



RACGP

Royal Australian College of General Practitioners

# *Putting prevention into practice*

Guidelines for the implementation  
of prevention in the general  
practice setting, 3rd edition



## Putting prevention into practice: Guidelines for the implementation of prevention in the general practice setting, 3rd edition

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### Recommended citation

The Royal Australian College of General Practitioners. Putting prevention into practice: Guidelines for the implementation of prevention in the general practice setting, 3rd edn. East Melbourne, Vic: RACGP, XXXX.

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[www.racgp.org.au](http://www.racgp.org.au)

ISBN: XXX (Print)

ISBN: XXX (Web)

First edition published 1998

Second edition published 2006

Third edition published XXXX

Cover image © (place holder image from adobe stock)

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*We recognise the traditional custodians of the land and sea on which we work and live.*



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Consultation

# Acknowledgements

The Royal Australian College of General Practitioners (RACGP) gratefully acknowledges the generous contribution of the following authors, contributors and reviewers of *Putting prevention into practice* (Green Book), 3rd edn.

## Green Book Editorial Committee

*To be completed*

## Conflicts of interest

This publication has been produced in accordance with the rules and processes outlined in the RACGP Conflict of Interest (COI) Policy. The RACGP COI Policy is available at [www.racgp.org.au/support/policies/organisational](http://www.racgp.org.au/support/policies/organisational)

## Contributors

*To be completed*

## Reviewers

*To be completed*

# *Acronyms*

*To be completed*

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# Introduction

Focusing on prevention is an important response to the increasing demands for health care.

In general practice, we are well trained and skilled in caring for the patients who come to us with problems. What we don't do very often is step back from the individual in front of us and look at our patients as a community or population. Yet this shift in focus holds enormous potential to improve health outcomes. While we continue supporting individuals to take greater responsibility for their health and prevent illness, if we also work at a practice population level, we have opportunities to affect the broader determinants of health and illness.

It makes sense that improving preventive care for individuals and communities leads to better health. To this end multiple evidence-based recommendations have been developed. The Red Book is a key source of these. However, when we look across general practice, implementation and delivery of preventive services is quite variable.<sup>1,2</sup>

This also makes sense. It's not our medical knowledge that affects our ability to deliver preventive care. It's our ability to recognise and overcome a combination of individual factors (eg time pressures, competing demands, skill levels, attitudes) and practice systems and organisational factors (eg availability of a team, clarity of roles, lack of resources, a culture focusing on treatment rather than prevention). That is, putting preventive recommendations into practice requires knowledge in areas we're not well taught such as implementation science, change management, organisational behaviour, and data collection and analysis.

Here in the Green Book, we aim to give you enough useful knowledge in these areas to be able to create a clear and actionable plan to improve your practice's preventive care.

## The Green Book

Since 1998, the RACGP has published *Putting prevention into practice: Guidelines for the implementation of prevention in the general practice setting* (Green Book) to support evidence-based preventive activities in primary care.

## What is the Green Book?

The Green Book is designed to help you put preventive care recommendations from best practice guidelines into practice. It provides case studies to reflect on and contains advice about practical processes, strategies and tools for implementing and sustaining preventive activities.

The Green Book brings together both the evidence and the lessons learned from the literature and from real life general practice experiences to make implementation of preventive activities as straightforward, effective and successful as possible. These lessons include:

- just disseminating guidelines within your practice is not enough to change practice
- using a practical framework that is guided by theory can improve success
- implementing all recommendations from evidence-based guidelines may be unrealistic and unachievable – what you chose to implement depends on your practice context (ie established need, clinician preference, complexity, capacity/capability and resources available)
- improving implementation depends on changing multiple behaviours of multiple people (ie healthcare professions, practice managers, administrators)
- implementation efforts are more likely to be successful if you have strong organisational leadership and whole of practice engagement
- you need to set goals that you can measure.

By aligning leadership, building capacity for change, and creating a culture of quality improvement, selectively choosing the relevant processes needing change, general practices can successfully organise their environment to successfully deliver preventive services.<sup>3</sup>

## How does the Green Book fit in with other RACGP publications?

You can think of the Green Book as a practical companion to the *RACGP Guidelines for preventive activities in general practice 9th edition* ([Red Book](#)). However, it also works to support the implementation of other RACGP publications such as *Smoking, nutrition, alcohol, physical activity* ([SNAP](#)) guide and the *National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people* ([National Guide](#)).

The Green Book is also a resource to help your practice meet the RACGP Standards for general practices ([The Standards](#)).

Figure 1. How the Green Book fits with other RACGP publications

<<To designers: please create a graphic (jigsaw suggested) that shows how the Green Book sits in the RACGP publications library (see below)>>

Evidence-based recommendations about	How to put recommendations into	Achieve high quality patient care and practice
--------------------------------------	---------------------------------	--

prevention	practice	
Red Book  SNAP  National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people	Green Book  Other tools here: e-learning modules and activities; <a href="#">QI&amp;CPD program handbook</a> ; <a href="#">CISS</a> ; other e-health guides and digital business kits	The Standards

## Who is the Green Book for?

The Green Book is a practical resource for strengthening preventive activities in general practice. As an interdisciplinary approach to prevention is typically more likely to be successful<sup>4</sup>, the Green Book is a central resource for your whole practice and for those working with your practice, including:

- members of the practice team involved in or interested in quality improvement
- members of practice teams responsible for implementing evidence-base guidelines
- practice management decision-makers
- groups working with general practices to improve Australian healthcare such as [Primary Health Networks](#) (PHNs) and peak bodies (eg [Consumers Health Forum](#), [Diabetes Australia](#), [Cancer Australia](#), [Heart Foundation](#)).

It may also be useful for patients and carers.

## Organisation of the Green Book

Throughout the Green Book, you will find symbols that signal the type of information presented.

*<<To designers: please provide appropriate icons/symbols for the following>>*

Where you see this symbol...	The information relates to...
------------------------------	-------------------------------

 <p>[general practice icon]</p>	<p>General practice – a whole of practice approach</p>
 <p>[organisation icon]</p>	<p>External organisations (PHN, peak bodies)</p>
 <p>[practice management icon]</p>	<p>A practice management point</p>
 <p>[clinical point icon]</p>	<p>A clinical point</p>
 <p>[idea icon]</p>	<p>An idea from one of the authors</p>



[case study icon]

A case study from one of our contributors



[story icon]

An experience from general practice

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# 1. Understanding the basics

The Green Book brings together two main themes: **prevention** and **implementation**. Both of these sit within **quality improvement** and are inherently associated with **behaviour change**.

## 1.1 About prevention

### What is prevention?

While many GPs and practice nurses (PNs) discuss lifestyle with their patients, this is only the tip of preventive care.<sup>1</sup> **Prevention** in the healthcare context focuses on the health of individuals, communities and defined populations. It includes all measures that protect, promote, and maintain health and wellbeing and that prevent disease, disability and death.<sup>5-7</sup>



Prevention in practice requires us to extend our patient centred approach from individuals and families to the whole practice population.

<insert  
Charlotte  
image>



'I've always been taught to do acute episodic care in response to patient demand. But I have realised that to really look after my patients, I have to do chronic disease management and prevention, and that I need to do it in a proactive and planned way.'

*Dr Charlotte Hespe*

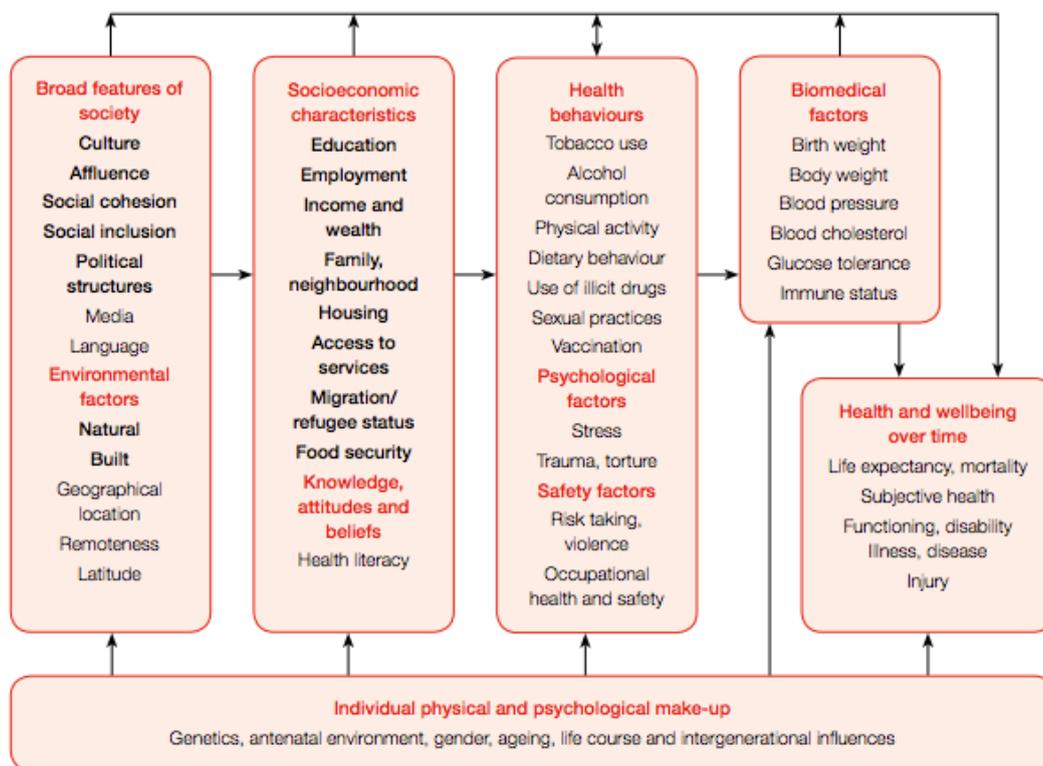
### Prevention, people and practice population

Prevention is relevant across a person's **whole lifespan**; from pre-conception, pregnancy, childhood and adolescence through to middle age and older. The [Red Book](#) shows the preventive activities that apply across age groups.

There are many determinants of health and illness (*figure 2*). A preventive approach recognises

these and how they interact. It also reaches beyond individuals who seek out or are most receptive to preventive care to encompass the whole practice population.

Figure 2. The determinants of health and illness



<<To designers: please recreate this in the Green Book colours. This comes from the Red Book>>

Note: Bold highlights selected social determinants of health

Reproduced with permission from Australian Institute of Health and Welfare. Australia's health 2014. Canberra: AIHW, 2014.

## Prevention and disease

Just as prevention is relevant across a person's lifespan, it also applies to the natural history of disease (*figure 3*). Preventive measures can be applied at any stage along the natural history of a disease to prevent progression. The stages may be divided into the following:<sup>8</sup>

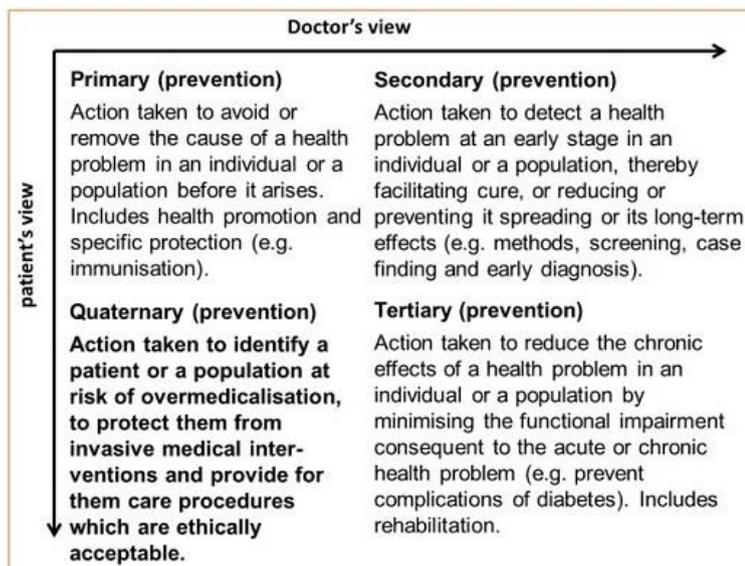
- **Primordial** – consists of actions to minimise future hazards and address broad determinants of health (eg environmental, economic, social, educational, behavioural and cultural factors) rather than preventing personal exposure to risk factors, which is the goal of primary prevention
- **Primary** – seeks to prevent the onset of disease via risk reduction (eg immunisation, smoking cessation)

- **Secondary** – the early detection and prompt intervention to correct departures from good health or to treat the early signs of disease (eg cervical screening, mammography, blood pressure monitoring and blood cholesterol checking)
- **Tertiary** – reducing impairments and disabilities, minimising suffering caused by existing departures from good health or illness, and promoting patients' adjustment to chronic or irremediable conditions (eg prevention of complications).

You may also come across **quaternary** prevention, which is action taken to identify patients at risk of over-medicalisation, to protect them from new medical interventions and to suggest ethically acceptable ones.<sup>9,10</sup>

In reality, the stages blur.

Figure 3. Primary, secondary, tertiary and quaternary prevention



## Prevention and coordinated healthcare

Effective prevention usually requires **teamwork within the practice** as well as links **with other services**.

*'That we are never alone in carrying out a course of action requires but a few examples.'* Bruno Latour<sup>11</sup>

Prevention and health promotion are among the core responsibilities of GPs and practice nurses (PNs).<sup>6</sup> Through a range of strategies, GPs and PNs have the potential to influence patients to:

- understand the factors that influence health across a lifespan
- change their lifestyle (eg nutrition, physical activity, alcohol intake and smoking)
- undergo risk assessments (eg [cardiovascular disease](#), [type 2 diabetes](#), [fractures](#))
- participate in screening (eg [breast cancer](#), [bowel cancer](#), mental health)
- self-manage chronic conditions
- enrol in interventions/programs to prevent functional decline
- increase health vigilance.

GPs and PNs may also pursue prevention through health advocacy or lobbying within their discipline.

The preventive approach incorporates opportunistic and planned interventions from the perspective of the whole practice as well as for the individual practitioner and patient. It may include auditing medical records to identify those who are missing out, using special strategies to support patients with low literacy, and being proactive in following up patients who are most at risk.<sup>12</sup> External help (eg from PHNs) is often needed for practices to achieve good outcomes.



### Primary Health Network case study

A couple purchased a retiring GP's practice. They were new to the business and sought assistance from us, their local PHN.



We assisted them in recruiting a practice nurse (PN) by advertising on the PHN website and in monthly newsletters. We provided in-practice training for the PN who had come from a hospital setting – educating her on the cycles of care, using recall reminder systems and maintaining practice protocols such as cold-chain.

We provided software installation and training to the practice, which enabled them to audit their aspects of their practice. With this software, we provided the practice with a report and supported them over the next 12 months in improving their recording of risk factors, patient data entry, and identifying patients with missed diagnoses and billing opportunities. Additionally, this process served as a continuing professional development (CPD) opportunity in quality improvement for the GPs, who now often frequent our free CPD nights.

The business owners felt this help was invaluable.

*Alessandro Luongo, Clinical QI Coordinator, South Western Sydney Primary Health Network (PHN)*

Measures to improve access to preventive healthcare by Aboriginal and Torres Strait Islander peoples are especially important given their higher burden of disease and the barriers that exist to preventive healthcare. More information is available in the [National guide to preventive health assessment for Aboriginal and Torres Strait Islander people](#).



### **Collaboratives case study**

Health and Wellbeing North Ward is a multi-skilled and integrated medical practice offering primary care alongside other allied health providers. As a collective, they focus on the proactive identification and treatment of risk factors before disease appears and patient centred management of existing conditions.



They have a large Aboriginal and Torres Strait Islander community in the area. To provide them holistic and culturally aware care, they employed a specialist Indigenous Healthcare worker. Having a dedicated staff member for this community allowed the practice to:

- run regular day clinics to address chronic condition management
- offer consistent appointments for the local Aboriginal and Torres Strait Islander population and the local school which educates Indigenous children from the broader area
- provide home visits to those with access and/or language barriers
- offer Medicare rebatable health care plans for chronic and mental health conditions through their multidisciplinary set-up.

Patients responded very positively toward the extra care. Patient feedback surveys showed a 95% positive reaction and practice numbers grew by 38% over 2 years. The care fostered a sense of loyalty and community among patients, with follow-up appointments kept and measurable improvements in health outcomes.



### **Teamwork within an Aboriginal and Torres Strait Islander health service – health checks**

Patients aged 18 and over are identified and screened for cardiovascular risk, chronic diseases and smoking via the Medicare Health Assessment for Aboriginal and Torres Strait Islander People (MBS item 715).



Suitable clients are invited to participate in after-hours exercise group sessions with a personal trainer, twice a week for 2 hours. Sessions include advice and education on diet and healthy eating with the aim to decrease BMI, increase health literacy and provide better management of chronic disease. Smoking cessation support is also offered and promoted.

*Fiona Thompson, Clinical Services Manager, Pangula Mannamurna Aboriginal Corporation*

## 1.2 About implementation

### What is implementation?

Implementation in the healthcare context is the use of strategies to adopt and integrate evidence-based health interventions and to change practice patterns within specific settings.<sup>13</sup> Note 'strategies', *plural*. There is no one single (and simple) way of putting evidence-based preventive activities into practice.<sup>14</sup>



*Evidenced based medicine should be complemented by evidence based implementation.*

Grol (1997) BMJ<sup>15</sup>

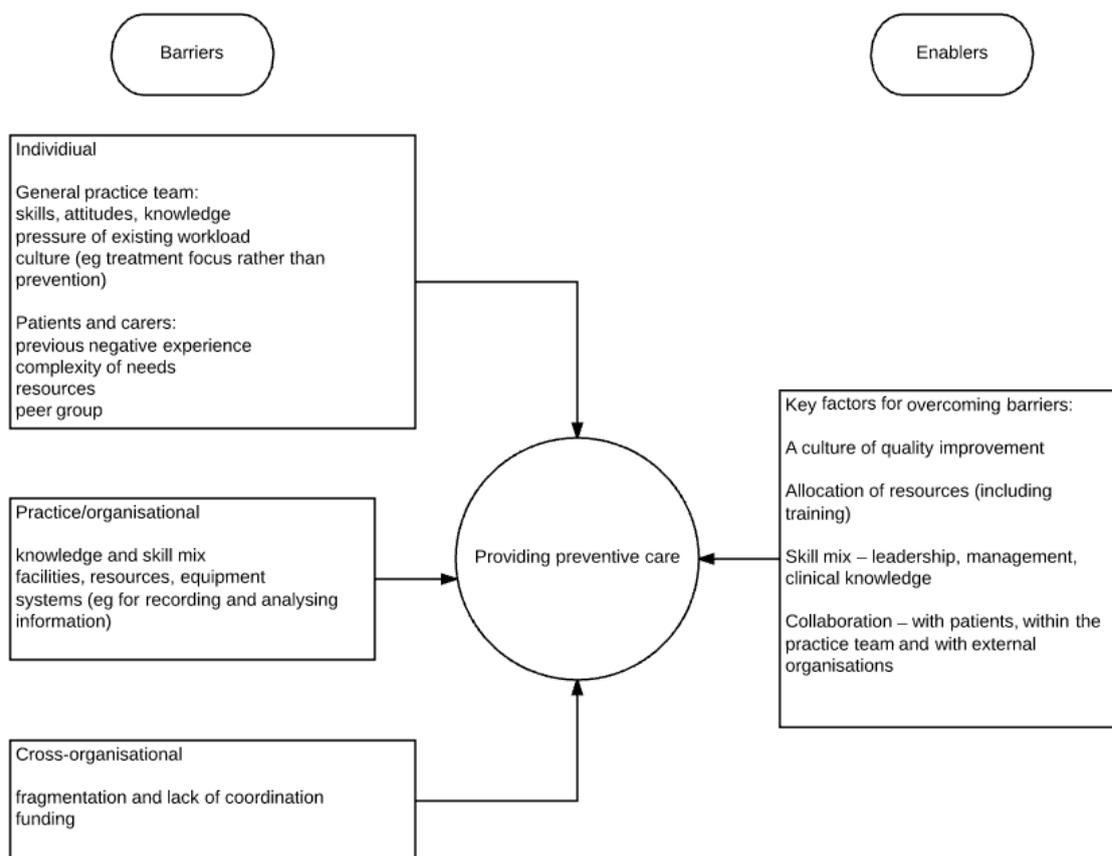
## What factors affect implementation?

Implementation science helps us identify and understand the determinants, processes and outcomes of implementation.<sup>16,17</sup> There are many individual and organisational factors that influence implementation (*figure 4*).

While research has yet to provide many absolute recommendations for implementation strategies that are proven to be effective in all settings, we do know that improving implementation is highly dependent on **changing the behaviour** of health professionals, managers and others working within and with the healthcare system.<sup>18,19</sup> This typically involves changing organisational behaviour rather than (or as well as) individual behaviour.

Figure 4. Barriers and enablers of implementation

<<To designers: please recreate this diagram>>



<p>&lt;insert Danielle image&gt;</p> 	<p>The introduction of financial incentives for childhood vaccinations provided motivation for individual and organisational change. By rewarding GPs per child vaccination and the practice for meeting population targets, significant increases in completed childhood immunisation schedules were achieved.</p> <p><i>Professor Danielle Mazza</i></p>
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<p>&lt;insert John image&gt;</p> 	<p>Getting the best outcome means that we need to pay attention to all steps in the process. Consider a relay race – winning is more likely if every sector is maximised. Frequently in such ‘races’, the strongest is allocated as the anchor leg to catch up.</p> <p>In health care, there is often much less attention paid to the final leg (implementation). By focussing as much attention on the final leg as the earlier strategies, we can dramatically improve outcomes (ie high coverage can improve outcomes even when the intervention efficacy may be modest).</p> <p><i>Associate Professor John Litt</i></p>
---	--

## Implementation of prevention in context

Interventions may be delivered at different levels: during face to face patient consultation, at a practice patient population level or targeting the community where a practice is located (*figure 5*).

Figure 5. Levels where interventions may be delivered

<<insert Mark's figure>>

<insert Danielle  
image>



Cervical cancer screening is primarily undertaken in general practice in Australia. Yet it is supported by a large number of community based organisations like the Cancer Councils and other healthcare services like community health centres. These organisations promote cervical cancer screening in the broader community, raising awareness and increasing health literacy.

In addition, GPs receive financial incentives through the SIP program to undertake cervical cancer screening in those women who have not had a Pap test in 4 or more years. These kinds of incentives encourage screening. This is an illustration of targeting screening at different levels, community, practice and patient.

## 1.3 Bringing prevention and implementation together

### A quality improvement approach

Implementing preventive activities in your practice is an aspect of a broader quality improvement (QI) approach.

Implementing a QI approach to prevention usually involves several elements:

- a broadening of a focus from just thinking of care of the individual to actively reflecting on the larger population<sup>20,21</sup>
- planning for change<sup>22</sup>
- promoting a culture of quality improvement in the practice team<sup>23-25</sup>
- a collaborative team approach to prevention<sup>26-32</sup>
- a realistic framework for implementation<sup>33</sup>
- being outcomes-focused<sup>25,34</sup>
- acknowledging the context and complexity of general practice<sup>35-44</sup>
- choosing implementation strategies that are evidence-based, efficient and 'do-able' in general practice.<sup>45,46</sup>



Preventive care is part of a broader QI approach

## What needs improving?

One of the early steps in your QI approach to preventive care is identifying a target or a 'problem to be solved'.

This may be a population/group (eg smokers, risky drinkers) or an intervention (eg immunisation, screening). Tools that can help you identify a target include:

- practice guidelines (eg the [Red Book](#), [SNAP guide](#))
- practice data (eg clinical audits, recalls and reminders)
- local need (eg as identified by PHNs)
- national health programs and initiatives
- quality indicators (eg [RACGP Standards](#)).

*<insert Danielle  
image>*



Sometimes a sentinel event can be a trigger for quality improvement.

For example, in late 2016, a thunderstorm asthma event occurred in Victoria resulting in many thousands of people experiencing breathing difficulties, widespread health service utilisation and even deaths. This triggered many practices to implement preventive activities focused on ensuring their asthmatic patients were receiving the best possible care.

*Professor Danielle Mazza*

## 2. Whole of practice prevention

While few would disagree that prevention is an important part of high quality comprehensive healthcare, much of the healthcare system (including general practice) is focused on reactive care. Although we can intuitively see how prevention can reduce the need for reactive treatment, it can be difficult to change focus when the demand for treatment is so much 'louder', more urgent and resource hungry compared to preventive care.

<i>&lt;insert John image&gt;</i>	<p>When you're up to your neck in alligators it is hard to think about draining the swamp.</p> <p><i>Associate Professor John Litt</i></p>
----------------------------------	--

In this section of the Green Book, we will look at how we can broaden our focus to incorporate prevention, without taking away from the quality of reactive care. The key elements of this shift are:

- having a comprehensive understanding of your practice population (so that you can target preventive activities and resources to their needs)
- involving all members of the practice team in preventive care (sharing the work load and responsibility)
- collaborating with external groups and support services.

Effective prevention requires partnership and collaboration on multiple levels:

- between the patient and GP
- the patient and practice team
- the GP and practice team
- between the practice team and PHNs and/or the broader community and the health system.

The most cited enablers of preventive care are: availability of a practice nurse<sup>47,48</sup> and collaboration with other disciplines.<sup>1</sup>

<insert Mark  
image>



If you want to improve the quality of prevention in your practice, your whole practice needs to be involved.

Think about the roles of the individual members of the practice team and what contribution they can make towards preventive care.

*Professor Mark Harris*



### **General practice case study**

A practice identified overweight and obesity as a problem they wanted to tackle (67% of patients over 40 were overweight and obese).



But the GPs felt frustrated in supporting patients to lose weight – their patients didn't seem to take on or adhere to preventive advice. Patient health literacy was identified as a problem, the GPs agreed that many patients don't really understand how much they should be eating or how to go about exercising.

At a staff meeting, each staff member contributed to the discussion regarding the issues faced. The practice nurse was interested in being more involved in weight management but didn't have sufficient time to take patients through a whole structured program involving multiple sessions. So the following strategy was devised: As patients were identified by the GPs, they were given an appointment with the practice nurse for a health check, which involved some brief education and goal setting. The nurse then assisted the patients to register for free telephone weight management coaching provided by the State Health Department. The nurse then followed patients up after a few weeks to determine if they found it helpful and what progress they were making.

<insert attribution>

## **2.1 Your practice population**

Putting prevention into practice requires a shift from usual practice of each GP managing the needs of each patient as they come, to taking a step back and looking at your practice population and what they need for good health.

## Who are your patients?

Thinking about your practice population, do you know how many patients you are currently responsible for? This isn't simply the number of patients registered on your database. Think of your active patients being the ones who currently consider your practice as their [medical home](#).

How well do you know these active patients? Can you easily answer the following questions?

Do you know the age distribution of your active patients?

What are the needs of your patient groups and what community resources are available to assist them to meet these needs? What clinical areas of need can you influence?

What ethnic, cultural and language groups do you provide regular care to?

GPs will often attract patients based on language and culture. However, this is not always recognised and supported by the practice. For example, a GP who can consult in Greek may attract Greek patients, but the practice does not have appropriate written materials available. Does your practice have supportive materials for your culturally and linguistically diverse (CALD) populations?

What are the preventive care needs and potential challenges for these groups? (eg Chinese populations tend to have low Pap test rates)

How do you address the determinants of health for these groups? (eg education levels, health literacy)

Do the communities these patients belong to have specific needs or challenges?

For example, do you provide care for refugees or communities affected by natural disasters (eg drought, floods, fires) or mass job losses?

Being able to answer these questions accurately relies on having the right information. Some of it may be available through the practice, but other information (eg the socio-economic status of your patients) might be more readily available through your PHN. Collecting and analysing that information requires teamwork.

## What are their health needs?

Now consider an area requiring focus in your practice. Using diabetes as an example, how easily can you answer these questions.

Does the practice have a register of all patients with diabetes?

Do you know how many have had an HbA1c in the last 12 months?

Do you know who are the less frequent attenders?

For those with a known HbA1c which is high, do you know anything more about this group (eg visit frequency, other risk factors like obesity and smoking).

Again, you need have the information available to answer these questions. Most practice management software systems have the capacity to provide the information – as long as it's recorded correctly.

<insert Danielle  
image>



When delivering a workshop on the early detection of lung cancer some years ago I came across a GP working in a rural country town in SA. The town had a mine, which employed a large number of the population. This GP was very aware of the high rates of smoking in the local community and so approached the mine to work with him in trying to reduce rates of smoking in the workers. They developed strategies to support workers to restrict their smoking while at work and support them to quit.

I remember this GP because he epitomises for me someone who was able to take a population view of the risk factors in his practice population.

*Professor Danielle Mazza*



### SA PHN Immunisation Hub

In order to better understand regional levels of immunisation, increase childhood immunisation rates to 95% and decrease the number of hospital presentations/admissions due to vaccine preventable diseases, the Adelaide and Country SA PHNs have jointly implemented the SA PHN Immunisation Hub.

The Hub is a multi-faceted approach to: determine low coverage areas through careful examination of Australian Immunisation Register (AIR) data; bridge gaps in immunisation service provision; support the skill base of immunisation providers; and promote the need for a well-immunised community.

The Hub provides education, mentoring and networking for general practice and other service providers, and engagement, advocacy and resources for the community. The PHNs found this a valuable opportunity to connect.

This case study demonstrates how PHNs can assist individual practices to better understand their practice population.

## 2.2 Your practice team

Practice teams will vary in size and composition. It's not the size, but the diversity of the team that's most important in terms of improving quality.<sup>49</sup> Each member of your practice team will have some complementary expertise that can be harnessed to improve preventive care.

Bringing the team together requires a [common purpose, leadership and a culture of quality improvement](#) (QI).

### A culture of quality improvement

A culture of QI means that quality is prioritised. It is a continuous process integrated into the way the practice operates and where every member of staff is involved in the delivery, review and improvement of care.<sup>50</sup> It also infers receptiveness to change.<sup>51</sup>

A key element of a QI approach is a patient centred care. Patient centred care is recognised as a

dimension of high quality health care in its own right and is identified in the seminal Institute of Medicine report, 'Crossing the Quality Chasm', as one of the six quality aims for improving care.<sup>52</sup>

Although an overall culture of QI is vital, a total overhaul of practice workflow is rarely necessary to improve preventive healthcare.

<p>&lt;insert Cory image&gt;</p> 	<p>When seeding a culture of QI in our practice, we found that identifying change champions within the practice was key.</p> <p><i>Dr Cory Lei</i></p>
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<p>&lt;insert Charlotte image&gt;</p> 	<p>We recognised that we had to have a dedicated meeting time for QI, supported by monthly reports on data and a dedicated staff member to do and follow up the actions.</p> <p><i>Dr Charlotte Hesper</i></p>
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## Team roles and capabilities

Every QI team focusing on prevention should include at least one member who can provide the following:

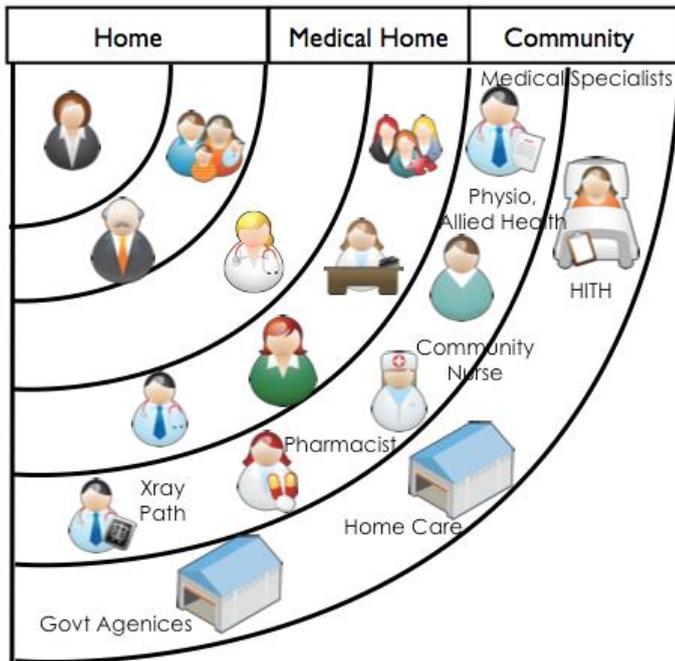
- **change champion(s)** – this person or people provides the catalyst for the consideration and adoption of change within the practice.
- **clinical leadership** – this person needs to provide solutions to the preventive care needs of your patients and understand how changes will affect broader clinical care and impact on other parts of the practice<sup>49</sup>
- **technical expertise** – your team may need several forms of technical expertise such as QI processes, health information technology systems needed to support the proposed change (eg audits), and specifics of the area of care affected by preventive activities<sup>49</sup>

- **day-to-day leadership** – this person is the lead for the QI team and ensures completion of the team’s tasks, such as data collection, analysis, and change implementation. This person must work well and closely with the other members of the team and understand the full impact of the team’s activities on other parts of the organisation as well as the area they are targeting<sup>49</sup>
- **patient care management** – these team members **work closely with patients and their families**, they assess patients’ care needs; develop, reinforce and monitor care plans; provide education and encourage self-management; communicate information across clinicians and settings; connect patients to community resources and social service<sup>51</sup>
- **practice facilitation** – this team member could either be internal or external to the practice team and **works with practice staff** to help organise, prioritise, and sequence QI activities; train practice staff to understand and use data effectively (to identify need and evaluate interventions); redesign workflows and processes so staff can better serve patients.<sup>51,53</sup> Although this individual does not usually participate on a daily basis with the team, this member can assist the team in obtaining resources and overcoming barriers encountered when implementing improvements.<sup>16,18</sup>

<p><i>&lt;insert Mark image&gt;</i></p> 	<p>A change champion may not be one of the usual suspects (such as the principle GP). It may be the practice nurse, or practice manager who has some sort of vision to take the rest of the practice with them.</p> <p><i>Professor Mark Harris</i></p>
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There are people outside of the practice that need to be considered within the team.

Figure 6. The quality improvement team



Source: [The Medical Home](#)

## 2.3 Team collaboration

When bringing together a team you need to consider the nature and extent of collaboration necessary. Factors important in the development of [collaboration](#) include: <sup>26,32,43,54-56</sup>

- sharing of vision, goal setting, planning and protected time
- clarification of roles, responsibilities and tasks
- sufficient support and resources
- regular and open communication
- adequate time to develop relationships, working arrangements and trust
- adequate commitment to the process
- recognition and acceptance of separate and combined areas of activity
- familiarity and acknowledgment of expertise
- local advocates and champions
- decision making, problem solving and goal setting
- opportunities for cooperation and coordination.

<insert Mark image>



While all of the points above are important, I find the following are the most important:

- Understand and respect the roles and capabilities of all members of the team (including non-clinical)
- Identify common goals and understanding – what makes sense to everyone
- Foster open communication where it is OK for everyone to have a say
- Reflect on how the team is actually working – seeking comment from all the team members (did everyone feel able to contribute, be heard)

Protected time is important, but it doesn't have to be extensive. Some of the best teamwork can come from brief 10–15 minute brief informal meetings at the beginning and end of a clinical session.

*Professor Mark Harris*

All members of the team should work together to maximise the ability of patients to lead their own healthcare.<sup>57</sup>

Depending on the complexity of your prevention QI project and the skills of your team, you may have the capacity to fill these roles from within your practice. In some practices wanting to make small/simple improvements, a single person may drive the whole project. However, many, if not most, practices will need to bring in some help from external sources for larger projects, particularly for technical expertise and [practice facilitation](#). Key resources for expertise include your [Primary Health Network](#) or [Local Health District](#).<sup>57</sup>



### **Working together**

Background:

A North West Queensland practice team and broad range of allied health providers and specialists are brokered through a subsidised scheme on



a monthly roster. They have a total patient load 5400 with 2900 active patients.

The group provided high quality comprehensive primary healthcare with a key focus on Aboriginal and Torres Strait Islander patients that present with chronic comorbidities.

Issue:

Patient information systems were incomplete and did not accurately reflect the active client load. Follow up items of care were undertaken in an ad hoc manner without due diligence to providing comprehensive primary healthcare against cycles of care.

Goals:

To ensure patients have access to the cycles of care against particular comorbidities such as type 2 diabetes or cardiovascular disease for example.

To maximise capacity in both the administrative and clinical team to incorporate principles of improvement, namely ensuring data quality and adequacy of patient record information.

Process:

The first step was to ensure that the data contained in the patient records was appropriately recorded (clean), and that demographic information was current and completed. Administrative and clinical staff were trained in the use of Topbar, a data cleansing tool, and they were tasked with ensuring data was clean and complete. This activity identified missing demographic information and prompted all clinical staff to complete clinical information for each patient being seen for the day.

Once the clinic had access to quality data, systematic recall processes were put in place. At weekly meetings, there was a focus on the follow up care items suggested for chronic comorbidities. Ongoing reviews of increases in episodes of care were also discussed and priorities were set for the following week.

Outcomes:

- Completed demographic information now ensures record accuracy.
- Increased identification of patients with COPD, risk of CV disease and type two diabetes.
- Smoking status is recorded on 78% of patient records for patients 18 of age and older.
- Follow up care has increased by 45% for type 2 diabetes cycles of care.
- Review of recall systems review has resulted in an increase of 200% in recalls.
- Communication and role autonomy across the administrative and clinical team has been strengthened.
- Continuous quality improvement has been added to the weekly staff agenda.
- The local hyperosmotic hyperglycaemic syndrome (HHS) reports hospital/emergency presentations have reduced.
- The Great North West Aboriginal Community Controlled Health Service has positioned itself as an *employee of choice*.

Conclusion:

The Great North West Aboriginal Community Controlled Health Service has access to patient information systems that reflect their current client load and the team is committed to ongoing continuous quality improvement.

The team are involving all staff from when the patient walks through the doors to when they leave, maximising care and ensuring role autonomy with staff. All position descriptions have been reviewed to include quality improvement. Performance appraisals set and measure achievements against measurable indicators. The Great North West Aboriginal Community Controlled Health Service has included the use of the data tools in induction and orientation processes. The service has established and embedded principles to ensure ongoing improvement of the data systems that support patient care.

Consultation draft

# 3. Approaches to implementation

When you decide to improve preventive care in your practice, having a framework to help you plan and implement strategies and interventions can be beneficial. There are several frameworks (and theories) that are relevant to preventive care implementation in general practice and it can be challenging to select the 'right' one.<sup>58</sup> [link to other PRACTICE section]

It's important to note that:

- there are many [strategies and interventions](#) that have been shown to be effective when implemented individually or collectively<sup>31,32,38,39,41,42,54,59-106</sup>
- there is no one framework that is more effective for implementing strategies and interventions than the others across all situations<sup>39,56,76,78,107-113</sup>
- many of the theories and frameworks help us understand behaviours and identify techniques to change both [patient](#) and [practice](#) behaviours<sup>17</sup>

## 3.1 Using an implementation framework to help you put prevention into practice

Any implementation frameworks or associated strategies you adopt should be realistic, feasible, transparent and congruent with the goals and philosophy of the practice and practice team.<sup>55,114-117</sup>

[Table 1](#) compares some of the relevant theories and frameworks. When looking at these, consider whether you will be able to sustainably implement them into normal practice routines, and how you might go about it so it becomes part of the practice culture.

<<To designers: please redesign this table so all information can be seen on one page, perhaps this can be a collapsible list??>>

Table 1. Theories and frameworks		
	What is it?	Who does it?
Related to patient or practitioner behaviour change		

<p><a href="#">5As</a><sup>118-121</sup></p>	<p>The 5As (ask, assess, advise, agree and assist) is an intervention framework that helps raise a topic with a patient and support change</p> <p>See <a href="#">Appendix A1</a></p>	<p>GPs, nurses, allied health professionals (eg diabetes educators, Quit educators)</p>
<p><a href="#">Motivational interviewing</a><sup>77,122-129</sup></p>	<p>Motivational interviewing is a counselling approach that helps resolve ambivalence and increases motivation to change</p> <p>See <a href="#">Appendix A2</a></p>	<p>GPs, practice nurses, allied health professionals, as well as family members and carers</p>
<p><a href="#">TBP</a><sup>130-134</sup></p>	<p>The TPB (theory of planned behaviour) suggests that human action is guided by: behavioural beliefs (about likely consequences), normative beliefs (about expectations of others) and control beliefs (perceived behavioural control)</p>	<p>Members of your QI team</p>
<p><a href="#">COM-B</a><sup>135,136</sup></p>	<p>COM-B (capability, opportunity, motivation and behaviour) is a simple model to understand your team's behaviour and identify barriers to implementation</p> <p>See <a href="#">Appendix B1</a></p>	<p>Members of your QI team (eg practice facilitator)</p>
<p>Implementation and QI frameworks</p>		
<p><a href="#">DMAIC</a><sup>35,137-139</sup></p>	<p>DMAIC (define, measure, analyse, improve, control) is a data driven</p>	<p>Members of your QI team</p>

	<p>improvement framework used in various sectors, not just healthcare</p> <p>See <a href="#">Appendix C3</a></p>	
<a href="#">KTA</a> <sup>4,140,141</sup>	<p>The KTA (knowledge-to-action) framework is used to implement best practice guidelines. It comprises a knowledge creation process and an action cycle</p> <p>See <a href="#">Appendix C2</a></p>	Members of your QI team
<a href="#">NPT</a> <sup>78,116,142-146</sup>	<p>NPT (normalization process theory) is an ‘action’ theory – it is concerned with what people do rather than attitudes or beliefs. It divides actions into four categories that represent different kinds of work that people do around implementing a new practice: coherence, cognitive participation, collective action and reflexive monitoring</p>	Members of your QI team
<a href="#">PDSA</a> <sup>35</sup>	<p>The PDSA (plan, do, study, act) is a cyclical framework for quality improvement</p> <p>See <a href="#">Appendix C1</a></p>	Members of your QI team
<a href="#">PRACTICE</a> <sup>147,148</sup>	<p>PRACTICE is a useful evidence-based framework to help with the implementation of a range of preventive activities</p>	Members of your QI team

	We're using this framework as a worked example in <a href="#">chapter 4</a>	
<b>RE-AIM</b> <sup>59,149-155</sup>	RE-AIM (reach, effectiveness, adoption, implementation, maintenance) is used to translate research into practice and help plan interventions/programs for real world settings	Members of your QI team

### 3.2 An overview of the PRACTICE framework

In Chapter 4, we use the PRACTICE framework as an example. We've chosen it because it has the advantage of looking across a range of other frameworks and incorporating elements of those where there is good evidence.<sup>38,147,148,156,157</sup> Before we go through PRACTICE in detail, here is an overview of its components.

Table 2. PRACTICE		
Components		Issue
<b>P</b>	Principles	What underpins the process?
<b>R</b>	Receptivity	What's in it for our patients and our practice?
<b>A</b>	Ability and capacity	Can we do it?
<b>C</b>	Coordination	Who will organise it?
<b>T</b>	Targeted	Who needs it?
<b>I</b>	Iterative cycles	How can we ensure that it happens?

<b>C</b>	Collaboration	Who can help us?
<b>E</b>	Effectiveness and efficiency	What works to put it in to practice?  How can we make it a part of the routine?

Source: Litt J, Weingarten M. Putting prevention into practice: how can you do it ethically, effectively and efficiently. Swiss Primary Care. 2010;10(14):266-7.<sup>147</sup>

Consultation draft

## 4. Putting prevention into practice

In this chapter, we will look at the process of using a framework for selecting, planning and implementing preventive activities. We're using PRACTICE as an example of an implementation framework.

<p>&lt;insert Cory image&gt;</p> 	<p>Before starting your prevention activity, it is useful to do some planning. Draw a plan outlining how you will address each element of PRACTICE and seek the feedback of your team.</p> <p><i>Dr Cory Lei</i></p>
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<<To designers: Please create a clear distinction for each of the letters of PRACTICE eg a page edge marker>>

### 4.1 Principles

When planning preventive interventions, start by collaborating with your practice team to establish a set of principles that will guide your team through the improvement process. We have looked at the general principles of putting prevention into practice in chapters 1–3. To recap, they are:

- [broadening our focus from the individual to the group or population](#)
- [having a practice culture that values and promotes quality improvement](#) (and is open to the change needed to achieve it)
- [working collaboratively on all levels](#) (patient–practice team; within the practice team; practice team–other supportive organisations)
- [having a realistic plan](#)
- [using implementation strategies with good evidence of effectiveness](#) (these are detailed in this chapter).

<p>&lt;insert Charlotte image&gt;</p>	<p>This is a great opportunity to do a proper analysis and develop a plan:</p> <ul style="list-style-type: none"><li>• Look at your practice population – what's the overall picture?</li><li>• In terms of what we do, where are the gaps?</li></ul>
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- What are our priorities?
- Instead of assuming that you do some things well, look at the data and work out ways to improve

*Dr Charlotte Hespe*

## Selecting the area of prevention to improve

To work out what needs to change, you need to analyse the gap between current practice and evidence-based best practice. This gap analysis will also provide you with a way of measuring progress.

It is important to be clear about the behaviours that need to be changed, any relevant contextual changes that also need to be made, and the level at which the intervention will be delivered (individual, whole of practice or practice population, or community).



### **Working together for better health outcomes for our patients**

Quality data is in everyone's best interest. There is no better way to facilitate the active management of a practice population, particularly for those at high-risk. We have a whole-of-practice, proactive and continuous approach to data quality. Our clinical team values the practice teams quality improvement efforts as it helps them manage their patients in a more optimal way.

First, we ensure that the information collected from patients is relevant, complete and recorded correctly. We then identify gaps in our data and have strategies to remedy them. Throughout this process, we communicate our goals and track our progress with the team.

An example of this is our diabetes program, which stemmed from a diabetic audit – we now have 65% of our patients with a HbA1c <7% which is an excellent result. These wins remind us that the numbers are not 'just data', these are our patients – our community – and we are working together for better health.

## 4.2 Receptivity (and engagement)

Change is often more effective and efficient if a [whole of practice approach](#) is adopted. This means addressing receptivity to change and using strategies that promote engagement on all levels. This area is often overlooked.

Questions to ask include, 'Why consider changing?' and 'What's in it for our patients and our practice?' It's also important to consider:

- how receptive and engaged your practice team will be to implementing new prevention activities
- what preventive activities your practice population is likely to be receptive to.

Taking the time to think about how you can address these within your practice can improve your chance of success.

<insert Mark  
Image>



When considering preventive activities relating to overweight and obesity, there may be resistance because people feel they are being stigmatised. As a practice, we need to recognise this and address it. For example, using the word 'weight' rather than obesity.

*Professor Mark Harris*



### **General practice wellness and weight story**

Stirling Central Health Clinic are facilitating 'Wellness and Weight' groups for working adults 40–49 years with a body mass index (BMI) of  $>25 \text{ kg/m}^2$ . Groups of approximately 10 participants are run over weeks and held after hours. The focus of the group is encouraging and enabling participants to identify and increase positive health activities rather than focusing solely on weight loss.



Education is presented from a weight-inclusive perspective using positive language and includes presentations on mindful eating, positive body image, stress reduction, enjoyable activity versus 'exercise' and nutrition. Presenters include a clinical psychologist and dietician with a special interest in the management of obesity.

Participants develop and set SMART (Specific, Measurable, Assignable, Realistic, Time Related) program goals in conjunction with the practice nurse and outcomes are measured at 3, 6, and 12 months. Measurements taken include BMI, blood pressure (BP), and bloods as well as measurements of happiness and DASS scores. Participants are also asked to identify health positive activities they would like to try and where possible one-off 'try before you buy' sessions are arranged in addition to the 6 sessions. The activities identified include Pilates, a healthy cooking class and a screening of the documentary 'Embrace'.

One of the most valuable outcomes has been the social support the participants find within the group setting which better enables them to continue their health positive journey out of the community at the conclusion of the groups.

*Sally Jarrett, Practice Manager, Stirling Central Health Clinic*

<insert John  
image>



Unless we understand the barriers that will occur, the process won't be successful. We need to listen to the concerns of our team *and* offer [explanations and solutions](#). For example, a practice wanted to engage in more in prevention, but felt they were lacking the staff to do so. Staff with the most appropriate expertise were identified and re-tasked.

*Associate Professor John Litt*

## What makes our team receptive?

GPs and practice team are more likely to be engaged in the delivery of preventive care if they believe that it is beneficial and that they can achieve it.<sup>114,115,158-160</sup> How you undertake the process

of delivering preventive care also affects engagement (see *table 3*).<sup>42,143,161-163</sup> Leadership is a key contributor to both engagement and capability for change. This can take a number of forms including: local champions, facilitators and opinion leaders.<sup>32,45,71,76,164-166</sup>

Table 3. Improving general practice engagement in preventive care delivery

Beliefs	Capacity	Process
<p>Members of the practice team are more likely to engage if they:</p> <ul style="list-style-type: none"> <li>believe that prevention is an important and worthwhile part of their role and congruent with professional and practice goals</li> <li>believe that they can deliver it effectively and/or efficiently</li> <li>can see the benefits and the process is worthwhile (for the GPs, patients, and wider community), or provides a relative advantage over existing approaches</li> <li>believe that prevention is feasible, can be tailored to the contextual setting and is sustainable in their practice</li> </ul>	<p>Practice team members are more likely to engage if they:</p> <ul style="list-style-type: none"> <li>have the relevant skills</li> <li>have the time and necessary resources</li> <li>have patients that are receptive to their efforts</li> </ul>	<p>Engagement is more likely if the process:</p> <ul style="list-style-type: none"> <li>is transparent (ie everyone is clear about what needs to be done)</li> <li>is respectful (eg of abilities, skills, workload)</li> <li>is congruent/consistent with the professional goals and the practice goals</li> <li>encourages mechanisms/strategies that help make the outcomes visible</li> <li>acknowledges the contributions of each team member'</li> </ul>

## Making success visible

An important motivator is seeing success. Lack of visibility of the outcomes makes implementation of many prevention activities more problematic. We can't know with certainty that our efforts have prevented the occurrence of an illness or disease in any individual. This is especially true for long-

term outcomes. For example, advice about smoking is provided in the expectation that the patient will be less likely to get lung cancer or heart disease. However, the patient may not feel any different (and may occasionally feel worse through giving up something they enjoy) and the team may never see how their efforts affected the patient's future.

A useful strategy is to select appropriate (observable or measurable) proxy measures of an outcome that may not be easy to measure (eg absolute cardiovascular risk as markers of [reduced] risk for vascular disease). The prevention equivalent is to monitor the uptake of prevention activities (eg immunisation coverage) or alternatively, the patient reported behaviour (eg smoking status, alcohol consumption). This helps to ensure that all involved can see that something is being achieved. Providing meaningful feedback will require measurement of performance.

<p><i>&lt;insert Cory image&gt;</i></p> 	<p>Change is incremental. To assist with engagement, it is often useful to have smaller targets along the way that you are working towards. One idea to make this visible and to keep everyone engaged is to make a wall chart in the staff area of your practice showing the progress you are making in your program.</p> <p><i>Dr Cory Lei</i></p>
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## 4.3 Ability (and capacity)

Determining the capability and capacity of the practice for change is an important early step.<sup>39,115,167</sup>

There is a range of resources that greatly assist the practice's capacity for change. These include a wide array of strengths, skills, resources and competencies such as:

- leadership and decision making
- culture
- communication and relationships
- management infrastructure
- information mastery (access to and use of information eg Clinical Information Systems [CIS] capabilities).

Each of these are discussed in more depth in subsequent sections.

## Assessing your practice's ability to change

What are our attitudes, beliefs and values about prevention activities and our patients' ability to change?

Positive practice team beliefs and values about preventive care are associated with improved performance.<sup>168-171</sup>

Do we have sufficient skills?

Necessary skills include:

- [motivational interviewing](#) techniques/skills<sup>172</sup>, interviewing strategies and effective behavioural strategies
- behavioural skills for brief intervention strategies<sup>169,173-175</sup>
- counselling skills.



Motivational interviewing underpins health coaching. In general practice, this is a really powerful approach. Many different programs and services that incorporate coaching use motivational interviewing



GPs and PNs find it challenging to assist patients to change their behaviour. They feel frustrated with their current approaches and often believe that alternative approaches, like motivational interviewing (MI) are either too difficult or time consuming.



In the GPs Assisting Smokers Program (GASP), GPs and PNs attended a 2 ½ hour workshop that provided more knowledge on effective MI strategies and opportunities to practise/hone their approaches with simulated patients using vignettes that reflected real world examples. Experienced facilitators were used to oversee the role plays and provide both feedback and demonstration of effective strategies.

One MI skill is the ability to elicit 'behaviour change' talk. These are the beliefs, needs and reasons that often underpin patient's motivation to change their

behaviour. One strategy is to ask about the patient's desires, ability, reasons and needs. Some possible questions include:

#### Desire

- How would you like for things to change?
- Tell me what you don't like about how things are now?
- What do you hope will be different?

#### Ability

- What do you think you would be able to change?
- Of the options you have considered, what seems most possible?

#### Reasons

- Why do you want to lose weight... stop smoking... be more physically active?
- How do you think your diet is affecting your health?

#### Need

- What about your behaviour causes you concern?
- What worries you about your behaviour?
- What concerns you?
- What can you imagine happening to you as a result of your behaviour?
- What do you think will happen if you don't make a change?

GP and PN perceived skills and confidence rose following the workshop as did their preparedness to use MI in their own settings.

## Do we have a supportive organisational infrastructure?

How can a practice as an organisation support preventive care? A systematised approach is needed and includes:<sup>176-184</sup>

- culture of QI

- practice policies that support preventive care
- clinical protocols and procedures that are modelled on existing guidelines
- a business plan that demonstrates viability and sustainability of the activity
- a range of delivery options (eg delegation to a practice nurse, multidisciplinary clinics eg asthma, multimorbidity, diabetes, groups, referral options eg Quit line counsellors, exercise physiologists)
- information management (IM), information technology (IT) systems and clinical information systems (CIS)
- patient education and shared decision making materials, waiting room resources
- screening and information gathering materials and strategies
- consultation materials
- provide recognition for the achievements of the practice team

Can enough time be set aside for the process?

Adequate time needs to be set aside for meetings, planning the various activities and bringing everyone up to speed on the process. It is helpful to quarantine dedicated time during the week where the practice team can work on prevention activities.

## 4.4 Coordination of people and processes

In planning and implementing prevention activities, a number of processes and activities will help to make it happen. One such process is good coordination. Coordination can be improved in the practice through:

- the presence or support of a [facilitator](#) (this might be provided by a PHN)<sup>185-187</sup>
- clarification of roles and responsibilities in prevention<sup>188</sup> (Are there clear job descriptions? Are the various roles and responsibilities delineated?)
- good communication, keeping all team members informed
- sufficient time set aside for planning and having as many team members as possible attend the practice meeting, and discussing delivery of the programs
- having a written plan that includes the goals and objectives and the proposed strategies so the process is both clear and explicit.<sup>189</sup>



### Putting prevention into practice

The Putting Prevention into Practice (PEP) suggested to practices to create a facilitator position in their practices to coordinate the range of activities to improve the delivery of cardiovascular screening and prevention.



One large practice investigated the business case to employ a new person for the role and having established that it would be worthwhile in their practice, recruited one of their staff with the necessary skills to the position. The facilitator convened a number of meetings to provide feedback on progress and solicit input on the various proposed approaches. GPs and PNs commented that it was much more efficient to have such a facilitator role to ensure that the process was both coordinated and more efficient.

*Anne Fritz, practice manager, Kingston Family Practice, Brighton SA*



### Responding to family abuse and violence – a whole of practice response

Practices can arrange for a whole of practice meeting for an hour to discuss a case study about family abuse and violence (FAV). It involves how FAV might present and be managed in the waiting room and by the GPs and/or Practice Nurses. It encourages the whole of practice to consider these issues and to support each other. Also, the need to find resources and places or referral and have all this in the practice database.



*Dr Libby Hindmarsh, co-author of the RACGP White Book*

## 4.5 Targeted to people and priorities

Targeting involves identifying the priority prevention areas and getting consensus from all participants, including the level of need for the prevention activities. It can also mean identifying the specific groups that you wish to address. For example, if you wish to improve immunisation coverage rates, it would be more efficient to focus on those who are not immunised rather than the entire group, unless the level of coverage is very low or is very variable. In the latter case, targeting

the entire group would be the better option.

The identification of prevention areas to tackle first is influenced by a range of factors such as burden of illness, frequency, ability of the GP to alter the outcome, feasibility, professional values and preferences.

It is helpful to obtain some form of 'objective' information about the extent or nature of the problem.

## Who needs the preventive activity?

Targeted groups can include those eligible for specific prevention activities, those at higher risk and those who express greater interest in making changes. Targeting at risk and priority populations is especially important. Prevention reduces health inequalities in disadvantaged groups and patients with chronic disease and/or 'at risk' behaviours. While an opportunistic approach to prevention targets individuals attending the practice, it rarely encompasses all patients eligible for a prevention activity.

Consider your community and whether or not your practice is adequately serving high risk groups. For example, if your local community has a high proportion of Indigenous patients, assess whether or not their health needs are being met by your practice.



### Secondary prevention of coronary artery disease

We instituted a project at the Fairfield GP unit to improve our care of patients who are known to have coronary artery disease (ie secondary prevention).



We focused on increasing the percentage of patients with established coronary artery disease who had a GP management plan completed in the previous 12 months. We chose this secondary outcome because we believed if a plan had been completed, then a number of issues such as smoking, hypertension, exercise and lipid control would have been addressed.

We undertake a monthly data extraction from our electronic medical records and produce a run chart of the percentage of patients with a GP management plan completed in the last 12 months. This data is then presented to the whole team at our regular monthly practice meeting.

We learned that we needed to improve our coding of patients with coronary artery disease so that we can identify who was or was not receiving good care.

We suspect we still haven't identified all our patients, given the known prevalence of coronary artery disease.

We found that recalling patients improved our figures. By making GP management plan completion rates part of the monthly meetings, we tried to make sure we keep working on this issue.

We would recommend to others to focus on a particular area for improvement and delegate a small team to work on it. An enthusiastic medical student helped us with the project. Use formal quality improvement processes such as the Langley and Nolan '[Model for Improvement](#)' and rapid improvement (PDSA) cycles.

*Dr Andrew Knight, Fairfield GP Unit*

## Setting a level of performance (What's our goal?)

Identifying a target goal provides something to aim for and also provides a benchmark to measure progress.

### Identifying and addressing barriers to implementation

It is also useful to identify the actual and potential barriers and difficulties that may be encountered when trying to improve performance.<sup>56,112,190-193</sup> For example, consider the health literacy of the target population, as this may be a significant barrier to patients engaging and taking up preventive activities and adhering to preventive advice. One simple strategy is to ask all the practice team about the potential (and actual) challenges that they are likely to face if the implementation strategy were to go ahead. At the same time, you could ask the practice team about possible ways of addressing these barriers and challenges.

Knowing how well the practice is performing together with an understanding of the barriers will assist in the development of appropriate strategies to overcome the difficulties.

<p><i>&lt;insert Charlotte image.</i></p> 	<p>When targeting preventing activities for our Aboriginal and Torres Strait Islander patient group, we identified that the biggest barrier was keeping appointments. The practice team agreed to change our approach to targeting patients opportunistically in the waiting room. This meant ensuring adequate capacity by nursing staff was available to do this without disturbing the flow of appointments.</p> <p><i>Dr Charlotte Hespe</i></p>
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Common challenges to effective implementation relate to the practice's capability in terms of whether or not practice members have:

- adequate knowledge
- positive attitudes/beliefs about prevention
- sufficient skills
- enough time, resources and personnel
- adequate organisational infrastructure.

### Taking a holistic (whole of practice) approach to implementation

Making changes at one level (eg the individual practitioner) without considering the implications or paying attention to other levels (eg organisational or system issues), is less likely to be associated with successful implementation.<sup>22,27,38,40,43,54,61,64,69,71,74-76,78,80,83-85,87,93,96,115,130,145,151,158,162,165,194-224</sup>

Implementation needs to be targeted to each of the following levels:

- individual (eg education, skills development, feedback, academic detailing, guidelines)
- group (eg team development, clinical audit, guidelines)
- organisation (eg organisation culture and development, continuous improvement)
- larger system (eg accreditation, payments systems/incentives, national bodies).

Interventions selected need to tailor the process to the context of both the practice and the patients.



### Improving influenza vaccination in patients 65 years and older

Rather than sending out reminder letters to patients when the flu vaccine becomes available it is better to flag the case notes of this group as more than 90% will come to the practice in the months prior to the flu season. Many are used to having the flu vaccine and this can be offered when they attend for other reasons. By May, the number in the target group who have not been vaccinated will be relatively small and likely comprise of various groups including infrequent attenders and those less (or not) interested in getting the flu vaccine. A tailored phone call or SMS from the practice nurse coupled with a strong GP recommendation will further increase coverage rates and save the practice the cost and time to send out a number of letters.

Offer pneumococcal vaccine or the zoster vaccine when giving the flu vaccine to save the patient an extra visit.

In summary, effective targeting is more likely if you have addressed these questions:<sup>225</sup>

- Whose health are you seeking to improve (target population/s)?
- What behaviour are you seeking to change (behavioural target)?
- What contextual factors need to be taken into account (what are the barriers to and opportunities for change and what are the strengths/potential of the people you are working with)?
- How will you know if you have succeeded in changing behaviour (what are your intended outcomes and outcome measures)?
- Which social factors may directly affect the behaviour, and can they be tackled?
- What assumptions have been made about the theoretical links between the intervention and outcome?

## 4.6 Iterative cycles

This component of the PRACTICE framework relates to the fact that putting prevention into practice is an iterative process, that is, measurement of the desired target is repeated to see whether improvement occurs.

Change is an incremental process. The only way of knowing whether an intervention has made a difference is to measure what happened after the intervention process.

## How do you know that you are making a difference?

Is there a cyclical planning process that measures progress and ensures necessary adaptation?

Measurement and evaluation is essential to determining that the implementation processes have been carried out, barriers to implementation identified, and implementation strategies have been effective. This process creates a learning cycle, hopefully leading to more effective strategies being developed and/or to discarding ineffective strategies. Improvement takes time and a commitment to reflection on progress.<sup>226</sup> An iterative approach will help both the GP and practice address the following questions.

Does the practice use a 'plan, do, study, act' process to review progress and develop strategies for improvement?

Assessment and feedback can be used to adjust an intervention or determine priority areas.

- Does the implementation process need to be changed?
- Is there a logical evidence based argument that an alternative implementation approach is preferable to the current one?
- Is there evidence that the GPs and the practice are not using a preferred alternative? Can you measure your progress in implementing changes? What is the problem with the current approach? What strategies are used to identify progress?

Measurement usually requires the identification of a denominator or all patients in an eligible or target group. Practice registers and patient surveys can assist the practice in identifying eligible patients to be included.

Is there an opportunity for reflection?

Deciding on a change to the delivery of preventive care requires both measurement of progress and a discussion of the findings. All those involved need to be informed of the progress in order to facilitate making further changes.<sup>227</sup>

<p><i>&lt;insert Cory image&gt;</i></p> 	<p>It's important to have a plan on how you are going to keep track and for your plans to be time bound. Keeping a reminder system that is visible to your practice team will be helpful. Consider having an interactive chart that has a timeline displayed in the staff room.</p>
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*<<To designers: please place a picture here of a Gantt chart in practice>>*

## 4.7 Collaborating together to make it work

The whole process is also more feasible if the practice collaborates with others who have relevant skills or programs. Collaboration with the patient is also an essential element and part of the patient centred approach. Knowledge of the local services, supports and agencies can facilitate collaboration. The local PHN should be aware of potential partners and supports.

Nevertheless, better collaboration is often challenging. Groups tend to promote an inwardly-focused identity and values. Similarly, group members develop strong in-group norms and behaviours that collectively create mental or physical boundaries. This makes it harder for external agents and persons to encourage more networked behaviours and collaboration <sup>228</sup>

Strategies to improve collaboration include:<sup>228</sup>

- more attempts to gain a better understanding of the nature of gaps (social or physical spaces, structural holes, disconnected ties) between teams and groups
- use of opinion leaders and facilitators to help span boundaries. Such boundary spanners are people who bridge two or more groups, enabling exchange of information or communication
- using strategies to stimulate more interactive relationships eg joint agendas, identifying common purpose, sharing a common space.



### **GPs Assisting Smokers Program (GASP)**

GPs were offered an opportunity to enhance their counselling skills in smoking cessation by attending a 2 ½ hour workshop on motivational interviewing and brief behaviour change. There were two workshop leaders: a GP and a QUIT line counsellor. Several strategies were used to enhance the recognition and referral to QUIT line counsellors:

- the GP and the QUIT line counsellor conjointly ran the workshop
- each facilitator had the opportunity to demonstrate their unique (but overlapping approach) to counselling in the small group sessions
- a one minute 'referral to QUIT line' spiel was developed to provide GPs with an efficient approach to referral to the QUIT line

The benefits of involving the Quit line counsellor were many. GPs and PNs saw, first hand, the level of skills and competencies that a Quit line coordinator had. This had several follow on effects including: greater referrals to the Quit line and greater preparedness of the practices to use Practice nurses (PN) as counsellors. It saved the GPs time and many of the PN embraced the opportunity to improve counselling skills that they used with a number of different patient groups including patients with asthma and diabetes

Participants commented positively on the conjoint approach and how it added to the effectiveness of the GP and practice team intervention.

Quit line referrals were subsequently monitored and improved.

Who can help us?

## Are all the key players involved?

Provision of best practice in both prevention and management of chronic illness can take the average GP 9–10 hours per day on top of providing acute care<sup>229,230</sup>, therefore it would be difficult to provide high levels of prevention outside a partnership approach. [Partnerships and collaboration](#) operate at different levels: between the GP and patient, GPs and practice team, and between the practice, PHN, and/or the broader community and the health system.

There is evidence that when GPs regard patients as active partners in seeking preventive health care advice patients are more likely to adhere to treatment plans.<sup>231,232</sup> This requires teamwork and respect for others' ideas and views.<sup>233</sup> Referring to and communicating with certain services and community agencies may be the most cost effective way of providing some types of prevention activities for patients. Improving the integration of preventive activities through greater collaboration leads to enhanced effectiveness and efficiency.<sup>31,43</sup>

## To what extent does the practice coordinate with the big picture?

A range of other players and agencies are involved in promoting health and preventing disease. A number of studies<sup>187,234</sup> have demonstrated that collaboration and teamwork was associated with the largest gains in prevention outcomes. Partnerships are associated with improved delivery of care.

## 4.8 Effectiveness (and efficiency)

Much time is spent providing either ineffective care or effective care inefficiently. Effective strategies for prevention in general practice are increasingly well documented. The RACGP Standards for general practices require practices seeking accreditation to demonstrate that they utilise appropriate guidelines in consultations with their patients.

### Box 1. Guidelines

Many guidelines have been produced to aid effective implementation of a range of prevention activities. For example:

The RACGP [SNAP guide](#) for strategies to address lifestyle-related behaviours

The RACGP Abuse and Violence ([White Book](#)) to assist with the identification and management of patients who are victims of abuse or violence

The RACGP [Supporting smoking cessation guideline](#) to assist patients who smoke to quit.

## Effectiveness (What works?)

Are we strategic in our approach to implementation?

General practices are more effective when they are strategic. Specifically, they should focus on:

- target conditions that have a significant burden of morbidity<sup>235</sup>
- use implementation approaches that have a theoretical rationale<sup>236-243</sup>
- areas where there is a clear and accepted role for the GP and the practice team AND the prevention target can be influenced by the actions of each
- activities with clear aims and objectives.

### Box 2. Making the process more strategic<sup>148</sup>

Questions to ask:

- Is it important? (burden of illness)<sup>244</sup>
- Am I likely to be effective? (role, impact)<sup>245</sup>
- Can I make the outcome visible? (feedback, observable/measurable)<sup>246</sup>
- What will assist getting a quick return? (reward/reinforcement)<sup>247</sup>
- Is it desirable? (congruent, win-win, all stakeholders)<sup>115</sup>
- Is it do-able? (realistic)<sup>248</sup>
- Can we make it a routine part of the practice workflow? (sustainable)<sup>249</sup>



You may wish to improve the level of immunisation coverage against pneumococcal pneumonia in at risk or older patients. Pneumococcal pneumonia has a significant burden in older patients and an effective vaccine is available. A recent audit of this group demonstrated pneumococcal coverage of around 44%. Realistically you would like to increase this to 60%, in the first instance. There is good evidence that a GP recommendation to get the pneumococcal vaccine is a significant influence on the patient's preparedness to get the vaccine. A GP recommendation also tends to counter any patient concerns or uncertainties about getting immunised. In this instance, the focus of the intervention could include having the target population identified on their medical records so that when they attend the practice, the GP or practice nurse is prompted to offer the pneumococcal vaccine.

## Do we use effective strategies?

Some examples of effective strategies that support improved prevention performance in general practice include:

- identifying and instituting a prevention coordination role within the practice
- securing the services of a practice nurse
- developing a strong multidisciplinary teamwork approach
- ensuring good information management systems for efficiency
- making the best possible use of existing partnerships, PHNs and other community supports.

There are some implementation strategies (eg using an app to promote changes to your diet), but for many there is inconclusive evidence to support its effectiveness. If you choose to use them as part of your preventive programs, then the outcomes should be carefully monitored.

The RACGP's [Handbook of non-drug interventions](#) (HANDI) provides examples of some effective apps.

Effective implementation strategies and processes are described in [table 4](#). GPs tend to prefer learning strategies that are often the least effective (eg CME dinner meetings). Less preferred

learning strategies can often be more effective (eg practice register and reminder systems, team meetings and appointment of a prevention coordinator).

Table 4. Effective implementation strategies

Strategy	Effectiveness	Comment
<b>Organisational</b>		
<p>Organisational strategies such as:</p> <ul style="list-style-type: none"> <li>clarification of roles</li> <li>delegation of tasks</li> <li>practice policy/standing orders, protocols</li> <li>incentives</li> <li>computer decision support (eg practice registers and reminders)</li> </ul>	<p>Highly effective<sup>38,40,158,164,216,247,250-254</sup></p>	<p>Contributes to implementation of preventive interventions and helps sustain them</p> <p>Impact varies with area, capacity and acceptability</p>
<p>Continuous quality improvement</p>	<p>Effective<sup>25,213,221,255,256</sup></p>	<p>Needs active GP involvement and feedback, and a supportive practice infrastructure</p>
<p>Practice coordinator/facilitator/ educational outreach</p> <p>41,78,94,108,194,257,258</p>	<p>Effective<sup>56,108,205,258</sup></p>	<p>May be someone within the practice or external</p>
<p><u>Teamwork</u></p>	<p>Effective<sup>32,103,221,228,259-265</sup></p>	

Specific Clinics	Somewhat effective <sup>266-269</sup>	More effective for conditions involving a team of health professionals and where large numbers of patients need to be seen
Health checks	Somewhat effective <sup>214,270-272</sup>	Potential for overdiagnosis, and unnecessary interventions with associated harms. Needs to be implemented with appropriate follow up
Local opinion leaders/ champions	Effective in some situations <sup>38,76,94,109</sup>	Opinion leaders are from the local peer group, viewed as a respected source of influence, considered by associates as technically competent, and trusted to judge the fit between the evidence base of the practice and the local situation <sup>273</sup>  Assist in spreading information and examples
Patient		
Reminders for patients	Very effective <sup>63,89,274-276</sup>	Needs to be targeted
<a href="#">Motivational interviewing</a>	Effective <sup>77,123-125,127,129,277-280</sup>	Effectiveness varies across areas
Health coaching	Effective <sup>210,220,281-283</sup>	Considerable overlap with motivational interviewing; more useful in chronic disease and facilitating self-management

		Health coaching is a structured, supportive partnership between the participant and the coach that effectively motivates behaviour change.
Other interventions	Very effective	For example, telephone, patient education, support strategies
Patient education and printed educational materials	Variable effectiveness <sup>80,102,284</sup>	Need to be combined with other interventions
Shared decision making	Variable effectiveness <sup>70,91,130,285-288</sup>	Key characteristics of shared decision making: at least two participants (physician and patient) need to be involved both parties share information both parties take steps to build a consensus about the preferred treatment an agreement is reached on the treatment to implement <sup>289</sup>
mHealth/eHealth (eg SMS, social media)	Variable (but generally positive) effectiveness <sup>92,99,275,276,290-293</sup>	eHealth is the application of information, computer or communication technology to some aspects of health or health care mHealth is when it is delivered through a mobile phone

Healthcare worker

<p>Delegation to the Practice nurse or care substitution</p>	<p>Effective<sup>90,209,215,294-296</sup></p>	<p>Provided there is a clear outline of the role of the PN and adequate training and support</p>
<p>Reminders for the GP</p>	<p>Variable effectiveness<sup>89,94,256,297-301</sup></p>	<p>Computerised reminders have a similar impact to manual reminders</p> <p>Needs to be targeted</p>
<p>Health summary sheet/flow sheets</p>	<p>Somewhat effective<sup>302-308</sup></p>	<p>Acts as a prompt and aide-memoire; impact higher if used in conjunction with other strategies</p> <p>Practice accreditation standards require a minimum number to be completed</p>
<p>Case note audit +/- feedback</p>	<p>Effective<sup>41,78,98,254,309,310</sup></p>	<p>Impacts particularly on prescribing and test ordering</p>
<p>Feedback</p>	<p>Effective in some situations; usually evaluated in conjunction with audit<sup>218,311</sup></p>	<p>Presentation is multi-modal including either text and talking or text and graphical materials</p> <p>Delivery comes from a trusted source</p> <p>Feedback includes comparison data with relevant others</p> <p>Feedback is more effective when accompanied by both explicit goals and an action plan</p> <p>Targeted behaviour is likely to be amenable to feedback</p>

		<p>Recipients are capable and responsible for improvement</p> <p>The target performance is provided</p> <p>Goals set for the target behaviour are aligned with personal and organisational priorities</p> <p>Goals for target behaviour are specific, measurable, achievable, relevant, time-bound</p> <p>A clear action plan is provided when discrepancies are evident</p>
Medical education	Variable effectiveness <sup>40,76,85,312-314</sup>	Learning was more effective if it was linked to clinical practice and self-directed multifaceted active educational methods
Extraprofessional education	Limited evidence <sup>54,228,315,316</sup>	When two or more professions learn with, about, and from each other to enable effective collaboration and improve health outcomes <sup>315</sup>
Lectures	Not effective <sup>22,76,85,317</sup>	

Source: Update of Table 6. The effectiveness of implementation strategies in improving prevention; GB2 2006 and Litt 2007<sup>148</sup>

Adding implementation strategies doesn't necessarily increase the level of performance. The process needs to be strategic:

- it should address practice systems and infrastructure
- provide adequate leadership (eg local champion, planning and coordination)
- encompass a wide array of strengths, skills, resources, and competencies.

## Do we use time effectively?

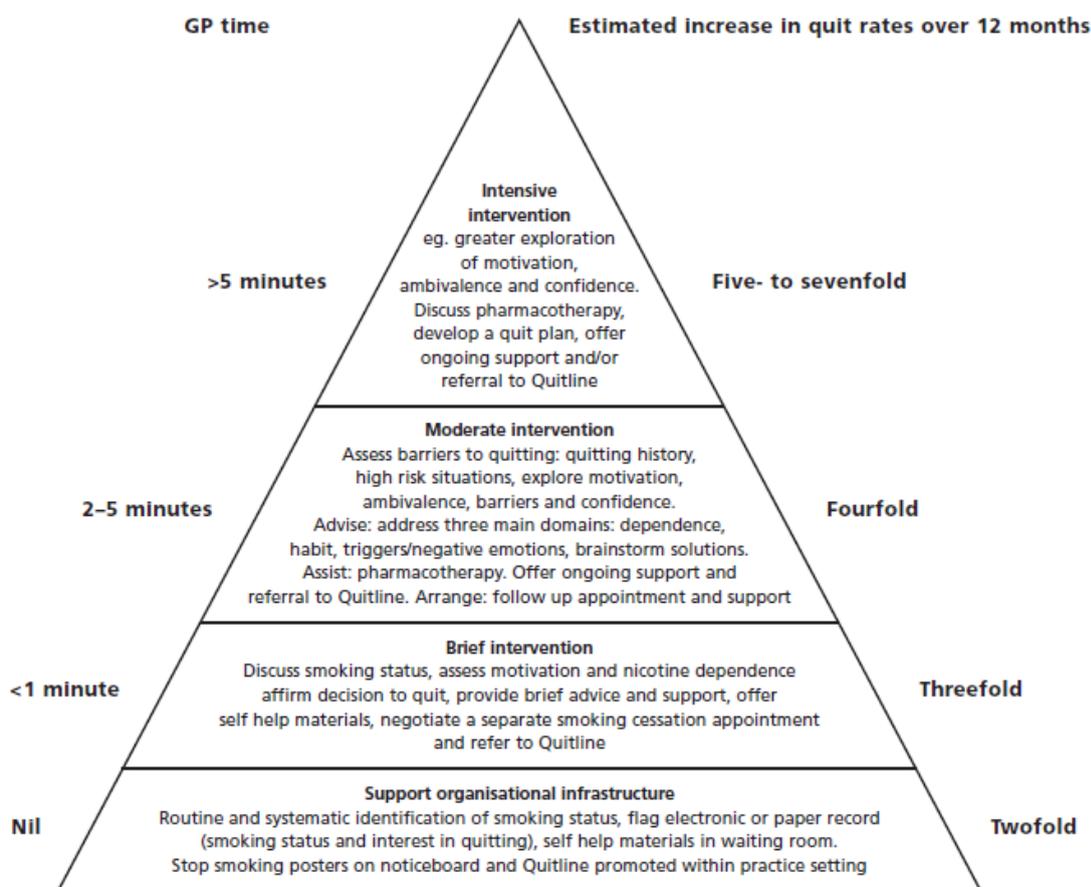
It doesn't always follow that spending an increased amount of time with a patient on a preventive issue leads to a proportionally better outcome. For example, spending 20 minutes counselling a smoker does not necessarily give four times the benefit of 5 minutes.

Sometimes less is more and you may be more effective by providing some components of the prevention activities to all patients rather than providing a lot of input to fewer patients. The 'Reality pyramid' provides an incremental and systematic strategy to improve the delivery of lifestyle advice in the GP setting, using smoking cessation as an example (figure 7).

Writing down the various intervention components and the chronological sequence of steps will also help the implementation to be more systematic.

Figure 7. Reality pyramid for smoking cessation

Consultation draft



**Figure 5. Reality pyramid for smoking cessation**

Reproduced with permission from Blackwell Publishing: Litt J, Ling M-Y, McAvoy B. How to help your patients quit: practice based strategies for smoking cessation. *Asia Pacific Family Medicine* 2003;2:175-9.

The pyramid highlights the less is more (1 minute for prevention) approach. The base level of the pyramid outlines the practice infrastructure that supports the GP (and others) to provide preventive care. It emphasises the value of teamwork and demonstrates that utilising other practice resources and establishing appropriate reminder and referral systems can facilitate brief interventions. It supports the notion that it is unrealistic to expect the GP to be the sole provider of preventive care within the practice. It provides a prompt for the best use of time during a consultation, starting with a very brief intervention for most patients and then using more intense strategies with fewer patients. The interventions should cover the activities likely to have the biggest impact for the patient in most circumstances. It recognises that spending more time is often necessary, but reflects the reality that most GPs have about a minute of 'disposable' time to raise and/or discuss an issue they think is pertinent and important to the patient. The 1 minute can be spent in a number of ways:

- focusing on specific evidence based guidelines
- justifying why an additional consultation is worthwhile (you might suggest to the patient that the unassisted quit rate is around 3–7%, with GP assistance, help and support, this success rate can be boosted 4–6 fold. Given the difficulty with quitting, anything that helps to maximise success seems a sensible choice provided it is acceptable to the patient)
- justifying why seeing someone else (eg practice nurse) may be helpful
- outlining the value and effectiveness of the Quit line

John Litt, Flinders University, South Australia

### Do we apply effort effectively?

You may require a lot of effort to see some initial change. Things may then proceed relatively smoothly with less effort. Getting the final amount of improvement may also require a lot of effort. For example, moving from 90% to 100% vaccination coverage may take more effort than getting to the 90% in the first place.

### Efficiency (How can I make it easily do-able and routine?)

An effective preventive intervention should also be delivered efficiently. It needs to be incorporated into the practice routine without creating significant extra work in order to be sustainable.

It is not possible for general practices to provide all recommended prevention services. You need to decide where to focus attention in order to deliver the best possible outcomes with the available resources for the groups of patients targeted. Some useful questions to consider are:

- What is the cost and staff time to do this?
- Does it make good business sense?
- Are there any resources that you are underutilising or are you duplicating services?

For example, GPs may continue to be offering the flu vaccine to patients they are seeing rather than getting the practice nurse to run a flu vaccination clinic. Using the latter strategy would give the GP more time to talk to the patient about other important medical issues.

## Does it fit with our practice and our culture?

To make prevention processes sustainable, ensure that the process is:<sup>318,319</sup>

- adapted to the local context
- consistent with the practice and professional goals
- integrated into workflows so that where possible, it doesn't take more time.

It is important to also monitor and review practice procedure and policy manuals, clarify roles and tasks, appoint a coordinator and encourage all staff to contribute.<sup>320</sup> You will need to ensure that the quality improvement process incorporates a review of the outcomes.

## What is the most important contribution we can make?

GPs and practice teams should complement prevention activities by using effective or more efficient population/community based prevention strategies. Examples include population screening programs such as mammography and Pap tests, population registers (eg immunisation register, cancer registers) and media strategies for issues such as smoking cessation and hazardous drinking.



### Putting it all together with a complex patient

Patient:

91-year-old woman, who is a war widow living alone in a suburban area with one son (in his 70s) living a 15-minute drive away. She has multiple comorbidities:

- vasculopathy (CABG and small CVA)
- biventricular failure, well controlled on diuretic
- unstable angina
- 'burnt out' rheumatoid arthritis
- anxiety disorder/ multiple phobias
- low BMI/frailty/falls and accidental injury risk both high
- multiple drug allergies/intolerances

Frequent hospital admissions for LVF/Unstable angina/injuries.

Patient goals:

- To stay at home and die there (ie when she couldn't go out for lunch any more)
- To not be a burden on her son
- To avoid admission to two out of three local hospitals at all costs (she has a phobic reaction to two)

GP aims and goals:

- To allow her to stay in her own home as long as possible
- Give her a sense of control over her health care transactions
- Avoid identified risks

Main risks:

- Falls and injuries
- Medication misadventure post hospital admissions
- Unavoidable nursing home admission

Who helped you?:

We looked for what the Coordinated Veterans Care program (CVC) offer. Strategies employed within CVC program to manage risks and support patient goals:

- GP supported to operate within a community team structure, independent of extended primary care (EPC) structures, and to do 'non face to face' work/extended liaison
- PN role able to expand and consolidate, evolving into a pivotal role, formalised as such broad enablers (improved **coordination and collaboration**; better **targeting** of care and **identification of barriers**; improved **ability** of both the PN, the patient and the family to identify and manage issues as they arose; improved **efficiency**). Involvement of PN in day to day management under CVC funding

What did you do to make it happen?:

- Drilling down – wrote above features into CVC plan and reviewed this regularly to make sure happening and explore opportunities to expand
- Involved the PN from the beginning
- Micromanagement is the key to successful outcomes in most very old frail people in their homes, in particular to admission prevention. The PN role was critical here in terms of availability by phone each day for patient contact and provider liaison
- The GP was supported to work within a team structure, especially before, during and after admissions to hospital. This overcame the barrier imposed by the descriptor around use of EPC case conference items

What specific strategies did you use?:

- CCF – early detection of exacerbation via phone with added opportunity to do wider phone assessment as indicated. Employed sick day management
- Shared plan around emergency admissions – direct link for patient or son by mobile phone with GP if ambulance attending. GP would then speak to crew and ED at only hospital acceptable to patient and arrange transfer (this was often critical as private EDs frequently 'on bypass' and crews instructed to transport all patients to public ED). This strategy came into play about once yearly
- Close review and community pharmacy liaison at time of discharge, especially regarding medications and any changes/readmission prevention plan (eg dealing with different brands of same medication issued by hospital pharmacy causing confusion once back at home)
- Advocacy and active contribution to management during admission (eg GP successfully advocated to arrange blood transfusion prior to discharge after skin graft for shin wound, resulting in symptomatic improvement in CCF and [likely] accelerated healing)
- Better clarification of roles and responsibilities

CVC enables an individualised and high quality (bespoke) plan by acknowledging several factors that enable this type of more detailed and dynamically responsive care.

What outcomes/improvements do you think you achieved?:

- Vastly enhanced patient confidence that her needs were being met
- High level support for son
- Readmission avoidance
- Tight medication control
- Good time management (minimisation of wastage via poor communication)
- Team satisfaction with results and sense of cohesion

What made the most difference?:

Communication made the biggest difference.

Involvement of the PN in this new level of communication was paramount with a move away from narrow role of relaying messages and basic triage.

Central to this was the formalisation of this broader role of the PN through the naming up of this role in the CVC descriptor. Our nurses were pleased to embrace this recognition.

Talking through issues, doing phone and onsite assessment, trouble shooting and safety netting.

Liaison with family, able to include them in real time decision making.

Instead of having the PN do a holistic health assessment once a year, this occurred on a continuous basis.

The program gave the PN a sense of ownership and provided a decent quarterly payment come in as a reward for extra effort.

Some reflections:

*What would you say to GPs who may consider doing similar things (ie what would you do differently)?*

Meet face to face more often with key community care team members for optimal shared understanding when situation became critical (eg trying to avoid an admission).

For frail elderly with multimorbidity at home, the ground can shift in a 24-hour period. Micromanagement is necessary to prevent deterioration in health status with ensuing hospital admissions or nursing home attendance.

Relationships are crucial to the success of these strategies – most older people cling to the advice of those and only those they trust. This is why they sometimes waiting for their own physician to return from leave.

Enacting the detail of a care plan is important, the weekly phone ins with a weight or fluid chart.

You can keep someone at home with diarrhoea and heart failure for one night but only if you can check on them the next day.

A 'hospital in the home' set up can be achieved in a limited fashion if parameters are clearly defined.

Twice daily review for 2–3 days can be very effective. Geography is important.

Liaison with pharmacist is more vital than ever, with multitudes of brands of drugs and dwindling commitment to providing continuity of personnel or product.

Frequent checking of packets for errors avoided medication misadventure.

Having a person stay at home sick rather than go to hospital requires confidence for dusk to dawn phase (ie a real number they can ring if things go wrong).

This patient required someone to direct the ambulance to the correct ED.

In terms on return on effort, do you think the whole process was worthwhile?:

VERY much so! Basically, this is how I was already operating but didn't feel like I could ask much of our PN without dedicated funding.

The feedback from patient and family was superb, even regularly heard second hand from others (eg ambulance service) about how well the system worked and how different it was from normal care.

*Christine Boyce, Hobart GP*

Consultation

# 5. Setting up the practice for prevention

In this chapter we explore ways the practice team can work together to manage patient information and create an environment (physical and digital) to support preventive care.

## 5.1 Managing patient information to support preventive care

### Health summaries

Members of the clinical team routinely collect information that should be transferred to a patient's [health summary](#). A complete health summary makes a useful statement of the patient's main health issues and brings all the important information together in the one place. They are also useful reminders of what prevention has been done and to prompt for what needs to be done.<sup>302,307,321</sup> This contributes to better continuity of care and patient safety within the practice and when patients seek care in other settings.

### Connectivity to registries

Some information may also be transferred to national registers (eg immunisation data) or state and territory based systems (eg cervical screening or familial cancer registries) in order to improve care. Where the practice participates in national registers, patients should provide consent for the transfer of related health information to a register or be made aware that they can opt out of such registers.

Practices may also want to establish internal registers to flag patient with a higher priority for preventive interventions. This can be readily assisted by a practice using clinical software or additional data mining software to reflect population level priorities.

<insert John  
image>



An example of a register of an internal register that practices may want to establish is one related to high risk familial cancer.

When asking about family history of cancer is important to identify the number of family members affected, their age when the cancer was identified and their connection to the patient. The latter is best depicted in a genogram. A number of

brief screening tools can help the GP identify family history of cancer more efficiently and comprehensively.

*Associate Professor John Litt*

<insert Mark  
image>



It's also important to identify within the practice record software particular groups of patients who might need special preventive interventions. This may include Aboriginal and Torres Strait Islander people, refugees and vulnerable population groups (eg developmental disability). This may require an adaption of the field within the records so these patients can be readily identified for individual care and clinical audit.

This will also enable creation of a registry of each of these groups if a practice decides to use these for recall. For example, health assessments.

*Professor Mark Harris*

## Data driven quality improvement

Practices might also use coded data collected in the practice's clinical software (eg smoking status, diabetes register) to improve the targeting and use of prevention activities (eg smoking cessation, weight management). They may use collected information transferred from private pathology providers (eg diabetes screening, cervical screening).

This is not only a quality improvement activity (see The Standards [Criterion 3.1.1 Quality improvement activities\[update to the 5<sup>th</sup> ed standards\]](#)); it also provides a check that the practice is identifying all relevant patients for their health promotion and preventive care activities.



### **Letter to 49 year olds to encourage bowel screening**

General practices can send a letter to their 49-year-old patients to encourage them to do the National Bowel Cancer Screening Program (NBCSP) test when they receive it in the mail around their 50<sup>th</sup> birthday. There is strong evidence that a letter signed by a person's GP endorsing the faecal occult blood test (FOBT) is an effective method to increase participation in bowel cancer screening. The



NBCSP has developed a [template letter](#) that GPs can use to recommend screening to patients outside of regular consultations.

*Alice Creelman, Cancer and Palliative Care Branch, Population Health and Sport Division, Department of Health*



### **Mismatch between patients with colonoscopy as coded diagnosis versus patients with recalls**

Activity:

My PN colleague was looking at our practice recall system and how we might streamline lists and make sure that coding was correct, so we could easily manage mail merge recalls and put action notification in patient files. I noted that whilst doing this exercise there were very few recalls in the system for colonoscopies.

We then looked at how many patients had been coded as having a colonoscopy performed vs how many had recalls.

We also looked at how many patients had family history of bowel cancer coded. We had noted from some of the files of people that had colonoscopies that there was a family history noted in free text in a patient profile, but not coded in a searchable way.

Action:

We went through the files of all the patients that had coded colonoscopies and read the colonoscopy reports and specialist recommendations for follow-up. We coded all those with family history of bowel cancer so that we could then easily search those patients and this would appear in their medical history.

I needed to do some backend adjustments of the recalls lists via the MD maintenance function, especially where the doctors had free text in the 'reason for recall' section or there were multiple names for the same condition.

We put recalls for surveillance on all those that were indicated as needing follow-up surveillance – 3 years, 5 years.

We presented the activity at the combined staff meeting to let all staff know this was happening and to engage the team.

We put the action list in all the patient files so that any health professional opening the patient file would see the action and follow-up re: bowel cancer testing / colonoscopy. We used Medical Director at Leichhardt. Once you have put in an alert in the Action List, this is the first screen open in the patient file and you can't navigate the file until you close the box (hopefully having read, noted, and actioned the alert where necessary).

We looked at the patient registration form. This had previously been amended to family history for several conditions (eg diabetes, breast and bowel cancer), but these were not always being added at the new patient visit. This process was also discussed with the team to ensure these risks were recorded and coded in a searchable way.

Outcome:

Invitations were sent to all those patients needing screening due to family history and risk of bowel cancer to see the GP and discuss the issue.

Recalls were sent for those that had not been added to the initial recall but required ongoing surveillance and were due for screening.

Recalls were added for those that need future follow up.

Whilst the GPs were used to adding the coding for procedure, they were more aware of adding recalls at the time of reviewing specialist report.

The team was more engaged in recording a coded family history. The flow was also a similar exercise for family history of breast cancer risk, coding and mammogram recalls system.

There were other patients picked up in this exercise, where family history was not an issue but specialist recommended recalls for follow-up had not been added.

The senior registrar was doing a population health project on bowel screening and because we left the system in place where family history was coded and recalls in place, it made it easier to measure the practices starting point.

*Karen Booth*

### Box 3. Reminders, recalls and prompts

Having a robust reminder and recall process supports safe, quality care to patients.

**Reminders** are used to initiate prevention, before or during the patient visit. They are 'an offer' to provide patients with systematic preventive care.

**Recalls** are a proactive follow up to a preventive or clinical activity. These occur when it is crucial for a patient to attend the practice (eg an abnormal test result).

**Prompts** (or flags) are usually computer generated, and designed to opportunistically draw attention during the consultation to a prevention or clinical activity needed by the patient.

A recall system differs from a reminder system in that reminders are used as preventive activities for patients and do not have to be followed up if the patient does not attend the practice. The patient can be removed from the reminder list but it is recommended the reminder is noted in the patient's medical notes. A recall system is used to recall the patient back to the doctor for something clinically significant. Therefore, every attempt must be made to contact the patient and it is essential that the attempts are documented and initialled in the patients' record. Any recall appointment should be marked as a 'recall appointment' so that you will be able to check to see if the patient attended the practice.<sup>322</sup>

To ensure the system is effective, fail-safe, and sustainable you could consider a team approach when coordinating the recall and reminder system for tests, test results, referrals and appointments. This includes defining the role of both doctor and staff. When using electronic recall and reminder systems the data is only as good as what is entered. This reinforces the need to have adequate systems, policies, and procedures in place. You could have a planning session

with all doctors and staff to evaluate past systems and ensure they fit the criteria of effective, fail-safe, and sustainable.<sup>322</sup>

## 5.2 Creating an environment that supports prevention

### The practice's digital environment

#### Practice website

Your practice website can also be used for patient education. All resources created should be made available online. Where possible, this information should be available in patients' preferred language.

#### Box 4. Tips for setting up a high quality website:

- Ensure that any recommended activities or interventions are supported by evidence
- Have a policy of regularly reviewing the material
- Provide links to reputable sources of information
- Survey your patients to see what information they would like to access
- Consider using the practice website for making appointments
- Include some useful prevention or other tools on the website (eg prevention survey)<sup>321</sup>

An increasing amount of information and educational materials is available online. Many patients will have previously accessed this information, or will do so after visiting the practice. It is therefore important your practice website features other recommended websites that provide unbiased and evidence-based information.

The Victorian Department of Health's [Better Health Channel](#) is a good example of a useful online resource. You may consider placing this on your own website, together with some other credible health information website links, such as:

- [Immunise Australia](#)
- [Health Pathways](#)

- [Australian Childhood Immunisation Register](#)
- [Quit](#)
- [Health Direct](#)
- RACGP – [Appropriate diagnostic testing](#).



Find out more about general practice websites at RACGP Digital Business Kit – Your practice website ([www.racgp.org.au/digital-business-kit/your-practice-website/](http://www.racgp.org.au/digital-business-kit/your-practice-website/))

## Mobile health including smartphone apps

Mobile health (mHealth) is a general term for the use of mobile phones and other wireless technology in medical care. Text messaging interventions have the advantages of tailoring, interactivity, personalisation, and/or high message repetition.

The most common application of mHealth is the use of mobile phones and communication devices to educate consumers about preventive health care services. However, mHealth is also used for disease surveillance, treatment support, epidemic outbreak tracking and chronic disease management.

Smartphone apps can be used to:

- provide information
- provide prompts
- record information (eg diet, exercise, blood glucose levels, sleep)
- provide support and connect with others (eg smoking cessation apps often have a buddy system).

It can be difficult to gauge the quality of apps before recommending them to patients. Many of the interventions have no long term data and evidence of effectiveness, while generally positive, is mixed<sup>99,290,291,323-333</sup> The RACGP Handbook of non-drug interventions ([HANDI](#)) lists some apps with good evidence of benefit. Your PHN is another source for apps for health. The UK's NHS also has an [app library](#).

<insert  
Danielle  
image>



I recently learnt about [The Couch to 5K Podcast series](#) from a UK colleague. This series of podcasts developed by the NHS is played on your phone and guides you through a half hour exercise program that over 9 weeks takes you from being sedentary on the couch to running 5 km. Cheaper than a personal trainer, I have recommended it to many of my patients.

*Professor Danielle Mazza*

## Practice newsletter

A practice newsletter may be a useful way of informing patients about preventive issues. You may distribute this via email, social media or on your website.

## The waiting room

### Waiting room materials

The waiting room is an important place for patients to access health information. Material left in the waiting room can act as a prompt for patients to raise issues with the GP or other practice team. Waiting room materials, including posters, may be available from health promotion units of state health departments, your primary care organisation and non-government organisations such as the Heart Foundation, Diabetes Australia, Cancer Council, Quit and other peak bodies.

Leaflets should be clear, simple and unbiased and, if possible, be available in the languages used by patients attending the practice. They need to be replenished periodically (ie every 3–6 months). Posters are an important way of alerting patients to behavioural risk factors and the fact the GP may be able to help, but they need to be rotated regularly. A poster that is left in the practice for years will become all but invisible.

The waiting room is another good example of the 'less is more strategy'. Much of the material on noticeboards is not readable unless the patient walks up to the noticeboard. Most patients won't do this. Sensitive material may be better portrayed in more discreet locations eg STD advice on the back of the toilet door.

<p>&lt;insert Jan image&gt;</p> 	<p>Two pieces of advice:</p> <ul style="list-style-type: none"> <li>• Check the validity of materials and regularly update</li> <li>• Showcase a topic of the month (use the <a href="#">health calendar</a> to pick your health topics)</li> </ul> <p><i>Jan Chaffey</i></p>
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<p>&lt;insert Karen image&gt;</p> 	<p>If you have a TV in the waiting room and you're just playing daytime TV shows, you're missing an opportunity to provide useful information to patients. There are specialised video materials available for waiting rooms (eg the <a href="#">Medical Channel</a>, <a href="#">Tonic</a> on demand), these can both entertain and inform.</p> <p>You can also have your own material (eg presentation slides) incorporated into these videos.</p> <p><i>Karen Booth</i></p>
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A practice notice board can provide information about self-help groups and local programs, as well as contact information for patients to self-refer. It is important to keep the notice board up-to-date. Some practices now provide computers in the waiting room that allow patients to access education material from selected websites.

NPS also has a [MedicineWise Handbook](#), which is a hardcover consumer resource that is designed to be read by patients in waiting rooms. It defines health and medical terms and offers a summary of the main message on each page. The *MedicineWise Handbook* is available from <http://webapps.nps.org.au/medicinewisehandbook>.

Aboriginal medical services often develop culturally appropriate material for their patients.

<p>&lt;insert John image&gt;</p>	<p>Patient education is more effective when personalised and handed out to the patient by the GP or practice staff.</p>
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Associate Professor John Litt

## The staff room

This is an under-utilised area for messaging to and engaging staff. You should have a chart in your practice staff room showing your progress with the prevention intervention activity and [achievements to date](#).

## The reception area

It is worthwhile highlighting to the practice reception staff that they are an essential part of the health care team. Through their various activities, they influence health care outcomes not just administrative aspects. For example, through their role of prompting patients, checking reminder systems, assembling practice registers, refreshing the waiting room.

Reception staff can be involved in prevention in a multitude of ways such as:

- ensuring that each patient's details are complete and appointments are appropriately labelled (eg 'recall appointment')
- asking if patients would like to fill out a risk assessment tool while waiting (eg [Australian absolute risk CVD calculator](#), [Australian type 2 diabetes risk assessment tool](#)) or register for the [myHealth record](#)
- providing more information about waiting room education materials.

You can also provide health information (such as flu shot programs and health checks) for patients on-hold on the telephone. Be sure to review this in a timely fashion to ensure the relevance of the information being provided.

## The consulting room

### Patient education materials

Patient education materials handed directly to patients by the GP or practice nurse can have significant impact. These should ideally be stored on computers used in the consulting rooms. The

quality of the materials should be checked.<sup>334</sup> Consider the currency and sources of information, as well as their reliability, relevance and accuracy.

These materials should be tailored to the patient's:

- language (and be culturally appropriate)
- health problems (eg existing CVD)
- interest and willingness to change.

<p>&lt;insert Mark image&gt;</p> 	<p>It's important to check a patient's level of understanding of the information provided. Generally speaking, written information should be at a reading age of eight years (the reading age of the newspaper such as the <i>Sun Herald</i> is a twelve).</p> <p><i>Professor Mark Harris</i></p>
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Consider a variety of resources to cater for differing levels of literacy and health literacy among the groups attending your practice. These materials should also be evidence-based and provide a balanced approach to the problem.

State health departments often have multilingual patient education materials available for download or for purchase. Check with your local state or territory health departments for multilingual resources and referral centres available to your area.

[NPS MedicineWise](#) offers a range of materials in hard copy, online and via a smartphone app. These help patients better manage their medicines and learn about how lifestyle choices directly affect health, as well as how they can help prevent ill health.

<p>&lt;insert Mark image&gt;</p> 	<p>Another useful strategy for the practice to consider is the 'walking interview'.</p> <p>This involves accompanying a patient who is unfamiliar with the practice as they experience booking an appointment, registration, waiting to be seen, the consultation and follow-up.</p>
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	<p>Staff should get feedback from patients.</p> <p>This can be useful for a number of patient groups such as people from culturally and linguistically different (CALD) backgrounds, Aboriginal and Torres Strait Islander background and disabled patients. It helps to determine the relevance and accessibility of practice information and systems and where changes are required.</p> <p><i>Professor Mark Harris</i></p>
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 The icon consists of two parts. The top part is a black house silhouette with a white cross inside, topped with a green roof. The bottom part is a stack of two books, with the front one being green and having a white plus sign on its cover.	<p><b>On your bike</b></p> <p>One GP rode to work. He parked his bicycle in the consulting room, unashamedly. This acted as both a passive role-model and a conversation piece, some patients asking about it.</p> <p>‘Yes, I ride my bike in to work. Do you know it’s hardly any longer than by car, and incidental exercise like this has proven benefits for people like you and me – even folk with chronic disease?’</p> <p>‘Yes, bike riding is a little more dangerous. But there is some evidence that the exercise benefits outweigh those risks: you’re actually better off riding than driving!’</p> <p><i>Professor Chris Del Mar</i></p>
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# Appendix A. Frameworks to change patient behaviour

## A.1 The 5As

The 5As is a key framework for organising the provision of preventive care in primary healthcare.<sup>335,336</sup> This includes the actions taken by healthcare providers in supporting their patients to change their risk (refer to *Table A1*).

<b>Ask</b>	identify patients with risk factors
<b>Assess</b>	level of risk factor and its relevance to the individual in terms of health  readiness to change  health literacy
<b>Advise/Agree</b>	provide written information  brief advice and motivational interviewing  negotiate goals and targets (including a lifestyle prescription)
<b>Assist</b>	develop a risk factor management plan that may include lifestyle education tailored to the individual (eg. based on severity of risk factors, comorbidities) and pharmacotherapies  support for self-monitoring
<b>Arrange</b>	referral to allied health services or community programs  phone information/counselling services

## A.2 Motivational interviewing

Motivational interviewing (MI) is a non-confrontational client-centred counselling strategy aimed at resolving ambivalence and increasing a person's motivation to change.<sup>337,338</sup> It is an acknowledged care skill required by a wide range of healthcare workers.<sup>339-344</sup> The MI approach has strong evidence of benefit and impact on health outcomes across a number of areas, including lifestyle change, chronic disease and adherence.<sup>128,129,345-353</sup>

Motivational interviewing involves:

- helping the patient to identify areas for change (ie engage in 'change talk'<sup>337,338,354</sup>)
- highlighting any discrepancies between present behaviour and broader goals
- encouraging the patient to examine the benefits they would experience from improving their lifestyle (eg nutrition, physical activity) and self-management skills
- asking the patient to compare potential outcomes if they do make changes versus if they do not
- asking the patient to identify any challenges, barriers or negative aspect involved in making improvements (eg costs, access to good food)
- helping the patient determine specific and achievable solutions to the challenges, barriers and negative aspects involved in change
- establishing the patient's motivation and confidence to make changes
- asking the patient to summarise, in their own words, their goals and how they are going to achieve them.<sup>355</sup>

A core component of the motivational interview approach is the 'MI spirit'.<sup>337</sup> This is based on four key elements: collaboration between the practitioner and the patient; evoking or drawing out the patient's ideas about change; emphasising the patient's autonomy; practising compassion in the process.

There are various contributors and barriers to consider when determining the best approach to assess and assist behavioural change, including cultural issues, physical environment/residence, beliefs and expectations, literacy, interest and motivation, addictive behaviour, coping style, and emotions and mood.

For patients who are not confident about their ability to succeed, various methods can be used to help them commit to making a change. Asking patients to weigh up the pros and cons of making a change or staying the way they are is a common technique. This is called 'decision balance' and can help patients decide whether or not to immediately make a change.

For those patients who are ready to make a change, time can be spent explaining and planning how they can make that change. Patients who have already made a change may require follow-up to monitor progress and deal with any relapses or difficulties.

The process provides insight into the issues that patients have around their health-related lifestyle and the importance, motivation and ability to make any changes in their behaviour.

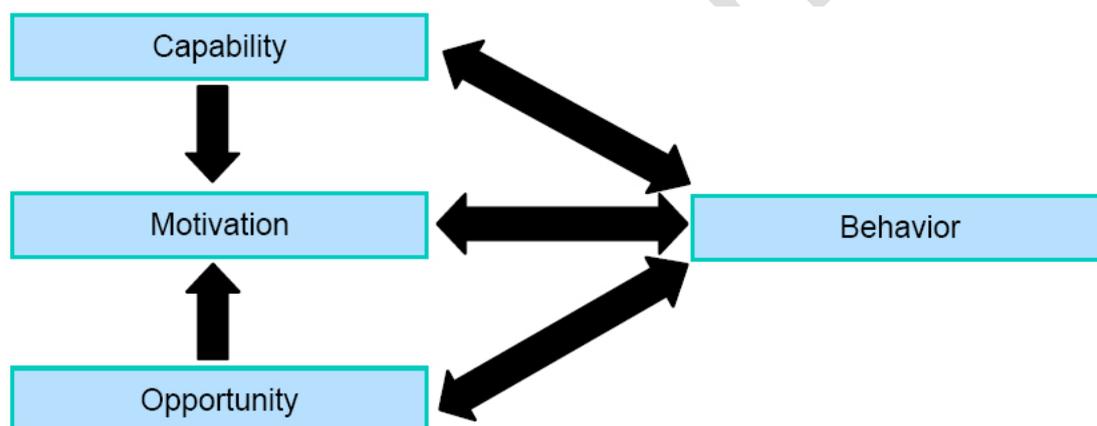
Motivation interviewing has superseded the transtheoretical model of behaviour change (ie stages of change model).<sup>356,357</sup> The latter is intended to provide a comprehensive conceptual model of how and why changes occur, whereas MI is a specific clinical method to enhance personal motivation for change.<sup>357</sup>

# Appendix B. Frameworks to change practice behaviour

## B.1 The COM-B

The COM-B (capability, opportunity, motivation and behaviour) is a simple model to understand behaviour. This model recognises that behaviour is part of an interacting system involving all these components. It can help identify the sources of a behaviour that could be an appropriate target for an intervention. It can also be used to understand (and overcome) barriers.<sup>135</sup>

Figure B1. The COM-B model



Source<sup>136</sup>

### Example use of the COM-B model

Your practice has identified that patients with mental health disorders are at increased risk for cardiovascular disease, in part due to low levels of physical activity. The practice team would like to offer support to these patient to increase activity. This means that GPs in your practice need to change current behaviour and offer physical activity interventions to patients with mental health issues.

Using the COM-B you identify the following:

- **Capability** – GPs in the practice don't know what services are available for patients with mental illness.
- **Motivation** – GPs don't feel comfortable burdening their patients.
- **Opportunity** – GPs feel that they don't have time in a standard appointment to offer behavioural support to increase physical activity, particularly in patients with low motivation levels.

This gives your practice a starting point for where to focus when planning an intervention. In this case, you would look to:

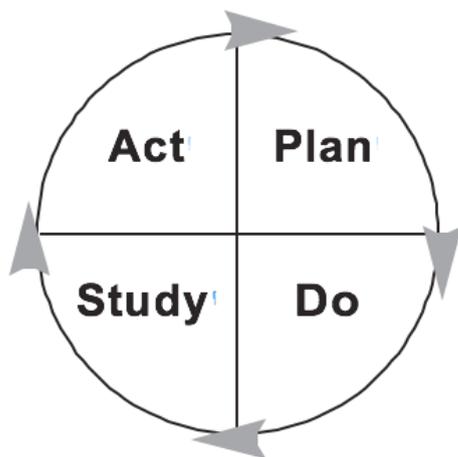
- Improve capability by ensuring GPs know what the effective physical activity interventions for this group of patients are, what services/resources are available to provide these and how to access them. (See RACGP [HANDI – exercise for depression](#))
- Improve GP motivation by providing good quality evidence of benefit of physical activity in patients with mental health issues (to increase belief that it is a good thing to do) and highlighting the negative consequences of not doing it (similar to the decision balance process of motivational interviewing).
- Improve opportunity by having more time to do it (longer appointment times) and having all members of the team involved (spreading the workload and being part of a 'crowd' who are doing it).

# Appendix C. Implementation frameworks

## C.1 The 'plan, do, study, act' cycle

The 'plan, do, study, act' (PDSA) cycle uses simple measurements to monitor the effects of change over time. It is widely used in healthcare improvement, either as a standalone method or as part of wider QI approaches, such as the Model for Improvement (MFI), Total Quality Management, Continuous QI, Lean, Six Sigma or Quality Improvement Collaboratives.<sup>213</sup>

The PDSA encourages starting with small changes, which can be built into larger improvements quickly, through successive cycles of change. It emphasises starting unambitiously, reflecting and building on learning. It can be used to test suggestions for improvement quickly and easily based on existing ideas and research, or through practical ideas that have been proven to work elsewhere.



PDSA cycle

### Plan the change (P)

- What do you want to achieve, what actions need to happen and in what order?
- Who will be responsible for each step and when will it be completed?
- What resources are required?
- Who else needs to be kept informed or consulted?
- How will you measure changes to practice?
- What would we expect to see as a result of this change?
- What data do we need to collect to check the outcome of the change?
- How will we know whether the change has worked or not?

## **Do the change (D)**

Put the plan into practice and test the change by collecting the data. It is important that the 'do' stage is kept as short as possible, although there may be some changes that can only be measured over longer periods. Record any unexpected events, problems and other observations.

## **Study (S)**

- Has there been an improvement?
- Did your expectations match what really happened?
- What could be done differently?

## **Act on the results (A)**

Make any necessary adaptations or improvements, acknowledge and celebrate successes. Collect data again after considering what worked and what did not. Carry out an amended version of what happened during the 'do' stage and measure any differences.

Cycles of improvement may occur at different levels and new actions may be planned as a result of previous cycles. Few organisations or individuals achieve all of any desired change in one step. It is more often an iterative process of a number of small changes with reflection on the impact and revision of behaviour. The process is iterative or occurs over a number of cycles.

Alternatively, new skills may be learned, barriers to change overcome and new areas targeted for improvement. Testing small changes sequentially means design problems may be detected and amended earlier rather than later. Similarly, performance tends to fall away with time. Repeated measurement of both process and outcomes helps to identify current performance and any areas of concern. Self-assessment of performance, while necessary, often overestimates performance and may not be either accurate or sufficient. When reviewing your progress:

- check that your goals have been achieved
- decide if the goals have been realistic
- see if the energy invested has led to the desired degree of change. Is the return worth the effort?
- document which factors have helped or hindered the change
- are there any further strategies or measures needed to bring about the desired changes and/or improve cost effectiveness?

## C.2 Knowledge-to-Action Framework

The Knowledge-to-Action (KTA) Framework<sup>140</sup> includes seven essential components for the knowledge translation necessary for successful implementation guidelines.<sup>141</sup> The components are:

- Identify the problem – identify, review, select knowledge tools/resources
- Adapt knowledge tools/resources to local context
- Assess barriers and facilitators to knowledge use
- Select, tailor and implement interventions
- Monitor knowledge use
- Evaluate outcomes
- Sustain knowledge use<sup>4</sup>

While each phase reflects on the previous and prepares for the next,<sup>4</sup> there are two key processes that comprise the knowledge-to-action framework. First is the **knowledge creation process**, which focuses on the identification of critical evidence and results in knowledge products. Second is the **action cycle**.<sup>4</sup>

These steps reflect a dynamic and iterative process, rather than a linear one.

An adaptation of the framework by the Registered Nurses' Association of Ontario<sup>4</sup>, shows how it can be used:

# Knowledge-to-Action Process

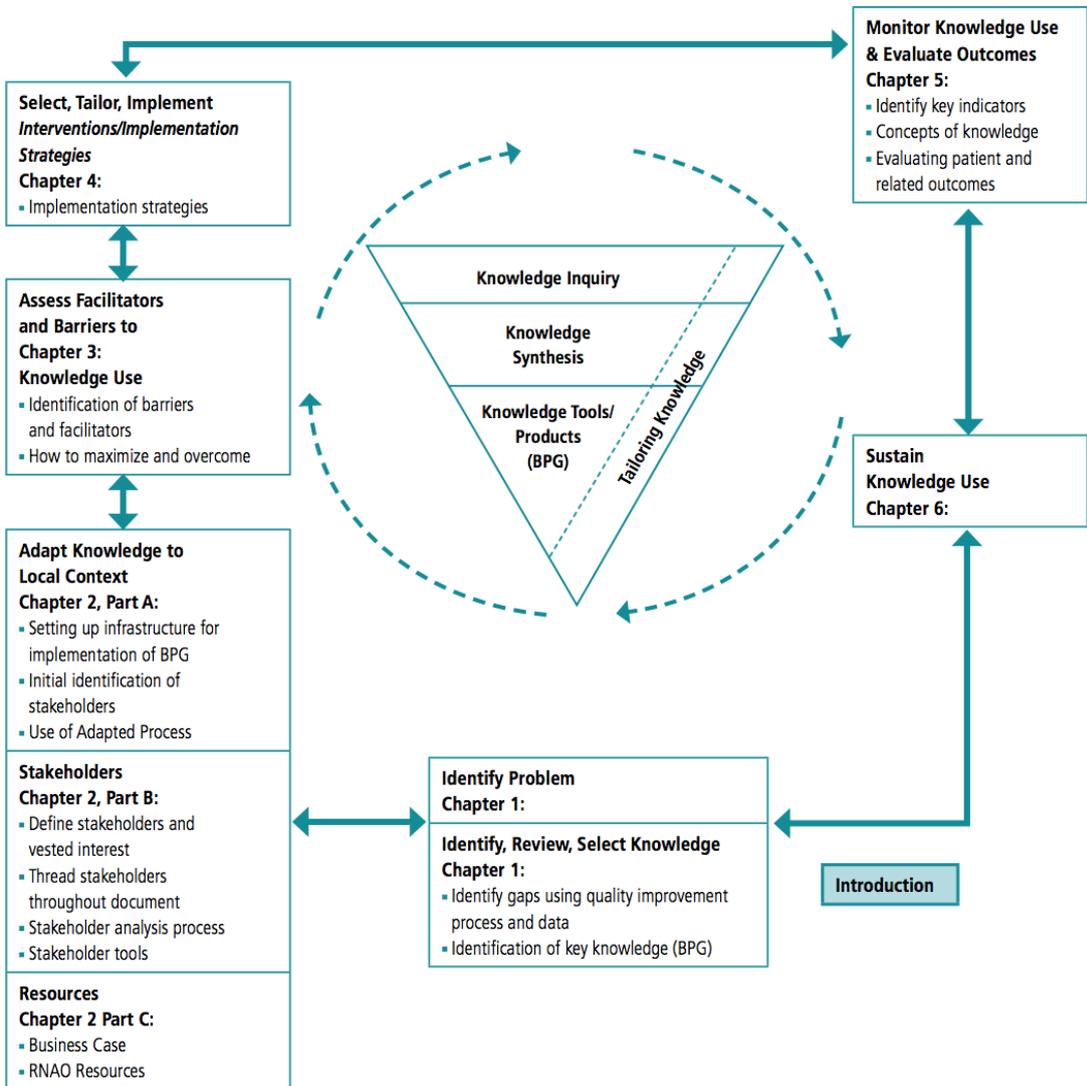


Figure 1: Revised Knowledge-to-Action Framework  
 Adapted from "Knowledge Translation in Health Care: Moving from Evidence to Practice". S. Straus, J. Tetroe, and I. Graham.

Source<sup>4</sup>

## C.3 The 'define, measure, analyse, improve, control' model

The 'define, measure, analyse, improve, control' (DMAIC) model is a data-driven quality improvement tool. It is an integral part of a [Six Sigma](#) initiative, but can be used as a standalone procedure or as part of other process improvement initiatives.

DMAIC is an acronym for the five phases that make up the process:

- **Define** the problem, improvement activity, opportunity for improvement, the project goals, and customer (internal and external) requirements.
- **Measure** process performance.
- **Analyse** the process to determine root causes of variation, poor performance (defects).
- **Improve** process performance by addressing and eliminating the root causes.
- **Control** the improved process and future process performance.

Figure. DMAIC model



Source <http://www.tbointl.com/blog/new-cio-priority-list>

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