



Australian Primary Care
Collaboratives

Collaborative Handbook

COPD & CDPSM Handbook, October 2009



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Department of Health and Ageing

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1 Introduction

1.1 Welcome

I am delighted to offer Australian general practices the opportunity to further build on their participation in the Australian Primary Care Collaboratives (APCC) Program, through the introduction of two additional topics: Chronic Obstructive Pulmonary Disease (COPD) and Chronic Disease Prevention and Self Management (CDPSM).

The objective of the APCC Program is to encourage and support general practices throughout Australia in delivering rapid, measurable, systematic and sustainable improvements in the care they provide to patients, through the sound understanding and effective application of quality improvement methods and skills.

Your practice has joined more than 800 others who have participated in the APCC Program since its inception in 2005 through state, local and virtual waves. Outstanding success has been demonstrated in improved patient outcomes and practice systems, particularly around diabetes, coronary heart disease, and patient access to timely and effective care. Collaboration between neighbouring practices has enhanced the spread of ideas to make 'the possible' become 'the usual'.

The move into the additional topic areas is particularly exciting as the COPD and CDPSM topics are breaking new ground in Australia and I look forward to joining you in this journey.

The Collaborative process has been immeasurably enhanced by the enthusiasm of our practice nurses, managers and reception staff, and we especially welcome their participation and special skills. In addition, the involvement of patients in this journey will bring another valuable perspective.

As general practices working together, we will continue to make the work of our clinicians and staff more satisfying, while improving the care we provide to our patients.



Dr Tony Lembke
Clinical Director

1.2 About this handbook

This handbook aims to provide you with a useful starting point in addressing the challenges set for the APCC Program in delivering improvements in the quality of care for your patients. It combines and signposts evidence-based guidance with practical examples drawn from the field. In addition, it provides you with an easily updated and helpful reference source to support you and your practice team during the APCC Program. The ring binder format has been chosen deliberately to enable you to update the handbook as the APCC Program develops over time.

The completed sections provide an overview of the APCC Program, the support you will receive and how you can derive most benefit from being involved. The ideas included in this handbook are those that we currently know have the greatest impact on achieving improvements in COPD and CDPSM and have proven to have the most significant effect.

We acknowledge, however, that you may have individual practical approaches and examples that can improve on these ideas. As the APCC Program has progressed, we have been able to improve on the original ideas, add new ideas and add updated examples from the successes and experiences of participating practices. This resonates with the philosophy behind the APCC Program: of people working together to share, learn, apply and ultimately improve best practice, to deliver better patient care.

We have tried to keep the initial material in this handbook helpful and concise, recognising that during the course of the APCC Program you will be acquiring a wealth of additional resources from the workshops and events you attend.

We hope you find the handbook a practical resource in supporting the work of you and your team, and we look forward to your contribution to future editions of this work.

1.3 Recognition

Many people have helped bring the APCC Program about and it is with sincere thanks that we recognise some key contributors:

- the Improvement Foundation (UK) for their assistance, training and advice
- the Expert Reference Panels for their work on the program and production of the handbook
- practices who contributed examples of best practice
- medical professionals and their representative bodies who have supported the APCC Program, including the provision of advice and handbook material.

IFA would also like to recognise the following organisations that have provided considerable intellectual property and support to aid in the development of the handbook and wave more generally:

- The Australian Lung Foundation
- National Asthma Council Australia
- The Heart Foundation
- Diabetes Australia
- Royal Australian College General Practice
- General Practice Gold Coast
- General Practice Victoria
- Brisbane South Division
- Central Highlands Division of General Practice
- Far North Queensland Division of General Practice
- Consumers' Health Forum of Australia

The APCC Program is funded by the Australian Government Department of Health and Ageing.

1.4 Support

The Improvement Foundation Australia (IFA) team and your Divisional practice support team, together with support from each State Based Organisation (SBO), will be a key resource for you and other participating practices. They will provide dedicated advice, support and assistance on the collection of measures and the change within the topics of COPD and CDPSM. They will also help to embed the techniques of generic quality improvement, not only with a focus on the Program topics, but with adaptation to many other clinical areas, as well. Through the national collaborative network, you will be able to tap into a wealth of knowledge and experience to help implement improvement in general practice.

Australian Primary Care Collaboratives contact details:

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Your Divisional practice support team details:

Key support member name:

Ph:

Fax:

Email:

Address:

Other practice support team member names:

Notes:

1.5 Glossary

ALF	Australian Lung Foundation
APCC	Australian Primary Care Collaboratives
ARB	Angiotensin Receptor Blocker
ATSI	Aboriginal and Torres Strait Islander
BMI	Body Mass Index
BP	Blood Pressure
CALD	Culturally and Linguistically Diverse
CDM	Chronic Disease Management
CDPSM	Chronic Disease Prevention and Self Management
CHD	Coronary Heart Disease
COPD	Chronic Obstructive Pulmonary Disease
CPM	Collaborative Program Manager
CVD	Cardiovascular Disease
DGP	Division of General Practice
DoHA	Department of Health and Ageing
ERP	Expert Reference Panel
FEV	Forced Expiratory Volume
FTE	Full Time Equivalent
GDM	Gestational Diabetes Mellitus
HDL	Lipoprotein that protects the arteries by transporting cholesterol from body cells to the liver for elimination
HL7 format	A series of communications protocol standards for the transmission of health information
HMR	Home Medicines Review
IDDM	Insulin Dependent Diabetes Mellitus

IFA	Improvement Foundation (Australia) Limited
IF (UK)	Improvement Foundation (UK)
IHD	Ischaemic Heart Disease
LDL	Lipoprotein plasma protein containing more cholesterol and triglycerides than protein
MD	Medical Director
Mmol/l	Millimoles per litre
NAC	National Asthma Council
NIDDM	Non-Insulin Dependent Diabetes Mellitus
NHF	National Heart Foundation
OGTT	Oral Glucose Tolerance Test
PBS	Pharmaceutical Benefits Scheme
PCP	Primary Care Partnership
PDSA	Plan, Do, Study, Act
PIP	Practice Incentive Payment
PMAC	Program Management Advisory Committee
RACGP	Royal Australian College of General Practitioners
RCNA	Royal College of Nursing Australia
SBO	State Based Organisation
SIP	Service Incentive Payment
SNAP	Smoking, Nutrition, Alcohol and Physical Activity

The APCC Program would like to acknowledge that there are a number of services that provide support in the primary healthcare sector. This handbook will use the term 'general practice'; however, this is intended to encompass the different types of primary care providers, including community health services and Aboriginal Medical Services.

2 About the Australian Primary Care Collaboratives (APCC) Program

2.1 The objective of the APCC Program

The objective of the APCC Program is to encourage and support general practices throughout Australia in delivering rapid, measurable, systematic and sustainable improvements in the care they provide to patients, through the sound understanding and effective application of quality improvement methods and skills.

2.2 The topic aims

The Australian Primary Care Collaboratives (APCC) Program has focused its efforts on three topics: diabetes, secondary prevention of coronary heart disease (CHD) and access and care redesign.

To build on this work, the APCC Program has introduced two new topics, which will be the focus of this handbook: Chronic Obstructive Pulmonary Disease (COPD) and Chronic Disease Prevention and Self Management (CDPSM).

The aim for COPD:

- To reduce by 30% the number of hospital admissions (compared to the previous 12 months) for respiratory illness in patients with COPD.

The aim for CDPSM:

- Increase the identification of those with risk factors for chronic disease and implement strategies to mitigate these risks, including self management. Through this we aim to assess risk factor status in 50% of those in whom it is recommended and reduce the number of risk factors that are not at target by 20%.

While the objective and aims are nationally defined to ensure consistency, we recognise, respect and value that every practice is unique and will come to the APCC Program from different starting points. Indeed, while there are many common issues between practices that allow us to learn from others, we also accept that what works for one practice may not work for another, at least not without customisation to the practice. The APCC Program is not a simple 'one size fits all solution' but a mature approach that genuinely acknowledges the diversity that exists in general practice throughout Australia.

For these reasons it is important for your practice to develop its own objectives and identify the keys tasks, change ideas and, using the Model for Improvement, generate PDSA¹ cycles which will help you in achieving the Collaborative aims (for more information on PDSA cycles see section titled 'The Model for Improvement'). To assist you in identifying and implementing changes and improvements there will be a range of support, from your local Division of General Practice and the team based at the Improvement Foundation Australia.

¹ PDSAs refer to Plan, Do, Study, Act – a means of improvement by making small changes in practice.

2.3 What is a Collaborative?

A Collaborative is a specific method of quality improvement used to distribute and adapt existing knowledge to multiple groups to achieve a common aim. The APCC Program has been successfully applied to general practice, Aboriginal Medical Services (AMS) and Aboriginal Community Controlled Health Services (ACCHS).

The Collaborative methodology is user-friendly and simple for participants to apply. It promotes rapid change, allowing general practices to experience the benefits and create results in short time-frames. There is local, hands-on support and protected time for participants to spend solving problems as a team. It is designed to implement change in small, manageable cycles and identify where change actually leads to an improvement.

The Collaborative methodology is underpinned by:

- The psychology of change which suggests that knowing and learning from peers who have successfully made a change improves an individual's own motivation to change. In this context, a culture of trust, peer learning and support, and the engagement of clinical leaders is important.
- Active clinical engagement in the program and support of the wider clinical community.
- The collection of data, in line with the following principles:
 - the focus is on measurement and data collection for improvement rather than judgement or research
 - data sets feed the activity of participating practices by demonstrating whether and which changes represent improvement
 - practice level data sets are not released beyond participating practices and supporting Collaboratives infrastructure.

2.4 Key features of a Collaborative

The key features of the Collaborative approach used in the Australian context consist of the Collaborative Framework (Diagram 1) and the Model for Improvement.² It also includes the following vital points:

- framework of practical improvement ideas
- lots of examples drawn from existing practice
- improvement model for rapid and sustainable improvement
- measurement for improvement
- protected time to plan and carry out changes for improvement
- practical support from Division practice support team
- encourages motivation of individuals to change.

2 Langley GL et al, (1996), *The Improvement Guide*, Jossey Bass, San Francisco.

2.5 The Collaborative framework

The Collaborative framework starts with selection of Program topics, then Expert Reference Panels (ERPs) are formed to develop an aim, measures, 'change principles' and 'change ideas' for each topic. This work is then compiled into the Program Handbook. Referring to the handbook, participants can apply these concepts to implement change in their practice whilst participating in the Program. Practices that participate in the Program attend an orientation session and a series of learning workshops, undertaking improvement/change activities in their practice during activity periods and collecting monthly data to track their progress.



Diagram 1: The Collaborative Framework

Adapted from the Institute for Health Care Improvement (IHI)

2.5.1 Role of the Expert Reference Panels (ERPs)

The Expert Reference Panels consist of people with research and clinical expertise in a particular topic area, as well as exemplars who have experienced improvement in the topic area. There is one ERP for each topic and by examining the latest available national and international evidence, guidelines and examples of improvement they:

- identify key change principles that underlie any improvement
- identify where possible, successful strategies for change
- suggest specific practical ideas for change that will generate significant improvement
- suggest simple measures that would assist in assessing progress.

The challenge is to determine a manageable number of potential changes that are most likely to result in improvement.

ERPs are highly efficient methods of harnessing national expertise to focus on the key requirements of improvement for the Program. Rather than undertaking a lengthy committee process with multiple meetings over a long period of time, the ERPs come together for one day only to discuss and decide on the best use and adaptation of the available evidence relating to the topic. This is facilitated by pre-work done by the IFA team and the ERP Chair.

The recommendations made by the ERPs are considered and developed into aims and measures for each topic which are underpinned by a corresponding set of change principles and change ideas for improvement.

2.5.2 Aims and measures

Each topic in the Program has a specific aim. Aims are targets that will assist in achieving the overall objective for the Program. For example, one of the aims for the new topics in the current Australian Collaborative is to reduce by 30% the number of hospital admissions (compared to the previous 12 months) for respiratory illness in patients with COPD. The aims usually involve a 'stretch' goal, which is not necessarily easy to achieve and will require significant improvement work to meet. It is important to realise that this goal is an aspirational target and any steps towards this goal is an improvement.

Measures are data collected specifically to help a participating practice track their improvement, and should be as simple to collect as possible. The measures for each topic can be found under the 'Measures' tab in the Chronic Obstructive Pulmonary Disease and Chronic Disease Prevention and Self Management sections of this handbook.

2.5.3 Change principles and change ideas

Change principles and change ideas are key components of the Collaborative methodology. They are the principles and ideas for action that the ERP members consider would secure the greatest improvement in that particular topic if they were implemented by those responsible for delivery of care.

The change principles are milestones that the practice should aim to achieve while the change ideas are the practical steps the practice will need to take to achieve them.

Change Principles & Change Ideas:

Chronic Obstructive Pulmonary Disease	Chronic Disease Prevention and Self Management
1. Build and maintain your practice team	1. Build and maintain your practice team
<ul style="list-style-type: none"> • Set realistic goals • Communicate with other team members • Engage the practice team • Assign roles and responsibilities • Reflect and review what you are doing 	<ul style="list-style-type: none"> • Set realistic goals • Communicate with other team members • Engage the practice team • Assign roles and responsibilities • Reflect and review what you are doing
2. Establish a system for creating, validating and updating a register of people with COPD	2. Identify those people in your practice for whom risk assessments are recommended
<ul style="list-style-type: none"> • Agree on a clear definition of COPD • Develop a register of people with COPD (confirmed by spirometry and reversibility testing) • Maintain an accurate record of smoking status in all patients • Identify patients with undiagnosed COPD • Develop systems to maintain a valid register 	<ul style="list-style-type: none"> • Identify individuals for whom risk assessments are recommended, using the evidence guidelines • Understand the practice population • Establish clear business rules around risk assessment
3. Be systematic and proactive in managing the care of people with COPD	3. Undertake the appropriate risk assessments on those identified
<ul style="list-style-type: none"> • Manage the care delivery provided to people with COPD through an established micro-multidisciplinary team • Establish appropriate care pathways for people with COPD • Establish proactive call and recall arrangements for people with COPD • Use guidelines, protocols and computer templates to support care delivery 	<ul style="list-style-type: none"> • Administer the appropriate risk assessment tool to those identified in need of risk assessment • Develop 'high risk', 'medium risk' and 'low risk' 'registers' for diabetes and cardiovascular disease • Determine a system to maintain the 'registers'
4. Involve patients and their families in delivering and developing their care	4. Deliver evidence-based and patient-centred interventions and other risk factor reduction strategies
<ul style="list-style-type: none"> • Develop and implement deliberate strategies for self-management to allow patients and carers to better understand and manage their condition • Integrate the patient's perspective constantly in the design of services • Ensure written communication is appropriate and understood • Pay special attention to the needs of people from hard to reach groups 	<ul style="list-style-type: none"> • Establish appropriate care pathways, using evidence-based guidelines, to implement risk reduction strategies for: <ul style="list-style-type: none"> ▪ Individuals on the 'high risk' registers for diabetes and cardiovascular disease ▪ Individuals on the 'low risk' and 'medium risk' registers for diabetes and cardiovascular disease • Establish a proactive call and reminder arrangement for individuals identified on the 'high risk' registers for diabetes and cardiovascular disease • Tailor interventions to suit local needs • Use guidelines, protocols and computer templates to support care delivery
5. Ensure effective co-ordination through the use of a multi-skilled and multi-agency approach	5. Develop self management plans and systems to monitor and review those plans
<ul style="list-style-type: none"> • Identify and engage local organisations and other sources of care to provide best care to patients with COPD • Analyse the patient journey and redesign where necessary • Provide integrated care by improving the relationship between primary, secondary and tertiary providers 	<ul style="list-style-type: none"> • Establish clear definitions of self management and what providing self management support implies • Organise internal and external resources to provide patient centred self management support • Implement a deliberate strategy for self management support to allow patients and carers to better understand and manage their conditions • Ensure written and verbal communication is appropriate and understood by the patient
	6. Adopt a multi-skilled and multi-agency approach
	<ul style="list-style-type: none"> • Analyse the patient journey and redesign where necessary • Identify and engage local organisations and other sources of care in developing patient centred services • Provide integrated care by improving the relationship between primary, secondary and tertiary providers

Further information about these change principles and change ideas can be found under the Chronic Obstructive Pulmonary Disease and Chronic Disease Prevention and Self Management sections of this handbook.

2.5.4 Orientation

The orientation session is an introductory event that provides an overview of the Collaboratives program and outlines the requirements and expectations of practices, and the benefits they are able to achieve through participation in the Program.

2.5.5 Baseline data collection

Practices collect baseline data at the beginning of the APCC Program. This provides an important snapshot of their position before they begin making improvements through the Program and enables them to see the results of their work.

2.5.6 Learning workshops

A series of three learning workshops provide participants with evidence based information and the opportunity to actively share knowledge and experiences with their peers and to build on knowledge gained from previous participation in the Program. They are able to hear one another's ideas and generate new ideas that will translate to improvements in their own practice. Patients will also attend and actively participate at all the learning workshop events. Given the nature of the COPD & CDPSM topics, patient involvement in the Program is expected to add significant value to the generation and exchange of ideas and innovation. Practices have the benefit of protected time in local team sessions during the learning workshops to work closely with patients and formulate plans for action in future activity periods.

2.5.7 Activity periods

Activity periods are the periods of time between and after learning workshops. They enable the practice team to test and carry out change. The effects of improvements they choose to test are measured through ongoing monthly data collection of all measures in each topic. A vital component of the activity periods is the proactive and hands on support provided by locally based practice support teams also known as Collaboratives Program Managers (CPMs).

2.5.8 Waves

Practices that join the APCC Program participate in a 'wave'. A GP and a staff member from each practice come together with other practices in their wave to participate in the Program. A wave is made up of an orientation session followed by a series of learning workshops. These events are spread out over approximately a nine month period and, combined with activity periods and ongoing data submission. The activity periods enable practices to test and implement change back at their practice.

National wave

The current COPD and CDPSM national wave will run for two consecutive days in a central location in Queensland and will involve participants coming together from across Australia.

2.6 The Australian Primary Care Collaboratives Program

2.6.1 Australian Primary Care Collaboratives Phase 1

The first phase of the APCC Program was delivered from Oct 2004 – Dec 2007 with approximately 600 practices from 43 Divisions participating and achieving significant outcomes, including:

- improved patient care through better management of diabetes and coronary heart disease
- increased best practice care through better use of information systems (both medical and business systems)
- evolving roles among practice staff to better meet patient demand
- a cultural shift from individual patient care to population-based care.

2.6.2 Phase 1 results/clinical outcomes

The following improvements are a snapshot of some evidence-based clinical measures that have been recorded. Results are relative to baseline data and national aggregates of all core waves as at November 2007 data submission (containing data inclusive of October 2007):

Coronary Heart Disease (CHD):

- 31% improvement in the percentage of patients with CHD recorded as being on aspirin medication
- 43% improvement in the percentage of patients with CHD whose last recorded blood pressure within the previous 12 months was <140/90 mmHg.

Diabetes:

- 105% improvement in the percentage of patients with diabetes whose last recorded cholesterol in the previous 12 months was <4mmol/L
- 82% improvement in the percentage of patients who have had a SIP claimed for them.

Access and Care Redesign:

- 8% improvement in the percentage of patients seen by a GP on the day of their choice.

2.6.3 Australian Primary Care Collaboratives Phase 2

As part of the 2007/08 Budget, the Australian Government announced that the APCC Program would be continued and expanded for a further 4 years (2008-2011). In late 2007, Improvement Foundation Australia (IFA) was awarded the

contract and works with the Australian Government, Department of Health and Ageing, to deliver it.

The APCC Program operates under the direction of a program management advisory committee (PMAC) and a dedicated IFA team, bringing together the expertise of individuals in a range of areas to deliver the Collaboratives work under a single, coordinated management structure. This streamlined approach provides overall support to the varying Collaborative components.

2.6.4 Phase 2 results/clinical outcomes to date

The following improvements are a snapshot of some evidence-based clinical measures that have been recorded for the NSW, QLD and ACT wave, which is currently being conducted. Results are relative to baseline data as at March 2009 (month 10) data submission:

Coronary Heart Disease (CHD):

- 49% improvement in the percentage of patients with CHD whose last recorded blood pressure within the previous 12 months was $\leq 130/80$ mmHg.

Diabetes:

- 86% improvement in the percentage of patients with diabetes whose last recorded cholesterol in the previous 12 months was < 4 mmol/L
- 85% improvement in the percentage of patients whose last recorded HbA1c in the previous 12 months was $\leq 7.0\%$

Access and Care Redesign:

- 44% improvement in the average number of patients who are unable to arrange suitable appointments (unmet demand).

2.6.5 The role of the Improvement Foundation Australia (IFA)

As a not-for-profit organisation the IFA was established in November 2006 with a qualified and experienced team, based in Adelaide. Its purpose is to deliver a range of quality improvement services and programs, and to promote the collaborative methodology and other quality improvement tools to deliver rapid, systematic and sustainable improvement in the quality of health care and other community services.

As the delivery organisation for the APCC Program, IFA, in partnership with participating Divisions and State Based Organisations, will provide a range of local, regional and secretariat support for participating practices. This includes:

- program management through the APCC secretariat office in Adelaide
- local project management support at each participating Division
- finance to help practice support staff based in each participating Division and project support costs through agreement with the Division
- ongoing training and development to ensure practice support staff have the skills and knowledge base to provide optimal support to practices

- access to an online reporting site (web portal) to submit data and track improvements
- the opportunity to learn from national, state and local examples through Collaborative workshop programs
- regular feedback graphs on practice data
- APCC website.

2.6.6 The role of the State Based Organisation (SBO)

The role of the SBO is primarily to assist practice support staff in participating Divisions of General Practice to effectively implement the APCC Program's methodology. A regional coordinator based at the participating SBO works closely with the Divisions within their state. They act as the liaison between the APCC office and participating Divisions and report regularly to the APCC Program Director. They will offer first-hand support to the Divisions to ensure that there is a consistent national approach to program support and delivery. They will also assist the Divisions in identifying good practice ideas, exemplars and actively support state, local and virtual learning workshops.

2.6.7 The role of the Division

The key role of the Division is to support participating practices in implementing improvements in the COPD and CDPSM topic areas. The Division will also work closely with participating practices to recruit patients for the Program. The Division works closely with the participating general practice team and patients on all aspects of the Program to enable them to achieve the objective of the APCC Program.

The Division provides dedicated advice, hands-on support and assistance on the principles of CDPSM, and change principles aimed at improving the care of patients with COPD. They help to embed the techniques of generic quality improvement as they apply to these areas. Through their network of local and national contacts, they are able to tap into a wealth of knowledge and experience to assist practices in making improvements in the care they provide to patients and in how they work as a team.

Divisions work closely with the regional coordinator based in each participating State Based Organisation (SBO). They provide the regional coordinator with regular reports on practice progress and highlight successful experiences, strategies and challenges. To ensure and maintain a high level of support, ongoing training is provided to Divisions by the SBO and IFA throughout the course of the Program. IFA also supports Divisions with patient recruitment by providing guidance through resources and information.

Key tasks of the Division include:

- Supporting general practices to achieve results through coaching and facilitation of the testing and implementation of new methods of care delivery, through the use of the Model for Improvement.

- Recruiting of patients for the Program to act as key players in the Divisional team.
- Working with participating general practices to complete and submit the APCC Program's monthly measures and the Model for Improvement PDSA cycles within the required timescales.
- Coordinating the analysis, synthesis and presentation of appropriate local quantitative and qualitative data to support improvement in practice.
- Presenting and promoting the APCC Program within the Division and local health community, resulting in the recruitment of practices and support from the Division, patients, primary health care providers and the wider health community.
- Integrating the APCC Program into the business and developmental priorities of the Division.
- Ensuring that skills and knowledge from the Collaborative methodology are transferred to participating practices within the Division and across the local health community, with appropriate action to support this.
- Planning, managing and reviewing the APCC Program locally, including monitoring milestones and outcomes.
- Regularly reporting to the IFA office, SBO and Division on progress, outcomes and issues.

2.6.8 Delivering improvements at the practice level

The aim of this wave is to make real improvements to the care of patients with Chronic Obstructive Pulmonary Disease (COPD) as well as focusing on prevention and self management for individuals with a chronic disease. The key to making real improvements is through the involvement and participation of the practice team in the Program. It will be the doctors, nurses, practice managers, administrative support and patients who will be essential to delivering improvements that will make a difference. As a representative of your practice attending the workshops, your efforts, commitment, energy and initiative will form a major contribution to the success of the work.

This is not a passive exercise but a practical and purposeful approach, which requires participants to carry out tests of change and to measure their impact. Experience has shown that those who deliver the most improvement start immediately – i.e. they complete their first PDSA cycle within a week or so of the first learning workshop. The challenge to you and your practice is to complete and report on at least one PDSA cycle within eight working days of the first learning workshop. The 'Eight Day Challenge' will be introduced to you at Learning Workshop 1. For further details about PDSA cycles, please refer to the 'Model for Improvement' section of this handbook.

It is important to use the protected team time sessions at the learning workshops to identify the initial Plan section of your PDSA cycles by considering an idea for change and answering the three fundamental questions. The handbook and the ideas from the workshop offer a useful starting point. You might find it helpful to

reflect on the examples cited, but also consider the experiences of colleagues and patients in your Divisional group who will also have something to offer.

2.6.9 Your role at and post learning workshops

As the representative of your practice attending Program events your role is critical. During the learning workshops you will be exposed to many ideas and interesting discussions with colleagues from a range of practices working in different geographical areas as well as working closely with patients. An important personal challenge you have after the learning workshops is to bring your partners and other colleagues up to speed and encourage them to deliver change. Experience has shown that engaging the practice team effectively is a crucial task in spreading improvement successfully in the practice.

It is important that you hold a practice meeting with those that are going to help take this forward within a few days following the first workshop, while the issues are still fresh. Use the meeting to brief your colleagues about what you have heard, highlighting what you thought was useful and your own suggestions for delivering improvements in your practice. Your Division has a range of materials to help you explain the APCC Program to your practice team.

To help practices successfully implement improvements please refer to change principle 1 across all topics, 'Build and Maintain the Practice Team'. A detailed guide of this change principle can be found under this section of this handbook.

2.6.10 Help from APCC colleagues

Practices that are participating in the COPD and CDPSM wave have previously participated in the Program and have a wealth of experience and knowledge. The collaborative network is a useful resource to guide and advise you on how to make the most of your participation in the Program. Ask your Division on how you might be able to tap into the knowledge and skills of fellow participating practices. In addition, some previous participants will be presenting at learning workshops to spread and share their knowledge and experiences.

3 The Model for Improvement

Making improvements to products, systems or services requires change. Although change can seem threatening or overwhelming for busy people, it can be successfully managed if it is well planned. The Model for Improvement provides a framework for developing, testing and implementing changes. It will help you to break down your change effort into manageable chunks which are then tested to ensure that things are improving and no effort is wasted. It is always worth remembering that while every improvement is certainly a change, every change is not an improvement.

The Model for Improvement is a tried and tested approach to achieving successful change. It offers the following benefits:

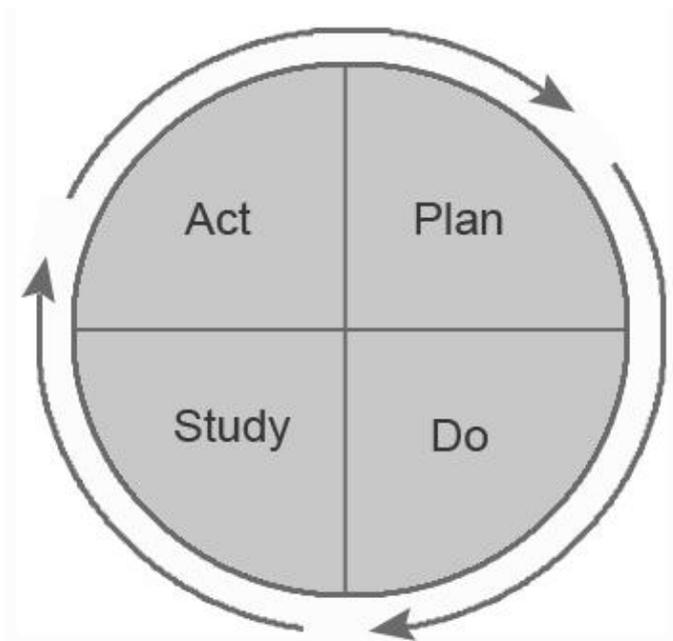
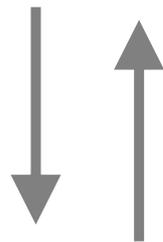
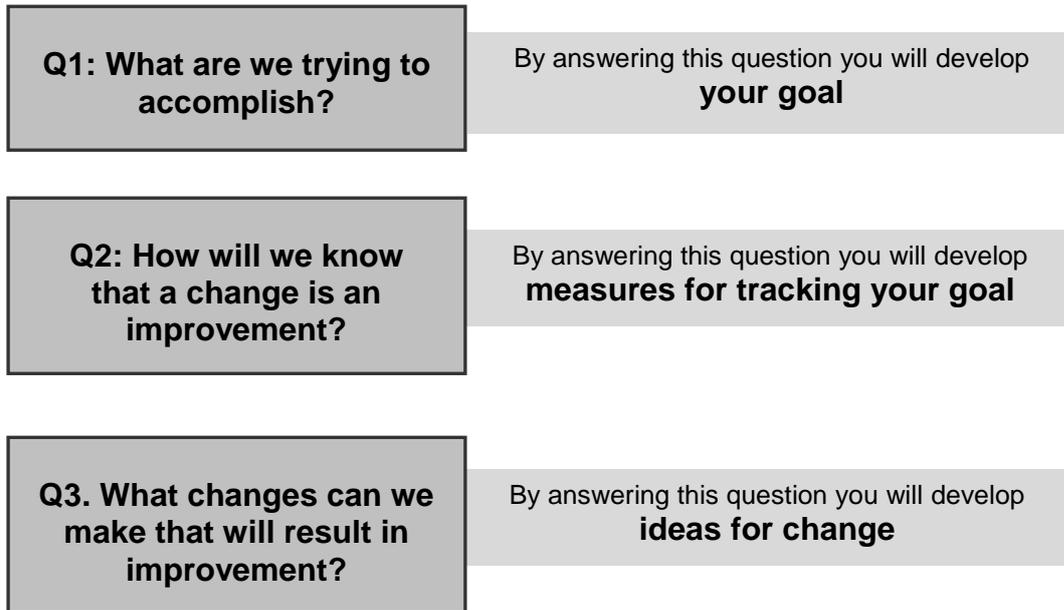
- it is a simple approach that anyone can apply
- it reduces risk by starting small
- it can be used to help plan, develop and implement change
- it is highly effective.

The Model for Improvement was first published in 1992 by Langley et al.¹ It consists of two parts that are of **equal** importance:

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

¹ Langley GL, Nolan KM, Nolan TW, Norman CL, Provost LP, (1996), *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance*, Jossey-Bass Publishers, San Francisco.

3.1 The Model for Improvement Diagram



3.2 Three Fundamental Questions

3.2.1 Question 1: What are we trying to accomplish?

The key idea in answering this first question is to provide a goal for your improvement effort that will guide and keep your efforts focused. To answer this question you will need to write a clear and concise goal for improvement (i.e. what results you would like to obtain or how you would like things to be different).

Some considerations when developing your goal:

- make sure your goal statement is clear and concise, with (where possible) numerical goals
- make the target for improvement unambiguous
- set bold but realistic goals, don't settle for benchmark
- use language simple enough for everyone to memorise
- include anything that will help keep the team focused (location, strategies, patient populations, scope, constraints, etc.).

Some examples:

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

Our goal is to:

- Create an up to date and accurate register of patients with COPD

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

Our goal is to:

- Ensure all COPD patients have a General Practitioner Management Plan (GPMP)

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

Measurement is fundamental to answering this question. Without measurement it is impossible to know whether you have improved. The measures you select as part of answering this question will tell you how you are progressing in achieving your goal. If you make a change and your measures get better over time, you can then conclude that the change has led to an improvement.

To answer this question, reflect on your goal and then decide on what data you need to collect, to measure this.

Some considerations when developing your measures:

- the purpose of measurement is for learning not judgment
- your measures should reflect and be specific to your goal
- all measures have limitations, but the limitations do not negate their value
- measures provide key information on how to act or what to change within the system
- measures tell a story whereas goals give a reference point
- seek usefulness not perfection. A common pitfall is to spend too much time trying to get the perfect answer
- be clear so everyone knows how, who, what and when to measure.

The number of times you collect these measures is dependent on the measures chosen and the goal you are trying to achieve. It is best to measure at the beginning of the improvement effort and then intermittently throughout your effort.

Types of measurement

The type of measurement you choose will depend on your goal. You may choose a combination of the following:

Plot data over time: A lot of information about a system and how to improve it can be obtained by plotting data over time — such as data on length of stay, volume, patient satisfaction — and then observing trends and other patterns. Tracking a few key measures over time is the single most powerful tool a team can use.

Sampling: Sampling is a simple, efficient way to help a team understand how a system is performing. For example, you could sample seven patients over a week to rate the effectiveness of your recall system.

Use qualitative and quantitative data: In addition to collecting quantitative data, be sure to collect qualitative data, which is often easier to access and highly informative. For example, ask the nursing and administration staff how the process for claiming SIPs is going.

Examples linking the first two fundamental questions together:

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

Our goal is to:

- Create an up to date and accurate register of patients with COPD

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

We will measure:

- the number of patients on the COPD register before the improvement effort, and
- the number of patients on the COPD register after the improvement effort

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

Our goal is to:

- Ensure all COPD patients have a GPMP

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

We will measure:

- the number of GPMPs billed prior to the improvement
- the number of GPMPs billed after the improvement

3.2.3 Question 3: What changes can we make that can lead to an improvement?

To answer this question you will need to decide what ideas you will try/test in order to achieve your goal. This is where you and your team generate ideas for change and use the PDSA cycles to test your ideas.

When answering this question you can adapt ideas from others (you will hear a lot of ideas at the learning workshops), the APCC website, or you can be completely creative. To help come up with ideas, consider looking at the sub-section on Change Concepts later in this section.

Remember that you know your own practice the best, so keep your goal in mind and use your knowledge and experience to guide you.

Gather together as many ideas as you can. These ideas will form the basis for the next step – your PDSA cycles.

Linking all three fundamental questions together:

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

Our goal is to:

- Create an up to date and accurate register of patients with COPD

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

We will measure:

- the number of patients on the COPD register before the improvement effort, and
- the number of patients on the COPD register after the improvement effort

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

Ideas for change:

- remove deceased patients from the register
- check for inactive patients with COPD who have not been to the practice in over two years
- inactivate patients who presented for pre employment medicals with COPD recorded in history
- check 'free text' diagnosis of COPD
- search for patients on Spiriva not coded as COPD

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

Our goal is to:

- Ensure all COPD patients have a GPMP

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

We will measure:

- the number of GPMPs billed prior to the improvement
- the number of GPMPs billed after the improvement

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

Ideas for change:

- search for COPD patients to identify those who haven't had a GPMP billing in the past 12 months
- Ensure all relevant staff understand what they need to input into the plan
- Recall COPD patients for GPMP

3.3 Testing your change: Plan-Do-Study-Act Cycles

PDSA cycles are used to test the ideas developed from the third question, **‘What changes can we make that can lead to an improvement?’**

The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change - by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method used for action-oriented learning.

It is important that you record your PDSA cycle as you go along: the plan, the results, what you learnt and what you are going to do next. It is very motivating to see the results of what you have tried but also a great way of accumulating information about your systems, and a good way of sharing your learning with other people.

A PDSA cycle consists of the following components:

Plan:

Develop a plan to test your idea, including the what, who, when, where, predictions & data to be collected. Answer the following questions:

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

When you plan your cycle, be clear about why you are making the change and what you are doing. It is also important to know who is doing what, where and when. Your results are dependent on how good your plan is.

Do:

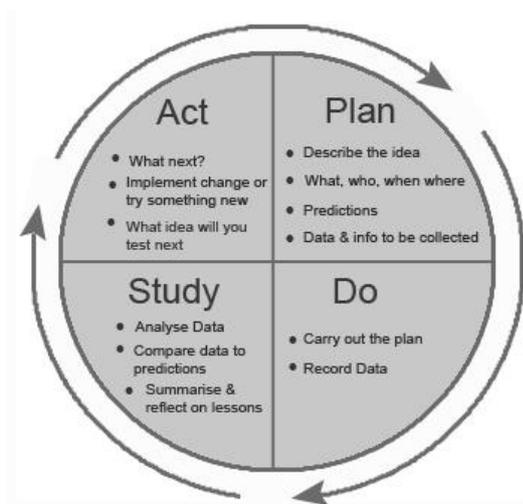
Carry out the plan, documenting observations and recording data.

Study:

Reflect on what happened. Think about and summarise what you have learned, analysing data collected and comparing the data to your predictions.

Act:

Decide what you will do next as a result of this. What will you take forward from this cycle: will you implement the change tested, amend it, or try something else? Plan the next cycle.



There are lots of examples of and ideas for PDSA cycles in this handbook and you will encounter more as you go through the Program, but when working with PDSA cycles remember:

- no PDSA is too small
- you should expect a series of PDSAs leading towards your goal
- you can achieve rapid results
- PDSAs help you to be thorough and systematic
- PDSAs help you learn from your work
- anyone can use them in any area.

Example: linking three fundamental questions and PDSA cycles

Q1. What are we trying to accomplish? (Goal)
Our goal is to:
➤ Create an up to date and accurate register of patients with COPD
Q2. How will we know that a change is an improvement? (Measures)
We will measure:
➤ the number of patients on the COPD register before the improvement effort, and
➤ the number of patients on the COPD register after the improvement effort
Q3. What changes can we make that will lead to an improvement? (Ideas)
Ideas for change:
➤ remove deceased patients from the register
➤ check for inactive patients with COPD who have not been to the practice in over two years
➤ inactivate patients who presented for pre employment medicals with COPD recorded in history
➤ check 'free text' diagnosis of COPD
➤ search for patients on Spiriva not coded as COPD

Description: Remove deceased patients from the register			
Plan	Do	Study	Act
<p><u>What:</u> Print list of COPD patients. Provide GP with list of patients for their review and identification of deceased patients.</p> <p><u>Who:</u> Practice nurse</p> <p><u>When:</u> Friday 21st Feb</p> <p><u>Where:</u> At the practice</p> <p><u>Prediction:</u> That at least 10 deceased patients will be identified for removal.</p> <p><u>Data to be collected:</u> List of deceased patients to be removed from register. Number of deceased patients.</p>	<p>More deceased patients than expected were identified. Practice nurse needed to follow up lists.</p>	<p>42 patients were identified as deceased. GPs were surprised to see they were still 'active' on the system.</p>	<p>Practice nurse to inactivate the patients in the practice's medical software and hence remove them from the register.</p> <p>Practice to discuss process for identifying deceased patients on an ongoing basis.</p>

Description: Check for inactive patients with COPD who have not been to the practice in over two years			
Plan	Do	Study	Act
<p><u>What:</u> Run a search on database for COPD patients who have not attended the practice in the past two years and 'inactive' their record.</p> <p><u>Who:</u> Receptionist</p> <p><u>When:</u> Tuesday 2nd March</p> <p><u>Where:</u> At the practice</p> <p><u>Prediction:</u> There will be about 100 COPD patients who have not visited the practice in the past two years.</p> <p><u>Data Collected:</u> Number of patients requiring inactivation.</p>	<p>This was a quicker process than expected, only taking 10 minutes.</p>	<p>60 patients were identified and 'inactivated' in the practice software. Not as many as expected.</p>	<p>We will maintain this process of 'inactivating patients' and aim to undertake this process at least every six months to ensure our records are up to date.</p> <p>The receptionist's duty statement has been amended to include this task.</p>

You continue to test your ideas from the third fundamental question until you are confident that you have achieved your goal.

3.4 Hints and tips for testing changes

There are a number of hints and tips you should keep in mind when testing changes:

- Ensure that you involve the right people in your work (improvement is nearly always a team endeavour).
- Just do it! (Think 'what can we do by next Tuesday?').
- Aim big but test small.

- Keep it simple.
- Plan multiple cycles for a test of change and think a couple of cycles ahead.
- Be innovative to make the test feasible.
- Collect useful data during each test.
- Test over a wide range of conditions.
- Remember that you will learn as much from something that didn't go well as something that did.

3.5 Common traps

The idea of *testing* a change does not seem to come naturally. People tend to want to solve their problems with one change and they try to implement the whole change with one plan. Below are some common traps to watch out for when using the Model for Improvement:

- not reflecting on what you've done in order to learn from it (i.e. Plan Do, Plan Do)
- implementing changes without planning (i.e. Do Act, Do Act)
- no testing, only data collection
- undisciplined PDSAs, no documentation
- thinking too big: beware of cycles longer than two weeks.

The following is one example of a common trap, which is undertaking more than one idea in a PSDA cycle:

Example of a PSDA that is too large

Plan: Ensure all COPD patients have a GPMP. The practice nurse to search billing software for COPD patients and identify those patients who have not had a GPMP billed in the last 12 months and flag these patients for recall. Each patient on this list is sent a letter asking them to make an appointment. Three weeks later the same list is again obtained from the database and patients who have not booked an appointment are marked. Another letter is sent. If there is no response to the second letter, the remaining patients on the list are contacted by phone. For those patients who have not responded, a note is made on their record for follow up should they visit the practice for any reason in the future.

This example can be broken down into a series of smaller tasks, each of which would form the basis for a PSDA cycle. For example:

- Search the billing software to identify and list COPD patients who have not had a GPMP.
- Send a letter to each patient to request patients make an appointment for a GPMP.
- Send a follow up letter to each patient who did not respond to the first letter.

- Contact patients by phone who have not responded to the letters.
- Note patient files for future follow up where no response has been received.

This example is for illustrative purposes only and demonstrates that putting a number of tasks into one plan limits your learning and will affect your subsequent course of action. It is difficult to analyse ('study') the success of each idea when you undertake them all at once.

3.6 Change concepts

There are many kinds of changes that will lead to improvement, but the majority of these specific changes are developed from a limited number of change concepts.

A change concept is a general notion or approach to change that has been found to be useful in developing specific ideas for changes that lead to an improvement.

Creatively combining these change concepts with knowledge about specific subjects can help generate ideas for tests of change.

Change Concepts	
Eliminate Waste <ul style="list-style-type: none"> • Reduce or eliminate overkill • Match the amount to the need • Use sampling 	Manage Variation <ul style="list-style-type: none"> • Standardisation • Stop tampering
Improve Work Flow <ul style="list-style-type: none"> • Minimise handoffs • Find and remove bottlenecks • Do tasks in parallel 	Enhance the Producer/Customer Relationship <ul style="list-style-type: none"> • Listen to the customer
Optimise Inventory <ul style="list-style-type: none"> • Reduce choice of features 	Manage Time <ul style="list-style-type: none"> • Reduce wait time • Reduce set up or start-up time
Change the Work Environment <ul style="list-style-type: none"> • Give people access to information • Focus on core processes and purpose 	Design Systems to Avoid Mistakes <ul style="list-style-type: none"> • Use reminders • Use differentiation
Focus on the Product or Service <ul style="list-style-type: none"> • Differentiate product using quality 	

3.7 Model for Improvement Guide (insert updated version)

4 Quality Improvement Tools

The Model for Improvement and PDSA cycle, form one tool that can be used to test changes and undertake quality improvements. There are also a range of other quality improvement tools you can use to enhance your improvement work further. This section includes an additional seven quality improvement tools that can assist you in working through the three fundamental questions and PDSA cycles. The tools can be used individually, or several can be used when working through a given improvement topic.

The tools covered here are:

Tool	Usage
1. Brainstorming	Generating ideas
2. Affinity Diagrams	Organising & categorising ideas
3. Five Whys	Defining a problem (determining root cause)
4. Fishbone (Ishikawa)	Exploring and determining factors that cause/influence an outcome (cause and effect)
5. Pareto	Identifying courses of action with the greatest potential for improvement (where to focus your effort)
6. Process Mapping	Visualising and understanding what happens in a process (for service/process redesign)
7. Force Field Analysis	Identifying factors which affect solutions to problems positively or negatively

4.1 Brainstorming

Purpose

Brainstorming is an activity used to generate creative ideas and can be done individually or as a group. It should not be used for analysis or decision making.

How to brainstorm

After establishing the topic for the brainstorming session, come up with as many spontaneous ideas as possible and write them down, accepting any ideas, however 'wild' they might seem.

Key rules for brainstorming

- Quantity over quality: all ideas are acceptable.
- Judgement is suspended until the process is complete.

- Encourage wild ideas.
- Every person and every idea has equal worth.
- Build on the ideas put forward by others – use existing ideas to generate new ones.

Tips

- Environment is important – take routine away from the situation (leave work premises).
- Make sure you have the right equipment: ‘Post-it’ notes, pens, flip charts, etc.
- Make sure you have the right people (12 is an ideal group size but there can be more or fewer).
- Aim for 20-30 ideas in 5-7 minutes.

Nominal Group Technique

A variation on the standard brainstorming process is Nominal Group Technique; a more structured approach to brainstorming that can prevent domination of the discussion by one person and encourages more reticent group members to participate. The technique is used as follows:

1. Divide a larger group into smaller groups of 5 or 6 people.
2. Present an open ended question.
3. Each person to brainstorm independently.
4. Each person shares their ideas one after the other (no criticism).
5. Evaluate each idea individually and vote (voting can be anonymous).
6. Share votes with the group.
7. Groups present their ideas.

Once you have generated ideas using either technique, you could use an Affinity Diagram to help organise the ideas.

4.2 Affinity Diagram

Purpose

An Affinity Diagram is a way to organise ideas into coherent patterns or themes, based on natural relationship. It encourages people to think inventively and make non-traditional connections between ideas, promoting greater ownership of results by allowing breakthroughs to emerge naturally. An Affinity Diagram can be used at any stage of an improvement project, particularly if you anticipate a large volume of ideas.

How to build an Affinity Diagram

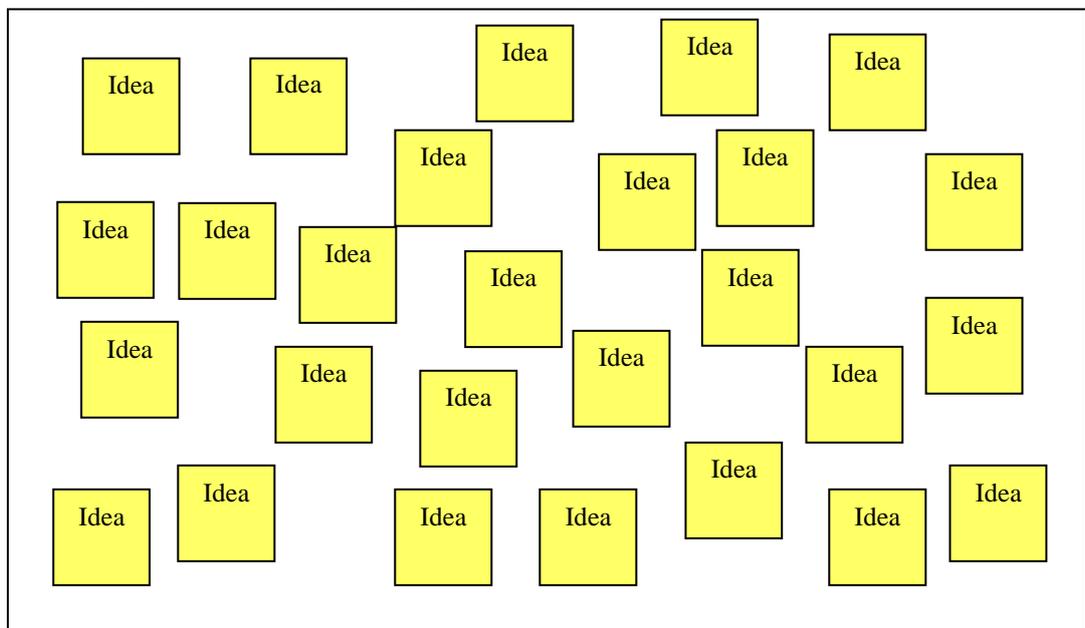
1. Select a topic for discussion and brainstorm ideas (see ‘Brainstorming’ above) using ‘Post-it’ notes.

2. Display the ideas: post these on a flip chart, wall or table in a *random* manner.
3. Sort the ideas into related groups: team members sort the cards into groups without talking. Firstly looking for two ideas that appear to be related in some way and place them in a separate column. Add to these as you sort through the cards and establish new groups. The process is complete when all cards have been assigned to a group.
4. Create a header card for each group that captures the essential link among the ideas contained in the cards. Avoid one-word headers.
5. Organise the finished Affinity Diagram. Review with the team and other key people.

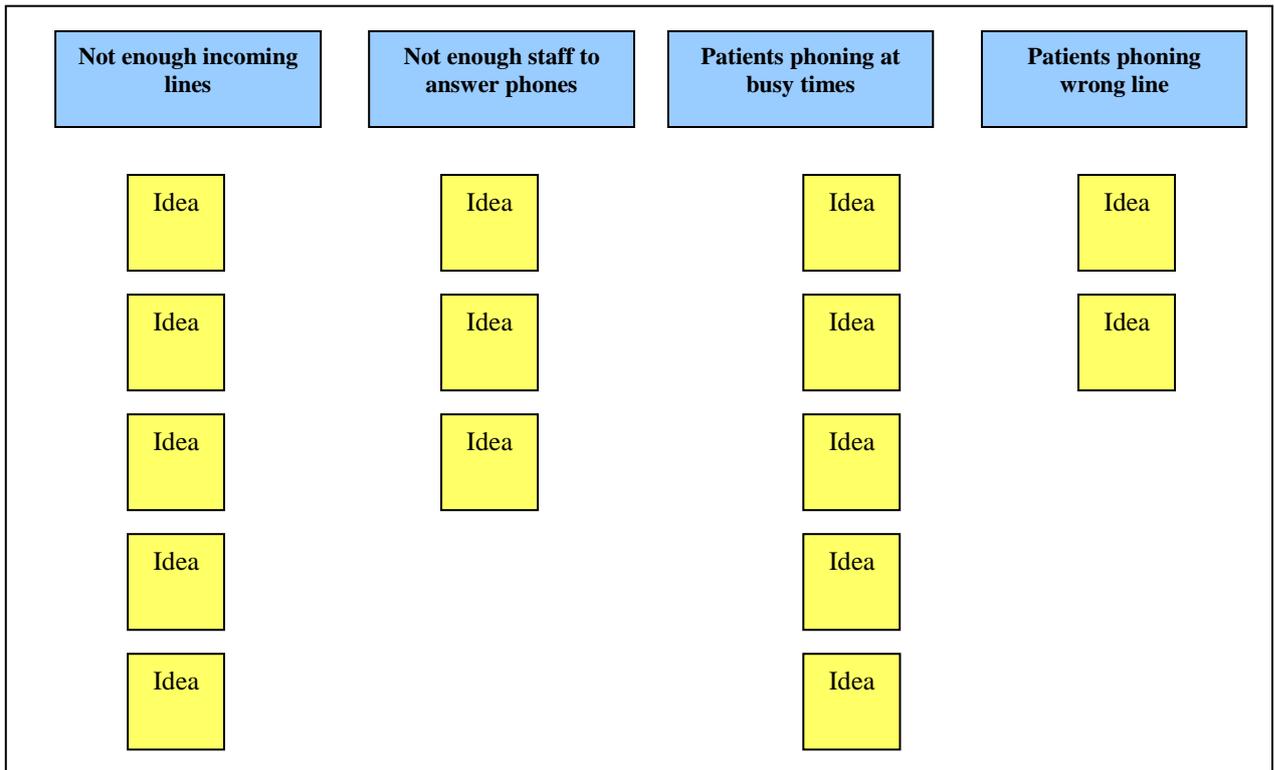
Example

Why can't patients get through to the practice on the telephone?

Generating ideas randomly using brainstorming:



The Affinity Diagram depicting the ideas organised into categories:



Tips

- Make sure you assemble the appropriate team and that everyone participates.
- Before you begin grouping, be sure the meaning of all ideas is clear to everyone.
- Don't force cards into groups if there is no natural fit – put them in a separate category.
- Category titles should be concise and should contain the essence and detail of the issues raised.

4.3 The 5 Whys (Root Cause Analysis)

Purpose

The 5 Whys helps to identify the root cause of a problem and is a simple, yet powerful tool. The technique originated within Toyota while developing their manufacturing methodologies, and is a key component of their problem solving training.

Asking the question ‘why?’ repeatedly (five times as a rule of thumb) allows you to peel back layers of a problem or issue, which can lead you to the root cause. The reason for a problem may lead to further questions and it may take fewer – or more – than 5 whys to expose the root cause. The aim is to ensure that a problem remains solved. Once the root cause has been identified, action can be taken to deal with the problem. This technique enables you to focus your improvement work on the correct area.

How to complete the 5 Whys

1. Write down the problem. Describing it as accurately as possible will help in focusing all team members on the same issue.
2. Brainstorm as a group to ask why the problem occurs (write it down).
3. If this does not identify the root cause, ask why again (write it down).
4. Repeat this last step until you agree on the root cause (a statement).

You will know when you have identified the root cause – when asking why does not yield any more helpful information.

Example

The patient did not attend for diabetic review

WHY?	The patient did not receive a letter to attend
WHY?	The patient is not on the diabetes register
WHY?	The patient is not coded as diabetic
WHY?	Not all patients are coded as diabetic on the computer
WHY?	No training has been given to the practice on how to code
Action:	Train the practice team members on how to code

Adding this patient to the diabetes register would solve the immediate problem, but does not ensure that this won't happen again with other patients. Addressing the root cause of the problem by training the practice team members on how to code helps ensure that this problem won't occur again.

Tips

- Focus on the process rather than the people (blaming someone does not solve the problem).
- Avoid making assumptions about a problem when working through the 5 whys.
- Make sure that you communicate the outcomes of the process to others, to ensure that the root cause is understood by everyone involved and that effort is focused on the correct problem.

4.4 Fishbone (Ishikawa) Diagram (Cause & Effect)

Purpose

The Fishbone Diagram is a graphic tool used to explore and determine all the factors that influence or cause a given outcome, to help you understand the problem more clearly. The tool gets its name from its inventor, Kauro Ishikawa and its resemblance to a fish skeleton.

The diagram will help to indicate areas for further investigation and will illustrate the interaction of many causes rather than a single cause for a given effect. It is

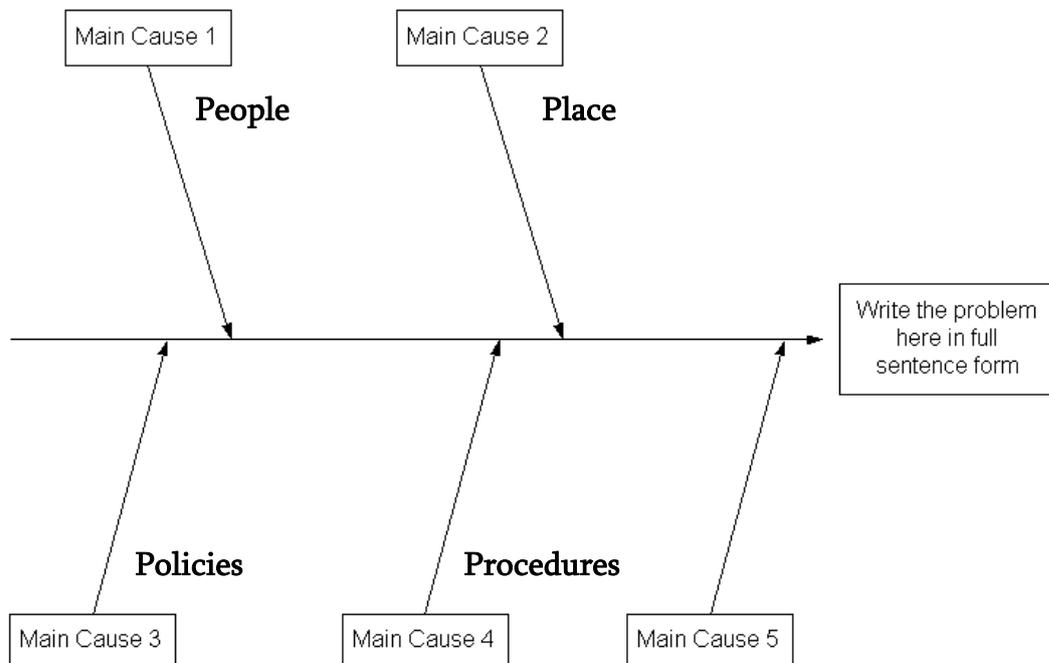
important that all team members involved in the problem, take part in discussing it and constructing the diagram.

How to construct a Fishbone Diagram

1. Agree on a single statement that describes the problem, including as much information as possible. Draw a box around your statement with an arrow pointing towards it:

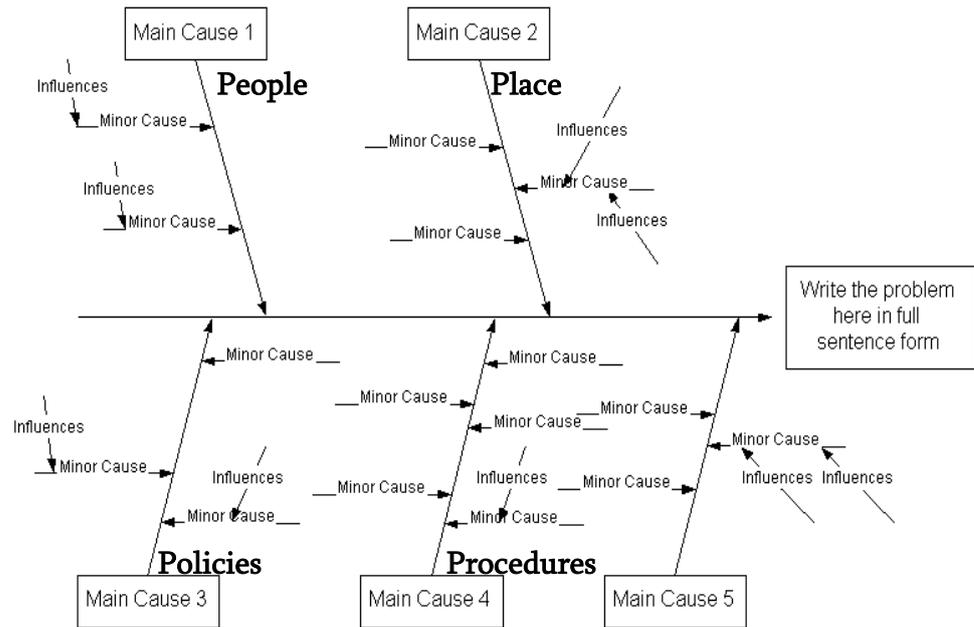


2. Set major cause categories as 'bones' (e.g. people, place, policies, procedures) and draw these off the large arrow, usually four or more. The major cause 'bones' selected should be relevant to the problem:



(Source: Improvement Foundation, 2007)

3. Take each main cause 'bone' and brainstorm ideas as branches (minor causes) from the main cause. Continue until every possible cause has been identified.

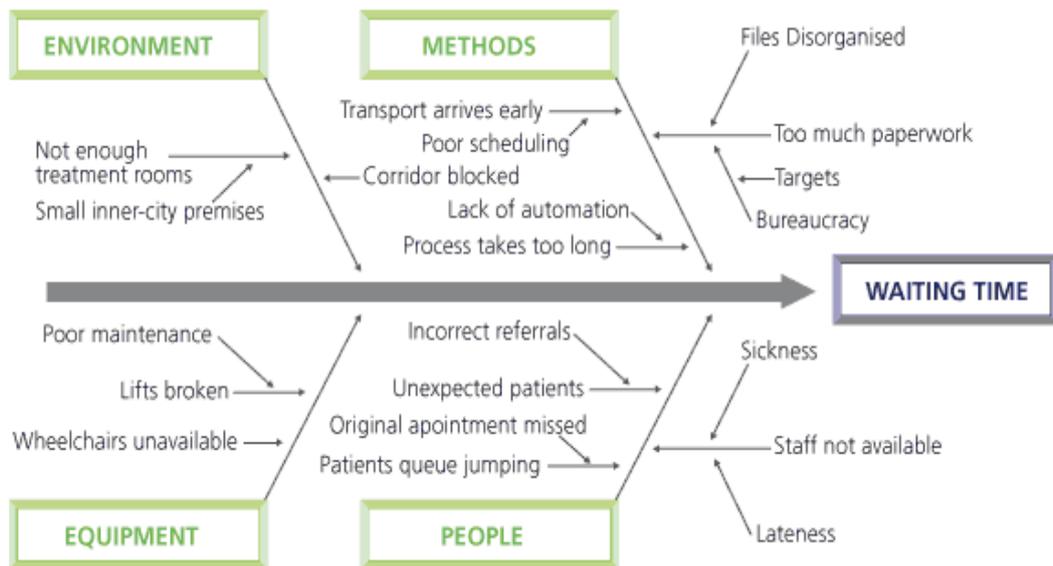


(Source: Improvement Foundation, 2007)

4. Analyse your diagram, investigating the most likely causes further.

Example

In this example from the NHS Institute for Innovation & Improvement (UK), Environment, Methods, Equipment and People have been chosen as the major cause 'bones'.



© 2008 NHS Institute for Innovation & Improvement

Tips

- Brainstorm using flip chart paper, in order to agree the initial problem statement. The team needs to agree on the problem statement.
- Be flexible in the major cause 'bones' that are used. There is no perfect set or number of categories and you should make the 'bones' fit the problem rather than the other way round.
- Those involved in the problem should be involved in constructing the diagram.
- Use a paper surface for your diagram, as you may wish to transport it.
- Causes should appear in just one main cause 'bone'.

4.5 Pareto

Purpose

Pareto analysis is a simple technique using a bar graph to separate the few major problems that cause the effect from the many possible causes, in order to help prioritise areas of focus for improvement work. The Pareto Principle was developed by quality management guru Joseph Juran (1904-2008) and named after 19th Century Italian economist Vilfredo Pareto, who observed that 80% of the income in Italy was received by 20% of the population. The principle sets out that the majority of results in a given situation can be determined by a small number of causes (the 'Law of the Vital Few') – roughly 80% of results by 20% of the causes. It is also called the 80:20 rule.

How to use Pareto – constructing a Pareto Chart

1. Identify the problem area and possible causes (using some of the tools covered earlier).
2. Collect data on the causes you have identified (e.g. frequency of occurrence, cost).
3. Create a table and rank order from largest to smallest.
4. Construct a bar graph with the causes along the horizontal axis and the frequency or cost on the vertical axis.
5. Your graph can be enhanced by using cumulative frequency and stacking the bars.

Example

Reasons for a repeat prescription not being ready for collection at the practice

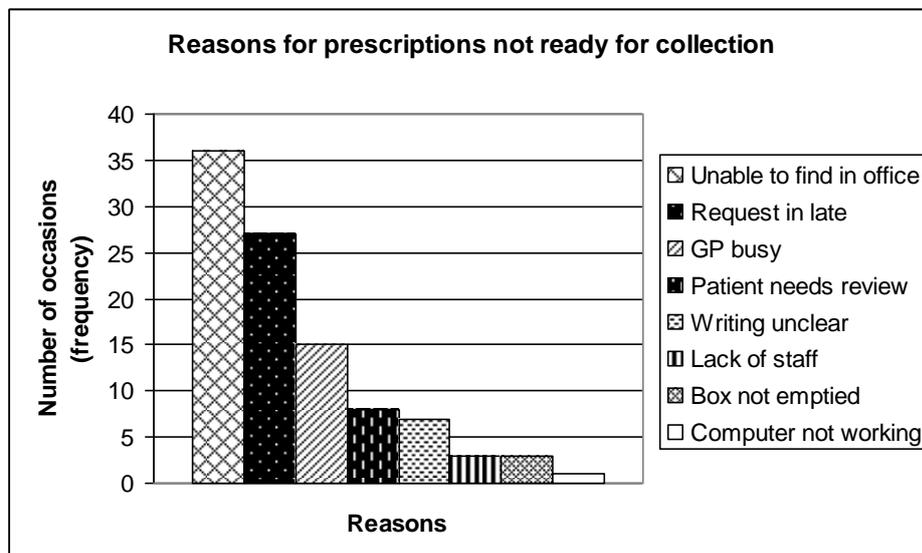
- Data collected over 10 days

Days	1	2	3	4	5	6	7	8	9	10
Request brought in late	4	3	0	2	6	0	6	4	2	0
Writing unclear on request	2	1	0	1	0	0	0	1	0	2
Unable to find prescription in office	8	6	1	2	4	3	1	3	4	4
Request box not emptied	0	0	0	3	0	0	0	0	0	0
Lack of staff	0	0	0	3	0	0	0	0	0	0
Computer not working	1	0	0	0	0	0	0	0	0	0
Patient needs review	2	0	0	1	1	0	0	0	2	2
GP too busy to sign	2	4	2	0	0	4	2	1	0	0

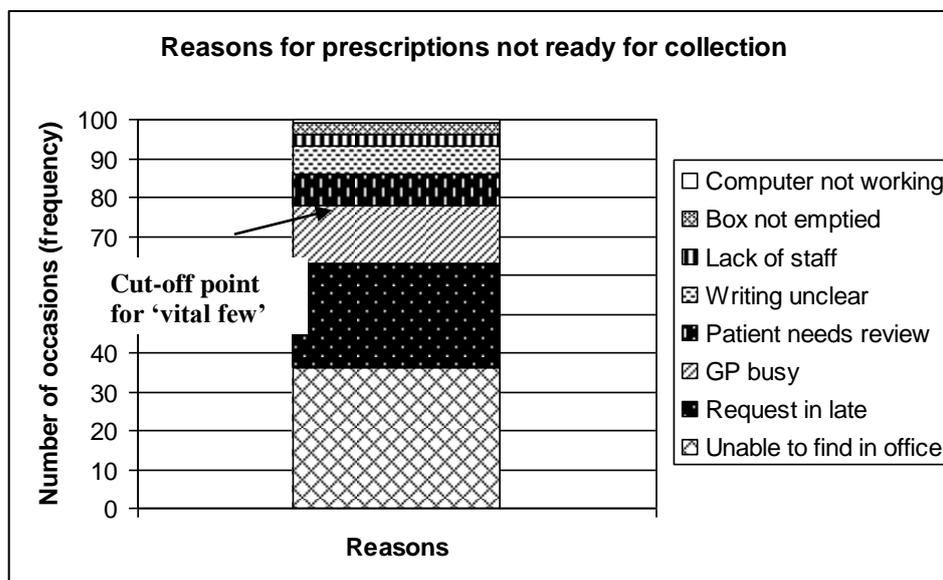
- Rank order the causes once collated

Unable to find prescription in office	36
Request brought in late	27
GP too busy to sign	15
Patient needs review	8
Writing unclear on request	7
Lack of staff	3
Request box not emptied	3
Computer not working	1

- Construct a bar graph (circle the three major causes)



- Construct cumulative bar graph (optional): this enables you to identify the 'vital few' accounting for around 80% of the results easily



Three reasons (causes) account for almost 80% of all the occasions on which prescriptions were not ready for collection: staff unable to find the prescription in the office, late requests from patients and the GP being busy. The practice team can start their improvement work by focusing on some or all of these three areas, as they have the potential to make a large impact in improving the system.

Tips

- The numbers don't have to be 20% and 80% exactly – the purpose is to identify the causes accounting for the majority of the results.
- If you have any categories marked 'other' in the list of possible causes, make sure that this category does not become too large. If the 'other' category accounts for more than 25% of your problem, you should try to break it down.

4.6 Process mapping

The patient journey may cross a number of organisational and departmental boundaries. It can be a challenge to understand what happens to the patient through their whole journey, as there may be several professionals dealing with different aspects of the patient's care in different departments. Similarly with administration, a number of different departments and individuals may be involved in a process and it is unlikely that an individual will have a thorough knowledge of what happens at each stage in the entire process. Process mapping provides the opportunity for those working across different departments and organisations to work together to clarify and agree on what actually happens in the current process under examination.

Purpose

Process mapping involves developing a simple visual picture or map of a process. It is a relatively simple tool, which can help an organisation understand how its various parts work together, and improve its overall functioning.

When to use

Process mapping can help teams develop a complete, shared understanding of a 'process'. By documenting all of the steps or actions involved in a process, the team develops a map that can be used to highlight areas for improvement.

Particular benefits of process mapping include:

- Helps to focus on how the end user (e.g. patient) views the process. This is particularly important as it may be the first time that the whole team realises how complicated the process is from the user's perspective.
- Fosters a holistic approach, which explores the inter-relationships of various parts and people in the process.
- Helps the team understand what is actually happening, rather than what individuals thought was happening.
- Provides an opportunity for all staff to express their views.
- Clarifies responsibilities and ownership.
- Assists in identifying how resources are used.
- Assists in identifying inefficiencies and prompts discussion about how to eliminate them.

How to use the tool

1. Decide on the process to be mapped. This is often the most difficult decision to make. However, ensuring that you have chosen a process that is a priority for the team will be key to your success. Once the process has been decided, the aim of the mapping process needs to be determined.
2. Define the scope of the process. This involves ensuring that the process is not too large or too small. You should also establish boundaries for your process

which means setting a clear starting point and a defined endpoint. These boundaries are often determined by the aim of your project.

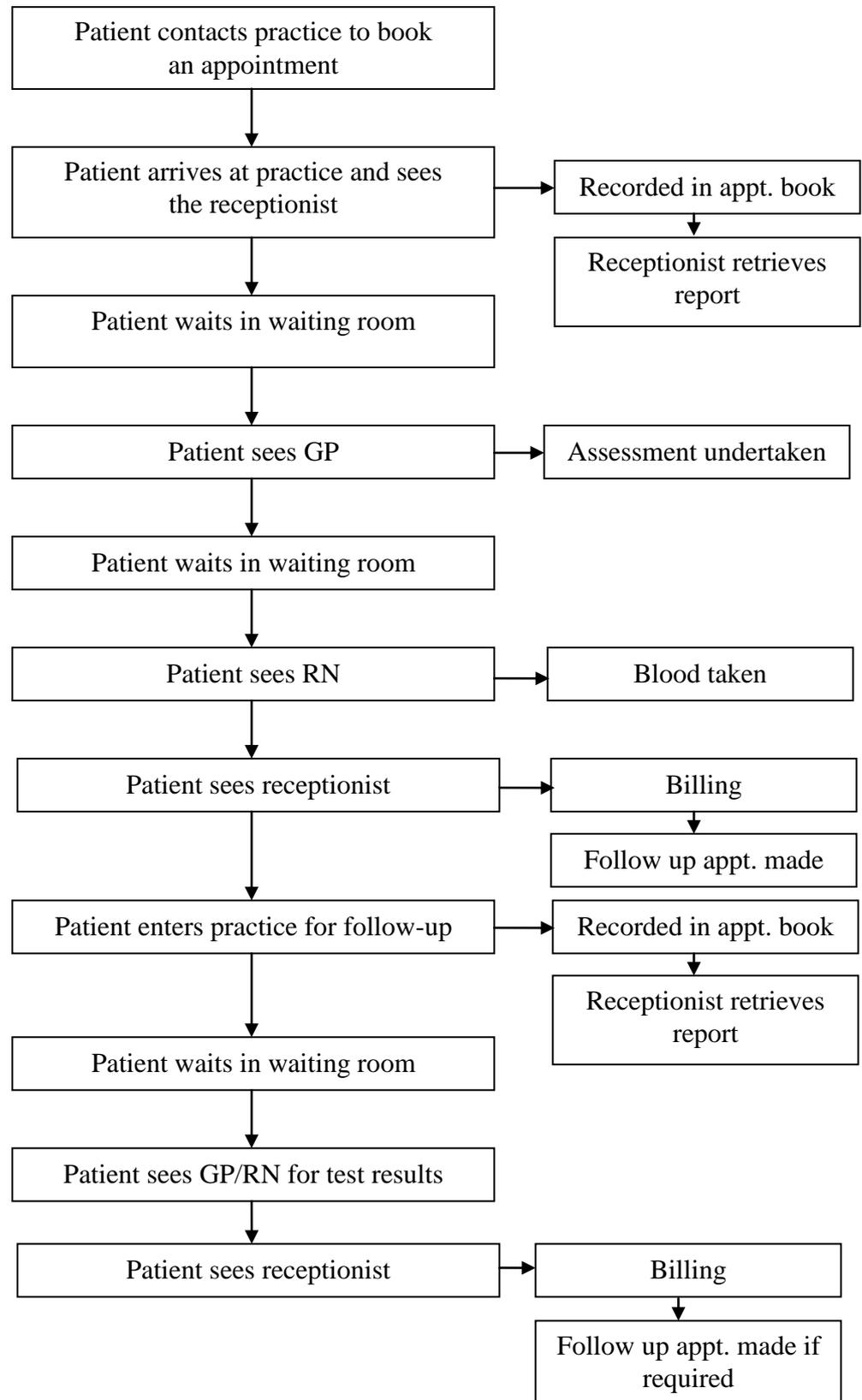
3. Select the working team. Generally, a balance is required between keeping the group size to a manageable number and having appropriate representation from key stakeholders. When choosing participants, it is critical that you involve managers who are actively involved as well as staff who work in the process.
4. Document the current process. This involves mapping the process as it actually occurs. You may be surprised how this differs to what the team thinks should be happening. It is important that this process does not involve blame and remains objective.

The most valuable part of process mapping is the questions and observations that occur during and after the mapping process. Observations may include data such as time, volume or sources of inefficiency such as bottlenecks.

Make sure the map is the simplest possible picture of how the process works. More complex process maps can be produced using a series of symbols which can enhance your map, but these are not essential – another alternative is to use different colour ‘post-it’ notes.

Over the page is an example of a simple process map, which looks at the process of a patient visit to the practice, including pathology.

Example



Summary of key steps

1. Define your scope: start/end/what it should achieve/what do we want to know.
2. Consider and map the steps: capture who/when/where (**NB current processes**).
3. Analyse the process: ask key questions.
4. Consider what the new process might look like (identify changes).
5. For the changes, list the potential actions and prioritise.

As a next step, you can use the improvement model to test changes.

Tips

- Involve stakeholders from the beginning and give plenty of notice.
- The people who work in the process should be involved in the mapping.
- Don't map everything – stick to the process that you have chosen to improve.
- Let your map cross functional boundaries.
- Always map what actually happens in the current process, not how you would like it to be.

4.7 Force Field analysis

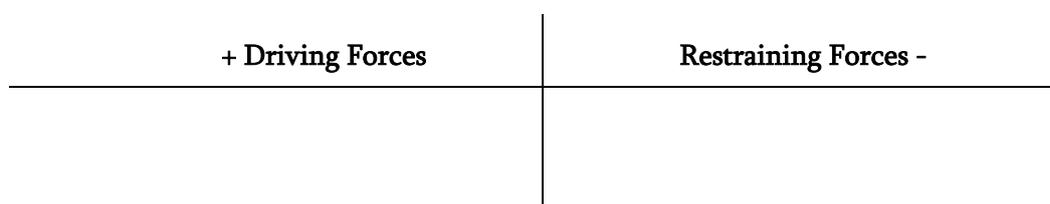
Purpose

The Force Field analysis is a useful tool to identify and compare the pros and cons of a change, prior to its implementation. By working through the Force Field analysis, the team is encouraged to prioritise the factors that promote or inhibit a given change. A particularly valuable aspect of this tool involves the process of identifying and rating the impact of barriers, so that they may be removed.

How to use Force Field analysis

At the top of a large piece of paper or whiteboard, write down the intended change. This will ensure that you focus on the change as you complete the exercise. For example: recruiting a Practice Nurse to improve management of TCAs and GPMPs.

Next, draw a large 'T' with the title 'driving forces' on one side and 'restraining forces' on the other, as shown below.



You can then start to brainstorm the factors that influence the change or work against it. For example:

+ Driving Forces		Restraining Forces -	
Share workload	→	←	Financial risk
Potential for increased practice revenue / practice growth	→	←	Lack of willing to 'let go' to other clinical staff
Increased communication through practice team	→	←	Time to train and induct
Improved access using PN for pre appointment screening	→	←	Lack of space
Better triaging capabilities	→	←	Availability of PNs
Potential for more completed TCAs and GPMPs	→	←	Patients willingness to see PN instead of GP

Once the factors have been added to the chart, you can score them to establish which have the greatest impact on the change. This can be a simple score out of 10.

+ Driving Forces		Restraining Forces -	
6	Share workload →	←	Financial risk 7
6	Potential for increased practice revenue →	←	Lack of willing to 'let go' to other clinical staff 6
4	Increased communication through practice team →	←	Time to train and induct 6
3	Improved access using PN for pre appointment screening →	←	Lack of space 8
5	Better triaging capabilities →	←	Availability of PNs 4
7	Potential for more completed TCAs and GPMPs →	←	Patients willingness to see PN instead of GP 3
6	Practice growth →		
37			34

In this example, it is easy to see that the positive driving forces outweigh the restraining forces. This process also identifies those factors that have the biggest impact on the change. You can then consider devising strategies to support the driving forces and to minimise them. When implementing a change, it is particularly important that restraining forces are minimised as much as possible. In this case, overcoming the lack of space may be the key step needed prior to hiring a practice nurse.

Acknowledgements

Improvement Foundation UK www.improvementfoundation.org

Institute for Healthcare Improvement, USA

NHS Improvement Leaders Guides

NHS Institute for Innovation & Improvement www.institute.nhs.uk

5 Build and Maintain the Practice Team (Change Principle 1)

An effective team is a necessary foundation on which to begin any quality improvement work. You will be more successful in implementing change if your whole practice team participates in the journey. This change principle provides simple ideas that will help your practice start to work more effectively as a team, which will increase your results in improving services to your patients. Attempting to implement change without appropriately engaging the practice team is unlikely to lead to sustainable change.

It is important to note that although we encourage you to look at this change principle first, you do not have to complete all steps prior to moving onto the other change principles in any of the topic areas. However, it **is** important that you ensure the practice team is engaged and committed to making further changes, as this is fundamental to your success. Importantly, the work that your practice does towards enhancing your team's functioning should be ongoing and evolving, building upon the first simple steps towards more sophisticated ways of improving team performance.

5.1 What do we mean by the word 'team'?

When discussing a practice team we mean everyone who works in the practice and provides input into its operation. So, how widely should you cast the net? Should you include the pathology courier and the cleaners? For some practices the answers will be yes and for others no. The answer will be guided by the stage of your team's development and the degree of impact a role or function can have on the team's outcomes or objectives. At an early stage of development, it might be easier to only include those within your practice, such as receptionists, practice nurses, Aboriginal health workers, practice managers and GPs.

5.2 Why work on the team?

Experience in the APCC Program has shown that successful practices have demonstrated four key characteristics:

1. They are clear about what is required of them, and they have an agreed strategy on how to complete all tasks required to run the practice.
2. They have enough information, skills and experience to do the job.
3. They have constructive group dynamics that create and maintain effective and efficient levels of communication.
4. Members of the team are committed to the practice and to producing high quality, responsive patient care.

These principles are backed up by research from the business world, which has consistently shown that there is a strong link between constructive group dynamics and increased financial success, long term sustainability and effective team performance.¹ Anecdotal evidence is emerging from the APCC Program that practices

¹ J.P. Kotter & J.L. Heskett J.L., 1992, *Corporate Culture and Performance*, The Free Press, New York.

with a strong team ethic achieve financial benefits and improved efficiency through this approach.

5.3 Health Check: how effective is your team?

So you think you have an effective team? Why not take a moment to complete a quick self-reflection questionnaire. This may be a useful exercise to do with the other APCC lead from your practice. You may also decide to do it with your whole team. Based on Program experience, this questionnaire is designed to guide reflection and to start a conversation in your practice on how you function as a team.

This questionnaire is available on the APCC website, under the following link:
http://www.apcc.org.au/Health_Check.htm

Team and collaborative success

These themes are central to the APCC Program and will be critical to improvements you make in your team.

Keep it simple

Evolution not revolution. Keep your ideas small and manageable by testing only one idea at a time. Look at what has worked for others and borrow their ideas.

Involve your team in the process

Ask your team to contribute their ideas and participate in testing change with the Improvement Model.

Test new ideas before implementing them as systems change

Use the Model for Improvement to test ideas and gain team support before implementing system-wide change.

5.4 Change ideas

When considering change ideas for your practice, consider the following:

- set realistic goals
- communicate with other team members
- engage the practice team
- assign roles and responsibilities
- reflect on and review what you are doing.

This section of the handbook has taken the extensive research on team functioning and applied it to general practice, and the APCC Program in particular. However, the change ideas listed above have universal application and you can use them to improve your team beyond your involvement in the Program.

5.5 Set realistic goals

Effective teams have clear aims and objectives. This is why most organisations devote time to developing a mission statement with associated aims and objectives. To get the most out of your practice's participation in the APCC Program, it is important that you have shared goals.

However, before shared goals can be set, all staff need to understand what the Program is about. To help staff understand the Program, it may be helpful to hand out copies of the APCC Program recruitment/information brochure. If you require more copies of this brochure, please contact your local Division.

As the APCC practice lead, it is important that you explain the Program to the practice staff and facilitate/lead a discussion aimed at establishing a shared set of goals for the practice. You can do this by having a separate team meeting dedicated to this discussion or bringing it up as a recurring item on your team meeting agenda. The following questions will help you in determining your shared goals:

- Why has the practice joined the APCC Program?
- What do we want to achieve by participating?
- What are the benefits for patients and staff from our participation in the Program?

Once you have developed an agreed set of goals, it is important that you record them. It is also a good idea to ensure that the goals are placed somewhere easily accessible to staff (e.g. the practice notice-board), to remind them of why you are involved in the Program. This will help staff understand why the practice is undergoing changes, and engage them in the practice's improvement journey.

Now that you have set your goals, it is important to explore how the practice's participation in the Program will affect the day to day operation of the practice. For instance:

- staff will be absent to attend learning workshops
- the Division's role in supporting your quality improvement journey (you may invite your practice support team member along to this meeting and introduce them to the team)
- staff will need protected time to collect data and for developing and implementing change using the Model for Improvement
- the team will need to have regular meetings to discuss progress and feedback ideas, either as a recurring agenda item at the staff meeting or as a separate APCC meeting
- changes will be made as PDSA cycles are tested.

At this time, it is also a good idea to consider practice goals for each of the topic areas. The Program includes various measures that provide quite specific measurements of practice performance. Your team could determine a target to achieve for each of these measures, taking into account local constraints (such as demographics, prescribing protocols, resources, etc.). Examples include:

- What percentage of COPD patients with a spirometry recorded within the previous 12 months will your team aim to achieve?
- What percentage of COPD patients with an influenza vaccine recorded within the previous 12 months will your team aim to achieve?
- What percentage of COPD patients who are current or ex-smokers will your team aim to have assessed within the previous 12 months?

Setting clear, measurable goals will help your practice achieve success.

Example

After returning from the first learning workshop, we decided to have a meeting with all the GPs and practice staff. We wanted to discuss the outcomes of the workshop and ensure that everyone understood the APCC Program and their roles within the Program. At the meeting everyone agreed to fully participate. We also agreed that the team would meet regularly to ensure everyone was updated on the practice's progress in the Program.

Corinda Medical Centre, Brisbane South Division, QLD

Example

We wanted to involve all the doctors and staff in the Program. The practice manager organised a meeting with everyone to discuss ways of keeping the practice team informed about monthly results and involved in PDSAs. One of the practice principals chaired the meeting, explaining what we would like to achieve and how we are going to go about achieving our goals. It was decided that we would have monthly meetings with all the staff to enable everyone to communicate their ideas and feedback results. It was also decided that we would post the monthly results onto our staff room notice board, giving everyone access to the practice figures. After the meeting everyone in the practice felt involved in the Program, we were all able to input our different ideas and it felt like we were working together towards better patient outcomes.

Canning Street Surgery, South East NSW DGP, NSW

5.6 Communicate with other team members

Effective teams communicate well. Good communication can save time, money and rework. Poor communication does the opposite: it creates work, causes frustration and costs time and money. If you are to be successful in making lasting change in the Chronic Obstructive Pulmonary Disease and Chronic Disease Prevention and Self Management topic areas, you will need to effectively communicate with the team. If current communication channels are missing or not working, you may need to focus on these first.

Analyse the current methods of communication within your practice.

- What importance does the practice place on team meetings, and what is their frequency and quality?
- Are team meetings well organised and supported by good process (agendas, chairing, minutes, action lists, accountability, etc)?
- How does the leadership of the practice communicate with the wider team?
- How do clinicians and administrative staff communicate during the day?

To be effective, the practice team needs to have in place good communication channels that are used regularly and efficiently.

What communication channels work best in your practice? Some suggestions gleaned from APCC practices are listed below:

- Email
- In-trays/out-trays
- Communication book
- Notice board
- Pigeon holes
- Direct messaging between work stations
- Meetings
- Telephone
- Face-to-face conversation

It is best to use a combination of channels to meet the daily needs of your practice. The mix will be driven by the communication needs of the different groups. For instance, micro-teams might use email and face-to-face communication on a daily basis; a large administrative team might meet every fortnight; and the complete practice team might meet monthly. Your practice needs to determine the style and frequency of communication that is most suitable for its needs.

Example

We communicate APCC progress and updates effectively with the rest of the practice by using the following methods: 1) Biweekly email on PDSAs. 2) APCC has been added to the practice meeting agenda. 3) We have established an APCC notice board. 4) We have made up a file for all current data, etc. to be kept with the notice board. Since using these communication methods, everyone has become more involved with the APCC process as they can see the results and provide input into what is happening.

East Fremantle Medical Centre, Fremantle Regional, Perth & Hills and Kimberley DGPs, WA

Once you have agreed on the use of different communication channels, you need to ensure that all staff have knowledge of and access to the communication channels they will be required to use.

A quick note on meetings

If you intend to hold meetings outside normal working hours you will need to consider a strategy to ensure staff attendance. Will they be paid or offered time off in lieu? Will you provide a meal? Will it be set up as an expectation of the job that everyone will attend meetings? If you hold meetings during business hours, who will answer the phone? Will the GPs stop consulting? It is important that you consider these questions to ensure you have optimal staff attendance.

Conducting meetings

It is important when conducting meetings to keep in mind a range of matters, including the following:

- train the team in good meeting practice (e.g. refer to the training video 'Meetings, Bloody Meetings' with John Cleese about how to conduct more efficient meetings)
- have an agreed written agenda (distributed to staff before the meeting)
- have a designated chair (this could rotate to share responsibility)
- have standing items for common issues
- decide on the time allocation for each item
- provide minutes
- create a task list and time-frame for actions arising and ensure that these are reviewed at subsequent meetings
- agree on meeting schedules in advance
- make plans for communication in busy/away periods such as Christmas so that tasks do not drop off.

5.7 Engage the practice team

Effective teams have members who feel committed to the agreed goals. The following strategies will help you enthuse and engage your team in making changes to achieve your shared goals:

Lead from the front

The leaders of change need to demonstrate commitment to the changes by what they say and do. If you are excited about the possibilities, then other people will be too!

Inform

Explain the reasons behind what the practice is doing and inform everyone about your progress. You will get more buy-in from the members of the team if they understand why it is important. Outline the benefits for the practice and the patients.

Involve

Ensure the team is involved in developing and implementing ideas for change. All staff need to feel that their input is valued, for the team to be effectively engaged in the quality improvement agenda.

Provide feedback to the team

Feedback on how the practice is progressing is vital. When people are in the process of changing it is important they get some information about how the change is impacting their goal, this will keep them on track and ultimately generate enthusiasm. You can give feedback in a variety of ways, such as putting the measures on the tea room wall.

Focus your engagement work on parts of the team that will be most important for success, in each of the topic areas.

Example

To help engage the reception staff in the Program and to also help them understand the necessity and importance of data collection, we invited our Collaborative Program Manager and the Program's Regional Manager to come and speak to the staff, to further explain the Program and their role in it. We had fantastic feedback from staff and they are now proactive in collecting the measures. The staff members are enthusiastic and are even encouraging and reminding each other to get data collected.

Keen Street Private Clinic, Northern Rivers GPN, NSW

A quick note on leadership

A practice's degree of commitment can be demonstrated through the extent to which the partners and practice managers:

- maintain realistic expectations of staff and the demands placed on them as practice requirements change
- regularly communicate with team members (e.g. 'check in' meetings with individuals, or informally connecting with team members individually in the tea room during break times)
- ensure that team members have the tools and resources required to perform their role
- provide support in problem solving difficult issues
- show genuine interest in team members. This doesn't mean being everyone's best friend, but it does mean making the effort to ask how everyone is doing
- demonstrate respect by speaking to team members in a way that demonstrates common courtesies, including addressing mistakes and issues in a constructive way
- consult with team members in making and implementing decisions that will directly affect them
- set aside specific 'open door' time where staff know they can approach you
- respond to staff queries promptly
- model the behaviour expected from your staff. In other words: "be the change you want to see".

'But I don't have the authority'

You may be returning to a team where you feel you have little formal authority to engage others in change. A number of successful strategies have emerged from other APCC participants in this position. Importantly, while you may not have direct authority, you do have the opportunity to affect the practice by operating within and enlarging your circle of influence.

Possible strategies include:

- using the practice's baseline data to demonstrate that the team's clinical outcomes are an opportunity for improvement
- identifying and targeting individually the opinion leaders within the team
- making small changes with the support of those who are on board and then publicising them to the others, as people will be drawn in by your success
- making sure you get an opportunity to communicate regularly with the wider team about the practice's progress in the Program. This can be through a standing agenda item in the team meeting or by a regular information sheet advising practice staff and patients about the practice's successes

- demonstrating financial, lifestyle or clinical benefits from making APCC Program changes
- identifying the potential barriers and brainstorm some ideas on how they can be addressed.

Patient involvement

Patient involvement is a central component of the COPD & CDPSM wave. Through patient involvement, the Program aims to ensure that changes made in general practice are patient focused. Some practices are already starting to engage patients in the planning and implementation of their quality improvement activities. While clinical staff often have ideas about what might improve the quality of care, the views and experiences of patients are crucial for informed decision-making. For example, where trying to choose from several options, a patient's view can inform the decision or it may confirm a change that is being considered. For instance, you may gain valuable insights by asking patients what they find most frustrating about the current recall system and how they think it can be improved. When making changes, ensure you inform patients of these changes; explain why they are happening and the benefit to them.

5.8 Assign roles and responsibilities

Effective teams identify all the tasks the team needs to carry out in order to achieve their shared goals. These tasks are then assigned to the people who are skilled, motivated and empowered to complete them.

Many practices choose to form micro-teams of key people to undertake the different work in both topic areas. Micro-teams will need to consider all the tasks involved in the particular process they are undertaking. For instance, who will extract the data from your clinical software system? How will this data be presented to the practice?

Those carrying out key tasks will need time to work on them. Asking people to simply add tasks to their already packed schedules is unlikely to be sustainable. The most effective practices have allocated protected time for key staff to work on the Model for Improvement. Recognition of the cost of this extra work is part of the reason the APCC Program offers some financial support to participating practices.

Example

When joining the APCC Program we realised that the tasks involved could not be lumped with just one person. We decided to hold a meeting to look at how we would assign the different tasks, i.e. who would enter data onto the Web Portal, extract monthly measures, gather access measures, write up PDSAs, and work in the different topic areas. It was agreed that our junior administration support person would continue to work on deactivating patients; our lead administration person would work with Dr X to advance the CHD changes and that our administration support person would extract the monthly measures and write up the PDSAs.

Meadows Medical Centre, Northern Rivers GPN, NSW

Once you have identified the tasks that need to be completed, it is now time to consider what roles are available in the practice to undertake these tasks. Consider:

- Are all the tasks assigned?
- Is everyone aware of the tasks that they need to be completing?
- Do staff have adequate time, resources and the appropriate skill set to complete the tasks?
- Is everyone aware of how their tasks affect others?
- Who is the 'go to' person for the different tasks?
- Are there gaps or duplications anywhere?
- Which staff members have multiple skills that can be used in emergencies or absences?
- Are contingency plans in place? Do you need to train staff to enable them to provide coverage for staff who are on leave?

The review and assignment of tasks should be a regular exercise undertaken by the team, especially if someone leaves the practice or is joining the practice team.

5.9 Review and reflect on what you are doing

Effective teams review and reflect on their function, membership and outcomes on a regular basis. This could be achieved at a variety of levels, from small scale change (such as a PDSA cycle), or at an organisational level as part of strategic planning. Regardless of the level, your team will respond better if they know that the achievement of goals and expectations will be assessed. This section focuses on the review and reflection of smaller scale change within the organisation and does not seek to include macro-organisational change or strategic planning.

Team members will feel valued if they experience effective and constructive reviews of their work and how it contributes to the success of the practice. This feedback helps to motivate staff and improve individual and practice performance. Practice leadership will be in the best position to determine whether review and reflection is best conducted at an individual, micro-team, or practice team level. However, there are a few key questions that should be asked:

- What are the key tasks and objectives?
- How should these be delivered (i.e. at what standards including practice values and ethics)?
- When are they due or when do they need to be performed?
- How will you know if they are successful? What measures will you collect?

Reflection can be as simple as considering your mutual responses to the following questions for any given task or objective:

- What's working and what isn't?
- What should we do more of?

- What should we do less of?
- Is there anything that we should stop doing?

Every review should consider what has been achieved compared with what you expected or hoped to achieve.

In some cases, where multiple changes are occurring at the same time, teams schedule pre-determined points of review (such as quarterly meetings) at which time all change areas are reviewed. This ensures that all members of the team are aware of broader team achievements and issues impacting on the practice goals.

Review of progress towards APCC Program goals

By now you have set specific APCC Program goals to allow your team to track progress. As a number of changes are likely to be required to achieve topic area goals, it might be best to set regular meetings to discuss progress. This progress can be gauged by the activities being carried out (e.g. 'we've now cleaned up the register and we're preparing to implement a recall system') and by your achievement of topic/practice goals ('we now have X% of our COPD patients recorded as being non smokers).

Recognition and acknowledgement of a job well done

Time invested in recognising your team for their efforts and contribution to the practice will be greatly rewarded. Small acts of recognition, thanks and celebration, contribute significantly to staff morale and demonstrate to all staff that their input to the practice is not just being noticed, but is valued.

Consider the following ideas for recognising the work of the team:

- celebrate practice achievements (i.e. gaining accreditation)
- celebrate staff birthdays (provide a cake or get staff to bring their own)
- where appropriate, celebrate different cultural festivals
- facilitate social events
- provide 'spot rewards', e.g. movie tickets, dinner for two in recognition of members who have 'gone above and beyond the call of duty' on a particular issue
- establish an award (department store voucher, dinner at a restaurant, etc.) for high quality patient care and responsiveness or for living the behaviours and values adopted by the practice
- establish some team 'traditions'. Ideas could be as broad as everyone pooling funds and sharing a lunch every time the practice achieves one of its milestones, or when a team member celebrates a personal or professional achievement
- once a quarter, extend the team meeting to a dinner or some other type of social event, such as bowling, movies, wine tasting, trivia, etc.

Example

We wanted to build team cohesion by recognising significant days in individual team members lives, such as birthdays. The practice manager identified the birthdays of each staff member and entered these in her diary so that a special lunch or morning tea may be ordered to celebrate the day.

Dr Kathleen Armstrong Surgery, South East Alliance of General Practice (Brisbane), QLD

Review team make-up and skills

Do you have the right skill mix in your team? When you review individual and team performance it is likely that you will identify gaps in skills and attributes. This is an opportunity for training existing staff to fill skill gaps, or employ new staff in new roles, particularly when staff turnover occurs.

Training can be delivered in a number of ways, depending on the requirements of the role and the practice. Options for training may include:

Formal courses

Support team members to attend training so that they can bring new skills and ideas back to the practice. Support might be in the form of time off to attend training, payment or co-payment towards the cost of training.

On-the-job development (skill sharing)

You could buddy a team member who needs to develop a skill with another team member who is particularly proficient in the skill. The more experienced team member can coach their colleague in how to perform their work.

On-line learning

There are many courses available that are delivered primarily through the internet. You may be able to provide support to team members who choose this form of study, by allowing them to use practice equipment after hours to complete assignments and provide flexibility in work hours, when they need to complete assignments.

Patient feedback

For your service to be patient-centered you should engage patients in the planning and delivering of services. Through patient involvement in the Learning Workshops, the Program aims to ensure that changes made in general practice are patient focused. The Learning Workshops will give patients the opportunity to provide valuable input, which you may choose to integrate into your improvement work. You can also approach your own patients for their feedback through questionnaires or other means, to gauge their satisfaction and gather input on what can be improved.

Working environments

In reviewing and reflecting on the work of the practice, take some time to consider the physical layout of the practice. Can work stations or resources be moved to help improve communication or practice efficiencies (i.e. can photocopies, printers or paper files be moved)? Is there enough space in the practice?

Where possible, also consider making the practice a family friendly environment. Staff members with family responsibilities may at some time struggle between work and family commitments. By making your practice family friendly, you may be able to limit these types of staff absences. In some practices this has meant making room in the practice for children to come after school and do their homework or watch TV (this is only successful when there is enough room to allow this to happen, without hindering the work of other staff members).

Keeping on track

The team is the foundation of the practice. By taking the time to work through the topic change principles and ideas, you will be able to implement changes in your team that will result in the greatest outcomes for the practice. Building your practice team will also help to ensure you are ready to take on the other change principles in an environment that is conducive to change.

Maintaining an effective practice team

It is important to remember that working through this change principle is not a linear process. You will need to regularly revisit the above change ideas to ensure that the changes you make to establish your practice team, have been maintained and your team is continuing to work effectively.

6 Chronic Obstructive Pulmonary Disease (COPD)

6.1 Aim of the COPD Collaborative

To reduce by 30% the number of hospital admissions (compared to the previous 12 months) for respiratory illness in patients with COPD.

6.2 About Chronic Obstructive Pulmonary Disease (COPD)

COPD is currently the third largest contributor to the burden of disease in Australia.¹ There are just over 2 million Australians estimated to have COPD (stages I-IV), which equates to nearly 1 in 5 people (18.6%) aged 40 years or over. In over half of these individuals, their symptoms have already resulted in some activity restrictions.

However, COPD is significantly under-diagnosed in Australia and the true frequency is likely to be two or three times as high.

The table below presents the prevalence of COPD by age and gender.² Please note that this data is based on those with COPD stage II-IV. Using this approach, the prevalence in the Australian population is 5.6%.

PREVALENCE OF COPD STAGES II TO IV BY AGE AND GENDER (% POPULATION)

Age Group	Males	Females	Persons
0-4	1.4%	1.2%	1.3%
5-9	1.4%	1.2%	1.3%
10-14	1.4%	1.2%	1.3%
15-19	1.5%	2.0%	1.7%
20-24	1.5%	2.0%	1.7%
25-29	1.4%	2.0%	1.7%
30-34	1.4%	2.0%	1.7%
35-39	1.9%	3.4%	2.7%
40-44	2.7%	3.4%	3.1%
45-49	2.7%	4.9%	3.8%
50-54	4.1%	6.8%	5.5%
55-59	4.1%	6.8%	5.5%
60-64	13.8%	13.8%	13.8%
65-69	13.8%	13.8%	13.8%
70-74	22.4%	23.8%	23.1%
75-79	22.4%	23.8%	23.2%
80-84	22.4%	23.8%	23.2%
85-89	22.4%	23.8%	23.3%
90+	22.4%	23.8%	23.4%
Total	4.8%	6.2%	5.6%

¹ Access Economics (2008) 'Economic Impact of COPD and Cost Effective Solutions', The Australian Lung Foundation

² *ibid.*

COPD is a chronic condition with significant consequences for health. The symptoms of COPD include breathlessness, cough and excessive sputum production.³ COPD can cause considerable disability, time off work and a poor health status. Unlike asthma, airflow limitation in COPD (as measured by the FEV₁) can never be returned to normal values. However, treatment can improve symptoms, measured airflow limitation and health status. It is important to note that smoking cessation will slow the progression of airflow limitation.

Definition of COPD

COPD is characterised by airflow obstruction (FEV₁<80% predicted and FEV₁/FVC ratio<70%), which is not fully reversible and which does not change markedly over several months.⁴ The impairment of lung function is largely fixed but may be partially reversible by bronchodilator (or other) therapy. COPD is also associated with significant extrapulmonary effects contributing to the severity in individual patients.

The cause of COPD is an abnormal inflammatory response of the lungs to noxious gases or particles⁵, predominantly tobacco smoke but also occupational dusts and some indoor pollution. Other causes include alpha 1 antitrypsin deficiency and perinatal lung abnormalities and perhaps chest infection in early childhood.

The diagnosis is usually suggested by symptoms but can only be established by objective measurement, preferably using spirometry and reversibility testing.

6.3 Scope of the collaborative work on COPD

There are many practices across Australia doing good work in the management of COPD. The Improvement Foundation (Australia) team has distilled both expert and practical learning on changing and improving practice-based systems for COPD care into a set of change principles and associated change ideas to further enhance the care of patients with COPD.

The need for multi-disciplinary team work is reflected throughout this handbook and is an important facet of developing a systematic and sustainable approach to care for patients with COPD. A whole of team approach will also help practice teams learn and develop a skill set in improvement and systems thinking that can then be applied in other areas of work.

³ Georgopoulos, D. & N. Anthonisen (1990) 'Symptoms and signs of COPD, in Chronic Obstructive Pulmonary Disease', WB Saunders: Toronto.

⁴ McKenzie, D., M. Abramson, A. Crockett., N. Glasgow, S. Jenkins, C. McDonald, R. Wood-Baker, & P. Frith (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'

⁵ *ibid.*

This section is intended as a pragmatic, practical guide to help practices apply the change principles and ideas quickly and effectively to achieve the best possible impact on outcomes for patients. It is not intended to be a text on the clinical management of COPD and recognises that the care of the individual patient rests between the patient and the health provider.

The COPD-X guidelines are a valuable resource on the management of COPD in Australia. The COPD-X guidelines have been developed and are updated quarterly by the Australian Lung Foundation (ALF) and the Thoracic Society of Australia and New Zealand as part of the ALF's national COPD program. The COPD-X plan is easily accessed via the following link:

<http://www.copdx.org.au/guidelines/index.asp>.

6.4 Change principles

A COPD Expert Reference Panel was convened to identify the topic aim and change principles for COPD care. The panel included individuals with expertise in COPD care, systems change and with lived experience of COPD.

The following change principles represent a systematic pathway through the work of implementing systems to manage the care of patients with COPD. For each change principle, specific change ideas are identified, and practical examples, tips, guidance and tools are provided where possible.

Change Principles

1. Build and maintain the practice team
2. Establish a system for creating, validating and updating a register for people with COPD
3. Be systematic and proactive in managing the care of people with COPD
4. Involve patients and their families in delivering and developing their care
5. Ensure effective coordination of the care of people with COPD through the use of a multi-skilled and multi-agency approach

Change Principle 1 - Build and maintain your practice team

Experience in the APCC Program has shown that having an effective practice team is a necessary foundation on which to begin any quality improvement work. Attempting to implement change without appropriately engaging the practice team and assigning tasks is unlikely to lead to sustainable change.

Consider the change ideas below when working on this change principle.

Change Ideas

- Set realistic goals
- Communicate with other team members
- Engage the practice team
- Assign roles and responsibilities
- Reflect and review what you are doing

Please refer to the tab 'Build and maintain your practice team' for further information on these change ideas.

Change Principle 2 - Establish a system for creating, validating and updating a practice register of people with COPD

Consider the change ideas below when tackling this change principle.

Change Ideas

- Agree on a clear definition of COPD
- Develop a register of people with COPD (confirmed by spirometry and reversibility testing)
- Maintain an accurate record of smoking status in all patients
- Identify patients with undiagnosed COPD
- Develop systems to maintain a valid register

Agree on a clear definition of COPD

For the purposes of the APCC Program, COPD is characterised by airways obstruction ($FEV_1 < 80\%$ predicted and FEV_1/FVC ratio $< 70\%$), which is not fully reversible and which does not change markedly over several months.⁶ The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases.⁷

⁶ McKenzie, D. et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'

⁷ *ibid.*

COPD includes chronic bronchitis, emphysema or a combination of these conditions. It is important to note for purposes of the APCC Program these terms are no longer used and patients with these conditions should be coded as COPD.

Develop a Register of People with COPD (confirmed by spirometry and reversibility testing)

An accurate, complete and current register is the crucial starting point for improving the care given to people with COPD. The COPD register will consist of all active patients who have a coded diagnosis of 'COPD'. The actual codes for COPD depend on the clinical software (for examples DOCLE, ICPC-2, SNOMED etc.) used in your practice. For a list of codes and terms used to describe COPD according to the clinical program that is used by your practice, please refer to the COPD Codes in the 'Measuring for Improvement' section, under 'Processing Data'.

The initial work on creating a register is focused on ensuring the register is complete and that the information in it is correct. This can be accomplished through a series of Plan, Do, Study, Act (PDSA) cycles that can be used to test various approaches and determine the best way for your practice to achieve this change principle. If you have not already done so, it is suggested that you begin to construct the register by instigating a series of searches on your patient population. These searches will help you find individuals that are not currently coded with COPD and enable you to then confirm the diagnosis and code appropriately.

The initial searches that can be conducted include:

- 'Free text diagnosis': your practice may find patients who have the diagnosis of 'COPD' entered as 'free text' in the problems list, rather than having that diagnosis linked to the underlying coding system. Other terms that may have been used include 'COAD' (Chronic Obstructive Airways Disease), 'CAL' (Chronic Airways Limitation), 'Emphysema' and 'Chronic Bronchitis'. It is worth searching for these free text diagnoses and linking them appropriately.
- Drug classes: your practice may search for patients on specific classes of drugs including bronchodilators, inhaled corticosteroids, oral corticosteroids, and mucolytics. If these individuals are not appropriately coded, they can be brought into the practice to confirm their diagnosis, which may be COPD.

Once you have found patients who are likely to have COPD, it is important to make sure that the diagnosis is confirmed by spirometry. Many patients will have already had spirometry performed. Those who have not should have spirometry testing at an appropriate opportunity. This should be done with reversibility testing by an appropriately trained health professional at your practice or by referring to a respiratory laboratory. The ALF's website (<http://www.lungfoundation.com.au>) contains guidelines for the diagnosis and management of COPD.

Several diagnostic tools are also available to assist with the diagnosis of COPD. It is important that any tools are used with appropriate clinical judgement.

Once the register is compiled, many practices find it useful to distribute it throughout the practice to check if any names have been omitted. Again, this could be done as a PDSA.

Example

Biggera Waters Shopping Centre Surgery in Queensland improved the way their practice coded patients with COPD. Searches were run on all patients' diagnoses, which produced lists with patients recorded with COPD and asthma. Both GPs and practice nurses assessed the patients to decide which diagnosis was accurate or if there were elements of both. This involved a rigorous process of reviewing patient history and early diagnosis against current medication over a period of one week. The practice nurse was given the role of changing the codes where necessary to reflect the correct diagnosis. At the next practice team meeting, a list of agreed codes for future use by all practitioners was distributed.

Biggera Waters Shopping Centre Surgery, General Practice Gold Coast, QLD

Maintain an accurate record of smoking status in all your patients

All patients should have their smoking status recorded. It is helpful for your practice to agree on systems to check that patient smoking status is recorded and checked annually (since the status can change over time). It is also useful to record pack-years for smokers and ex-smokers if your clinical software allows it.

Example

Chandler's Hill Surgery in SA proactively screens patients who present with symptoms of COPD, such as smokers and ex-smokers with cough or breathlessness. Baseline lung function is performed and recorded in the patient's health record and patients are actively recalled over the next 6-12 months for review. Patients are recorded onto the register as patients with COPD if diagnosis is confirmed with spirometry.

Chandler's Hill Surgery, General Practice Network South, SA

Example

Fiveways Medical Centre Graceville in Queensland wanted to ensure all patients on the register have a smoking status recorded and, of these, how many are current smokers. The practice nurse performed a search on their Medical Director database for all patients who are smokers, who have never smoked and who are ex-smokers and are coded as having COPD. The search was performed with no problems. The practice nurse went through the register and added reminders to the patient's files

for GPs to action where there was no smoking status recorded. 72 patients had a smoking status recorded and 7 of these were recorded as being current smokers, 31 were recorded as ex-smokers and 34 recorded as never having smoked. The next PDSA cycle would focus on GPMPs and smoking cessation for patients on the register who are smokers.

Fiveways Medical Centre Graceville, Brisbane South Division, QLD

Identify patients with undiagnosed COPD

The risk of COPD increases with age and the number of pack-years for smokers. Your practice may want to consider case-finding for the diagnosis of COPD in current smokers or ex-smokers with the following symptoms or risk factors:

- breathlessness that seems inappropriate
- chronic (daily for two months) or intermittent, unusual cough
- frequent or unusual sputum production
- relapsing acute infective bronchitis
- risk factors such as exposure to tobacco smoke, occupational dusts and chemicals, and a strong family history of COPD.

Example

Practices could utilise the COPD questionnaire to opportunistically assess people who may be 'at risk' of COPD. People are able to fill in the questionnaire while seated in the waiting room. People who recorded 'Yes' 3 or more times on the tool are then invited to have a spirometry at the practice with the practice nurse. The ALF has copies of the COPD questionnaire. Visit the following site: <http://www.lungfoundation.com.au/content/view/117/141> or order copies on 1800 654 301.

Develop systems to maintain a valid register

Once the COPD register has been established and validated, it is essential that systems are developed to maintain its validity. This should include a process to ensure that new information on existing patients is gathered and recorded, and newly diagnosed patients with COPD are identified and included on the register.

When developing systems to maintain your register think about the following:

- How will your practice engage clinicians in actively entering diagnoses?
- How will your practice identify new cases or changes in diagnosis?
- Does your practice require a system to routinely check the quality of the information on the register?

Your practice may want to allocate a staff member to maintain the register. It is important that this person has training and protected time to do this work. A part of this individual's role could involve undertaking regular checks on the database to ensure that the systems for maintaining the register are working. These checks can be done using PDSA cycles and can be useful to highlight any gaps in your system.

It is important that the system for maintaining the register is documented. This will ensure that this work can continue to occur if the responsible person is away or leaves.

Example

Salisbury Medical Centre had an idea: to find out the number of patients on SPIRIVA who are not coded as COPD. The practice nurse conducted a search on Medical Director for patients on SPIRIVA with coded diagnoses of COPD. The search was completed successfully and 27 patients were found on SPIRIVA and were coded with COPD.

Upon further review through case conferencing, it was found that most of these patients were asthmatics. The next PDSA cycle aimed at developing a notation on each patient's file requesting the doctors to code correctly and to check the patient's medication.

Salisbury Medical Centre, Brisbane South Division, QLD

Idea

To ensure that all patients with COPD are correctly coded as having COPD and not asthma, start with a search for all asthma patients >40 years of age with a history of smoking. This will identify a number of patients who the GP thinks may possibly have COPD. The practice nurse can be encouraged to invite these patients into the practice for review and confirm spirometry. Once confirmed spirometry is recorded, the patient's name can be linked to the COPD register for follow-up. This validation process should be the responsibility of a practice staff member, such as the practice nurse.

Change Principle 3 - Be systematic and proactive in managing the care of people with COPD

Managing the workload and providing consistent evidence-based care for patients with COPD requires a planned, systematic and proactive approach. Working through the change ideas in this section will help to ensure that patients are given the opportunity to receive optimal care.

Change ideas

- Manage the care delivery provided to people with COPD through an established micro-multidisciplinary team (micro team)
- Establish appropriate care pathways for people with COPD
- Establish proactive recall and reminder arrangements for people with COPD
- Use guidelines, protocols and computer templates to support care delivery

Manage the care delivery provided to people with COPD through an established micro-multidisciplinary team (micro-team)

Your practice arrangements for COPD care management should be agreed by and communicated to all members of your practice team. Practices that have been involved in the APCC Program have found the establishment of a micro team as an effective way of leading the work in a topic area. A micro team is a small, multidisciplinary team that leads the work required to implement change. Initially, your micro-team may consist of the lead GP, practice nurse and practice manager.

A micro team for COPD may also consist of a patient, carer, physiotherapist, pharmacist, social worker, dietician, exercise physiologist, respiratory nurse educator, psychologist and member of the administrative team. Together they can ensure that all aspects of the system are developed and managed, and that improvements are shared across the whole care delivery team.

It is useful for a lead clinician to be responsible for coordinating care across the team. Many practices find that a nurse-led approach is very effective, with other members of the practice team becoming involved where appropriate. The role of the GP is crucial in providing professional support to nurses.

Example

Chandlers Hill Surgery in South Australia runs a Spirometry Clinic coordinated by their practice nurse. Over a period of 12 months, 500-600 patients are screened and monitored. An active recall system and good quality spirometry is essential in the ongoing quality of their service.

Patients are initially seen by the GP and then invited to have a consultation with the practice nurse. A significant part of the Spirometry Clinic is the ongoing support provided to patients by the clinic. Patients are also referred to allied health professionals to support behaviour change/modification, if required. A good knowledge of, and working relationship with practicing allied health professionals in the area has assisted the practice with providing continued quality of care for their patients.

Chandlers Hill Surgery, General Practice Network South, SA

Example

Qualified and experienced asthma & respiratory educators conduct formal clinics in general practice for patients. These clinics are generally conducted fortnightly, usually 3 patient contact hours per session. The educator has a structured appointment with the patient covering all aspects of recommended best practice care. Appointments for patients include 1 hour for new and 30 minutes for review patients. The clinics have been shown to be financially viable and sustainable utilising appropriate MBS item numbers. Every patient seen by the educator is seen by the patient's GP (or a GP from the practice). This provides an opportunity for a 'team approach' to chronic disease management and consistent information for the patient. Spirometry is used for all suitable patients and skin prick allergy testing is also available. This equipment and all consumables are provided by Melbourne East GP Network.

Establish appropriate care pathways for people with COPD

The baseline COPD measures are a useful starting point for this work. Practices can use the Model for Improvement to look systematically at each group of patients (e.g. those recorded as receiving a pneumovax immunisation). This will help to understand the results and provide a basis for your improvement work to determine the best way to improve the quality of treatment and data.

The establishment of care pathways of people with COPD might involve the following:

- establish practice protocols (or customise existing protocols) for the care of people with COPD
- assess severity of COPD from spirometry and dyspnoea scales
- ensure patients with COPD are offered smoking cessation advice and support
- ensure staff have the appropriate training and equipment and skills to deliver optimal care for people with COPD.

Establish practice protocols (or customise existing protocols) for the care of people with COPD

Basing your practice's COPD care around agreed protocols ensures that the entire team is clear about roles, responsibilities and how patients are managed. Protocols should be developed at the practice level to ensure they meet the specific needs of the practice and patient population. This could be a function of the micro team.

Many practices have protocols for the care of people with COPD such as:

- all patients with COPD see the practice nurse regularly for review (contact your local division for item numbers against this consult)

- all patients with COPD have a GP Management Plan and Team Care Arrangement completed by the practice nurse
- ensure patients with COPD are offered smoking cessation advice and support
- ensure patients with COPD receive optimal care including the use of appropriate medicines and non-pharmacotherapy such as pulmonary rehabilitation (please refer to COPD-X guidelines)
- ensure staff have the appropriate training, equipment and skills to deliver optimal care for people with COPD.

Example

Fiveways Medical Centre established a process for how each doctor identifies and diagnoses patients with COPD. The practice manager gave each doctor a list of questions relating to identifying and coding COPD patients. The practice manager provided all GPs with two questionnaires and these were completed and returned within one week. Results from the questionnaire revealed that most GPs code with COPD, have spirometry performed at various times on patients and seemed to consider the same factors when diagnosing i.e. spirometry, symptoms, smoking status, age, and medication. GPs also use the practice nurse for spirometry, vaccinations, developing GPMPs and running clinics. Once the practice manager had a better understanding of how COPD patients were identified, the next PDSA cycle was to develop practice protocols on management of COPD patients.

Fiveways Medical Centre, Brisbane South Division, QLD

Assess severity of COPD from Spirometry and Dyspnoea Scales

Spirometry is the most reproducible, standardised and objective way of measuring airflow limitation and FEV₁ is the variable most closely associated with prognosis.⁸ By ensuring that your patients have the severity of their COPD accurately assessed, you will be able to make sure they receive the appropriate evidence-based care for their condition.

⁸ Peto, R., et al. (1983) 'The relevance in adults of air-flow obstruction, but not of mucus hypersecretion, to mortality from chronic lung disease. Results from 20 years of prospective observation.' *American Review of Respiratory Disease*, 128(3): 491-500.

COPD severity⁹: Classification of severity of chronic obstructive pulmonary disease (COPD)

Factor	Mild	Moderate	Severe
Spirometry Findings post bronchodilator FEV ₁	60% - 80% predicted	40% - 59% predicted	<40% predicted
Functional assessment (activities of daily living)	Few symptoms. No effect on daily activities. Breathless on moderate exertion.	Increasing dyspnoea, breathless when flat. Increasing limitation of daily activities.	Dyspnoea on minimal exertion. Daily activities severely curtailed.
Complications	No	Exclude complications; consider sleep apnoea if there is pulmonary hypertension.	Severe hypoxaemia (PaO ₂ <60mmHg, or 8kPa) Hypercapnia (PaCO ₂ >45mmHg, or 6kPa). Pulmonary hypertension. Heart failure. Polycythaemia.
FEV ₁ = forced expiratory volume in one second. PaO ₂ = partial pressure of oxygen, arterial. PaCO ₂ = partial pressure of carbon dioxide, arterial.			

Ensure patients with COPD are offered smoking cessation advice and support

Cigarette smoking is the most common cause of COPD. There is a close relationship between the amount of tobacco smoked and the rate of decline in forced expiratory flow in one second (FEV₁), although individuals vary greatly in susceptibility. In susceptible smokers, cigarette smoking results in a steady decline in lung function, with a decrease in FEV₁ of 35–120ml/year.¹⁰ Around half of all smokers develop some airflow limitation, and 15%–20% will develop clinically significant disability. Smokers are also at risk of developing lung cancer, and cardiovascular disease such as ischemic heart disease and peripheral vascular disease.¹¹

⁹ McKenzie, D., et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease.'

¹⁰ *ibid.*

¹¹ Frith, P., A. Esterman, A. Crockett, & T. James (2004) '*Chronic Obstructive Pulmonary Disease (COPD) in Australia: An under-recognised and under-treated burden*', Australian Lung Foundation.

GPs are key agents in smoking cessation as they have access to the community, the opportunity to address smoking cessation and are effective, credible agents of change. An example of a tool that can be used by GPs to assist patients quit smoking is the five A's.

The 5 A's include¹²:

Ask	Systematically identify and document smoking status at every visit.
Advise	Give clear, personalised, supportive advice on quitting smoking.
Assess	Identify the patient's interest in quitting and level of nicotine dependence.
Assist	Aid the patient in quitting with self-help materials, developing a plan, discussing nicotine withdrawal.
Arrange	Schedule follow-up contact for immediate review and ongoing support.

To effectively assist your patients quit smoking, a multi-faceted system is required. This can include the development of systems to:

- ensure that smoking status is accurately recorded for all your patients
- encourage smokers in your practice to consider quitting
- support smokers who have decided to quit.

Smoking cessation strategies can also be obtained from the following sites:
<http://www.racgp.org.au/smoking/1a> or <http://www.quit.org.au>

Ensure staff have the appropriate training and equipment and skills to deliver optimal care for people with COPD

In order to ensure that people with COPD receive optimal care, the practice needs to consider staff skills and training. This is especially important when using a multidisciplinary approach to care delivery. It is important that staff have the right skills and confidence to deliver effective and consistent care for people with COPD. The practice should also consider training several people, for example a GP and practice nurse, to allow flexibility and manage any staff changes that occur in the future. Your practice may also consider engaging specialist physicians and specialist nurses as part of the team.

In addition to having the right skills, it is also important that the practice considers the equipment used or required to deliver optimal care. When considering

¹² Litt, J., M. Ling, & B. McAvoy (2003) 'How to help your patients quit: Practice-based strategies for smoking cessation', *Asia Pacific Family Medicine*, 2:175-179.

equipment a spirometer for diagnosis and monitoring of COPD is an obvious resource. The Thoracic Society of Australian and New Zealand (TSANZ) and Australian and New Zealand Society of Respiratory Science (ANZSRS) have developed a user guide to assist with the purchase and use of a spirometer. These guidelines can be found under the 'Health Professionals' tab of the National Asthma Council Australia's (NAC) website: <http://www.nationalasthma.org.au>.

Accredited training is also available to assist professional staff on the use of spirometers. For example, the NAC conducts a 6-hour workshop accredited for GPs by the TSANZ and ANZSRS on spirometry performance and interpretation. Practice nurses are able to access this workshop, however they will not be accredited as a 10-hour training program is required for non-GP clinicians. The workshops are conducted in Divisions of General Practice nationally, and are funded by the Australian Government Department of Health and Ageing. Further details can be obtained from the NAC website (<http://www.nationalasthma.org.au>) or on 03 9929 4333.

Establish proactive recall and reminder arrangements for people with COPD

The ongoing management of patients with COPD is dependent upon having a clearly defined system for recall that ensures that patients are invited for review at least annually. It is important to monitor attendance and follow-up patients who do not attend.

Consider how your practice will manage the care of patients who do not attend. Patient notes or prompts on the computer system can help clinicians recall/remind patients that their review is overdue, and/or initiate opportunistic reviews. Special consideration needs to be given to how your practice will deliver care to patients within nursing homes, in rural areas, the housebound and culturally and linguistically diverse populations.

Your practice should also think about establishing a system to assist with the follow-up of patients being cared for in secondary care.

It would be useful to think about how to manage the COPD workload at your practice. By establishing how many patients your practice has the capacity to see each year, your practice staff will be able to develop a process of proactively calling patients each month or week, while adjusting the practice register as it grows.

Allocating this task to a specific practice team member is important, thus enabling them to manage the recall/reminder process.

Example

Bay Medical Centre in Queensland wanted to ensure that all patients on their COPD register under the age of 65 (who are not included in the rigorous practice recall/reminder system for flu vaccinations) have had a flu vaccination. The practice manager initiated a recall of patients who were under 65 years of age and had not had a flu vaccination in the past 12 months. The practice manager printed a list of all COPD patients under the age of 65 and found 29 patients who had not had their flu vaccination. Patients were sent letters encouraging them to make appointments to have their flu vaccination, at their earliest convenience. Of the 29 patients recalled, 13 responded and were scheduled to have a consult with the practice nurse. A suitable day of the week was allocated for the practice manager to phone the remaining 16 and she was successful in reaching 4 of them. Altogether, 18 patients had their flu vaccinations and the practice nurse used this opportunity to determine if any of these patients required further support at home. The next PDSA was to initiate another recall to engage with the remaining 11 patients.

Bay Medical Centre, General Practice Gold Coast, QLD

Use guidelines, protocols and computer templates to support care delivery

Embedding guidelines and protocols through the use of manual or computerised templates ensures that there is a systematic, consistent approach to care delivery. A systematic approach will result in improved accuracy and completeness of patient data.

Useful tips to maximise the use of templates include:

- discuss templates with the team to ensure support for their use
- keep templates simple and user-friendly
- provide one-to-one training and support to the health professional using the template
- develop and use computer shortcuts where appropriate
- regularly use the data from the template to inform the team of its performance.

Support in developing templates may be available from your local Division and/or clinical software supplier.

Example

General Practice Gold Coast developed a user-friendly COPD Collaborative Self Assessment Tool for practice staff. This tool can be used as an audit for practices to review their current systems with regards to COPD. It is suggested that the tool is completed by all practice staff to identify everyone's knowledge of the current system.

Once completed, the results of the tool can identify gaps in the current system of COPD care and areas for improvement. See Appendix 1 for a copy of this tool.

General Practice Gold Coast, QLD

Change Principle 4 - Involve patients and their families in delivering and developing their care

Consider the change ideas below when tackling this change principle.

Change ideas

- Develop and implement deliberate strategy for self-management to allow patients and carers to better understand and manage their condition
- Integrate the patient's perspective constantly in the design of services
- Ensure written communication is appropriate and understood
- Pay special attention to the needs of people from hard to reach groups

This section of the handbook focuses on the above change ideas of which the first two relate to patient self-management and self-care.

Develop and implement deliberate strategy for self-management to allow patients and carers to better understand and manage their condition

Patients live with their chronic disease 24 hours a day, 365 days a year. Many patients are happy to manage aspects of their own care and indeed can be effective in doing so. This may include developing an understanding of their condition and how it impacts on their lives through practice-based education, having the confidence to deal with exacerbations, giving up smoking and actively participating in improving their diet and quality of life.

‘Self-management’ is a normal part of daily living, and involves the actions individuals take for themselves and their families to stay healthy and to care for minor, acute and long-term conditions. However, patient self-management is not as simple as educating patients about their condition or giving them relevant information. It is about developing the confidence and motivation of the patient to use their skills, information and professional services to take effective control over a chronic condition and live a full life.

‘Self-management support’ relates to the provision of a service and education directed at increasing patients’ skills and confidence in managing their health issues. The aim of self-management support for people with COPD is to improve their knowledge and skills, enabling them to take control of their condition and integrate self-management into their daily lives.

It is suggested that patients should be more involved with designing the system of care delivery to patients with COPD as well as being involved in the decision making process around their own care. Examples of this approach include:

- develop the system of care delivery with patients
- maximise knowledge and management through individualised care plans
- consider the use of community-based and patient-led support groups.

Develop the system of care delivery with patients

Patients should be able to provide valuable information on the style and content of letters and patient literature, the organisation and timing of clinics/appointments to maximise attendance, how to best deliver care to patients with more than one chronic condition, understanding issues around compliance with medication and developing patient self-care.

Maximise knowledge and management through individualised care plans

An individualised COPD care plan based on the appropriate guidelines should be produced for each patient for the management of stable COPD. An effective self-management plan will increase an individual’s knowledge about their COPD and support them in managing their condition. A self-management plan for people with COPD should be agreed with the patient.

The development of a self-management care plan may be guided by the following principles:

- Determine the disease severity on an individual basis, taking into account symptoms, airflow limitation, frequency and severity of exacerbations, co-morbidities, general health status and any issues regarding management.

- Identify the goals of therapy and implement a stepwise action plan.
- Choose treatments according to evidence-based practice and the patient's and/or family's skills and preferences.

The self-management care plan takes a broad view incorporating many aspects of the condition including nutrition and smoking cessation. In addition, it should include a plan to assist patients with managing acute exacerbations, which will help prevent progressive functional deterioration and reduce hospital admissions.¹³

The ALF provides a useful template for the development of a care plan (referred to as an action plan) which can be found on their website:

<http://www.lungfoundation.com.au>. This includes a set of instructions on how patients can manage an exacerbation.

Example

Bywater Medical Jindalee introduced the 'Better Living with COPD: A Patient Guide' produced by the ALF. All patients who had a confirmed COPD diagnosis and were on GMPs/Action Plans were provided with the Patient Guide.

Upon follow-up, the practice nurse learnt that all patients who had received the patient guide had made contact with local community programs.

The practice nurse also placed a notation on patient files as a prompt for the GP to follow-up on how these patients were progressing.

Bywater Medical Jindalee, Brisbane South Division, QLD

Consider the use of community-based and patient-led support groups

Consider the use of community based programs that empower patients and their carers and give them the skills to help themselves. The main areas such a program would cover include confidence, hope, empowerment, clarity and knowledge. These structured programs tend to have a more beneficial effect than solely doctor-encouraged self-management.

The use of patient-led support groups can also be an effective strategy. The ALF or your local Division of General Practice can provide assistance with finding support groups in your area.

Integrate the patient's perspective constantly in the design of services

Involving and integrating the patients' perspective into the design of care delivery can be seen as a continuum from low to high user involvement, as follows¹⁴:

¹³ Lorig, K., et al., (1999) 'Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial', *Medical Care*, 37(1): 5-14.

¹⁴ Improvement Foundation UK. (2004) 'COPD Handbook'

- decisions are publicised and explained before they are implemented
- patients may take the initiative to influence decisions
- patients views are sought before a decision is finalised
- patients have authority to take selected decisions.

Patients and carers offer a unique insight into services, and their participation in redesign is crucial to truly enhance care. Practice teams should consider involving patients in the decision-making process for care delivery. It would be useful to ensure that the views of patients are incorporated into a range of initiatives around COPD such as the development of guidelines and protocols, patient information and in redesign initiatives.

Your Collaborative team may include a COPD patient. It is vital that their experience is acknowledged and considered when making plans for change in the COPD topic.

Example

There are many ways of integrating the patient's perspective into the services provided by your practice. One approach involves establishing a Patient Reference Group (PRG), who would be responsible for assisting the practice with the development of practice protocols, triaging, care management, referrals to community agencies, etc. You may choose to invite patients from various age groups to sit on the PRG so that you are able to engage with a larger demographic.

Ensure written communication is appropriate

There is no better way of ensuring that communication is appropriate than involving patients in developing and reviewing written materials aimed at patients with COPD and their carers.

The majority of practices focus considerable resources to the development of health promotion and patient education material. It can be valuable to have a patient's perspective when developing and evaluating this material.

The actual writing style should also be considered when developing material. It is recommended that written material should be pitched at a reading age of a Year 7 student. Not all patients are able to use the written word and we need to be aware of the size of this problem and its implications for the way in which we give information and conduct medical consultations. The impact of health literacy on outcomes can be considerable and improvements can be made by being aware of the problem, offering information in several different forms, and by reinforcing the spoken word with pictorial images.¹⁵

¹⁵ Roberts, N., R. Ghiassi, & M. Partridge (2008) 'Health Literacy in COPD', International Journal of COPD, 3(4): 499-507.

Please visit the Plain English Foundation site for more assistance where required
<http://www.plainenglishfoundation.com.au>.

In addition, the ALF has produced numerous educational materials suitable for patient education. This includes the guide 'Better Living with Chronic Obstructive Pulmonary Disease: A Patient Guide', which provides information on COPD and how it affects the body and information on how a person with COPD can self-manage.

Pay special attention to the needs of people from hard to reach groups

Practices should pay special attention to people who have particular needs including patients from Aboriginal and Torres Strait Islander backgrounds, culturally and linguistically diverse (CALD) groups, patients with disabilities, the elderly and those residing in rural and remote areas.

Local community representatives and voluntary organisations can be valuable source of assistance in providing support for hard to reach groups and addressing issues of access. Many local communities have a vibrant, active voluntary sector and community network with the potential to make an effective contribution. This is particularly relevant when looking at the needs of local minority ethnic groups. Your local Division of General Practice may be able to assist with developing a contact list of community organisations in your area.

Change Principle 5 - Ensure effective coordination through the use of a multi-skilled and multi-agency approach

For the effective management of COPD, your practice may need to consider the use of services that sit outside the practice.

Consider the change ideas below when undertaking work in this change principle.

Change ideas

- Identify and engage local organisations and other sources of care to provide best care to patients with COPD
- Analyse the patient journey and redesign where necessary
- Provide integrated care by improving the relationship between primary, secondary and tertiary providers

Identify and engage local organisations and other sources of care to provide best care to patients with COPD

The breadth of services required for the provision of best care to patients with COPD often means that practices will need to work in conjunction with many community services providers. You may find it useful to map local organisations and allied health professionals providing services for COPD patients in your area and think about how to involve these organisations in the delivery of COPD services. Your local Division of General Practice may have a list of local services.

You may consider the following examples when identifying and engaging local services for your COPD patients:

- ensure patients with COPD receive optimal therapeutic care through pulmonary rehabilitation
- arrange assessment of patients with severe COPD for long term oxygen therapy
- develop appropriate crisis intervention services
- ensure access to good quality palliative care.

Ensure patients with COPD receive optimal therapeutic care through pulmonary rehabilitation

Pulmonary rehabilitation is a relatively inexpensive program of care designed to reduce the impact of COPD on patients and members of their family. Pulmonary rehabilitation programs involve assessment, supervised exercise training, education

to enhance self-management skills, nutritional advice and psychosocial support.¹⁶ Generally, at least two formal sessions per week are recommended with other activities encouraged on other days of the week. The optimum duration of a program is 6 to 12 weeks. Many patients with COPD can benefit from pulmonary rehabilitation. The ALF can assist with locating a pulmonary rehabilitation program in your area. An online toolkit has also been produced by the ALF and Australian Physiotherapy Association to assist health professionals establish pulmonary rehabilitation programs. The toolkit can be accessed at <http://www.pulmonaryrehab.com.au>.¹⁷

If your practice is not able to identify programs in your region, the following points may be useful to give to patients:

- start small and pace yourself
- walk every day
- start during the spring and summer
- keep exercising during winter
- keep going even during bad times
- exercise consistently and set realistic goals
- ask for advice and educate yourself
- write down questions for your GP or practice nurse.

Arrange assessment of patients with severe COPD for long term oxygen therapy

Long term, continuous (>15hours/ day) oxygen therapy is prescribed for many people with chronic obstructive pulmonary disease who have a low blood oxygen level. Oxygen therapy is used to prolong and improve the quality of life for the patient. Before introducing oxygen therapy, it is important to ensure that the patient is receiving optimal treatment for COPD while monitoring improvement with objective tests such as FEV₁ and FVC. Optimal treatment may include maximum therapy for airway obstruction, attention to nutrition and bodyweight, an exercise rehabilitation program, control of infection, and treatment of cor pulmonale.

It is important for your practice to have in place clear systematic processes to assess patients with severe COPD to determine if they require oxygen therapy.

¹⁶ Nici, L. et al. (2006) 'American Thoracic Society/European Respiratory Society statement on pulmonary rehabilitation', *American Journal of Respiratory Critical Care Medicine*, 173(12): 1390-1413.

¹⁷ McKenzie, D. et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'.

The COPD-X guidelines provide clinical information regarding the assessment process and can be accessed at <http://www.copdx.org.au>.¹⁸

Develop appropriate crisis intervention services

It has already been mentioned that an effective patient self-management plan will include information on managing acute exacerbations. This will help prevent progressive functional deterioration and reduce hospital admissions. However, individuals that are not confident in their ability to manage an acute exacerbation will still require assistance, particularly if they are experiencing shortness of breath. The peak time for an admission for an acute exacerbation of COPD is between the hours of 6pm and midnight.

Dealing with and preventing crises helps patients maintain good health and reduces hospital admissions with their associated risks such as atypical bacterial infections. Your practice may want to consider linking with existing hospital avoidance programs or developing your own crisis intervention services for patients with COPD.

Ensure access to good quality palliative care

As COPD is an incurable disease, some patients with COPD are likely to reach the terminal phase of their illness. This has an impact not only on the patient but on their carer as well. The reasons why some COPD patients do not receive palliative care are complex. This may partly relate to prognostic accuracy of patients' survival and also to the lack of resources and availability of palliative care programs in the health care system. Potential barriers may include unwillingness of patients to discuss advance care planning and end-of-life care with their general practitioners, lack of time during the consultation, increased workload at the practice, and lack of appropriate tools to guide general practitioners on when to refer patients for palliative care.¹⁹ Practices may want to consider some of these factors when addressing issues pertaining to palliative care. Having a good knowledge of services available to your patients and developing systems within your practice to access these services would be of great value to the practice and patient.

Information about palliative care standards is available through your Division of General Practice or can be obtained through Palliative Care Australia at <http://www.pallcare.org.au>.

A typical palliative care team may comprise of a physician, mental health and palliative care nurses, auxiliary staff, a pharmacist, bereavement counsellor, psychologist, chaplain, social worker and volunteers etc. In addition, patients should

¹⁸ McKenzie, D. et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'.

¹⁹ Yohannes, A. (2007) 'Palliative Care Provision for patients with Chronic Obstructive Pulmonary Disease: Health Quality Life Outcomes', Biomed Central, 5(17).

be invited to discuss end of life issues, including the concept of an advanced directive or living will to ensure that end of life decisions match their wishes.

Analyse the patient journey and redesign where necessary

Mapping the processes or sequence of events between primary and secondary care or between primary care and community services from a patient's perspective is an effective approach in starting to understand whether current service provision is timely and of high quality.

Once this has been agreed by the practice team, the following questions are useful in developing ideas to improve the patient journey:

- What are the problems, barriers and bottlenecks in the patient's journey, especially in handovers between primary and secondary care?
- Can constraints (e.g. waiting times for investigations) be addressed?
- How can the evidence base be better integrated into the provision of care (e.g. standardising computer coding between primary and secondary care)?
- Are communication channels effective and timely?
- Can steps be reduced or simplified (e.g. through the use of one-stop primary care clinics, using group based education sessions or group consultations)?
- Are the right people with the right skills in the right place to provide the right care at the right time? Do opportunities exist to relocate services in primary care?
- What are the training and development implications for staff and how can these best be addressed?
- What should be measured to demonstrate the effectiveness of the service and improvements made?
- Are all contact details for secondary care and community services up to date?

Provide integrated care by improving the relationship between primary, secondary and tertiary providers

Ideally, there is an opportunity to develop local networks of GPs, specialists and allied health professionals, all of whom you are able to liaise with as required. It might be useful for the local Division of General Practice to set up a multidisciplinary COPD clinical network between the participating practices and other health providers, including those from secondary care and community services.

This aim of this group would be to ensure high quality care delivery services are in place for the care of people with COPD, including:

- ensuring that roles and responsibilities of people involved in service delivery are clear and coordinated
- removing barriers for provision of coordinated services for people with COPD
- producing referral criteria, formularies, discharge arrangements and developing a strategy for training and ensuring appropriate equipment is available
- reviewing and redesigning the patient journey.

Your practice may find it useful to map other local organisations that have an influence or potential influence on COPD in their area and think about how to involve them in developing COPD services.

6.5 Useful web addresses

Australian Primary Care Collaboratives Program

<http://www.apcc.org.au>

Improvement Foundation (Australia) Limited

<http://www.improve.org.au>

Improvement Foundation (formerly National Primary Care Development Team)

<http://www.improvementfoundation.org>

Institute of Healthcare Improvement

<http://www.ihl.org>

Australian Association of Practice Managers (AAPM)

<http://www.aapm.org.au>

Australian College of Rural & Remote Medicine (ACRRM)

<http://www.acrrm.org.au>

Australian Asthma & Respiratory Educators Association Inc.

<http://www.aareducation.com>

Australian General Practice Network (formerly Divisions of General Practice)

<http://www.adgp.com.au>

Australian Lung Foundation

<http://www.lungfoundation.com.au>

Australian Practice Nurses Association

<http://www.apna.asn.au>

Immunise Australia Program

<http://www.immunise.health.gov.au>

Kinect Australia Active Script Program

<http://www.vicfit.com.au/activescript>

National Asthma Council Australia

<http://www.nationalasthma.org.au>

National Prescribing Service

<http://www.nps.org.au>

National Tobacco Campaign

<http://www.quitnow.info.au>

Plain English Foundation

<http://www.plainenglishfoundation.com.au>

Royal Australian College of General Practitioners

<http://www.racgp.org.au>

Tools and Resources**Action plan template**

<http://www.lungfoundation.com.au>

Ask Me 3-Improving Health Communication

<http://www.npsf.org/askme3/PCHC>

COPD Professional Resources

<http://www.lungfoundation.com.au/content/view/117/141>

Guidelines for the diagnosis and management of COPD

<http://www.lungfoundation.com.au>

Health Coaching

<http://www.healthcoachingaustralia.com>

Health Literacy Screening Tool

<http://www.pfizerhealthliteracy.com/physicians-providers/newest-vital-sign.html>

Multilingual Health Information

<http://www.healthtranslations.vic.gov.au>

Pulmonary Rehabilitation Toolkit

<http://www.pulmonaryrehab.com.au20>

Palliative Care Standards

<http://www.pallcare.org.au>

²⁰ McKenzie, D. et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'

The COPD-X guidelines

<http://www.copdx.org.au>²²

Smoking cessation strategies

<http://www.racgp.org.au/smoking/1a>
www.quit.com.au

Stanford (Lorig) Chronic Disease Self Management Program

<http://patienteducation.stanford.edu/training>

Research

The John Curtin School of Medical Research

<http://jcsmr.anu.edu.au>

The Walter and Eliza Hall Institute of Medical Research

<http://www.wehi.edu.au/index.html>

Australian Government Departments:

Australian Department of Health and Ageing

<http://www.health.gov.au>

Australian Institute Health and Welfare

<http://www.aihw.gov.au/diabetes>

Federation of Ethnic Communities Council Australia

<http://www.fecca.org.au>

Food Standards Australia and New Zealand

<http://www.foodstandards.gov.au>

Health Insite

www.healthinsite.gov.au

Health Insurance Commission (Medicare Information)

<http://www.medicareaustralia.gov.au>

²¹ McKenzie, D. et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'

²² McKenzie, D. et. al. (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'

National Aboriginal Community Controlled Health

<http://www.naccho.org.au>

National Health and Medical Research Council (NHMRC)

<http://www.nhmrc.gov.au>

National Health and Medical Research Council (NHMRC) Publications

<http://www.nhmrc.gov.au/publications/index.htm>

Pharmaceutical Benefits Scheme

<http://www.health.gov.au/pbs>

Where possible we have tried to provide up to date links, we apologise if any of these links have become redundant since printing.

For a comprehensive list of other useful websites, please visit the Australian Primary Care Collaboratives website: http://www.apcc.org.au/useful_links.html.

Appendix 1- COPD COLLABORATIVE SELF ASSESSMENT TOOL

Developed by General Practice Gold Coast, 01/10/2009

Practice: _____

Questionnaire completed by: _____ Date: _____

____/____/____

Are you the:				
<input type="checkbox"/> Practice Principal <input type="checkbox"/> Practice Nurse <input type="checkbox"/> Other Please Specify..... <input type="checkbox"/> Reception Staff <input type="checkbox"/> Practice Manager				
	ACTIVITY	YES	NO	NOT SURE
1.	Can you easily identify patients with COPD from your data base? How? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Do you have a register for patients with COPD? Is it regularly updated? How often? _____	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
3.	Do you use a recall and reminder system for patients with COPD? How often? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Do you perform pre and post spirometry tests on patients with COPD? How often? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do you record smoking status for all patients? Do you check or update smoking status for existing patients? Do you encourage smokers to participate in smoking cessation programs?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6.	Do you undertake GP Management Plans for patients with COPD? Do you undertake Team Care Arrangements for patients with COPD? Do you encourage patients to participate in pulmonary rehabilitation programs?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7.	Do you manage your COPD patients with annual fluvax immunisation? Do you manage your COPD patients with pneumovax immunisation?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
8.	Can you identify on your data base patients who may be at risk of COPD? How? _____ Do you proactively identify patients at risk of COPD? How often? _____	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
9.	Can you identify patients who have been admitted to hospital for acute COPD treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Do you use a practice nurse in the management of patients with COPD? In what areas? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11.	Do you involve COPD patients in developing and delivering their care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Do you perform any other significant activities associated with managing your COPD patients? If so, what? <hr/> <hr/> <hr/> <hr/>			
TOTALS				

6.6 Measures for COPD

The purpose of the measures is to help you track progress in achieving the COPD aim and monitor your improvement efforts. Best practice management of people with COPD extends beyond the subset of care reflected by these selected measures. For comprehensive clinical guidelines for the care of people with COPD, please see the COPD-X guidelines. These guidelines are a valuable resource on the management of COPD in Australia. The COPD-X guidelines have been developed and are updated quarterly by the Australian Lung Foundation (ALF) and the Thoracic Society of Australia and New Zealand as part of the ALF's national COPD program. The COPD-X plan is easily accessed via the following link:
<http://www.copdx.org.au/guidelines/index.asp>.

Definition of COPD

COPD is characterised by airflow obstruction ($FEV_1 < 80\%$ predicted and FEV_1/FVC ratio $< 70\%$), which is not fully reversible and which does not change markedly over several months.¹ The impairment of lung function is largely fixed but may be partially reversible by bronchodilator (or other) therapy. COPD is also associated with significant extrapulmonary effects contributing to the severity in individual patients.

The cause of COPD is an abnormal inflammatory response of the lungs to noxious gases or particles², predominantly tobacco smoke but also occupational dusts and some indoor pollution. Other causes include alpha 1 antitrypsin deficiency and perinatal lung abnormalities and perhaps chest infection in early childhood.

The diagnosis is usually suggested by symptoms but can only be established by objective measurement, preferably using spirometry and reversibility testing.

6.6.1 COPD monthly measures

- The number of people within the clinical database that are coded with a diagnosis matching the COPD definition
- The percentage of people on the COPD Register whose recorded smoking status indicates that they are a:
 - Non Smoker
 - Ex Smoker
- The percentage of people on the COPD Register whose smoking status is recorded as Current Smoker OR Ex Smoker AND who have had their smoking

¹ McKenzie, D., M. Abramson, A. Crockett., N. Glasgow, S. Jenkins, C. McDonald, R. Wood-Baker, & P. Frith (2007) 'The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease'

² *ibid.*

status assessed within the previous 12 months

- The percentage of people on the COPD Register with a recorded Spirometry at any time.
- The percentage of people on the COPD Register who are recorded as receiving an Influenza vaccine within the previous 12 months.
- The percentage of people on the COPD Register with a recorded Pneumococcal vaccination

Reports and tools have been developed for the APCC Program to extract these measures from the various clinical software packages. Please refer to 'Processing Data' in the Measuring for Improvement section for more information about the tools available and details about how the COPD measures are calculated. You can also refer to this section for tips on improving the quality of your data and resources which may be useful about the monthly measures.

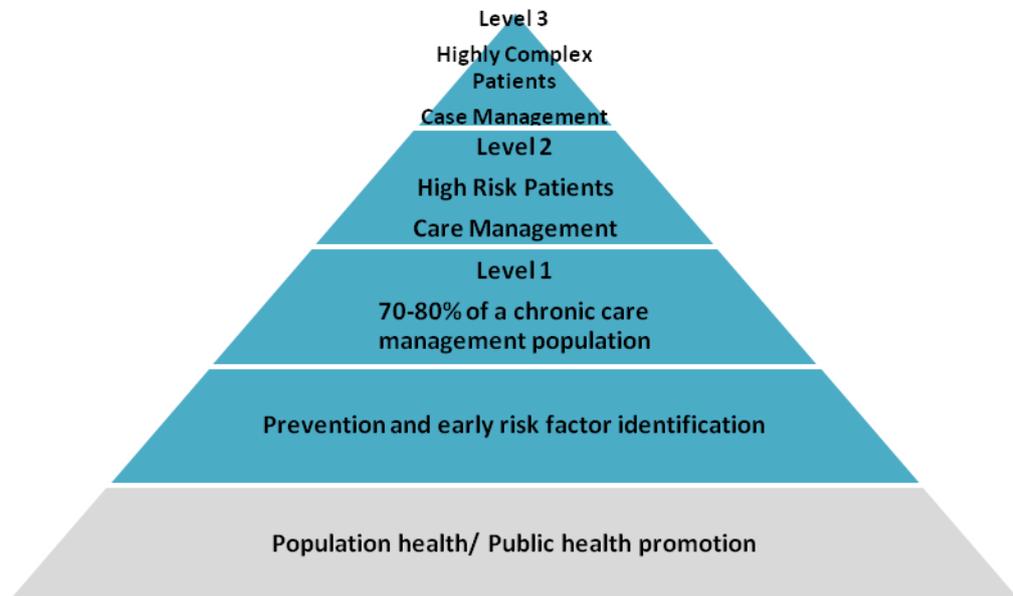
7 Chronic Disease Prevention and Self Management

The aim of the Chronic Disease Prevention and Self Management (CDPSM) topic is to increase the identification of those with risk factors for chronic disease and implement strategies to mitigate these risks, including self management.

Through this we aim to assess risk factor status in 50% of those in whom it is recommended and reduce the number of risk factors that are not at target by 20%.

7.1 About Chronic Disease Prevention and Self Management

In the APCC Program, the work of chronic disease prevention and self management is seen as being on a continuum. This includes the path from general prevention of risk factors and early risk factor identification to the management of existing chronic conditions¹, as shown in the adapted pyramid² below.



Traditionally, the work of general practice is focused on Level 2 of this pyramid, the care of patients with chronic diseases. In the CDPSM topic, the work of general practice is seen as integral to the foundation sections of this pyramid. This includes the level of early risk factor identification through to management of risk factors that can lead to the development of a chronic condition, in Level 1.

It is useful to review some of the key definitions pertaining to this topic area. In particular, the definition of 'prevention' used in the APCC Program and the distinction between the two complimentary terms, 'self management' and 'self management support'.

¹ Flinders Human Behavior and Health Research Unit (2009) 'Capabilities for Supporting Prevention and Chronic Condition Self Management: A Resource for Educators of Primary Health Care Professionals.'

² Department of Health (UK) (2004) 'Improving Chronic Disease Management', http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4075214.

In the APCC Program, prevention incorporates the prevention of illness as well as reducing the burden of chronic disease in the community.

Self management refers to the tasks individuals undertake to live well and manage their condition. Self management is applicable to individuals with a chronic condition as well as those at risk of developing a chronic condition. Self management support relates to the provision of a service and education directed at increasing patients' skills and confidence in managing their health issues. Frequently, self management support is provided by healthcare professionals and can include support with goal setting, problem solving and regular assessment of progress.

The CDPSM topic recognises that both self management and self management support are closely connected, and the philosophy that lies underneath each will be seen in the change principles that guide work in this topic area.

7.2 Scope of the work on Chronic Disease Prevention and Self Management

CDPSM is becoming increasingly relevant due to the growing burden of chronic disease. Many Divisions of General Practice and practices are developing strategies to address this work. The Improvement Foundation (Australia) team has distilled both expert and practical learning on changing and improving practice-based systems for CDPSM into a set of change principles and associated change ideas to further enhance this work. This is complemented by examples of work already undertaken in Australia pertaining to this topic area.

For the purposes of the APCC Program, the CDPSM topic will have a practical focus on diabetes and cardiovascular disease. However, it is important to note that the applicability of the Collaborative methodology in chronic disease prevention and self management is much boarder than this, and can extend to a range of disease areas.

7.3 Working in partnership

Optimal management of chronic disease involves an effective partnership between healthcare professionals and the patient. Four elements have been identified as being important when working with patients to support self management³:

1. Collaboratively defining the problem: enabling the patient to define their problems and identify their strengths in conjunction with their healthcare professionals.
2. Targeting, goal setting and planning: targeting the issues that are of greatest importance to the patient and healthcare professional, setting realistic goals at the appropriate time, and developing a personalised self management plan that is tailored to the patient's needs. Programs are successful if the process is guided by a consideration of the patient's readiness to change and self-efficacy.

³ Wagner et al. (1996) 'Organizing care for patients with chronic illness', *Milbank Quarterly*, 74(4): 511-544.

3. Self management training and support services: programs that include instruction on disease management, behavioural support programs, physical activity and interventions that address the emotional demands of having a chronic condition are relevant.
4. Active and sustained follow-up: evidence shows that reliable follow-ups that are initiated by the provider at regular intervals lead to better outcomes.

The following section is intended to be a pragmatic, practical guide to help practices apply the change principles and ideas quickly and effectively to achieve the best possible impact on patient outcomes.

This guide is not intended to be a text on the clinical management of chronic conditions and recognises that the care of the individual patient rests between the patient and the healthcare professional. For a review of the evidence-based approaches to chronic disease prevention and self management, reference can be made to guidelines prepared by bodies such as the National Heart Foundation, Diabetes Australia, the National Health and Medical Research Council and the Royal Australian College of General Practitioners 'red book' and 'green book'. The end of the CDPSM section contains a list of useful web addresses.

7.4 Change Principles

Change Principles	
1.	Build and maintain the practice team
2.	Identify those people in your practice for whom risk assessments are recommended
3.	Undertake the appropriate risk assessments on those identified
4.	Deliver evidence-based and patient-centred interventions and other risk factor reduction strategies
5.	Develop self management plans and systems to monitor and review those plans
6.	Adopt a multi-skilled and multi-agency approach

These change principles are used as a pathway to guide your improvement work in the CDPSM topic. Undertaking systematic work in each of these change principles can deliver substantial impact on the quality of care. These change principles were developed and endorsed by the APCC CDPSM Expert Reference Panel in 2009.

For each change principle, specific change ideas are identified along with practical examples, tips and tools, where possible. The ideas and examples are the result of work done by practices around Australia. They are intended to stimulate thinking and discussion about how the work can be developed in your practice. It is the intention of the APCC Program that these change ideas and examples will be expanded in following editions of this handbook, using examples from the improvement work that will be done by you and your colleagues.

Change Principle 1 – Build and maintain your practice team

Experience in the APCC Program has shown that having an effective practice team is a necessary foundation on which to begin any quality improvement work. Attempting to implement change without appropriately engaging the practice team and assigning tasks is unlikely to lead to sustainable change.

Consider the change ideas below when working on this change principle.

Change Ideas

- Set realistic goals
- Communicate with other team members
- Engage the practice team
- Assign roles and responsibilities
- Reflect and review what you are doing

Please refer to the tab 'Build and maintain your practice team' for further information on these change ideas.

Change Principle 2 – Identify those people in your practice for whom risk assessments are recommended

Risk assessment is a valuable way of identifying individuals who have risk factors that might lead to a future chronic condition. This early identification of risk factors provides an opportunity to educate and encourage preventative behaviours, with the aim of decreasing the risk of progressing to a chronic disease.

Risk assessment can be carried out in a variety of ways. In the APCC Program, a systematic and proactive approach to risk assessment is taken, followed by targeted interventions to those determined to be at high, medium and low risk.

The first step in a systematic approach to risk assessment involves identifying the people in your practice for whom risk assessments are recommended.

Consider the change ideas below when undertaking work in this change principle.

Change Ideas

- Identify individuals for whom risk assessments are recommended, using the evidence guidelines
- Understand the practice population
- Establish clear business rules around risk assessment

Identify individuals for whom risk assessments are recommended, using the evidence guidelines

In the APCC Program, the steps for identifying individuals that require risk assessment for type 2 diabetes and cardiovascular disease are based on the

Australian Type 2 Diabetes Risk Assessment Tool⁴ and Absolute Risk Tool⁵ respectively.

Diabetes Risk Assessment

The Australian Type 2 Diabetes Risk Assessment Tool (AUSDRISK) is used to identify individuals at risk of developing type 2 diabetes within 5 years. It is recommended that individuals over 40 years of age and from 18 years of age in Aboriginal and Torres Strait Islander populations, who are not known to have diabetes, are assessed for their risk of developing diabetes using the AUSDRISK Tool.

There is a subgroup of individuals that are recognised as having an increased risk of developing diabetes and therefore do not require risk assessment using the AUSDRISK Tool. Individuals with the following clinical background can be targeted as a priority for management of their identified risk factors⁶:

- people with impaired glucose tolerance or impaired fasting glucose
- women with a history of gestational diabetes mellitus
- women with a history of polycystic ovary syndrome
- people presenting with a history of a cardiovascular disease event (e.g. myocardial infarction or stroke)
- people on antipsychotic medication.

Cardiovascular Disease Risk Assessment

In Australia, the Absolute Cardiovascular Disease Risk Assessment (Absolute Risk) Tool, which uses the Framingham Risk Equation, is used to identify individuals at risk of developing cardiovascular disease⁷. The National Vascular Disease Prevention Alliance recommends assessment of all individuals 45-74 years of age who are not known to have cardiovascular disease. In Aboriginal and Torres Strait Islander populations, risk assessment should be performed in individuals 35 years of age and older, who are not known to have cardiovascular disease.

There is a subgroup of individuals that are recognised as having an increased risk of developing cardiovascular disease. As such, the following individuals do not require risk assessment using the Absolute Risk Tool. Instead, these individuals can be targeted as a priority for management of their identified risk factors:

- diabetes and age > 60 years
- diabetes with microalbuminuria (>20mcg/min or urinary albumin:creatinine ratio > 2.5mg/mmol for males, >305 mg/mmol for females)
- moderate or severe CKD (persistent proteinuria or estimated glomerular filtrationrate (eGFR) < 45 mL/min/1.73m²)

⁴ Department of Health and Ageing (2008), 'The Australian Type 2 Diabetes Risk Assessment Tool', [http://www.health.gov.au/internet/main/publishing.nsf/Content/C73A9D4A2E9C684ACA2574730002A31B/\\$File/Risk_Assessment_Tool.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/C73A9D4A2E9C684ACA2574730002A31B/$File/Risk_Assessment_Tool.pdf).

⁵ National Vascular Disease Prevention Alliance (2009), 'Absolute cardiovascular disease risk assessment. Quick reference guide for health professionals.'

⁶ Colagiuri, S., D. Davies, S. Girgis, & R. Colagiuri. (2009) 'National Evidence Based Guideline for Case Detection and Diagnosis of Type 2 Diabetes.' Diabetes Australia and the NHMRC

⁷ Tonkin, A., A. Boyden, & S. Colagiuri (2009) 'Maximising the effectiveness and cost-effectiveness of cardiovascular disease prevention in the general population' Medical Journal of Australia, 191(6), 300-302.

- a previous diagnosis of familial hypercholesterolaemia⁸
- systolic blood pressure ≥ 180 mmHg or diastolic blood pressure ≥ 110 mmHg
- serum total cholesterol > 7.5 mmol/L.

Understand the patient population

It is well recognised that socio-economic factors influence the risk of developing diabetes and cardiovascular disease, as well as impacting on the ability for individuals to access healthcare services. You may want to look at your patient demographics to better understand the patient profile for your practice, and whether your patients are at high risk of developing a chronic disease.

It is important to focus on hard to reach groups, such as Aboriginal and Torres Strait Islanders, individuals from low socio-economic backgrounds, individuals from culturally and linguistically diverse (CALD) backgrounds and individuals from rural and remote communities who may be less likely to access health care routinely.

Establish clear business rules around risk assessment

After you have identified the individuals for whom risk assessments are recommended, change principle 3 will provide ideas on how the actual administration of the appropriate risk assessment tools can be carried out. However, it is more than likely that the list of individuals requiring risk assessment for diabetes and cardiovascular disease will be quite large. You will need to establish business rules outlining how the risk assessment of this number of people will be managed. You may choose to prioritise individuals based on their clinical history. For example, you could target individuals that are known to have high blood pressure, cholesterol or BMI and waist circumference. You could also target individuals based on their lifestyle. For example, you could focus on individuals that have a recorded history of smoking, consume greater than the recommended safe level of alcohol intake or lead a sedentary lifestyle. You may also prioritise individuals from the hard to reach groups that were previously outlined.

It is valuable to have everyone in the practice input and agree to the business rules that will be established. A practical way of doing this is to raise this as an agenda item during a team meeting. It is also important that the business rules are clearly written down so that everyone understands and has access to them.

⁸ Heart Foundation of Australia (2009) 'Familial hypercholesterolaemia (FH)' http://www.heartfoundation.org.au/SiteCollectionDocuments/A_CHD_FamHypercholesterolaemia_ISC_FINAL.pdf.

Example

General Practice Gold Coast developed a business model for their practices to assist them in implementing chronic disease management. This business model covers 5 disease areas and helps practice prioritise their work in the disease areas.

The business model incorporates tools that can be used to assess an individual's risk of developing a chronic disease, the appropriate item numbers that can be claimed for this assessment and any referral pathways that can be assessed for risk factor reduction. Importantly, the business model encourages practices to use a whole of whole of team approach to their work. See Appendix 1 for a copy of this business model.

General Practice Gold Coast, QLD

Importantly, for your practice to efficiently identify individuals that require risk assessment, consideration needs to be given to the accuracy of your clinical database. For example, are individuals with an Aboriginal and Torres Strait Islander background being identified as ATSI in the clinical database? Is smoking status documented for every patient at your practice? You may need to first spend some time cleaning up the clinical database and teaching the practice team about the importance of correct data coding.

Example

Pen Computer Systems provides easy to follow 'recipes' for a range of practical searches that can improve the care provided by the practice. In particular, they have a 'recipe' to help practices use the Clinical Audit Tool to identify currently undiagnosed patients with significant risk factors for chronic disease.

These recipes can be found at
<http://www.clinicalaudit.com.au/how>.

Change Principle 3 – Undertake the appropriate risk assessment(s) on those identified

After you have identified the individuals in the practice that require risk assessment for diabetes and cardiovascular disease, the next step is the actual process of administering the risk assessment tool. This will determine the individuals that are at high, medium and low risk for developing diabetes and cardiovascular disease and guide your interventions in change principle 4.

Consider the change ideas below when undertaking work in this change principle.

Change Ideas

- Administer the appropriate risk assessment tool to those identified in need of risk assessment

- Develop 'high risk', 'medium risk' and 'low risk' 'registers' for diabetes and cardiovascular disease
- Determine a system to maintain the 'registers'

Administer the appropriate risk assessment tool to those identified in need of risk assessment

Diabetes Risk Assessment

In Australia, the AUSDRISK Tool is used to assess an individual's risk of developing type 2 diabetes. The AUSDRISK Tool uses a simple survey to determine an individual's overall risk of developing type 2 diabetes within 5 years. Due to the user-friendly nature of this tool, it can be completed by individuals themselves or with the assistance of a healthcare professional. For example, individuals identified in need of risk assessment can be sent the AUSDRISK Tool via mail to complete. Alternatively, the tool can be made available through the practice's website for patients to access or it can be given to patients in the waiting room prior to a consultation.

Once individuals complete the AUSDRISK Tool, they are provided with a score, which will indicate that they have either a low risk (≤ 5), intermediate risk (6-14) or high risk (≥ 15) for developing type 2 diabetes. Individuals that are at high risk will need to attend the practice for a consultation and further assessment by their general practitioner to exclude for diabetes. Individuals that are found to have diabetes should be appropriately managed in line with the current best practice guidelines.

It is important to note that individuals identified to be at high risk for diabetes are also at risk of developing cardiovascular disease and should be assessed for this.

Example

For individuals that have access to the internet, an electronic version of the AUSDRISK Tool can be accessed at <http://www.ausdrisk.com>.

Individuals can determine their risk score using this website and print off the results to discuss further with their healthcare professional.

Example

Diabetes Australia NSW and Alphapharm have an online tool that individuals can use to check if they are at risk of pre-diabetes. Individuals are instructed to 'rub' the silver panels. If they answer yes to any of the risk factors that are revealed, they are advised to discuss the results with their doctor at the next visit.

This tool is also available in Arabic and Chinese and can be accessed at the Diabetes Australia NSW website:
<http://www.diabetesnsw.com.au/downloads.asp>.

Example

Some practices in Central West Gippsland use the AUSDRISK Diabetes Risk Assessment Tool to identify patients' risk of developing type 2 diabetes. The receptionist hands the tool to all patients over 40 years of age.

Patients fill out the tool in the waiting room and can then discuss their score with the practice nurse or doctor to receive further information and, if necessary, assessment.

Central West Gippsland Division of General Practice, VIC

Example

Glebe Family Medical Practice in NSW implemented a systematic whole of team approach to identify the risk of their patients developing a chronic disease. Initially, they identified all patients aged 50-65 and sent them a letter inviting them to have a risk assessment for diabetes and cardiovascular disease. The practice received a positive response from this approach and patients who responded to the letter were flagged on the booking software. When these patients attended the practice for an appointment, the front desk staff immediately knew they patients required a risk assessment and handed them the AUSDRISK risk assessment tool. The patients could then immediately follow up the results of the risk assessment with their doctor.

Glebe Family Medical Practice, Central Sydney GPN, NSW

Example

Hope Island Medical Centre developed a birthday card that contained a poem gently advising patients that their risk factors had increased and encouraging them to make an appointment with the practice for an assessment.

This card was sent to patients prior to their 40th birthday. The practice noted that they received a good response to this novel approach and will continue to use the birthday card in the future.

Hope Island Medical Centre, Gold Coast DGP, QLD

Cardiovascular Disease Risk Assessment

In Australia, the Absolute Risk Tool is used to determine an individual's risk of developing cardiovascular disease within 5 years. The absolute risk calculation is based on the Framingham Risk Equation, and considers the following parameters:

- Smoking status
- Blood pressure
- Serum lipids
- Age
- Gender

Due to the clinical nature of this tool, it requires a healthcare professional to finalise the score. Therefore, patients are generally required to attend the surgery for a risk assessment. The assessment of absolute risk for cardiovascular disease can be integrated into existing initiatives such as:

- the 45 Year Old Health Check (item 717)
- General Management Plans (GPMPs) (item 721) and Team Care Arrangements (TCAs) (item 723)
- recalls for diabetes service incentive programs
- Aboriginal and Torres Strait Islander Adult Health Check (item 710).

Once individuals complete the Absolute Risk Tool, their risk of developing cardiovascular disease within the next 5 years is classified into the following categories: low risk (<10% risk of developing cardiovascular disease), intermediate risk (10-15% risk of developing cardiovascular disease) or high risk (>15% risk of developing cardiovascular disease).

Example

The National Vascular Disease Prevention Alliance has developed an online version of the Absolute Cardiovascular Disease Risk calculator. It can be accessed at <http://www.cvdcheck.org.au>.

This tool can be used to determine an individual's risk of developing cardiovascular disease. It also has a 'compare' function that provides the ability to look at the impact that a change of ≥ 1 risk factors has on the individual's risk of developing cardiovascular disease.

Example

Some practices choose to conduct risk assessment during the National Health observances: the days, weeks, or months devoted to promoting particular health concerns. This can help to reinforce the health promotion message that you will be extending to patients.

Develop 'high risk', 'medium risk' and 'low risk' registers for diabetes and cardiovascular disease

The development of registers will assist your practice in proactively providing appropriate evidence based interventions in change principle 4. The APCC Program recommends developing distinct registers for individuals at risk of developing diabetes and cardiovascular disease.

Diabetes

Based on the AUSDRISK Tool, the APCC Program recommends the development of separate 'low risk', 'medium risk' and 'high risk' registers to capture individuals with low, medium (intermediate) and high risk for developing type 2 diabetes.

It is important to note that the diabetes 'high risk' register should contain the following individuals:

- individuals that have scored at high risk on the AUSDRISK Tool
- individuals recognised to be at increased risk for diabetes and cardiovascular disease due to their clinical background. The guidelines around identification of these patients were outlined in change principle 2.

Cardiovascular Disease

Based on the Absolute Risk Tool, the APCC Program recommends the development of separate 'low risk', 'medium risk' and 'high risk' registers to capture individuals with low, medium (moderate) and high risk of developing cardiovascular disease.

The cardiovascular 'high risk' register should contain the following individuals:

- individuals that have a high risk of developing cardiovascular disease based on the Absolute Risk Tool
- individuals recognised to be at increased risk for developing cardiovascular disease due to their clinical background. The guidelines around identification of these patients were outlined in change principle 2.

Experience in the APCC Program has shown that the work of developing registers is most effective when carried out using a whole of team approach. You may want to establish a small, multidisciplinary team to lead the work. This might include a GP, practice nurse and practice manager. It is important that any system designed by this team is agreed upon and communicated to all staff members. This micro-team may also be responsible for leading the work through the other change ideas in this change principle, and possibly subsequent change principles as well.

To effectively use a whole of team approach, it is important that staff have appropriate training. This can include training on the use of the relevant risk assessment tools, including the AUSDRISK Tool and the Absolute Risk Tool.

Determine a system to maintain the registers

Once the diabetes and cardiovascular risk registers have been established and validated, your next step will be to maintain their accuracy. This should include a system to ensure that new information on existing patients is gathered and recorded. This system should also include a process whereby new patients are identified and included on the appropriate register based on the results of the AUSDRISK Tool and/or the Absolute Risk Tool. Here are some questions to consider when developing your systems for maintaining the register:

- Who will maintain the register? Can this person be formally recognised as the 'register manager'? Will this person require training? How much 'protected time' will this person require to maintain the register?
- How will you identify new cases? How will you ensure that the information reaches the register manager and is coded appropriately?
- How will the GPs in your practice notify the register manager of changes to patient information?
- Do you need a system to routinely check the quality of the information on the register? Are all patients still active?
- Do you need to document your system for maintaining the register so that things run smoothly when the register manager is away?
- The development of registers is a significant task for most practices. Therefore, it is important that the process is documented for future reference. This will help to maintain the accuracy of the registers through the establishment of a formal review process (e.g. annually) and by ensuring that things run smoothly when the register manager is away.

Example

When the Coliban Medical Centre in Victoria analysed their data, they found that a significant segment of their population had pre-diabetes.

The practice manager created a valid pre-diabetes register. The practice team agreed that these patients would be routinely monitored with 6 months reminders for a check-up to try to prevent the onset of diabetes.

With the support of Central Highlands General Practice Network, the practice nurse was given the responsibility of setting up the reminder system. She also contacted the patients on the register to ask them to make an appointment with their GP. The practice nurse was chosen for this role because she could explain why it was necessary to make an appointment, as well as answer any clinical questions the patients had about their condition. This system was documented in the practice's policy and procedures manual.

Coliban Medical Centre, Central Highlands GPN, VIC

Change Principle 4 – Deliver evidence-based and patient-centred interventions and other risk factor reduction strategies

The results of the AUSDRISK and Absolute Risk Tools will result in the population being segmented on the basis of their risk score. It is important that individuals are offered appropriate evidenced based and client centred interventions based on their risk score, with a focus on those identified at high risk.

Change Ideas

- Establish appropriate care pathways, using evidence-based guidelines, to implement risk reduction strategies for:
- individuals on the 'high risk' registers for diabetes and cardiovascular disease
- individuals on the 'low risk' and 'medium risk' registers for diabetes and cardiovascular disease
- Establish a proactive call and reminder arrangements for individuals identified on the 'high risk' registers for diabetes and cardiovascular disease
- Tailor interventions to suit local needs
- Use guidelines, protocols and computer templates to support care delivery

Establish appropriate care pathways, using evidence-based guidelines, to implement risk reduction strategies

It is suggested that the practice develops care pathways to implement risk reduction strategies for:

- individuals on the 'high risk' registers for diabetes and cardiovascular disease
- individuals on the 'low risk' and 'medium risk' registers for diabetes and cardiovascular disease.

These care pathways should be based on the current evidence. A number of national guidelines are available to assist you in determining the best approach, including guidelines prepared by bodies such as the National Heart Foundation of Australia, Diabetes Australia, the National Health and Medical Research Council and the Royal Australian College of General Practitioners' 'red book', 'green book' and SNAP program.

It is important to note that the management of patients in each risk category (high, medium and low risk) can incorporate the use of self management plans, which enable patients to be actively engaged in their care. Refer to change principle 5 for information relating to the use of self management plans.

Individuals on the 'high risk' registers for diabetes and cardiovascular disease

Diabetes

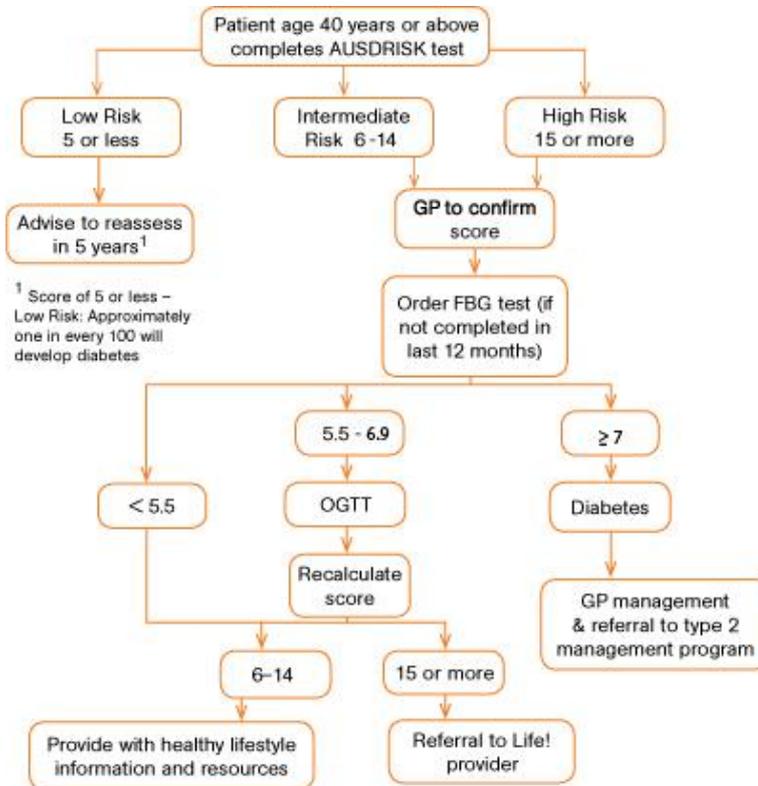
For individuals on the 'high risk' register for diabetes it is important that education and interventions are provided to address the individual's risk factors and mitigate the risk of developing diabetes in the future.

Under the Commonwealth Government's Prevention of Type 2 Diabetes program, patients who are at high risk for developing diabetes (based on patients with an AUSDRISK score ≥ 15 who have had diabetes excluded) are eligible for one of a number of accredited and subsidised lifestyle risk modification programs. These programs can be referred to under Medicare item 713 (type 2 diabetes risk review), item 717 (45-49 year old health check) or item 710 (Indigenous adult 15-54 year old health check). Generally, these programs involve group education and motivation sessions which support lifestyle change by providing the following information, which covers the SNAP risk factors:

- the risk of developing diabetes and the importance of regular risk assessment
- dietary advice
- physical activity advice
- behavioural strategies to support lifestyle changes
- smoking cessation and alcohol reduction
- community resources.

AGPN has developed a service directory to assist with the location of accredited Lifestyle Modification Program facilitators in the local area. The directory can be accessed via the following link: <http://www.agpn.com.au/programs/prevention-of-type-2-diabetes-program/national-lmp-facilitator-service-directory>.

The following pathway has been developed by Diabetes Australia Victoria to assist healthcare professionals in determining which individuals can be referred to the Life! Program⁹. The pathway is for patients 40 years of age and above, and all adult Aboriginal and Torres Strait Islander people.



An electronic and hard copy referral form for the Life! Program is available on the Diabetes Australia website at:
<http://www.diabeteslife.org.au/GPHealthProfessionals/LifeProgramreferralform/tabid/92/Default.aspx>.

⁹ Diabetes Australia Victoria, 'Program Pathways'
<http://www.diabeteslife.org.au/GPHealthProfessionals/Programpathways/tabid/89/Default.aspx>.

Example

Korrumbura Medical Centre has recently won an award for most referrals to Victoria's 'Life!' program for diabetes prevention. The practice achieved this accolade through a systematic approach to prevention at their practice. The practice's administrating officer searched the clinical software, ZedMed, for all patients who had an impaired glucose tolerance test but were not diagnosed with diabetes. These patients were sent a letter along with the AUSDRISK Tool. This letter clearly explained that a high risk score meant they required further consultation with the GP and provided information about the 'Life!' program. Through this process, 40 patients were referred to the 'Life!' program, which supports patients to reduce their risk of diabetes using a multidisciplinary approach.

Korrumbura Medical Centre, Central West, East and South Gippsland DGPs, VIC

Cardiovascular Disease

For individuals on the 'high risk' register for cardiovascular disease it is important that education and interventions are provided to address the individual's risk factors and mitigate the risk of developing cardiovascular disease in the future. This should include lifestyle and pharmacological management strategies based the healthcare professional's clinical judgement, with more intensive interventions being applied to patients on the 'high risk' register¹⁰. The Lifescripts resource can be used as a framework to raise and discuss lifestyle risk factors with patients, provide tailored advice in the form of a written script and associated patient education and referral to other providers to support healthy lifestyle. This resource can be used to address the main lifestyle risk factors for chronic disease: smoking, poor nutrition, alcohol misuse, physical inactivity and unhealthy weight.

Individuals on the 'low risk' and 'medium risk' registers for diabetes and cardiovascular disease

It is valuable for individuals on the 'low risk' and 'medium risk' registers for diabetes and cardiovascular disease to receive information regarding lifestyle modification to prevent them progressing into the high risk category for either disease. A number of behavioural and biomedical risk factors are avoidable and modifiable. Risk factors such as smoking, physical activity, obesity, high blood pressure and high cholesterol are significant contributors to developing a chronic disease. Even small improvements in the risk factors for chronic diseases will have significant benefits. These risk factors can be addressed by the practice using the Lifescripts suite of resources.

¹⁰ National Vascular Disease Prevention Alliance (2009), 'Absolute cardiovascular disease risk assessment. Quick reference guide for health professionals.'

Example

Tintenbar Medical Centre in NSW wanted to make a positive change for their patients who smoked. After successfully receiving a cancer council grant, they ran a project aimed at helping patients quit smoking.

The practice identified patients who smoked and mailed them a letter inviting them to attend a smoking cessation meeting that was run at the local hall. The group that attended was keen to meet twice more to support one another. The practice enlisted the local pharmacist to assist with one of the meetings.

Although the number of patients that responded to the invitation was small, the quit rate at 6 months was 40%.

Tintenbar Medical Centre, Northern Rivers GPN, NSW

For individuals with a low or medium risk of developing type 2 diabetes, there are programs across the States and territories that can assist these individuals in modifying their risk factors. Not all of the programs, however, are subsidised and the patient may be required to cover the cost to participate.

For example, in the Sydney South West Area Health Service, individuals that fall into the medium and low risk category on the AUSDRISK tool are eligible for the “Prevent Diabetes Live Life Well” program. This program offers individual coaching sessions with a Lifestyle Officer for eligible patients.

Example

Family Medical Centre in Sunbury, Victoria, had a goal of reducing smoking within their patient population. They started off by analysing the smoking data in their clinical database, which assisted them to identify which patients they should target for the provision of interventions aimed at smoking cessation. They soon realised that further work needed to be done on their database and undertook the work of data cleansing to improve the identification of active patients that smoke. This process also involved educating all clinical staff to accurately record smoking status.

To help the practice in this initiative, a member of the nursing team with an interest in smoking cessation completed the Cancer Council Victoria’s QUIT educator course. This nurse became skilled at providing information about the dangers of smoking, as well as being able to support patients in changing their behaviour. The medical, nursing and allied health staff were informed of the service provided by the QUIT facilitator and the referral process to link their patients with this service.

Initially, group sessions were introduced for patients to provide education, advice and learning tools to address their smoking.

These groups ran for 1 hour over 4 weeks. Over time, individual consultations were found to be more effective and are currently the preferred method.

After 2 years, analysis has shown that 17% of patients attending for QUIT consultations have been smoke free for over 12 months.

Family Medical Centre, Northern Rivers GPN, NSW

Example

The practice nurse at Kilmore Medical Practice had the opportunity to participate in a pilot of the electronic Lifescripts Tool. To complement this approach, the practice nurse also attended a workshop run by the Central Highlands General Practice Network that showed a DVD about motivational interviewing with patients diagnosed with diabetes. In addition to presenting the theory behind the methodology, the DVD showed several role-plays. This DVD is available as part of the Lifescripts Resource Kit.

The practice nurse initially trialled the electronic Lifescripts Tool with 10 patients that had diabetes. 8 of the 10 patients were given a prescription and recommendations to increase their physical activity, 1 was referred to the QUIT website for information and advice on smoking cessation and 1 patient was deemed not to have any lifestyle risk factors. The practice nurse followed up with the patients a month later and found that of the 9 patients that had received a Lifescripts prescription, 4 had made positive changes to their lifestyle.

Kilmore Medical Practice, Central Highlands GPN, VIC

Example

The Coliban Medical Centre, a rural practice in Victoria, developed a register of obese patients with diabetes. These patients were targeted to participate in tailored healthy-living clinics which provided patients with a ten-week program aimed at identifying the reasons for their current lifestyle and changing their habits. Patients had 1 individual consultation per week and looked at issues such as coping with stress and anxiety, emotional eating, changing lifestyle habits and developing social support networks.

A practice nurse and practice manager facilitated the healthy-living clinics which also involved allied health professionals such as a diabetes educator and naturopath. The involvement of a multidisciplinary team was central to the program's success, as it ensured a consistent team-based approach to care.

The clinics were very popular with patients. Outcome data indicated that 70% of patients lost weight following the completion of the program. Of the 30% that did not lose weight, 20% still adopted a healthier lifestyle.

Coliban Medical Centre, Central Highlands GPN, VIC

Example

Recognising the fundamental need for prevention of chronic diseases, Barton Lane Practice in Tamworth, NSW, established a Preventative Lifestyle Clinic. This clinic is run under the leadership of their practice nurse.

Patients are usually referred to the clinic by the doctors at the practice, who recognise the need for lifestyle intervention.

Recognising that lifestyle intervention is not a once-off activity, patients are seen at the clinic over a number of sessions, which are generally monthly to 6-weekly and then spread further apart as lifestyle improves.

The first session generally lasts for 40 minutes and is focused on determining the patient's history, including social and lifestyle factors and doing baseline measurements (blood pressure, pulse, height, weight, body fat and waist circumference). Lipid and blood glucose levels are also checked. An important part of the consult involves assessing the patient's motivation and confidence level towards making a change.

Subsequent consultations involve gradually challenging lifestyle habits and providing tailored dietary and physical activity advice, using the Lifescripts resource among others. Maintaining accountability is important.

The doctor attends at the end of the consult to review the

patient and raise an item number for billing. Patients attending the clinic have shown fantastic improvements. An audit conducted in February 2008 showed that over 70% of patients seen at the clinic (who attended for at least 12 months) had recorded weight loss with 27% of these patients losing $\geq 5\%$.

Barton Lane, North West Slopes DGP, NSW

Example

Tintenbar Medical Centre wanted to test the impact of brief interventions for weight loss. They identified a group of patients that had Ischemic Heart Disease who did not attend the practice regularly. These patients were invited to the practice to see the nurse and doctor for a GPMP and lifestyle counseling. The patients had one pre-arranged follow-up with the nurse at 6 weeks and a GPMP review at 6 months. They were also invited to come to the practice at any time to check their weight. At 6 months, 71% of the patients had achieved weight loss.

Tintenbar Medical Centre, Northern Rivers GPN, NSW

It is important that individuals on the 'low risk' and 'medium risk' registers for diabetes and cardiovascular disease are offered regular risk assessment to review their risk of developing diabetes or cardiovascular disease.

For individuals with a 'low risk' and 'medium risk' of diabetes, there are no definitive guidelines for reassessment using the AUSDRISK Tool at this stage. Reassessment of risk should be guided by clinical judgement. There are guidelines, however, for case detection and these can be accessed through Diabetes Australia.

For cardiovascular disease, the Absolute Risk Tool¹¹ recommends that individuals are retested in the following intervals:

- for patients on the 'medium risk' register, review in 6-12 months time
- for patients on the 'low risk' register, review in 2 years time or if individual risk factor status deteriorates.

However, reassessment of risk status also depends on the individual's clinical profile and should be undertaken accordingly.

Establish a proactive recall and reminder arrangement for individuals identified on the 'high risk' registers for diabetes and cardiovascular disease

Developing and implementing a proactive recall and reminder system is an important part of ensuring that patients receive the appropriate care in a systematic manner. With chronic disease prevention, an active recall system

¹¹ National Vascular Disease Prevention Alliance (2009) 'Absolute cardiovascular disease risk assessment. Quick reference guide for health professionals.'

ensures that individuals identified on the 'high risk' registers for diabetes and cardiovascular disease receive appropriate interventions. When developing your recall and reminder systems, you may want to consider the following questions:

- Is your existing recall/ reminder system sufficiently proactive? Are patients invited for review at least annually?
- How might the workload in the recall/ reminder system be managed? You may find it useful to determine the size of the 'high risk' registers and then calculate the number of patients that can be effectively and safely managed per month or week. Remember to adjust this as the size of the registers grows!
- How do you track and follow-up with patients who do not attend? As part of the proactive recall arrangement, it is important to monitor attendance and establish systems to follow up patients who do not attend. For example, you may choose to send a reminder letter after a certain period of time. Allocating this task to a specific practice team member is important as it enables them to manage the process.
- Special consideration may also need to be given to how the practice will deliver care to 'hard to reach' groups. Delivering care outside of the practice walls may enable the practice to engage groups who frequently do not attend the practice. This approach also has the added benefit of spreading the health message to the community through families, friends and colleagues.

Example

General Practice Gold Coast developed user-friendly diabetes and cardiovascular disease prevention Collaborative Self Assessment Tools for practice staff. These tools can be used as an audit for practices to review their current systems with regards to the prevention of diabetes and cardiovascular disease. It is suggested that the tools are completed by all practice staff to identify everyone's knowledge of the current system.

Once completed, the results of the tools can identify gaps in the current system of prevention and areas for improvement. See Appendix 2 & 3 for a copy of these tools.

General Practice Gold Coast, QLD

Tailor interventions to suit local needs

Effective prevention and self management needs to consider the local needs of the practice population. This includes ensuring that communication is appropriate for patients, taking into account considerations such as language and reading age.

It is also useful to consider how the practice will address the needs of hard reach groups, such as the working population.

Example

A GP at Bacchus Marsh Medical Centre in Victoria was concerned about the health of a hard to reach population, namely men. The GP contacted the local pub manager, who agreed to host men's health checks at the pub. A date for the clinic was set, advertisements were put in the local paper, and brochures were distributed at the pub and through the shopping area.

On the designated day, the GP and practice nurse set up the assessment clinic in the bar area of the pub. Healthy food was provided to anyone who attended. The GP and practice nurse offered their services to patrons in a casual open forum. Men had their BMI calculated, waists measured, blood pressure taken and they were assessed for lifestyle risk factors. If deemed necessary, blood tests were also done.

At the end of the consultation, each patient received written recommendations and the suggestion to follow up the advice with their own GP.

Patients were not billed for the service. The clinic was attended by 35 men, and found to be very successful.

Bacchus Marsh Medical Centre, Central Highlands GPN, VIC

Use guidelines, protocols and computer templates to support care delivery

Basing your practice's approach to chronic disease prevention and self management around agreed protocols means that the entire team is clear about roles, responsibilities and how patients are managed. Protocols need to be developed at the practice level to allow customisation for each individual practice and to ensure that members of the practice team are aware of their personal responsibilities within the system of care delivery. You will also need to ensure these protocols are flexible enough to allow for changes and are reviewed when new staff are appointed.

Embed protocols through the use of manual or computerised templates. The use of computer templates allows for a systematic, consistent approach to delivering care to patients and the improved accuracy and completeness of patient data. Some useful tips to maximise use of templates include:

- discuss guidelines and care pathways with the other doctors in the practice
- keep templates simple and user friendly
- look for templates that suit you- ask your Division of General Practice support team for some examples
- develop and use computer shortcuts where appropriate
- determine an annual calendar for patients reviews

- provide one-to-one training and support to the healthcare professional using the template
- regularly use the data from the template to inform the team of its performance.

Change Principle 5 - Develop self management plans and systems to monitor and review those plans

The use of self management plans is a valuable way of actively engaging people in managing their health. It is important to note that the term 'self management plan' in this section will incorporate care plans. Therefore, the ideas presented here can apply to individuals with a chronic disease as well as individuals at risk of developing a chronic disease.

Consider the change ideas below when undertaking work in this change principle.

Change Ideas

- Establish clear definitions of self management and what providing self management support implies
- Organise internal and external resources to provide patient-centred self management support
- Implement a deliberate strategy for self management support to allow patients and carers to better understand and manage their conditions
- Ensure written and verbal communication is appropriate and understood by the patient

Establish clear definitions of self management and what providing self management support implies

To guide your work in this area, it is important that the practice develops a unified understanding and shared vision for self management. Effective self management entails an active role for both the patient and the healthcare team.

Self management involves the person with a chronic disease “engaging in activities that protect and promote health, monitoring and managing symptoms and signs of illness, managing the impacts of illness on functioning, emotions and interpersonal relationships and adhering to treatment regimes.”¹²

The evidence indicates that good self management can:

- improve quality of life
- support behaviour change
- decrease the use of health care services.

¹² Gruman & Von Korff (1996) 'Indexed Bibliography on Self-Management for People with Chronic Disease', Centre for Advancement in Health: Washington DC.

For patients to effectively self manage, they require support from the healthcare team. Good self management support involves collaboration between the patient and their healthcare professional, in which the healthcare professional is a coach as well as clinician. Through this collaboration, patients, family and healthcare professionals share information, understand a patient's goals and create a plan that can be used to guide care at home and in the clinical setting. Health care systems can support effective self management by:

- providing care that builds the patient and family's skills and confidence
- increasing the patient and family's knowledge about the condition
- increasing the healthcare professional's knowledge of the needs and preferences of the patient and family
- supporting the patient and family in the psychosocial, as well as medical, responses to the condition.

Effective strategies to promote self management recognise that people, on average, spend only 3 of the 8,736 hours each year receiving direct care from healthcare professionals. For better or worse, everyone self manages on a day-to-day basis. Chronic disease prevention and self management support is about helping people to help themselves regardless of their circumstances.

Organise internal and external resources to provide patient-centred self management support

For self management support to be effectively integrated into the care delivery system, practices need to think about how well they are set up to deliver patient-centred self management support. This includes reviewing the resources available to assist with providing self management support as well as considering the team composition, skill set and workflow.

You may want to conduct an audit of to determine the resources, skills, equipment and space you currently have available. Undertaking an audit or process mapping exercise within the practice will provide essential evidence to determine the practice's capacity to successfully support self management. You can then look at the results of the audit to determine any gaps in the self management support currently offered and devise a plan to determine how you will acquire the resources and skills needed to provide patient-centred self management support.

Example

Based on the Chronic Care Model, the Assessment of Chronic Illness Care (ACIC) survey was developed by the MacColl Institute for Healthcare Innovation (USA) to address the basic elements for improving chronic illness care at the community, organisation, practice and patient level.

The ACIC survey can be completed by the practice team to assess the practice's overall ability and readiness to support chronic illness care. It considers multiple factors including the organisation of the healthcare system, linkages with the community, self management support, decision making support, delivery system design and use of clinical information systems. The survey can be downloaded from http://www.improvingchroniccare.org/index.php?p=ACIC_Survey&s=35.

To manage the workload associated with providing self management support, the practice may want to utilise a multidisciplinary approach. GPs should be actively engaged and participate in the process, but the work should be shared with other team members such as the practice nurse. When using a multidisciplinary approach it is important that you choose the right people and ensure they have the appropriate training to undertake the work confidently. Useful training sessions may include:

- Motivational interviewing
- Health Coaching¹³
- Stanford (Lorig) Chronic Disease Self-Management Program¹⁴
- The 'Flinders Program' of Chronic Condition Self Management¹⁵

'Putting Prevention into Practice' is a training module based on the Royal Australian College of General Practitioners' 'green book'. This training module is applicable to all members of the primary care team as it covers a range of useful self management support concepts including the stages of change, motivational interviewing, a patient-centred approach, working as a team, and improving linkages with community services.

'Implementing Lifestyle Change' is a training series that has been developed by the National Heart Foundation of Australia and The Royal Australian College of General Practitioners, through funding from the NSW Health Department. It is aimed at helping GPs and practice nurses to influence patients to adopt healthy behaviours.

It may be useful for the selected staff to undertake courses that use a 'train the trainer' approach. This will allow them to up-skill other team members. To enable self management support to become embedded into the practice system, it is

¹³ <http://www.healthcoachingaustralia.com>.

¹⁴ <http://patienteducation.stanford.edu/training>.

¹⁵ http://som.flinders.edu.au/FUSA/CCTU/self_management.htm.

worthwhile incorporating the use of a patient-centred approach to self management support into employee job descriptions. This will ensure that staff recognise self management support as being an important facet of their role. You may also want to nominate clinical and administrative champions within the practice to drive self management support strategies.

Example

Stirk Medical Group in Western Australia established nurse led clinics with an aim of improving patient self management. The practice understood the importance of assigning the right staff member(s) to coordinate the clinic.

A practice nurse who was willing to develop the program and who understood the concept of self management was assigned to lead the program. Through the use of a nurse-led clinic, the practice could dedicate the necessary time for patients to be educated and actively involved in making decisions about their care.

Stirk Medical Group, Fremantle Regional and Perth & Hills DGPs, WA

Example

Hawkins Medical Clinic in South Australia has their interns/registrar and medical students run an education session focusing on the review of guidelines related to various subjects of interest. This information is presented via Power Point. After the session, the presentation becomes part of an increasing library of in-house education and policy talks that are available for future teaching sessions.

Hawkins Clinic, Otway, Limestone and West Vic DGPs, SA

Implement a deliberate strategy for self management support to allow patients and carers to better understand and manage their conditions

Self management belongs to a social model of health. It is an approach that recognises that a person's family, workplace and community can support or impede their self management. It also recognises that readiness, motivation and self-confidence (commonly referred to as self-efficacy) will significantly influence health behaviour change.

Identify the individuals that would benefit from self management support

To implement a strategy for self management support, you will initially want to identify the individuals that would benefit from self management support. You may choose to start with the individuals that were captured on the 'high risk' registers for diabetes and cardiovascular disease.

You may also want to narrow down the population by starting with ‘cooperative’ clients that have simpler health needs before moving onto more complex or difficult clients. This will allow basic systems to be established and then modified to cope with the more complex cases.

Use computer templates to support a consistent approach to self management

To ensure a consistent approach to the provision of self management support, it is beneficial to develop or modify existing self management plan templates to suit the practice’s clinical software and patients’ needs. A self management plan is a structured, comprehensive plan developed by the patient and their significant others, carers and healthcare professional(s). It provides a patient-centred approach to assist with the collaborative definition of the patient’s problems, goals, actions and time-frames for managing and monitoring their health. The use of electronic self management plan templates allows for a systematic and consistent approach to delivering self management support. Copies of a range of health assessment and care plan proformas and checklists are available at <http://www.health.gov.au/epc>. Divisions of General Practice often have a range of example proformas and templates on their websites. Additionally, clinical software packages frequently include a range of templates to support chronic disease self management.

Use self management plans that incorporate goal setting

Self management plans that incorporate goals setting are a powerful tool to assist individuals to improve their health. When patients understand their condition, and targets are set to improve their health in certain areas (such as their BMI, cholesterol and blood pressure), patients are equipped to become better managers of their own health.

Example

Dr Terry Rose of Aberfoyle Park Medical Centre in South Australia has developed a tool called ‘Clinic Manager’ to assist with the development of self management plans. This innovative tool is able to formulate an individualised plan for the patient which provides their current clinical results along with achievable targets. He has found this to be a useful way of empowering and motivating patients to make sustained improvements to their health. Further information about the tool can be found at the practice’s website:

<http://www.opsun.com.au>.

**Aberfoyle Park Medical Centre, General Practice Network
South, SA**

Example

Hawkins Medical Clinic wanted to work with their patients more closely to assist them in progressing towards their healthcare goals. Patients at this practice are encouraged to identify their top three goals for improvement from the management plan template with the practice nurse. The goals can include losing weight, increasing exercise, etc.

At planned review appointments, the practice nurse reviews the patient's progress towards achieving their goals. For each goal, the nurse ticks whether it has been 'achieved, partially achieved, or re-negotiated'. This enables the patient and the nurse to work as a partnership, ultimately leading to improved patient outcomes.

Hawkins Medical Clinic, Otway, Limestone and West Vic DGPs, SA

Incorporate the use of patient-held records

The use of patient-held records, which are completed at each health visit, can provide valuable insights for both the healthcare professional and the patient. Patient-held records that incorporate improvement graphs are a valuable tool to promote self-efficacy and share in the patient's achievements. It is important to celebrate success and focus on what the patient can do.

Self management plans and patient-held records are important ways of engaging patients in their healthcare. However, motivating patients to change their health behaviour is not easy. Simply giving health information will not necessarily change a patient's health behaviour. It is often difficult for patients to change their lifestyle because it means having to give up things that provide them with pleasure and enjoyment.

Example

Alstonville Clinic in NSW provides each of its diabetes patients with a personal patient-held care plan. The plan includes general information on diabetes, the patient's individual results and targets, and the rationale for them. It also includes guides to healthy eating, exercise and weight loss. The plan is designed to have the capacity to add educational material from other providers, as well as acting as a consultation record and communication tool for all participating providers. Patients are contacted within one week of their appointment to ascertain the usefulness of the care plan. The practice has a 100% favourable response and patients are happy to be proactively managed.

Alstonville Clinic, Northern Rivers GPN, NSW

Example

To empower patients to be more active in their health, Highton Clinic in Victoria set up a patient self measurement station consisting of scales, height measurer, BP machine and tape measure in their practice. Located in a discreet area between the reception and consulting rooms, patients are able to undertake self testing and monitoring in private.

Practice staff have received training in the use of the equipment, in particular the blood pressure machine. This allows practice staff to assist patients with using the machine as well as understand what an acceptable result is so they can alert the GPs or practice nurses when an abnormal result is detected. Patients also receive a nutritional business card (a variation of the patient held record) where they can record their results. A copy of their results is also left at reception, so they can be entered into the patient's notes.

By providing these tools, the practice has made it easier for individuals to take an active role in their healthcare, thereby empowering them to become better self managers.

Highton Clinic, Geelong GPA, VIC

Example

The Far North Queensland Rural Division of General Practice developed a personalised self management folder that is aimed at engaging Indigenous clients in remote communities to become the "boss" of their diabetes.

Based on the concept of a 'patient-held record', this folder has been expanded and personalised to encourage the client to take ownership of its contents. The folder includes:

- photos of the client,
- pictorial calendars for the year listing the health care professionals involved in the client's diabetes management,
- graphs depicting BP and HbA1c,
- illustrations on how to achieve better control and individual goal setting,
- pictorial representations of healthy food choices,
- pathology results, explanations and goals, and
- clinical results in graphic form

All components of the folders are discussed with the client and education is provided. Clients are encouraged to bring their folders to subsequent visits and share the information with other health care providers.

Clients are demonstrating ownership of their folders as evidenced by decorations, additions of family photos, art

work, certificates, and even the inclusion of BGL monitor results. Importantly, are requesting other health care providers to record visit details in the folder. As a result, the folders have provided a mechanism for improving communication across services and locations as clients move between communities. Since the development of these folders, other healthcare professionals have started developing relevant handouts to add to the folders.

**Far North Queensland Rural Division of General Practice,
QLD**

Use patient-centred interviewing techniques

Healthcare professionals are encouraged to use patient-centred interviewing techniques to help patients make good decisions. The role of the healthcare professional is to identify which patients are ready to change in order to provide them with the appropriate help and support. By doing so, their time can be most effectively employed. Not only can the healthcare professional enable patients who are in a state of readiness but other patients, who are still ambivalent, are given time to become ready for change. Using motivational interviewing allows patients to explore their attitudes to both the costs and benefits of changing as well as allowing the healthcare professional the opportunity to assess their readiness to change.

Strategies adopted by the practice to promote self management support might include:

- Assessing readiness to change (including the perceived importance of making a change and the patient's confidence in implementing change) using motivational interviewing.
- Establishing an agenda – negotiated between patient and caregiver.
- Using the 'Ask, tell, ask' technique to provide patients with information.
- Using the Five A's technique: Assess, Advise, Agree, Assist & Arrange.
- Assisting patients with goal setting by empowering patients to set targets for themselves and develop action plans to achieve these goals.
- Monitoring patient progress and feedback using patient-held records.
- Celebrating patient strengths and successes.
- Using group education clinics.
- Considering the use of community based programs, which are aimed at empowering patients and carers by giving them the skills to help themselves. The main areas of such a program would cover confidence, hope, empowerment, clarity and knowledge. These structured programs tend to have a more beneficial effect than solely doctor-encouraged self management.

- Ensure written and verbal communication is appropriate and understood by the patient.
- Most practices have written material (letters, advice leaflets, brochures) to support patient care. This information is an adjunct to the verbal exchange between the healthcare professional and the patient. However, the value of written material is dependent upon whether it contains current and useful information from the viewpoint of the patient, and whether the information is easily understood. Ways to improve the quality of your written and verbal communication include:
 - undertaking an audit of the patient information literature in the practice to ensure it is current and easily understood by patients
 - ensuring patients' (and/or carers') health literacy is adequate through systematic assessment.

Health literacy is more than just the ability to read and write. Health literacy is the cognitive ability to understand and interpret the meaning of health information in written, spoken or digital form. The health literacy of a patient impacts on whether they are able to make sound decisions and actively engage in their healthcare. A person with adequate reading ability may still have poor health literacy.

Example

A practice nurse at Scott Street Medical Centre in Victoria was using the Lifescripts resources with diabetic patients to motivate them to change some of their lifestyle risk factors.

She observed that a significant barrier to healthy eating in these patients was the lack of knowledge about healthy recipes for people with diabetes. Patients were often consuming meals with high carbohydrate and glycaemic index content.

The practice nurse decided to carry out her own research to look for tasty, healthy recipes for people with diabetes, which were nutritionally balanced and would assist them to lose weight. She collated the recipes into a booklet and handed it to patients during their consultations.

The recipe book proved very popular with patients and it was constantly updated with new recipes. The practice nurse also developed a shopping guide for patients which explained how to read food labels and listed the healthiest products to purchase for certain foods types (e.g. bread, breakfast cereals, milk, yoghurt etc). This proved invaluable for patients when doing their shopping.

Scott Street Medical Centre, Central Highlands GPN, VIC

Example

At the Cummins Medical Clinic in South Australia, the GP and client prepare the GP Management Plan together. Problem definition and goal setting come out of discussions and negotiation between the client and the GP. A range of education, monitoring and service options are discussed and agreed upon. During the second half of the life of a care plan, client adherence to the agreed care is audited, leading to a further round of negotiation, and more realistic self-care regimes.

The experience at Cummins suggests care plan audits play an important role in the evolution, over a number of care plan cycles, from managed to self managed care.

If a client requires and consents to a Team Care Arrangement, then an appointment is made with a practice nurse. At that appointment the client's goals are further discussed and refined and initial self-management education is provided. The necessary communication with other service providers occurs and a calendar of care provision is negotiated. The client returns at a later date for another GP appointment to finalise the Team Care Arrangement.

Cummins Medical Clinic, Eyre Peninsula DGP, SA

Example

Pfizer Public Health Group (USA) has developed the Newest Vital Sign (NVS) tool to assist health professionals with assessing patient's health literacy and adapting their communication to suit the patient's needs.

This tool was researched by health literacy experts at the University of Arizona College of Medicine in collaboration with colleagues at the University of North Carolina, and can be accessed at: <http://www.pfizerhealthliteracy.com/physicians-providers/newest-vital-sign.html>

Use of specific communication techniques can improve health outcomes among patients with low health literacy. For example, using 'teach back' to verify understanding has been shown to improve diabetic control.¹⁶ Techniques such as 'ask me 3'¹⁷, or motivational interviewing and goal setting are also reported to be effective at improving communication. Certain commonsense approaches can also be valuable, such as:

- use of plain language that is free of medical jargon
- sitting face-to-face with the patient

¹⁶ Weiss, B.D. (2007) 'Health literacy and patient safety, Help patients understand: A manual for clinicians.' 2nd ed. American Medical Association Foundation and American Medical Association, Chicago, IL.

¹⁷ Partnership for Clear Health Communication, 'Ask Me 3', <http://www.npsf.org/askme3/PCHC>.

- use of simple diagrams or pictograms to illustrate explanations
- use of educational materials geared to individuals with low health literacy
- use of information material that considers the needs of individuals from culturally and linguistically diverse backgrounds.

Other effective approaches include repeating directions and recommendations to be sure they are being heard and frankly asking patients whether they understand their treatment plan, as well as the purpose and schedule of any medications.

Example

After analysing the health outcomes for their diabetic patients, the GPs, practice nurses and practice manager at Romsey Medical Centre met to discuss ways of improving the percentage of patients with diabetes reaching targets based on evidence and best practice.

The team discussed the patients' general lack of knowledge about diabetes, particularly about the standard tests performed for diabetes, including the reasons for conducting the tests. Clinical staff also agreed that patients generally were not aware of the target goals for the tests.

The team decided to create a simple patient leaflet that explained all the tests required in a 12 month cycle for a person with diabetes, including target ranges to be achieved if appropriate. The leaflet would also include a space for patients to record their own test results such as blood pressure, HbA1c and cholesterol.

Staff and patients provided feedback on the leaflet. Suggested changes were fed back to the practice manager who took them to meetings with the GPs for decisions. All GPs were involved and participated in discussions and supported the development of the leaflet.

Demand for the brochure is very high from patients and clinical staff. Feedback from patients is that they now feel involved in their own healthcare. GPs in the practice have reported that patients' knowledge of their illness has increased, as has the percentage of people with diabetes who have had a diabetes Service Incentive Payment claimed. Based on the success of this approach, the practice has followed this process to develop similar leaflets for patients with coronary heart disease.

Romsey Medical Centre, Central Highlands GPN, VIC

Example

Health practitioners working with culturally and linguistically diverse communities can use the health translations directory to find reliable translated health information. This directory links to online multilingual health resources from government departments, peak health bodies, hospitals, community health centres and welfare agencies.

The directory can be searched by topic, language, or both. Search results include an English summary of the information, a link to a complete English language version and a link to information in the language requested.

The directory can be accessed using the link <http://www.healthtranslations.vic.gov.au>

Change Principle 6 – Adopt a multi-skilled and multi-agency approach

Ensure effective care coordination through the use of a multi-skilled and multi-agency approach.

Consider the change ideas below when undertaking work in this change principle.

Change Ideas

- Analyse the patient journey and redesign where necessary
- Identify and engage local organisations and other sources of care in developing patient centred services
- Provide integrated care by improving the relationship between primary, secondary and tertiary providers

Analyse the patient journey and redesign where necessary

Mapping the processes or sequence of events between primary, secondary care and allied health from a patient's perspective is an effective approach in starting to understand whether your current service provision is timely and of high quality.

Once this has been done, the following questions are useful in developing ideas to improve the patient journey:

- What are the problems (e.g. barriers and bottlenecks) in the patient's journey?
- Are communication channels effective and timely?
- Can steps be reduced or simplified, e.g. by the use of one-stop primary care clinics, exercise physiologists or dieticians that consult at the practice and can lead group-based education sessions or group consultations?

- How can the evidence base be better integrated into the provision of care (e.g. standardising computer coding between primary, secondary care and allied health)?
- Are the right people with the right skills in the right place to provide the right care at the right time? Do opportunities exist to relocate services in primary care?
- What are the training and development implications for staff and how can these best be addressed?
- What should be measured to demonstrate the effectiveness of the service and improvements made?
- Are all contact details for allied health professionals/ services local and current?
- Do you have an electronic directory which is regularly updated?
- Is the patient a member of an organisation relevant to their condition?

Identify and engage local organisations and other sources of care in developing patient-centred services

You may find it useful to map local organisations and allied health professionals that are providing services for patients in your area, and think about how to involve these in developing patient-centred services. Your local Division of General Practice may already have a list of local services.

Local Government, for example, with their responsibilities around social care, education, environmental services and links with recreation, fitness and sporting clubs, potentially have a very important role in providing complementary services to support health care for patients at risk of developing a chronic disease or those who are already diagnosed with one.

In addition, many local communities have a vibrant and active volunteer sector with the potential for community networks to make an effective contribution. This is particularly relevant when looking at the needs of local minority ethnic groups.

Practical ideas include:

- prescription for physical activity schemes using local recreational facilities (e.g. exercise classes)
- the SNAP Program, which works with patients on lifestyle risk factors of smoking, nutrition, alcohol and physical activity. For information, visit <http://www.racgp.org.au>
- targeted dietary advice and classes through existing local community groups, i.e. using volunteers to run the groups
- developing local support groups.

In addition to linking with services in your community, many practices have engaged healthcare professionals as part of the multidisciplinary team within their

practice. Some practices, particularly rural practices, have a large number of allied health professionals on site. Many practices also have their own referral directories for their local area, which are updated regularly by a practice staff member who has been designated with this responsibility.

Example

“Multidisciplinary teams and multidisciplinary care are a predominant feature in CHGPN practices with almost all practices now employing Practice Nurse and the overwhelming majority employing other Allied Health Professionals. The transition to planned and multidisciplinary health care within practice is progressing rapidly and extensively in response to the challenges and opportunities presented to current General Practice.”

Dr Chris Hogan, Chair Central Highlands GPN Board of Governance

Example

In an effort to improve patient education, Fremantle Division of General Practice began running Saturday afternoon sessions in practice waiting rooms called: ‘Afternoon tea with my GP’. These sessions have been popular and have addressed the seven National Health Priority Areas. In addition, the division has collaborated with organisations such as BreastScreen and the National Heart Foundation to offer sessions on specific topics. Examples of sessions that have been delivered include ‘Are you at risk for diabetes?’, ‘Taking steps to improve your heart health’, ‘Asthma management’ and ‘Children’s preventative health’.

The model provides a flexible way of delivering health messages to groups of patients in an interactive and cost effective manner. The nonthreatening and familiar venue of the GP’s waiting room, combined with the relaxed and interactive nature of the session, encourages patients to return to their GP for further information. This model not only facilitates networking and collaboration between general practices and allied health, but also promotes the role of the practice nurse as a health educator.

Fremantle Regional General Practice Network, WA

Provide integrated care by improving the relationship between primary, secondary and tertiary providers

An effective way of providing integrated care is through the development of local networks. These local networks should be multidisciplinary and can include GPs, specialists and allied health professionals, all of whom you are able to liaise with as required.

Examples include the Victorian PCPs (Primary Care Partnerships), which have been set up in every Health Region. The goal of the Victorian PCPs is to improve relationships and achieve better health and wellbeing outcomes for the community. Joint working can also occur at a more local and informal level.

It might also be useful for the local Division of General Practice to set up a clinical network between the practices participating in the APCC Program and other health providers, perhaps from State-funded services. The clinical network could include GPs and other practice staff, dieticians, exercise physiologists, podiatrists, optometrist, psychologists and the local government (recreation sector).

Having such a group will help to ensure that the roles and responsibilities of people involved in services for the prevention and management of chronic disease are coordinated. The group's key functions are likely to cover the production of referral criteria, developing a strategy for training, ensuring that appropriate equipment/resources are available and the measurement of progress. The group may also want to consider using this opportunity to review and redesign the patient journey.

Example

A number of service providers in Banyule, Nillumbik and Darebin have worked together to streamline referral and access programs for people with chronic disease. The aim of this process was to help General Practitioners match patient needs with the appropriate service through a simple, singular referral process. This eliminates the need to know and have contact details or eligibility criteria for each program and organisation that is involved.

For a brochure outlining the service, visit

http://www.nevdgp.org.au/files/primarycaresupport/enhancedprimarycare/BNPCA%20Chronic%20Condition%20DL+%20VR10_25-6-09.pdf.

North East Valley Division of General Practice, Victoria

7.5 Useful web addresses

Australian Primary Care Collaboratives

<http://www.apcc.org.au>

Improvement Foundation (Australia) Limited

<http://www.improve.org.au>

Improvement Foundation (formerly NPDT)

<http://www.improvementfoundation.org>

Institute of Healthcare Improvement

<http://www.ihl.org>

Australian Association of Practice Managers

<http://www.aapm.org.au>

Australian College of Rural & Remote Medicine (ACRRM)

<http://www.acrrm.org.au>

Australian Diabetes Educators Association (ADEA)

<http://www.adea.com.au>

Australian Diabetes Society

<http://www.diabetessociety.com.au>

Australian General Practice Network (formerly Divisions of General Practice)

<http://www.adgp.com.au>

Australian Practice Nurses Association

<http://www.apna.asn.au>

Diabetes Australia

<http://www.diabetesaustralia.com.au>

Diabetes Australia – Multilingual Website

<http://www.diabetesaustralia.com.au/en/Resources/Multilingual>

Diabetes Centre

<http://www.diabetes.org.au>

Dietitian's Association of Australia

<http://www.daa.asn.au>

Heart Support Australia

<http://www.heartnet.org.au>

International Diabetes Federation

<http://www.idf.org>

International Diabetes Institute

<http://www.bakeridi.edu.au>

Kidney Health Australia (formerly Kidney Foundation)

<http://www.kidney.org.au>

Kinect Australia Active Script Program

<http://www.vicfit.com.au/activescript>

National Heart Foundation

<http://www.heartfoundation.com.au>

National Prescribing Service

<http://www.nps.org.au>

Primary Care Partnerships

<http://www.health.vic.gov.au/pcps>

Royal Australian College of General Practitioners

<http://www.racgp.org.au>

Stroke Foundation

<http://www.strokefoundation.com.au>

Tools and Resources:

Absolute Cardiovascular Disease Risk calculator.

<http://www.cvdcheck.org.au>

Accredited Lifestyle Modification Program facilitators directory

<http://www.agpn.com.au/programs/prevention-of-type-2-diabetes-program/national-lmp-facilitator-service-directory>

Ask Me 3-Improving Health Communication

<http://www.npsf.org/askme3/PCHC>

Assessment of Chronic Illness Care

http://www.improvingchroniccare.org/index.php?p=ACIC_Survey&s=35

Australian Type 2 Diabetes Risk Assessment Tool - AUSDRISK tool

<http://www.ausdrisk.com>

Flinders Program

http://som.flinders.edu.au/FUSA/CCTU/self_management.htm

Guidelines for the assessment of Absolute cardiovascular disease risk

http://www.heartfoundation.org.au/SiteCollectionDocuments/A_AR_Guidelines_FINAL%20FOR%20WEB.pdf

Health Coaching

<http://www.healthcoachingaustralia.com/>

Health Literacy Screening Tool

<http://www.pfizerhealthliteracy.com/physicians-providers/newest-vital-sign.html>

Multilingual Health Information

<http://www.healthtranslations.vic.gov.au>

Pen Clinical Audit Tool Recipes

<http://www.clinicalaudit.com.au/how>

Stanford (Lorig) Chronic Disease Self Management Program

<http://patienteducation.stanford.edu/training>

Research:**Juvenile Diabetes Research Foundation**

www.jdrf.org.au

The Diabetes Research Foundation – Western Australia Inc.

<http://www.diabetesresearchfoundation.asn.au>

The John Curtin School of Medical Research

<http://jcsmr.anu.edu.au>

The Walter and Eliza Hall Institute of Medical Research

<http://www.wehi.edu.au/index.html>

Australian Government Departments:

Australian Department of Health and Ageing

<http://www.health.gov.au>

Australian Department of Health and Ageing - National Health Priority Area – Diabetes

<http://www.health.gov.au/internet/main/publishing.nsf/Content/pq-diabetes-nhpa>

Australian Institute Health and Welfare

<http://www.aihw.gov.au/diabetes>

Federation of Ethnic Communities Council Australia

<http://www.fecca.org.au>

Food Standards Australia and New Zealand

<http://www.foodstandards.gov.au>

Health Insite

www.healthinsite.gov.au

Health Insurance Commission (Medicare Information)

<http://www.medicareaustralia.gov.au>

National Aboriginal Community Controlled Health

<http://www.naccho.org.au>

National Health and Medical Research Council (NHMRC)

<http://www.nhmrc.gov.au>

National Health and Medical Research Council (NHMRC) Publications

<http://www.nhmrc.gov.au/publications/index.htm>

Pharmaceutical Benefits Scheme

<http://www.health.gov.au/pbs>

Where possible we have tried to provide up to date links, we apologise if any of these links have become redundant since printing.

For a comprehensive list of other useful websites, please visit the Australian Primary Care Collaboratives website: http://www.apcc.org.au/useful_links.html

Appendix 1- BUSINESS MODEL FOR THE PREVENTION OF CHRONIC DISEASE

Developed by General Practice Gold Coast

AIM: To conduct a preventative collaborative by screening those patients identified as at risk.

Disease	Target Group	Risk Factors	Screening Activity	Remuneration	Referral Pathways
Diabetes	Age 40 – 49 years	Obesity (BMI>30) + hypertension Gestational diabetes IGT IFG Family history ATSI	Australian Diabetes Risk Assessment tool (AUSDRISK) <ul style="list-style-type: none"> ▪ 6-14 points – at risk T2D ▪ ≥ 15points – high risk T2D ▪ Patient prevention survey 	<ul style="list-style-type: none"> ✚ Item 713 \$61.40 ✚ Item 721 \$130.65 ✚ Item 723 \$103.50 	LR – Monitor/Lifescrpts HR - LMP
Vascular disease &/or hypertension	Age> 45 years or related disease	Diabetes IGT/IFG CKD ATSI Dyslipidaemia Proteinuria	BP Coronary Risk Assessment tool (NZ) Patient prevention survey	<ul style="list-style-type: none"> ✚ Item 717 \$104.55 ✚ Item 721 \$130.55 ✚ Item 723 \$103.50 	LR – Monitor/Lifescrpts HR -
Renal	Age > 50 years plus other risk	Hypertension BP 130/80 ATSI Family history	BP, urine analysis Micro albumin and eGFR if at high risk Patient prevention survey	<ul style="list-style-type: none"> ✚ Item 23 \$33.55 or <ul style="list-style-type: none"> ✚ Item 36 \$63.75 ✚ Item 721 \$130.65 ✚ Item 723 \$103.50 	LR – Monitor/Lifescrpts HR - Specialist
Depression	Age > 18 years plus other risk	Past/family history Recent loss Post partum women Chronic illness Alcohol/other drugs	2 simple questions “Over the past 2 weeks, have you felt <ul style="list-style-type: none"> ✚ Down, depressed or hopeless ✚ Little interest or pleasure in doing things” ✚ Patient prevention survey 	<ul style="list-style-type: none"> ✚ Item 2710 \$156.55 ✚ Item 2712 \$104.55 ✚ Item 2713 \$69.99 	LR – Monitor HR – Psychologist/ LMP
COPD	Age > 45	Current smoker Ex-smoker ATSI Diabetes CVD who smoke	Spirometry Patient prevention survey	<ul style="list-style-type: none"> ✚ Item 717 \$104.55 ✚ Item 11506 \$16.15 ✚ Item 721 \$130.65 ✚ Item 723 \$103.50 	LR -Lifescrpts HR - ??LMP

Assess these patients by identifying those firstly who are at risk by screening for

- ✚ Risky behaviour (smoking, drinking, exercise, diet ,weight)
- ✚ Risk of developing specific chronic diseases
- ✚ Screening all patients for risk using the RACGP patient risk survey (Green Book)

Treatment for Low Risk

- ✚ If low risk monitor/review 6 monthly?

Treatment for High Risk

These patients should be referred on to

- ✚ Lifestyle Modification Program for prevention of disease.
- ✚ Lighten Up
- ✚ Heal – Bundall Community Services
- ✚ Spiritus Self Management Course

**Appendix 2- Prevention Collaborative Self Assessment
Tool-Diabetes**

Developed by General Practice Gold Coast 01/10/2009

Questionnaire completed by: _____ Date: ___/___/___

Practice: _____

Are you the: <input type="checkbox"/> Practice Principal <input type="checkbox"/> Practice Nurse <input type="checkbox"/> Other Please Specify..... <input type="checkbox"/> Reception Staff <input type="checkbox"/> Practice Manager				
	ACTIVITY - DIABETES	YES	NO	NOT SURE
1.	Can you easily identify patients at risk of developing Diabetes from your data base? How? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Do you have a register for patients who are at risk of Diabetes? Is it regularly updated? How often? _____ _____	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
3.	Do you use a recall and reminder system for patients at risk of developing Diabetes? How often? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Do you monitor GTT/BP for patients at risk of Diabetes? How often? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do you undertake GP Management Plans for patients with Diabetes? Do you undertake Team Care Arrangements for patients with Diabetes? Do you encourage patients to participate in Lifestyle Modification programs?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6.	Have you ever used the Australian Type 2 Diabetes Risk Assessment Tool? Do you know what this is?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
7.	Do you proactively identify patients at risk of Diabetes? How often? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Have you ever done a patient practice prevention survey to find those who are at risk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9.	Do you use a practice nurse in the management of patients at risk of developing Diabetes? In what areas? <hr/> <hr/> <hr/> <hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Do you involve patients at risk of Diabetes in developing and delivering their care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Do you perform any other significant activities associated with managing your Diabetic at risk patients? If so, what? <hr/> <hr/> <hr/> <hr/> <hr/>			
TOTALS				

Appendix 3- Prevention Collaborative Self Assessment Tool- CVD

Developed by General Practice Gold Coast, 01/10/2009

Questionnaire completed by: _____ Date: __/__/__

Are you the: <input type="checkbox"/> Practice Principal <input type="checkbox"/> Practice Nurse <input type="checkbox"/> Other Please Specify..... <input type="checkbox"/> Reception Staff <input type="checkbox"/> Practice Manager				
	ACTIVITY	YES	NO	NOT SURE
1.	Can you easily identify patients at risk of developing a chronic disease from your data base? How? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Do you have a register for patients who are at risk of CVD? Is it regularly updated? How often? _____ _____	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
3.	Do you use a recall and reminder system for patients at risk of developing CVD? How often? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Do you monitor BP regularly for patients at risk of CVD? How often? _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do you undertake GP Management Plans for patients with CVD? Do you undertake Team Care Arrangements for patients with CVD? Do you encourage patients to participate in Cardiac rehabilitation programs?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6.	Do you manage your at risk CVD patients with annual fluvax immunisation? Do you manage your at risk CVD patients with pneumovax immunisation?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
7.	Can you identify on your data base patients who may be at risk of CVD? How? _____ _____ Do you proactively identify patients at risk of CVD? How often? _____ _____	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

8.	Can you identify patients who have been admitted to hospital for acute CVD treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Do you use a practice nurse in the management of patients at risk of developing CVD? In what areas? _____ _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Do you involve patients at risk of CVD in developing and delivering their care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Do you perform any other significant activities associated with managing your CVD at risk patients? If so, what? _____ _____ _____ _____ _____			
TOTALS				

7.6 Measures for CDPSM

The purpose of the measures is to help you track progress in achieving the CDPSM aim and monitor your improvement efforts. Best practice management extends beyond the subset of care reflected by these selected measures. For a review of the evidence-based approaches to chronic disease prevention and self management, reference can be made to guidelines prepared by bodies such as the National Heart Foundation, Diabetes Australia, the National Health and Medical Research Council and the Royal Australian College of General Practitioners 'red book' and 'green book'.

Definition of CDPSM

In the APCC Program, prevention incorporates the prevention of illness as well as reducing the burden of chronic disease in the community.

Self management refers to the tasks individuals undertake to live well and manage their condition. Self management is applicable to individuals with a chronic condition as well as those at risk of developing a chronic condition.

For more information about the Change Principles that will guide your improvement work through the CDPSM topic, please consult the CDPSM section of the handbook.

7.6.1 CDPSM monthly measures

- The % of adults on the clinical data base that are recorded as not currently smoking.
- The percentage of adults on the clinical database whose recorded smoking status indicates they are a Current Smoker OR Ex Smoker AND who have had their smoking status assessed within the previous 12 months
- The % of patients that are aged greater than or equal to 45 years of age AND less than or equal to 74 years of age, OR are recorded as ATSI AND aged greater than or equal to 35 years of age AND less than or equal to 44 years of age, AND currently without a diagnosis CVD who have had an Absolute Risk Assessment
- The % of patients aged ≥ 40 , currently without a diagnosis of diabetes, who have had a Diabetes Risk Assessment
- The % of modifiable risk factors that meet, or are better than, their recommended target for patients equal to or greater than 35 years of age without a specified chronic disease
- The % of modifiable risk factors that meet, or are better than, their recommended target for patients equal to or greater than 35 years of age with a specified chronic disease

- The % of modifiable risk factors that have been recorded for patients equal to or greater than 35 years of age without a specified chronic disease
- The % of modifiable risk factors that have been recorded for patients equal to or greater than 35 years of age with a specified chronic disease
- The percentage of adults with waist circumference less than or equal to the recommended circumference.
- The percentage of adults with a recorded BMI of less than or equal to 28.
- The % of the defined chronic disease population with a GP Management Plan (includes any plan established over the last two years).
- The average score of patient responses to questions within the UltraFeedback Patient Satisfaction Survey relating to Locus of Control.
- The average score of patient responses to questions within the UltraFeedback Patient Satisfaction Survey relating to Health Literacy.

Reports and tools have been developed for the APCC Program to extract these measures from the various clinical software packages. Please refer to 'Processing Data' in the Measuring for Improvement section for more information about the tools available and how measures are collected and calculated. You can also refer to this section for tips on improving the quality of your data and resources which may be useful about the monthly measures.

8 Measuring for Improvement

Regular reporting of measures is a key feature of the APCC Program. Regular reporting allows practices to engage in the topic areas and deliver rapid and sustainable improvements. Practices can assess their progress and benchmark themselves against others. It must be stressed that measures are reported to enable the tracking of improvement in the topic areas. They are not used as a performance management tool.

Previous sections of the handbook have addressed the definitions of the program topic areas. This section clarifies the monthly reporting requirements and privacy issues, including what is done with the data and the feedback available to practices. The sub-sections identify what tools are available to get the measures out of clinical software packages, details about how the measures are calculated, tips on how to improve data quality and a step-by-step guide on how to use the web portal to report your monthly data and view results.

8.1 Practice reporting requirements

8.1.1 Measures

The following measures are submitted before the first Wednesday of each month and used to assess improvements in the topic areas:

COPD:

Title	Short Description
COPD Register	The number of people within the clinical database that are coded with a diagnosis matching the COPD definition
Smoking Status	The percentage of people on the COPD Register whose recorded smoking status indicates they are a Non Smoker (Never Smoked OR Ex Smoker)
Smoking Status Assessment	The percentage of people on the COPD Register whose smoking status is recorded as Current Smoker OR Ex Smoker AND who have had their smoking status assessed within the previous 12 months
Spirometry	The percentage of people on the COPD Register with a recorded Spirometry at any time.
Influenza vaccine	The percentage of people on the COPD Register who are recorded as receiving an Influenza vaccine within the previous 12 months
Pneumococcal Vaccine	The percentage of people on the COPD Register with a recorded Pneumococcal vaccination

CDPSM

Title	Short Description
Non-Smoking	The % of adults on the clinical data base that are recorded as not currently smoking.
Smoking	The percentage of adults on the clinical database whose recorded

Status Assessment	smoking status indicates they are a Current Smoker OR Ex Smoker AND who have had their smoking status assessed within the previous 12 months
Absolute Risk Assessment	The % of patients that are aged greater than or equal to 45 years of age AND less than or equal to 74 years of age, OR are recorded as ATSI AND aged greater than or equal to 35 years of age AND less than or equal to 44 years of age, AND currently without a diagnosis CVD who have had an Absolute Risk Assessment
Diabetes Risk Assessment	The % of patients aged ≥ 40 , currently without a diagnosis of diabetes, who have had a Diabetes Risk Assessment
Modifiable Risk Factors – Prevention (PRV)	The % of modifiable risk factors that meet, or are better than, their recommended target for patients equal to or greater than 35 years of age without a specified chronic disease
Modifiable Risk Factors – Self Management (SM)	The % of modifiable risk factors that meet, or are better than, their recommended target for patients equal to or greater than 35 years of age with a specified chronic disease
Modifiable Risk Factors - PRV - Recorded	The % of modifiable risk factors that have been recorded for patients equal to or greater than 35 years of age without a specified chronic disease
Modifiable Risk Factors - SM - Recorded	The % of modifiable risk factors that have been recorded for patients equal to or greater than 35 years of age with a specified chronic disease
Waist Circumference	The percentage of adults with waist circumference less than or equal to the recommended circumference
BMI	The percentage of adults with a recorded BMI of less than or equal to 28
GP Management Plans	The % of the defined chronic disease population with a GP Management Plan (includes any plan established over the last two years)
Patient Locus of Control	The average score of patient responses to questions within the UltraFeedback Patient Satisfaction Survey relating to Locus of Control
Health Literacy	The average score of patient responses to questions within the UltraFeedback Patient Satisfaction Survey relating to Health Literacy

More information about how to collect each of these measures can be found in the following section on ‘Processing Data’ (8.5).

Further detail on the measures can be found in Appendix 1. In addition to the COPD and CDPSM measures, practices can also monitor improvement in other areas and work with the local Division to improve population health outcomes. These include Diabetes, Coronary Heart Disease, Access and Care Redesign and General Prevention Measures (refer to Appendix 1).

Please note that it is not a requirement of the APCC Program that these measures are submitted. Please refer to the web portal for information regarding these additional topics

8.1.2 PDSA cycles

PDSA (Plan, Do, Study, Act) cycles are also submitted monthly. Refer to the Model for Improvement section of this handbook for more information about this quality improvement tool.

Feedback will be provided by the Divisional Practice Support Team on the submitted PDSA cycles, to ensure that participants understand the methodology. The PDSA cycles are also shared as examples of improvement work done by other participating practices, which enables the sharing of ideas and innovative approaches to improvement in the topic areas.

8.2 Privacy (and what is done with the data)

The Improvement Foundation (Australia) Ltd is committed to the protection of individuals' personal information in accordance with applicable privacy laws. Those privacy laws set out minimum standards for the way that organisations such as IFA deal with personal and practice information.

The program collects private information, such as participants' names and addresses, to:

- generally manage the APCC Program
- make travel and accommodation arrangements
- where applicable, provide professional accreditation points to your professional body.

IFA only provides your details to third parties to perform the functions outlined above. These parties include your relevant professional body (such as the RACGP) and travel and accommodation providers.

With regard to practice information (Program measures) provided by you, this information is only used for the purposes of:

- monitoring improvement in the Program
- Program evaluation.

In all cases, practice information is aggregated at practice level and de-identified. Therefore, it is not possible to identify patients of those practices. In cases where IFA has third-party agreements in place to assist with the management of this information (such as website hosting), agreements with the appropriate confidentiality clauses are in place to protect the information. Where IFA provides information to Program evaluators, all information is de-identified and

aggregated to the practice level. IFA will also use de-identified, aggregated information to promote the benefits of the Program.

Although the Commonwealth privacy laws do not require patient consent to provide de-identified information or statistical data sets, which would not allow the patient to be identified, your practice can display a Practice Participation Sign in your waiting room to inform patients of your involvement in the APCC Program. An example of this can be found on the APCC website at http://www.apcc.org.au/Documents/Data_Privacy_sign.pdf

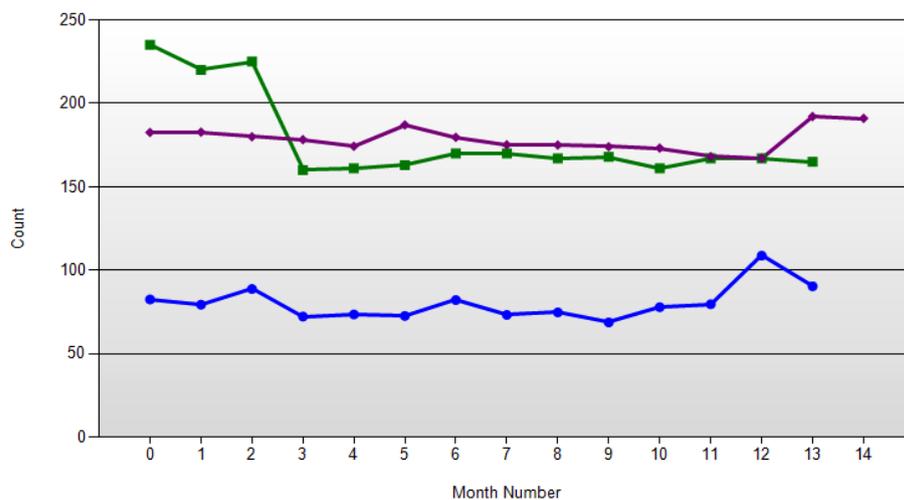
Please contact your Division or IFA if you have any questions relating to privacy or confidentiality.

8.3 Feedback

Feedback graphs will be accessible on the web portal, and available for viewing as soon as 10 minutes following data submission. Some of these graphs display line graphs of each practice's measures over time. These are benchmarked with other unidentified practices within the same Division, along with a national average of all practices submitting data for the same Wave (see the CHD example below).

CHD Register

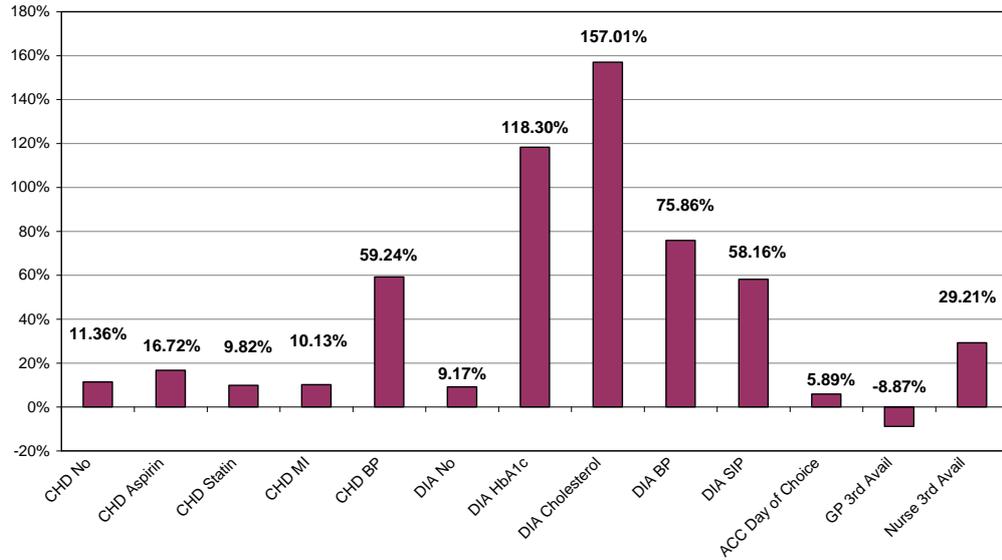
The number of patients within the clinical data base matching the CHD definition



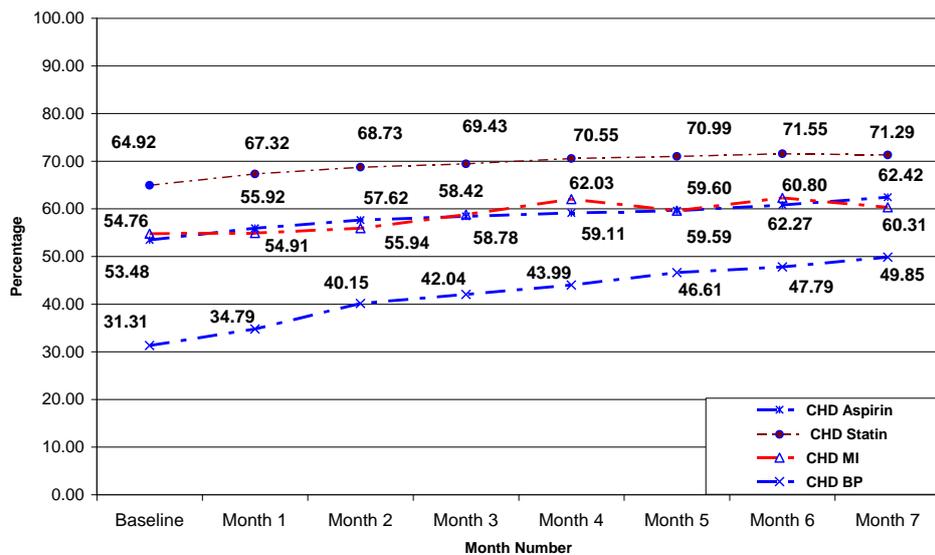
These graphs can be used to easily identify areas where improvements have been or can be made, and allow practices to visually see progress in the measures. This can be a great motivator to implementing future improvements.

National level graphs are also produced to display percentage improvements on baseline data for all measures and line graphs identifying improvements in the measures over time. Please see the below examples from Phase 1 of the Program (please note the format of these graphs may change over the course of Phase 2).

**Wave Three % Improvement
Baseline to Month 7 (January 2007)**



**CHD Percentage Measures: Trend of Mean Percentage by Month Number
Wave 3 Month 7 (January 2007)**



These national graphs are published on our website and are available for everyone, to view progress over time.

Divisions will also provide regular feedback on PDSAs and measures to assist practices with making ongoing improvements.

8.4 Advice and help

Practice support staff at your Division can provide advice and support regarding submission of your monthly measures and PDSAs, as well as provide support and ideas on areas for improvements.

8.5 Processing data

As there are a number of clinical, billing and appointment software programs in Australia, the methods of extracting the monthly measures are varied. APCC reports have been developed by several clinical software companies.

IFA has worked closely with Pen Computing Systems (PenCS), who have upgraded their Clinical Audit Tool (CAT) to include the new APCC Program measures. The upgraded tool also gives practices the capacity to electronically submit their monthly data to the secure web portal (please refer to the 'web portal' section (8.9) for further information). If you do not wish to submit measures electronically, or are not currently using the CAT, you will be able to submit measures manually, to the web portal.

In addition, Canning Division developed an extraction tool during Phase 1 of the APCC Program. At the time of writing (October 2009), this has the capacity to electronically submit the measures. It is expected that software vendors will introduce similar functionality in the future.

This section outlines the various extraction tools available, details on how the measures are calculated, tips on how to improve data quality and useful resources about the monthly measures.

8.5.1 Extracting measures

The ability to produce accurate reports from clinical software is important and an essential part of prudent clinical management.

The APCC Program has formed Expert Reference Panels, comprising of experts in particular topic areas to establish a range of quality measures. These measures allow practices to monitor key aspects of their clinical systems and support quality improvement activities within practice.

There are a range of clinical software programs that help GPs and practices manage their businesses. Software programs have varied capacity to produce APCC Program measure reports, which has a direct impact on how practices can work with the APCC Program and quality improvement activities. For further information on specific software programs and their capacity to report on APCC Program measures, please visit our website at www.apcc.org.au or contact your Collaborative Program Manager (CPM).

Once generated, these reports present you with information about the overall state of play of your patients with, or at risk of, chronic disease. Knowing this for a

particular cohort of patients provides you with insights into the mechanisms of care delivery at work within your practice. This can reveal opportunities to enhance earning potential, streamline practice systems, and improve the quality of care that you may have been unaware of.

These reports work by searching the practice's clinical data and calculating the required number and percentages for each of the measures. They also allow practices to generate and view their patient registers, so that they can see how individual patients are progressing with regard to the relevant clinical measures. This patient-level information is not submitted to the APCC, but practices have found the ability to view individual patient information in summary format very useful.

All of the COPD and most of the CDPSM measures will be collected from your clinical software, generally using an extraction tool. It is envisaged that the remaining CDPSM measures will be collected from your billing system. These measures can then be submitted electronically along with the rest of measures, or manually once you have logged on to the portal.

For further information regarding the submission of measures, please refer to the following section on the web portal (8.11).

8.6 Calculating measures

Generally the COPD and CDPSM measures will be collected and calculated automatically using extraction tools. If required, more details on how to actually calculate the measures can be found via the web portal search function. These will be published shortly after the release of this handbook.

8.7 Improving data quality

You need to be aware of the importance of data quality and may be familiar with the term RIRO – Rubbish In, Rubbish Out. The information available on your clinical software system can be an invaluable tool in assisting patient care and streamlining practice systems. However, for this data to be useful you must keep your clinical database accurate and up to date.

Below are some questions to consider about the quality of your data and some ideas on how you can use this data to improve your practice systems:

What is a disease register and how do I create one?

A disease register is simply a list of people who share the same condition. Registers create themselves automatically when you use your clinical software correctly. If you code conditions for your patients correctly (see more information below of diagnosis coding) you can then get your computer to print a list of all people who have that particular condition, which is your register.

What is diagnosis coding?

When you wish to enter a diagnosis (or condition or reason for visit) into the patient notes, you should choose an item from the list provided in your software package rather than entering a free text description. Choosing from the list is known as 'coding' your diagnosis, because you are assigning a standard disease code to the patient. The benefit of using codes is that it allows you to locate all patients who have the same condition easily i.e. all patients with COPD. Using a free text description means that it is not possible to find a cohort of patients easily as they are likely to have many different descriptions for the same condition.

Each clinical software package has a coding system built in. Some well known systems include:

- ICPC - International Classification of Primary Care
- ICD10 - International Classification of Diseases Version 10
- SnoMed - Systematized Nomenclature of Medicine
- Docle - Doctor Command Language

Why archive inactive/deceased patients?

It helps you to accurately determine the number of patients under your care. Knowing this figure is very useful in business planning. Archiving also prevents patients you are no longer concerned with, appearing in the reports and skewing the numbers. Be prepared for this to be a large task initially, as there is every chance it has never been done before in your practice. Archived records can be easily recovered in the future, should this be required.

What are HL7 pathology results and how do I get them?

HL7 is a format for the transfer of electronic results to your practice and it replaces the older PIT format. The advantage of HL7 results is that once you have reviewed the incoming result, a copy of its contents is distributed throughout the patient's electronic record. In other words, if a result contains an HbA1c value, this is automatically placed in the correct field in the patient's diabetic record. It saves you the trouble of manually transferring the result value to the correct place in the patient notes. You can ask each pathology laboratory to send your results in HL7 format.

Where should I enter information in my clinical software so that it is properly collated by APCC reports?

If you are entering a diagnosis, use the coded list. (See 'What is diagnosis coding?' above). If you are entering any numerical information, it should go into the correct field i.e. blood pressure goes in the BP field, INR goes in the INR field, etc.

If you suspect the APCC data is not being counted correctly in your APCC report, contact your software vendor for assistance in checking this.

Note: the questions below have been framed in relation to diabetes data; however, you can take a broadly similar approach with the CHD data.

The number of patients with COPD reported is much lower than I expected

- Check that all GPs know how to correctly enter a coded diagnosis in your clinical software.
- Check that all patients known to have COPD are diagnosed as such.
- Check your paper records to see if patients are able to be transferred to your electronic notes.

8.7.1 Other data issues to consider

You can consider the following questions to improve your practice systems and patient care:

- Are we recording information properly?
- Is our recall system working?
- Is our delivery of care sufficiently methodical or do gaps exist in our systems?
- Are we setting ourselves up for a high future workload for patients with acute COPD/Diabetes/CHD by constantly missing opportunities to intervene early?
- What happens in your practice when a patient with COPD/diabetes/CHD walks in?
- Do you manage these patients according with a set plan, known by all GPs, nurses and staff?
- Does the plan include clinical and billing items so that uniform care is delivered to each patient, and the practice does not miss claiming payments for work done?

8.8 Resources for monthly measures

There are many resources available to assist you with collecting your monthly measures.

Resources are available to assist with the collection of monthly measures on our website at www.apcc.org.au/user_guides.html including:

- how to guides for extracting and submitting Program measures

- access and care redesign– templates and information on how to collect the monthly measures
- chronic disease - calculators if you need to collect the measures and manually work out the percentages
- specific information about various software packages.

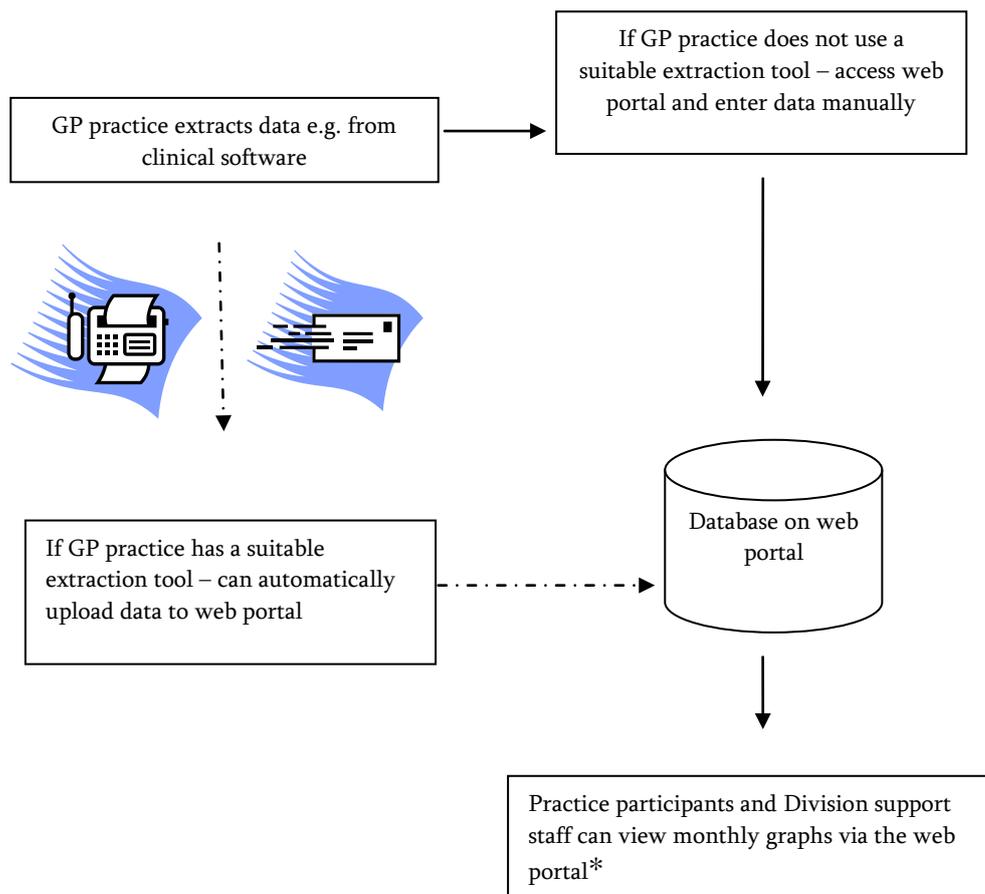
8.9 Web portal

This section provides detailed step-by-step instructions for submitting measures (including PDSAs) onto the web portal.

The web portal provides a secure, password protected APCC data reporting facility. You will also be able to use the web portal to submit monthly data, enter PDSAs, view your practice graphs, and search for Program resources.

Further information and online help is also available from the APCC website www.apcc.org.au.

8.10 Process flowchart



8.11 Accessing the web portal

This section provides instruction for participants to:

- log on to the web portal, and
- submit monthly measures electronically with the Pen CAT.

Step 1 - What you will need

- Your email with your user name, password and practice token.
- Internet connectivity (the faster the better!).
- A suitable extraction tool installed – this is one that can extract the relevant measures and then submit them to the APCC Web Portal automatically.

Step 2 - Logging on to the web portal

Using your web browser, navigate to:

<https://portal.improve.org.au/programs/personal/pages/default.aspx>

The following dialogue box should appear.



Connect to portal.improve.org.au

Connecting to portal.improve.org.au.

User name: [User icon] [Dropdown arrow] [More options]

Password: [Password input field]

Remember my password

OK Cancel

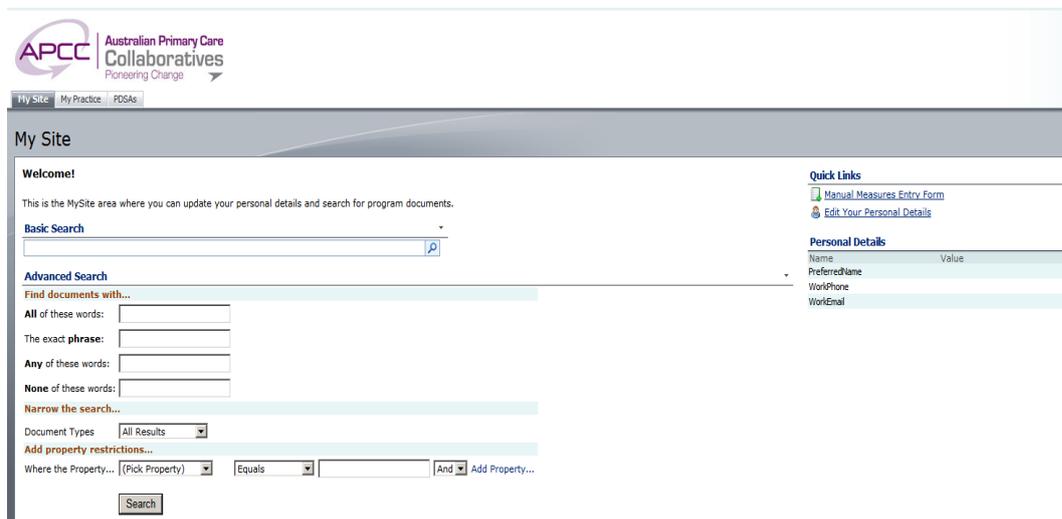
1. Please enter:

- 'improve\' + your **username**. Please note that the \' is a back slash and not a / forward slash, and
- your password (provided in an email from IFA).

You can check 'Remember my password' for subsequent visits.



2. Click 'OK' and you should be directed to the following web page:



You are now logged into your personal 'My Site' within the web portal. We'll be introducing features over time, but at the moment you'll be able to:

- view your practice reports
- edit your personal and practice details that will allow IFA to better manage your participation

- enter your Improvement Model ideas and subsequent PDSAs
- search for Program resources.

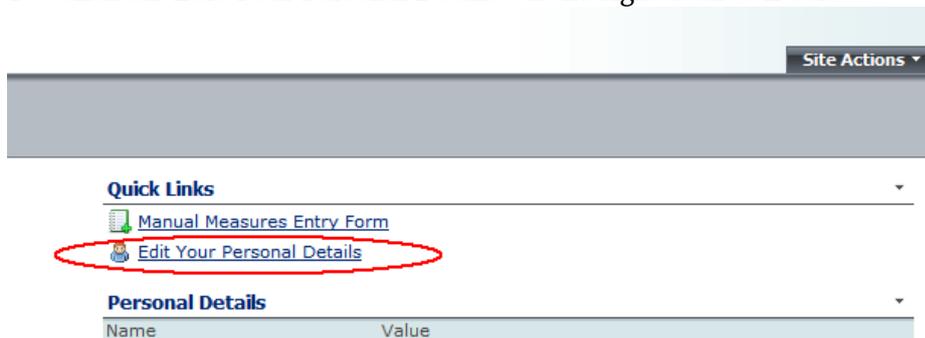
If you look around this page, you'll notice tabs in the top left corner under the APCC logo and simple navigation links on the left hand side. In the centre of the page there's a search function and on the left hand side, a summary of your details. Only you, and staff that are required to have access to your personal information for the purposes of managing your involvement in the Program, will have access to this area. Your details are not visible to other users and will remain confidential.

The search function is like many others that you may have seen. Regardless of how much experience you may have you should find this really easy.

When you first access your 'My Site' we ask that you update your personal details.

Step 3 - Update your personal details

1. Click on 'Edit Your Personal Details' on the right as shown below.



2. You will be directed to the following screen where you can update your personal details.

The screenshot shows the 'Edit Details' page. At the top, there is a navigation bar with 'My Site', 'My Practice', and 'PDSAs' tabs. The page title is 'My Site > Edit Details' and 'Edit Details'. Below the title, there are buttons for 'Save and Close' and 'Cancel and Go Back'. A legend indicates that a red asterisk (*) denotes a required field. The form contains several fields with labels and 'Show To' options:

Field Label	Value	Show To
Title:	<input type="text"/>	Everyone
First name:	Test	Everyone
Preferred First Name:	Test	Everyone
Surname:	<input type="text"/>	Only Me
Preferred Surname:	<input type="text"/>	Everyone

Providing accurate personal details will help us better manage your participation in the Program. All details are confidential.

Once you've completed updating your personal details you can click on 'Save and Close' as shown below. Alternatively 'Cancel and Go Back' if you have no changes. Clicking on either option will take you back to your 'My Site'.

APCC Australian Primary Care Collaboratives My Site
Pioneering Change

My Site > Edit Details
Edit Details

[Save and Close](#) | [Cancel and Go Back](#)

* Indicates a required field

		Show To
Title:	<input type="text"/>	Everyone
First name:	<input type="text" value="Test"/> <small>Name as it appears on formal travel documentation</small>	Everyone
Preferred First Name:	<input type="text" value="Test"/> <small>Name as it appears on formal travel documentation</small>	Everyone
Surname:	<input type="text"/> <small>Name as it appears on formal travel documentation</small>	Only Me

Step 4 - Your Practice

1. If you click on the tab titled 'My Practice' you'll be directed to a page with information about your practice.

APCC Australian Primary Care Collaboratives
Pioneering Change

My Site | **My Practice** | PDSAs

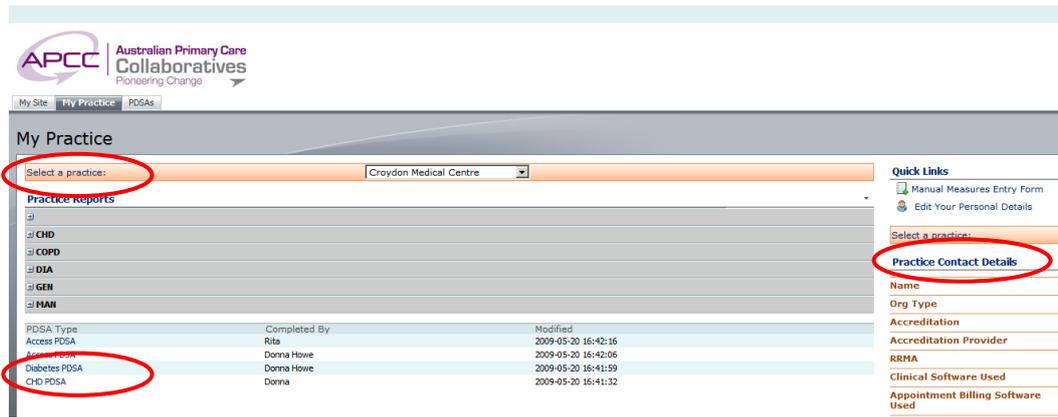
My Site

Welcome!

This is the MySite area where you can update your personal details and search for program documents.

Basic Search

2. In this area, which can be seen by all members from your practice who are users of the web portal, you will be able to access information about your practice.



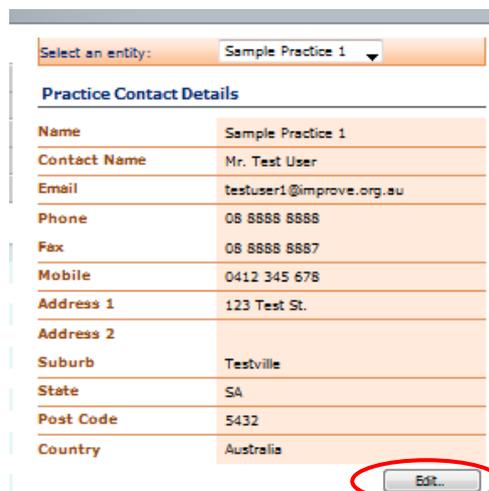
This includes:

- Practice Report – in the central part of the page
- PDSA submissions – below Practice Reports, and
- Practice details – on the right hand side of the page

This is where you'll be able to track activity and progress of your practice.

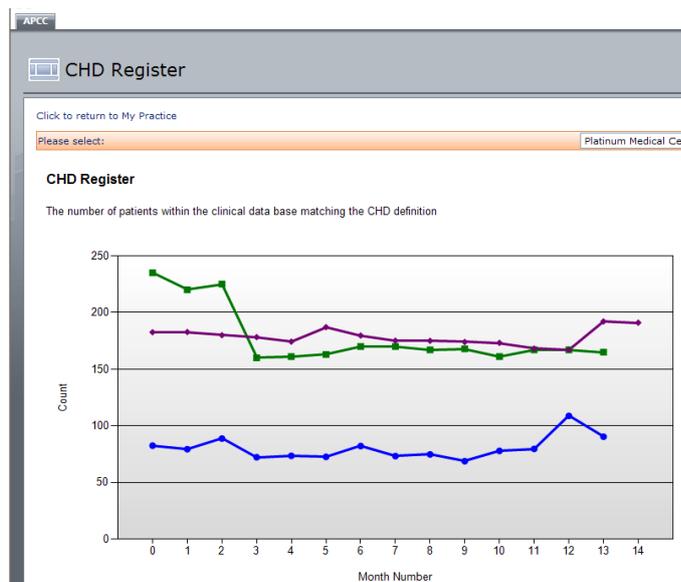
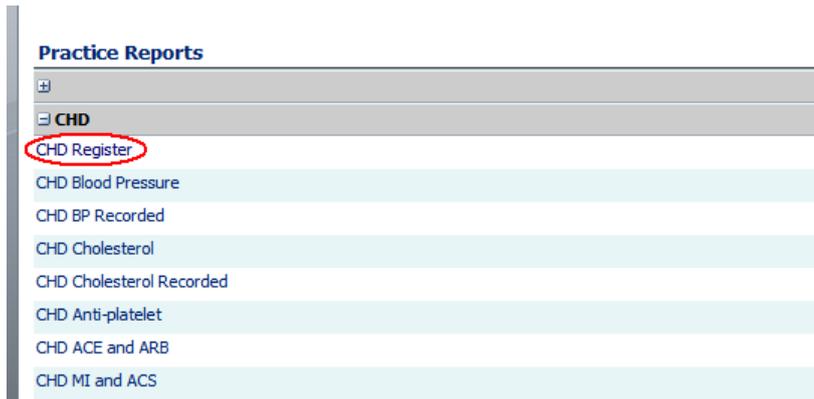
3. Update your practice details.

If you click on 'Edit' you'll be able to update your practice details. Anyone at the practice (that has been enabled as a web portal user) can do this and it only needs to be done once.



You can nominate a key contact person for your practice and other important information.

4. Check your practice's reports; click on the cross hair of any of the measurement groups and the area will expand and show more reports.
5. Click on a report and it will display the results. For example, here we are interested in the CHD Register Measure. COPD and CDPSM will be exactly the same.



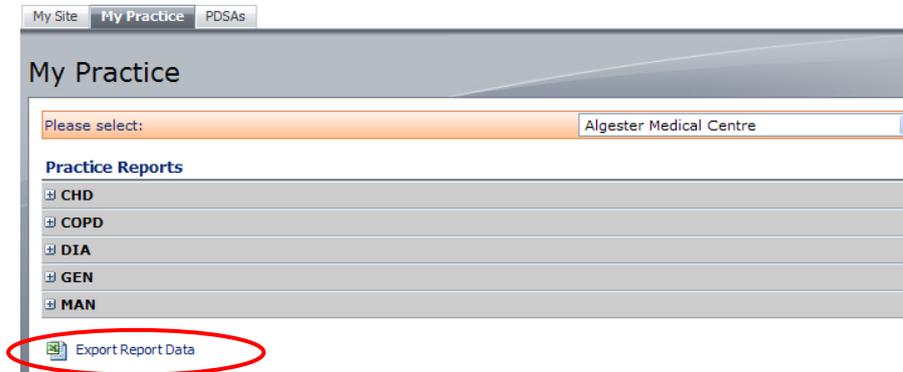
- To return to your My Practice site please click on 'Click to return to My Practice'.



- Click on other reports to see different charts. Please remember that initially, some of these charts will not have data to report on so they will be blank. As data is submitted to the data base, reports will be populated.

The time taken from when you submit data to when it appears in your practice reports is about 30 minutes.

8. You can see your results in tabular format by clicking on the 'Export Report Data' link. From here you can export your data to excel, or other formats.



9. In the PDSA area you'll find PDSAs recently completed or underway at your practice.



These and other practice PDSAs can be accessed from the PDSA tab.



Click on the PDSA tab and you'll be directed to the following page.

APCC Collaboratives
Pioneering Change

Site My Practice **PDSAs**

PDSAs

Create a new PDSA

APCC - PDSA Submissions

PDSA Type	Completed By	Completed Date	PDSA Goal
Diabetes PDSA	Anita Sharma	6/30/2009 3:51 PM	Identified that the pre-risk diabetes health check has not been utilised despite assessment tool given to patients and doctors aware of this tool
CHD PDSA	Anita Sharma and Moira	6/30/2009 3:46 PM	Validate Register
Diabetes PDSA	Anita Sharma and Moira	6/30/2009 3:35 PM	Capture missing data from CHD register
Diabetes PDSA	Dr Sharma and Moira	5/7/2009 12:36 PM	Set up a diabetes clinic
Access PDSA	Dr Sharma and Moira	5/7/2009 12:51 PM	To have a more efficient clinical program
CHD PDSA	Dr Sharma and Moira	5/8/2009 8:57 AM	To have CHD patients on Aspirin and anti-platelet therapy (where not contraindicated) as significant advances in treatment strategies for patients with acute coronary
CHD PDSA	Practice Nurse & Med Student	5/8/2009 9:32 AM	Validate and update our CHD register
Diabetes PDSA	Dr Sharma and Moira	5/7/2009 12:45 PM	To ensure we have an updated and accurate register of patients with Diabetes Mellitus
Access PDSA	Dr Sharma and Moira	5/8/2009 9:19 AM	To update and validate patient contact details
Diabetes PDSA	Dr Sharma and Moira	5/7/2009 12:54 PM	To have all patients on diabetes register with current cholesterol values

In this area you will be able to view PDSAs submitted by the practice and create new PDSAs.

To create a new PDSA, click on the 'Create a new PDSA' link.

APCC Collaboratives
Pioneering Change

My Site My Practice **PDSAs**

PDSAs

Create a new PDSA

APCC - PDSA Submissions

PDSA Type	Completed By	Completed Date	PDSA Goal
Diabetes PDSA	Anita Sharma	6/30/2009 3:51 PM	Identified that the pre-risk diabetes health check has not been utilised despite assessment tool given to patients and doctors aware of this tool

You will then be directed to the following page.

Save and Close Print View

APCC Collaboratives Improvement Foundation Australia

Model for Improvement

Practice Name:

Completed By:

Division Name:

PDSA Type:

PDSA Change Principle:

The 3 Fundamental Questions

1. What are we trying to accomplish?
By answering this question you will develop your GOAL for improvement

2. How will we know that a change is an improvement?
By answering this question you will develop MEASURES to track the achievement of your goal

3. What changes can we make that will lead to an improvement?
By answering this question you will develop the IDEAS that you can test to achieve your goal

Idea 1

Cycle 1 Show/Hide

Add PDSA Cycle

Add more ideas

The PDSA form is similar to the one currently used, but with some improvements.

When you first create a new form, you'll need to fill in mandatory fields before you can save it. These include 'What' and 'Who'. You'll be able to see these if you expand the first PDSA cycle. As shown below:

The screenshot displays a web form titled "The 3 Fundamental Questions". It contains three numbered questions, each with a text input field below it:

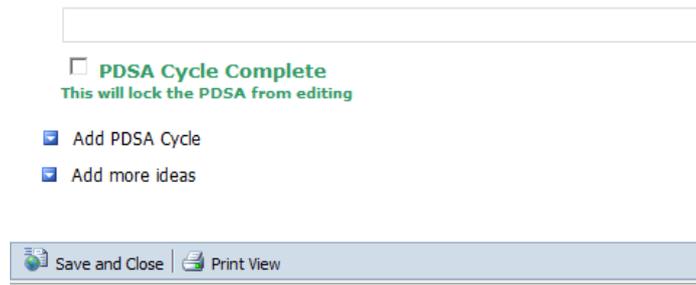
- 1. What are we trying to accomplish?**
By answering this question you will develop your GOAL for improvement
- 2. How will we know that a change is an improvement?**
By answering this question you will develop MEASURES to track the achievement of your goal
- 3. What changes can we make that will lead to an improvement?**
By answering this question you will develop the IDEAS that you can test to achieve your goal

Below the questions is a section for "Idea 1" with a text input field. Underneath is a grey bar labeled "Cycle 1" with a "Show/Hide" checkbox to its right, which is circled in red. Below this bar, the "Plan" section is visible, including a "Plan" Help icon and three input fields labeled "What:", "Who:", and "When:", each with a red asterisk indicating a mandatory field.

You'll see in this area that you can add PDSA cycles as you build on your tests, to validate your idea.

In the following screen shot you will see how you can:

- Submit your PDSA cycle by checking 'PDSA Cycle Complete'. This will lock away the cycle and record it against your complete cycles for the month. You will not be able to change the PDSA after submitting it.
- Add a PDSA cycle by clicking on 'Add a PDSA Cycle'. This will add another cycle which you can expand and work on by checking the 'Show/Hide' box.
- Add more ideas by clicking on 'Add more ideas'. This is a new idea within the same Improvement Model base on 'What are we trying to accomplish?' You may have other ideas that emerge after testing some earlier ideas!



If you've completed the 'What' and 'Who' boxes, you can 'Save and Close' at any time.

8.12 Submitting monthly measures electronically with the PEN CAT

The PEN Clinical Audit Tool is one of several extraction tools that can extract and upload the APCC measures to the APCC portal. For those extraction tools other than the Pen, please contact the vendor of the extraction tool for instructions on how to do the same.

Step 1 - Saving your Practice Token

1. Please have the document titled 'User Guide – APCC Report and Submission' handy. This can be found on the APCC website at <http://www.apcc.org.au/PenCAT.html>. You can refer to this if you need more detailed instructions.



PCS CLINICAL AUDIT TOOL
USER GUIDE – APCC REPORT AND SUBMISSION



PEN COMPUTER SYSTEMS PTY LTD

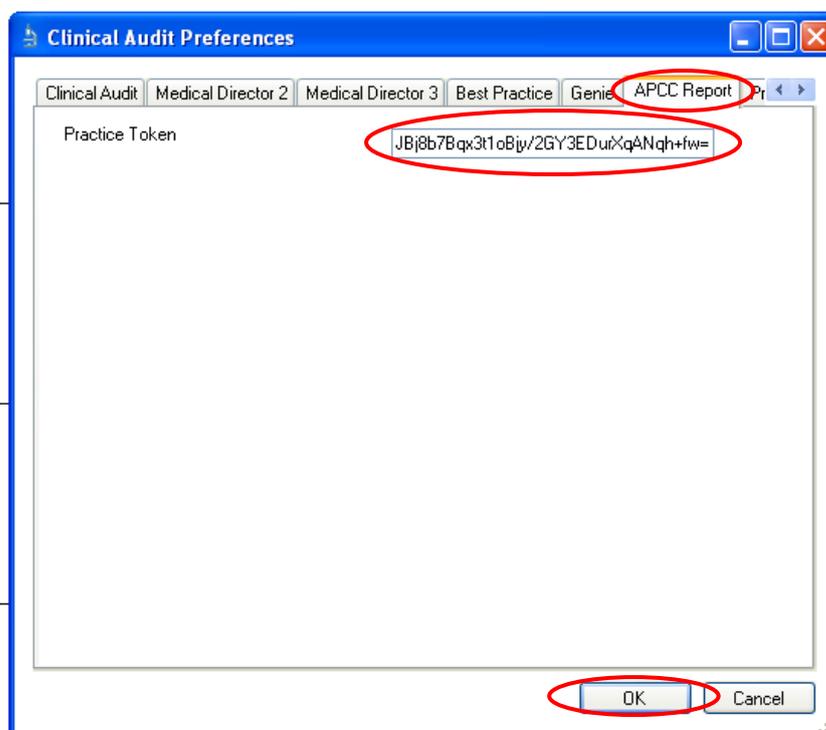
2. Open CAT and enter your practice token code in the Practice Token Field (as described in the following pages or on page 9 of the CAT user guide).

We recommend copying your token from the email you received at the practice and pasting it into the space in CAT.

To do this - click edit and then preferences.



3. Copy and paste the token into the textbox under the 'APCC Report' tab and click OK.

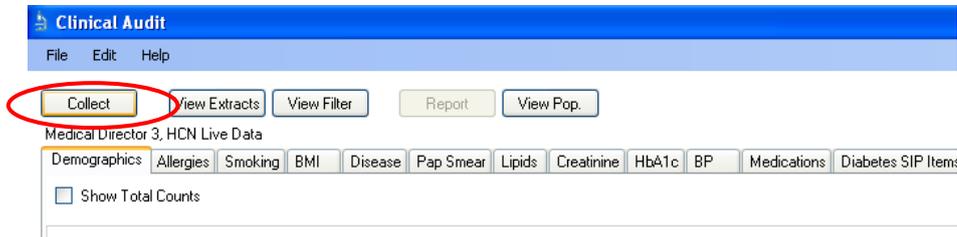


Remember: Putting the token in only has to be done once. You can now close CAT or if you are ready to submit your APCC measures, please continue to 'Step 2 - Submitting APCC Reports'.

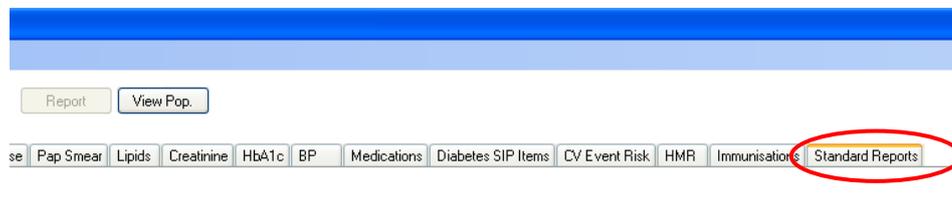
Step 2 - Submitting APCC Reports

1. Ensure CAT is open.
2. If you use CAT already the settings in Preferences should be OK for a 'collect' to take place. If not consult the guide titled 'User Guide –

Installation and Configuration' (from Page 16). A link to this document can be found at <http://www.apcc.org.au/PenCAT.html>. Now click 'Collect'.



3. Click on the 'Standard Reports' tab on the right.



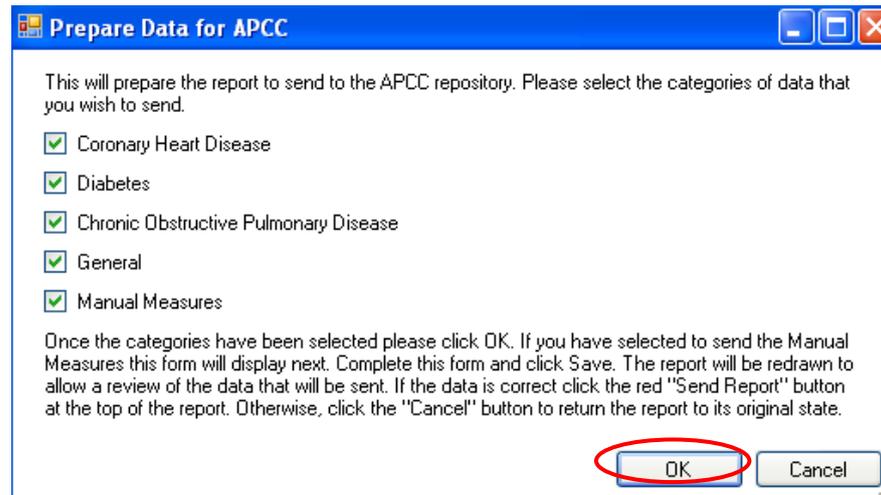
4. Then click on the 'APCC Report' tab on the left.



5. You should see your APCC report on the page. Click on 'Prepare Report'.



- Now choose which measures you want to submit and click 'OK'.



- Now you need to fill in your practice's details. These will save and be there next time you submit data. So in future you only need to edit details as they change e.g. your practice hires a nurse who takes appointments. The section in the red square includes the access measures. **Please click 'Save' once it is filled in.**

Manual Measures

Please enter the Manual Measures for the APCC report:

MAN-001	Is the practice using an 'Open Access' system?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
MAN-002	The number of days until the GP 3rd Available appointment.	<input type="text" value="2.00"/>	
MAN-003	Is there a practice nurse who takes appointments?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
MAN-004	The number of days until the Practice nurse 3rd available	<input type="text" value="0.00"/>	
MAN-005	The number of patients whose appointment demands were unmet.	<input type="text" value="45"/>	
MAN-006	Average patient satisfaction score.	<input type="text" value="1.00"/>	
MAN-007	The number of full time equivalent GPs at the practice.	<input type="text" value="1"/>	
MAN-008	The number of full time equivalent practice nurses employed at the practice.	<input type="text" value="1"/>	
MAN-009	Is this practice an Aboriginal Medical Service?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
MAN-010	Is the Practice accredited?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
MAN-011	Accreditation Provider (if the Practice is accredited)	<input type="text" value="Other"/>	
MAN-012	Does the practice have a practice wide, systemised register for the following?		
	CHD <input type="text" value="None"/>	Hypertension <input type="text" value="None"/>	COPD <input type="text" value="None"/>
	Asthma <input type="text" value="None"/>	Diabetes <input type="text" value="None"/>	Diabetes Risk <input type="text" value="None"/>
	Any Mental Health <input type="text" value="None"/>	Osteoporosis <input type="text" value="None"/>	Any Cancer <input type="text" value="None"/>
	Other (comma separated values)	Paper <input type="text" value="gfdg"/>	Electronic <input type="text" value="hfeigh"/>
MAN-013	Does the practice have a practice wide, systemised recall/ reminder system for the following?		
	CHD <input type="text" value="None"/>	Hypertension <input type="text" value="None"/>	COPD <input type="text" value="None"/>
	Asthma <input type="text" value="None"/>	Diabetes <input type="text" value="None"/>	Diabetes Risk <input type="text" value="None"/>
	Any Mental Health <input type="text" value="None"/>	Osteoporosis <input type="text" value="None"/>	Any Cancer <input type="text" value="None"/>
	Other (comma separated values)	Paper <input type="text" value="hgteegh"/>	Electronic <input type="text" value="gfd"/>

- You will now see your APCC Report back on the screen. Now click 'Send Report'.



9. All you need to do now is click OK. A prompt and a message will tell you if your data submission was successful or not. If successful the web portal will have graphs in your practice site!

8.13 Advice and help

Your Division has been trained in how to use the web portal and will be an important local contact if you need any assistance. 'How to' guides are also available on the APCC website (http://www.apcc.org.au/Web_Portal.html). User guides for the Pen CAT can also be found at the APCC website (<http://www.apcc.org.au/PenCAT.html>).

8 Appendix 1: APCC Program Measures

This appendix provides further detail on the CDPSM and COPD measures and outlines additional measures, including Diabetes, Coronary Heart Disease (CHD) and Access and Care Redesign (ACR) measures that practices can also use to monitor improvement.

Please note it is not a requirement for the COPD and CDPSM wave practices to submit additional measures, however, by submitting additional measures your practice can monitor improvement and work with the Division on improving population health in your region.

8.1 CDPSM Measure Detail

Title	Short Description / Denominator / Numerator
Non-Smoking	The % of adults on the clinical data base that are recorded as not currently smoking.
	Denominator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 18 years of age
	Numerator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 18 years of age, AND 4. have a recorded smoking status of: 4.1. 'Never Smoked' OR 4.2. 'Ex-smoker'
	Also collected is: 4.3 'Smoker' 4.4 not recorded
Title	Short Description / Denominator / Numerator
Smoking Status Assessment	The percentage of people on the clinical database whose recorded smoking status indicates they are a Current Smoker OR Ex Smoker AND who have had their smoking status assessed within the previous 12 months
	Denominator
	The number of people within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 18 years of age
	Numerator
	The number of people within the clinical database that: 1. are active, AND

	<ol style="list-style-type: none"> 2. are not recorded as deceased, AND 3. are aged equal to or greater than 18 years of age, AND 4. have a recorded smoking status of Current Smoker OR Ex Smoker, AND 5. have had their smoking status assessed within the previous 12 months
Title	Short Description / Denominator / Numerator
Absolute Risk Assessments	<p>The % of patients that are aged greater than or equal to 45 years of age AND less than or equal to 74 years of age, OR are recorded as ATSI AND aged greater than or equal to 35 years of age AND less than or equal to 44 years of age, AND currently without a diagnosis CVD who have had an Absolute Risk Assessment</p>
	Denominator
	<p>Number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active AND 2. are not recorded as deceased AND 3. are aged greater than or equal to 45 years of age AND less than or equal to 74 years of age 4. are recorded as ATSI AND aged greater than or equal to 35 years of age AND less than or equal to 44 years of age, AND 5. do not have a diagnosis of CVD (refer code list).
	Numerator
	<p>Number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active AND 2. are not recorded as deceased AND 3. are aged greater than or equal to 45 years of age AND less than or equal to 74 years of age 4. are recorded as ATSI AND aged greater than or equal to 35 years of age AND less than or equal to 44 years of age, AND 5. do not have a diagnosis of CVD (refer code list), AND 6. who have had an Absolute Risk Assessment
Title	Short Description / Denominator / Numerator
Diabetes Risk Assessment (DRAT)	<p>The % of patients aged ≥ 40, currently without a diagnosis of diabetes, who have had a Diabetes Risk Assessment</p>
	Denominator
	<ol style="list-style-type: none"> 1. Number of patients aged ≥ 40; AND 2. who are currently without a diagnosis of diabetes
	Numerator
	<ol style="list-style-type: none"> 1. Number of patients aged ≥ 40; AND 2. who are currently without a diagnosis of diabetes, AND 3. who have had a DRAT assessment
Title	Short Description / Denominator / Numerator
Modifiable Risk Factors - PRV	<p>The % of modifiable risk factors that meet, or are better than, their recommended target for patients equal to or greater than 35 years of age without a specified chronic disease</p>
	Denominator

	<p>Six (6) multiplied by the number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 35 years of age, AND 4. DO NOT have recorded diagnosis of: <ol style="list-style-type: none"> 4.1. CVD, AND/OR 4.2. Diabetes, AND/OR 4.3. COPD AND/OR 4.4. CRF (chronic renal failure) <p>Please refer to code list for details of these chronic diseases</p> <p>Numerator</p> <p>A count of number of the following elements that are true, for each of the patient records that form the count in the Denominator.</p> <p>Last recorded measure of:</p> <ol style="list-style-type: none"> 1. BP systolic <= 130 2. Cholesterol < 4 3. Smoking = Never smoked OR ex-smoker 4. Waist Circumference: <ol style="list-style-type: none"> 4.1. Where male - less than or equal to 100 cm 4.2 Where female - less than or equal to 94 cm 5. Alcohol - < 2 standard drinks per day 6. Physical Activity - Need to review how this is recorded and make a decision on the level
Title	Short Description / Denominator / Numerator
Modifiable Risk Factors - SM	<p>The % of modifiable risk factors that meet, or are better than, their recommended target for patients equal to or greater than 35 years of age with a chronic disease</p> <p>Denominator</p> <p>Six (6) multiplied by the number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 35 years of age, AND 4. HAVE a recorded diagnosis of: <ol style="list-style-type: none"> 4.1. CVD, AND/OR 4.2. Diabetes, AND/OR 4.3. COPD AND/OR 4.4. CRF <p>Please refer to code list for details of these chronic diseases</p> <p>Numerator</p> <p>A count of number of the following elements that are true, for each of the patient records that form the count in the Denominator.</p> <p>Last recorded measure of:</p> <ol style="list-style-type: none"> 1. BP systolic <= 130

	<ol style="list-style-type: none"> 2. Cholesterol < 4 3. Smoking = Never smoked OR ex-smoker 4. Waist Circumference: <ol style="list-style-type: none"> 4.1. Where male - less than or equal to 100 cm 4.2 Where female - less than or equal to 94 cm 5. Alcohol - < 2 standard drinks per day 6. Physical Activity
Title	Short Description / Denominator / Numerator
Modifiable Risk Factors - PRV - Recorded	<p>The % of modifiable risk factors that have been recorded for patients equal to or greater than 35 years of age without a specified chronic disease</p>
	Denominator
	<p>Six (6) multiplied by the number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 35 years of age, AND 4. DO NOT have recorded diagnosis of: <ol style="list-style-type: none"> 4.1. CVD, AND/OR 4.2. Diabetes, AND/OR 4.3. COPD AND/OR 4.4. CRF <p>Please refer to code list for details of these chronic diseases</p>
	Numerator
	<p>A count of number of the following elements that are recorded for each of the patient records that form the count in the Denominator.</p> <p>Any measure of measure:</p> <ol style="list-style-type: none"> 1. BP systolic 2. Cholesterol 3. Smoking 4. Waist Circumference 5. Alcohol 6. Physical Activity
Title	Short Description / Denominator / Numerator
Modifiable Risk Factors - SM - Recorded	<p>The % of modifiable risk factors that have been recorded for patients equal to or greater than 35 years of age with a chronic disease</p>
	Denominator
	<p>Six (6) multiplied by the number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 35 years of age, AND 4. HAVE a recorded diagnosis of: <ol style="list-style-type: none"> 4.1. CVD, AND/OR 4.2. Diabetes, AND/OR

	<p>4.3. COPD AND/OR</p> <p>4.4. CRF</p> <p>Please refer to code list for details of these chronic diseases</p> <p>Numerator</p> <p>A count of number of the following elements that are recorded for each of the patient records that form the count in the Denominator.</p> <p>Any measure of measure:</p> <ol style="list-style-type: none"> 1. BP systolic 2. Cholesterol 3. Smoking 4. Waist Circumference 5. Alcohol 6. Physical Activity
Title	Short Description / Denominator / Numerator
Waist Circumference	<p>The percentage of adults with waist circumference less than or equal to the recommended circumference</p> <p>Denominator</p> <p>The number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. aged equal to or greater than 18 years of age <p>Numerator</p> <p>The number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. are aged equal to or greater than 18 years, AND 4. Male, AND where a recorded waist circumference is less than or equal to 100cm, OR 5. Female, AND where a recorded waist circumference is less than or equal to 94cm
Title	Short Description / Denominator / Numerator
Waist Circumference Recorded	<p>The percentage of adults (aged greater than or equal to 18 years) with waist circumference recorded.</p> <p>Denominator</p> <p>The number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. Aged greater than or equal to 18 years <p>Numerator</p> <p>The number of patients within the clinical database that:</p> <ol style="list-style-type: none"> 1. are active, AND 2. are not recorded as deceased, AND 3. aged greater than or equal to 18 years, AND 4. have a recorded waist circumference
Title	Short Description / Denominator / Numerator

BMI	The percentage of adults with a recorded BMI of less than or equal to 28
	Denominator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. aged equal to or greater than 18
	Numerator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. aged equal to or greater than 18, AND 4. where weight (Kgs) over height (mts2) is less than or equal to 28
Title	Short Description / Denominator / Numerator
BMI - Recorded	The percentage of adults where the constituent elements of a BMI, or the BMI are recorded
	Denominator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. aged equal to or greater than 18
	Numerator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. aged equal to or greater than 18, AND 4. where the following elements are recorded: 4.1 weight, AND 4.2 height, OR 4.3. BMI
Title	Short Description / Denominator / Numerator
GP Management Plans	The % of the defined chronic disease population with a GP Management Plan (includes any established over the last two years)
	Denominator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. are recorded as having one of the chronic disease codes for CVD AND/OR Diabetes AND/OR COPD AND/OR CRF Please refer to code list for details of these chronic diseases
	Numerator
	The number of patients within the clinical database that: 1. are active, AND 2. are not recorded as deceased, AND 3. are recorded as having one of the chronic disease codes for CVD AND/OR Diabetes AND/OR COPD AND/OR CRF

	4. where, within the last two years, the patient has had a GP Management Plan (Item numbers 721, 729 and 731)
Title	Short Description / Denominator / Numerator
Patient Locus of Control	The average score of patient responses to questions within the UltraFeedback Patient Satisfaction Survey relating to Locus of Control
	Denominator
	The number of responses from a random sample of 120 patients
	Numerator
	Responses from survey respondents to the following questions: 1. I have decided that I want to be healthy. 2. I have thought carefully about my health and believe it is important for many aspects of my life. 3. I try to do things that I believe are best for my health. 4. I actively try to prevent disease and illness.
Title	Short Description / Denominator / Numerator
Health Literacy	The average score of patient responses to questions within the UltraFeedback Patient Satisfaction Survey relating to Health Literacy
	Denominator
	The number of responses from a random sample of 120 patients
	Numerator
	Responses from survey respondents to the following questions: 1. I know how to use the health information I find to help me. 2. I seek out health information that answers my health questions. 3. I feel confident in using information to make decisions about my health. 4. Before making a decision about my health, I find out everything I can about the issue. 5. I really enjoy learning about health issues.

8.2 COPD Measure Detail

Title	Short Description / Denominator / Numerator
COPD Register	The number of people within the clinical database that are coded with a diagnosis matching the COPD definition
	Denominator
	Clinical codes for COPD: Chronic Bronchitis Chronic Obstructive Airways Disease Chronic Obstructive Pulmonary Disease COAD COAD (Chronic Obstructive Airways Disease) COPD (Chronic Obstructive Pulmonary Disease) COAD - Infective exacerbation Emphysema Emphysema - Infective exacerbation
	Numerator
NA	
Title	Short Description / Denominator / Numerator
Smoking Status	The percentage of people on the COPD Register whose recorded smoking status indicates they are a Non Smoker (Never Smoked OR Ex Smoker)
	Denominator
	The number of people on the COPD Register
	Numerator
1. The number of people on the COPD Register whose smoking status is recorded as: 1.1. Never Smoked, OR 1.2. Ex Smoker	
Title	Short Description / Denominator / Numerator
Smoking Status Assessment	The percentage of people on the COPD Register whose smoking status is recorded as Current Smoker OR Ex Smoker AND who have had their smoking status assessed within the previous 12 months
	Denominator
	The number of people on the COPD Register whose smoking status is recorded as: 1. Ex Smoker, OR 2. Current Smoker
	Numerator
The number of people on the COPD Register whose smoking status is recorded as: 1. Ex Smoker, OR 2. Current Smoker, AND 3. Where their smoking status has been assessed within the previous 12 months	

Title	Short Description / Denominator / Numerator
Spirometry	The percentage of people on the COPD register with a recorded Spirometry at any time
	Denominator
	The number of people on the COPD Register
	Numerator
	The number of people on the COPD Register who have had a Spirometry recorded at any time
Title	Short Description / Denominator / Numerator
Influenza vaccine	The percentage of people on the COPD Register who are recorded as receiving an Influenza vaccine within the previous 12 months
	Denominator
	1. Number of people on the COPD Register
	Numerator
	The Number of people on the COPD Register who:
	1. Are recorded as having received an Influenza vaccine, AND 2. Where the Influenza vaccine recording was within the previous 12 months
Title	Short Description / Denominator / Numerator
Pneumococcal Vaccine	The percentage of people on the COPD Register with a recorded Pneumococcal vaccination
	Denominator
	Number of people on the COPD Register
	Numerator
	The number of people on the COPD Register who:
	1. Are recorded as having received a Pneumococcal vaccine, AND 2. Where the Pneumococcal vaccine recording was within the previous 5 years, OR 3. Have had two (2) Pneumococcal vaccines recorded at anytime

Additional Program Measures

In addition to the COPD and CDPSM measures, practices can also monitor improvement in other areas and work with the local Division to improve population health outcomes. The measures for these other areas are listed below. Please note that it is not a requirement of the COPD & CDPSM wave that these measures are submitted.

8.3 Access and Care Redesign:

Title	Short Description
Open Access	Is the practice using an 'Open Access' system? Select either a Yes or No check box
GP Third Available	The number of days until the GP 3 rd Available appointment. Include provision for two decimal places
Practice Nurse	Is there a practice nurse who takes appointments? Select either a Yes or No check box
Nurse Third Available	The number of days until the Practice nurse 3 rd available appointment. Include provision for two decimal places
Unmet Demand	The number of patients whose appointment demands were unmet. Include provision for two decimal places
Patient Satisfaction*	Average patient satisfaction score. Include provision for two decimal places

*Please note that the Patient Satisfaction measure is only required to be submitted *quarterly* (i.e. every 3 months). However you are encouraged to submit this measure monthly, should you feel your practice has made significant changes in this area.

8.4 Diabetes:

Title	Short Description
Diabetes Register	The number of people within the clinical database that are coded with a diagnosis matching the Diabetes definition
HbA1c	The percentage of people on the Diabetes Register whose HbA1c has been recorded within the previous 12 months AND whose last recorded HbA1C result was: <= 7.0% (i)
	ii) HbA1c >7% and <=8 %
	iii) HbA1c > 8% and < 10%
	iv) HbA1c => 10 %
	v) HbA1c not recorded
Cholesterol	The percentage of people on the Diabetes Register whose total cholesterol has been recorded within the previous 12 months AND whose last recorded total cholesterol was less than 4mmol/l
Cholesterol Recorded	The percentage of people on the Diabetes Register with a last recorded total cholesterol within the previous 12 months
Blood Pressure	The percentage of people on the Diabetes Register whose blood pressure has been recorded within the previous 12 months AND whose last recorded blood pressure was less than or equal to 130/80 mm Hg
BP Recorded	The percentage of people on the Diabetes Register with a last recorded blood pressure within the previous 12 months
Diabetes Key Measurables	The percentage of people on the Diabetes Register who have ALL key measurables recorded within the required timeframe AND whose recordings are ALL within the recommended targets: HbA1c <= 7% within previous 12 months Total cholesterol < 4mmol/l within previous 12 months Blood pressure <= 130/80 mm Hg within previous 6 months Albumin -creatinine ratio (ACR) or other urinary Micro albumin test within previous 12 months Recorded smoking status of Never Smoked or Ex Smoker
Diabetes Key Measurables Recorded	The percentage of people on the Diabetes Register who have ALL key measurables recorded within the required timeframe: HbA1c recorded within previous 12 months Total cholesterol recorded within previous 12 months Blood pressure recorded within previous 6 months ACR OR other urinary Micro albumin test recorded

	within previous 12 months Recorded smoking status
Diabetes Annual Cycle of Care	The percentage of annual cycle of care elements recorded for people on the Diabetes Register
Aspirin	The percentage of people on the Diabetes Register who are aged greater than or equal to 55 AND who are currently prescribed Aspirin
ACR	The percentage of people on the Diabetes Register who have had an urinary ACR OR other urinary Micro albumin test result recorded within the previous 12 months
Influenza Vaccine	The percentage of people on the Diabetes Register who are recorded as receiving an Influenza vaccine within the previous 12 months
Pneumococcal Vaccine	The percentage of people on the Diabetes Register who are recorded as receiving a Pneumococcal vaccine

8.5CHD

Title	Short Description
CHD Register	The number of people within the clinical database that are coded with a diagnosis matching the CHD definition
Blood Pressure	The percentage of people on the CHD Register whose blood pressure has been recorded within the previous 12 months AND whose last recorded blood pressure was less than or equal to 130/80 mm Hg
BP Recorded	The percentage of people on the CHD Register with a last recorded blood pressure within the previous 12 months
Anti-Platelet	The percentage of people on the CHD Register who are currently prescribed an Anti-Platelet Agent
Statin	The percentage of people on the CHD Register who are currently prescribed a Statin
Cholesterol	The percentage of people on the CHD Register whose total cholesterol has been recorded within the previous 12 months AND whose last recorded total cholesterol was less than 4mmol/l
Cholesterol Recorded	The percentage of people on the CHD Register with a last recorded total cholesterol within the previous 12 months
ACE/ARB	The percentage of people on the CHD Register who are currently prescribed an Angiotensin Converting Enzyme (ACE Inhibitor OR an Angiotensin Receptor Blocker (ARB)
Smoking Status	The percentage of people on the CHD Register whose recorded smoking status indicates they are:
	Non Smokers (i and ii)
	i) Never Smoked
	ii) Ex Smoker
	iii) Current Smoker
iv) Not Recorded	

Smoking Status Assessment	The percentage of people on the CHD Register whose recorded smoking status indicates they are a Current Smoker OR Ex Smoker AND who have had their smoking status assessed within the previous 12 months
MI/ACS	The percentage of people on the CHD Register who have had an Myocardial Infarction (MI) OR Acute Coronary Syndrome (ACS) recorded within the previous 12 months
CHD Death	The number of deaths that were recorded within the previous calendar month where the person had a diagnosis of CHD
CHD All	The percentage of people on the CHD Register who satisfy criteria and targets for ALL of the following CHD Measures: <ul style="list-style-type: none"> - Blood Pressure \leq130/80 mm Hg within previous 12 months - Anti-Platelet Agent prescribed - Cholesterol $<$ 4 mmol/l within previous 12 months - ACE/ARB prescribed

Appendix 2: APCC Program Measures

Codes

The following list is a comprehensive overview of codes that have been used by many of the software programs in Australian General Practice to construct and validate their registers. The list is not exhaustive and there may be additional codes that practices or Divisions may wish to build in to local templates. Some clinical software systems may not have all disease codes available.

Cardiovascular Disease

CHD Terms
Acute coronary insufficiency
Acute coronary syndrome
Acute myocardial infarction
AMI
AMI (Acute Myocardial Infarction)
Angina
Angina pectoris
Angina pectoris - Prinzmetal
Angina pectoris - unstable
Angiogram, coronary
Angioplasty
Angioplasty - coronary
Angioplasty - coronary (with stent)
Angioplasty, coronary
Anterior myocardial infarct
Anterolateral myocardial infarct
Atherosclerotic heart disease
Balloon coronary angioplasty
Blockage Coronary Artery
Bypass - coronary
CABG
CABG (Coronary Artery Bypass Graft)
Coronary
Coronary angiogram
Coronary angiography
Coronary Angiography - No significant obstr
Coronary Angiography and Stent
Coronary angioplasty
Coronary angioplasty with stent
Coronary artery balloon angioplasty
Coronary artery bypass graft
Coronary artery disease
Coronary artery disease - Rehabilitation
Coronary artery endarterectomy

CHD Continued

Coronary artery spasm
Coronary artery stent
Coronary artery surgery
Coronary endarterectomy
Coronary heart disease
Coronary insufficiency
Coronary occlusion
Health assessment
Heart attack
IHD
IHD (Ischaemic Heart Disease)
Inferior myocardial infarction
Ischaemic heart disease
K41 005 Angiography; coronary
K53 003 Angioplasty; artery; coronary
K53 009 Stent(s); coronary
K54 007 Graft; coronary Artery Bypass
K74 001 Angina Pectoris
K74 002 Pain; angina
K74 003 Spasm; artery; coronary
K74 004 Angina; unstable
K74 006 Insufficiency; coronary
K74 007 IHD with Angina
K75 002 Infarction; myocardial; acute
K75 004 Occlusion; coronary
K75 013 Infarction; myocardial
K75 014 Heart Attack
K76 003 Coronary Artery Disease
K76 005 Disease; atherosclerotic; heart
K76 011 Disease; ischaem Heart; subacut
K76 013 Coronary Heart Disease
K76 014 Disease; ischaemic Heart
K76 015 Disease; ischaem Heart; chronic
K76 018 IHD Without Angina
K84 009 Disease; heart
MI
Myocardial Damage
myocardial infarct
Myocardial infarction
Myocardial infarction - anterolateral
Myocardial infarction - inferior
Myocardial infarction - posterior
Myocardial infarction - subendocardial
Myocardial infarction - superior
Myocardial Infarction - with ST elevation
Myocardial Infarction - without ST elevation

CHD Continued

Myocardial infarction, anterior
Myocardial infarction, anterolateral
Myocardial infarction, inferior
Myocardial infarction, posterior
Myocardial infarction, subendocardial
Myocardial infarction, superior
Myocardial insufficiency
NSTEMI
NSTEMI (Non-ST-Elevation Myocardial Infarction)
Occlusion - Coronary Artery
Occlusion, Coronary artery
PCTA
Percutaneous transluminal angioplasty
Posterior myocardial infarct
Preinfarction syndrome
Prinzmetal angina
STEMI (ST-Elevation Myocardial Infarction)
Stent - coronary artery
Stent, coronary artery
Subendocardial infarct
Subendocardial myocardial infarct
Superior myocardial infarct
Surgery - Coronary artery
Surgery - Coronary artery balloon angioplasty
Surgery - Coronary artery bypass graft
Surgery - Coronary artery endarterectomy
Surgery - Coronary artery stent
Unstable Angina
Unstable Angina - High risk
Unstable Angina - Low risk
Unstable Angina - Moderate risk
Variant angina

Hypertension

Blood Pressure Labile
Borderline hypertension
BP Labile
BP Unstable
D97 009 Hypertension; portal
Essential hypertension
HBP
High blood pressure
High BP
HT (Hypertension)
Hypertension

Hypertension Continued

Hypertension - Controlled
Hypertension - Isolated Systolic
Hypertension - Labile
Hypertension - Life style management
Hypertension - Malignant
Hypertension - Preventive care
Hypertension - Renovascular
Hypertension - Unstable
Hypertension in pregnancy
Hypertension, borderline
Hypertension, Isolated systolic
Hypertension, malignant
Hypertension, portal
Hypertension, pulmonary
Hypertension, renovascular
Hypertension, white coat
Hypertensive
Idiopathic pulmonary hypertension
Isolated systolic hypertension
K85 001 Elevated Blood Pressure
K85 004 High Blood Pressure
K85 007 Raised Blood Pressure
K85 008 Hypertension; labile
K85 009 Hypertension ; white Coat
K86 001 Hypertension; essential
K86 004 Hypertension; uncomplicated
K86 005 Hypertension
K87 002 Hypertension; renal Disease
K87 004 Hypertension; malignant
K87 010 Hypertension; complicated
Labile Blood Pressure
Labile BP
Labile Hypertension
Malignant Hypertension
Portal hypertension
Pregnancy induced hypertension
Preventive care - Hypertension
Primary hypertension
Primary pulmonary hypertension
Pulmonary hypertension
Refractory Hypertension
Renal Hypertension
Renovascular Hypertension
Severe refractory hypertension
White coat hypertension

Heart failure

Acute cardiac failure
Acute heart failure
Biventricular heart failure
Cardiac failure
Cardiac failure, acute
CCF
Congestive Cardiac Failure
Congestive Heart Failure
Cor pulmonale
heart failure
Heart failure - Acute
Heart failure - Biventricular
Heart failure - High output
Heart failure - Left
Heart failure - Right
Heart failure, acute
Heart failure, high output
Heart failure, left
High output cardiac failure
High output heart failure
Hypertensive heart failure
K77 001 Oedema; pulmonary; acute
K77 002 Failure; congestive Cardiac
K77 004 Failure; cardiac
K77 008 Failure; ventricular; left
K77 011 Failure; heart
K77 013 Oedema; pulmonary
K77 014 Failure; ventricular; right
K82 003 Cor Pulmonale
Left heart failure
Left ventricular failure
LHF
LHF (Left heart failure)
LVF
LVF (Left ventricular failure)
Pulmonary oedema
RHF
RHF (Right heart failure)
Right heart failure
Right ventricular failure
RVF
RVF (Right ventricular failure)

Stroke

Cerebral Haemorrhage
Arterial embolism – minor
Cerebral infarction
Cerebral TIA
Cerebral transient ischaemia
Cerebral transient ischaemic attacks
Cerebrovascular Accident
CVA
CVA (Cerebrovascular Accident)
Haemorrhage - intracerebral
Haemorrhage – subarachnoid
Haemorrhage intracerebral
Haemorrhage, intracerebral
Haemorrhagic CVA
Haemorrhagic stroke
Intracerebral bleed
Intracerebral haemorrhage
Intracranial haemorrhage
Ischaemic Stroke
K90 002 Cerebrovascular Accident
K90 006 Haemorrhage; cerebral
K90 017 Stroke
Lacunar Stroke
Migrainous stroke
Migranous Stroke
Stroke
Stroke - Haemorrhagic
Stroke - Ischaemic
Stroke - Lacunar
Stroke - Migranous
Stroke - Thrombotic
Stroke, haemorrhagic
Stroke, ischaemic
Stroke, lacunar
Stroke, migrainous
Stroke, thrombotic
Subarachnoid bleed
Subarachnoid haemorrhage
Thrombotic – Stroke
Thrombotic Stroke
TIA (Transient Ischaemic Attack)
Transient ischaemic attack

Peripheral Vascular Disease

Arteriosclerosis
Arteriosclerosis obliterans
Peripheral Vascular Disease
Peripheral vascular disease, diabetic
PVD

Carotid Stenosis terms

Carotid Stenosis
Carotid Artery stent
Disease, Carotid
Endarterectomy, intern carotid
Stenosis, aretery, carotid
Stent, Carotid

Renal Artery Stenosis terms

Renal artery stenosis
Renal artery stent
Stenosis - Renal artery
Stenosis of renal artery
Stenosis, aretery, renal

Other codes - not to be included in CHD

Angiogram - Coronary
Antiangina agent prescription
Coronary angiogram
Family History - Ischaemic Heart Disease
Fear of heart attack
Fear of myocardial infarction
Heart attack fear
Phobia - heart attack
Prescription - Angina pectoris
Spiral CT angiogram-Chest
X-ray - Coronary angiography

Chronic Renal Failure

Chronic Renal Failure Terms
Chronic Kidney Disease - Stage 1 -5
Chronic Kidney Disease,
Chronic Kidney Disease, Stage 1-5
Chronic renal failure
CKD (Chronic Kidney Disease) – Stage 1 -5
Dialysis
Dialysis - haemodialysis
Haemodialysis
Hemodialysis
Impairment - Renal
kidney disease
Kidney Disease – Chronic – Stage 1 -5
kidney failure
Kidney failure - chronic
Kidney failure, chronic
Kidney Impairment
renal damage
Renal dialysis
renal disease
Renal Disease – Chronic – Stage 1 -5
Renal failure
Renal failure, chronic
Renal impairment
renal insufficiency
Uraemia

Diabetes

Type 2
Diabetes Mellitus - NIDDM
Diabetes Mellitus - Type II
Diabetes Mellitus, NIDDM
Diabetes Mellitus, Type 2
NIDDM
Non insulin dependent
Non insulin dependent diabetes mellitus
T90 001 diabetes, non-insulin dependant
T90 002 diabetes mellitus
T90 003 diabetes, non-insulin dependant
T90 004 diabetes, non-insulin dependant
T90 005 non insulin dependant diabetes
T90 006 diabetes, non-insulin dependant
T90 007 adult onset diabetes

Diabetes Continued

T90 008 diabetes, non-insulin dependant
T90 009 type 2 diabetes
T90 016 type 2 diabetes treated with insulin
Type 2
Type 2 Diabetes Mellitus
Type II

Type 1

Diabetes Mellitus - IDDM
Diabetes Mellitus - Type I
Diabetes mellitus, IDDM
Diabetes mellitus, Type 1
IDDM
IDDM (Insulin dependent diabetes mellitus)
Insulin dependent
Insulin dependent Diabetes mellitus
Juvenile onset
Juvenile Onset Diabetes
Juvenile onset Diabetes mellitus
T89 001 insulin dependant diabetes
T89 002 type 1 diabetes
T89 003 juvenile onset diabetes
T89 004 complicated diabetes
T89 005 diabetic coma
T89 006 diabetic hyperglycaemia
T89 007 diabetic ulcer
Type 1 Diabetes mellitus
Type I

Undefined diabetic

Diabetes
Diabetes - controlled
Diabetes - Unstable
Diabetes Mellitus
Diabetic endarteritis
Diabetic peripheral vascular disease
Peripheral vascular disease, diabetic
Undefined Diabetic
Unstable Diabetes

Note: In Genie if the Diabetic box is ticked and the patient is not coded as Type I or II then they are deemed as Undefined

Diabetes Related Conditions – to be included

Acidosis - Diabetic ketoacidosis
Arteritis - Diabetes Mellitus
Coma - Acidotic - Diabetes mellitus
Diabetes Eye Care
Diabetes review
Diabetes with Vascular Changes
Diabetic coma - Ketoacidotic
Diabetic Diet Management
Diabetic Endarteritis
Diabetic Foot
Diabetic Foot Care
Diabetic Gastroparesis
Diabetic Glomerulosclerosis
Diabetic Hypoglycaemic Coma
Diabetic Ketoacidosis
Diabetic Ketoacidotic coma
Diabetic Nephropathy
Diabetic Neuropathy
Diabetic Peripheral Vascular Disease
Diabetic Precoma
Diabetic Retinopathy
Diabetic Retinopathy - Background
Diabetic Retinopathy - Non Proliferative
Diabetic Retinopathy - Proliferative
Diabetic Vasular Disease - Peripheral
DKA (Diabetic Ketoacidosis)
Gastroparesis - diabetes mellitus
Keto-acidotic diabetic coma
Nephropathy - Diabetes mellitus
Neuropathy - diabetic
Prescription - Insulin
Review - diabetes mellitus

Other Diabetic Codes that will NOT be included in DIAB definition

Background Retinopathy
Borderline Diabetic
DI (Diabetes Insipidus)
Diabetes - Gestational
Diabetes Assessment
Diabetes Insipidus
Diabetes Insipidus - renal
Diabetes Mellitus - Borderline
Diabetes Mellitus - Family History
Diabetes Mellitus - Gestational

Other Diabetic Codes Continued
Diabetes Mellitus - Pre
Diabetes Mellitus - Preventive care
Family History - Diabetes Mellitus
Feet Check
FH of Diabetes mellitus
Gestational Diabetes
Impaired Fasting Glucose
Impaired Fasting Glycemia Not Yet Diabetic
Insulin preparations prescription
Intercapillary glomerulosclerosis
Kimmelstiel Wilson disease
Kimmelstiel Wilson syndrome
Nephrogenic diabetes insipidus
Pre diabetes
Prediabetes
Preventive care - Diabetes mellitus
Renal diabetes insipidus
Retinopathy - background

Chronic Obstructive Pulmonary Disease

List of terms describing COPD
Bronchitis, chronic
Chronic Airways Limitation
Chronic Bronchitis
Chronic Obstructive Airways Disease
Chronic Obstructive Pulmonary Disease
COAD
COAD - Infective exacerbation
COAD – Infective Exacerbation
COAD (Chronic Obstructive Airways Disease)
COPD
COPD (Chronic Obstructive Pulmonary Disease)
Emphysema
Emphysema– Infective Exacerbation
R79 003 chronic bronchitis
R95 001 Chronic Obstructive Airway Disease
R95 002 Chronic Obstructive Pulmonary Disease
R95 008 Chronic airways limitation

Appendix 3: Medications for extra APCC Measures

Medications: Anti-platelets, Statins, & ACE/ ARBs

Anti Platelets

Aspirin Generic Names:

Aspirin
Aspirin/Dipyridamole
Aspirin/Citric Acid/Sodium Bicarbonate
Aspirin/Citric Acid/Sodium Bicarbonate/Sodium
Aspirin/Glycine
Dipyridamole/ Aspirin
Salicylates

Clopidogrel Generic Names:

Clopidogrel

Statins

Lipid M/fying - Statins Generic Names:

Amlodipine besylate/ Atorvastatin
Atorvastatin
Atorvastatin/Amlodipine
Ezetimibe/Simvastatin
Fluvastatin
HMG-CoA reductase inhibitors
Pravastatin
Pravastatin Sodium
Rosuvastatin
Simvastatin

ACE / ARBS

ARB Class:

Cardiovascular System > Antihypertensives >
Angiotension II Antagonists > All
Alpha-blockers (quinazoline ARB derivatives)
Alpha-blockers (benzenesulfonamides)
Candesartan Cilexetil
Candesartan Cilexetil, Hydrochlorothiazide
Eprosartan Mesylate
Eprosartan Mesylate, Hydrochlorothiazide
Irbesartan
Irbesartan, Hydrochlorothiazide
Losartan Potassium
Olmesartan medoxomil
Olmesartan medoxomil, Hydrochlorothiazide
Telmisartan

Telmisartan, Hydrochlorothiazide

ACE Inhibitors Class:

Cardiovascular System > Antihypertensives > ACE

Inhibitors > All

Angiotensin converting enzyme inhibitors

Captopril

Enalapril Maleate

Enalapril Maleate, Hydrochlorothiazide

Fosinopril Sodium

Fosinopril Sodium, Hydrochlorothiazide

Lisinopril

Perindopril Arginine

Perindopril arginine, Indapamide hemihydrate

Perindopril Erbumine

Perindopril erbumine, Indapamide hemihydrate

Quinapril

Quinapril, Hydrochlorothiazide

Ramipril

Ramipril, Felodipine

Trandolapril

Trandolapril, Verapamil