Heart Foundation of Australia, 2018a. "A better way to check for cardiovascular disease disease". 7 November 2018. <https://www.heartfoundation.org.au/news/a-better-way-to-check-for-cardiovascular-disease-disease> Accessed 6 May 2019.
- Public Health England, (2018). NHS Health Check: stocktake and action plan. London. Public Health England.
- National Vascular Disease Prevention Alliance, 2012.
- Dunbar, Duggan, Fetherston, Knight, Mc Namara, Banks, Booth, Bunker, Burgess, Colagiuri, Dawda, Ford, Greenland, Grenfell, Knight & Morgan, 2017)



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