Secondary prevention of cardiovascular disease
A call to action to improve the health of Australians
Secondary prevention of cardiovascular disease: Nine key action areas
Secondary prevention of cardiovascular disease

**Key actions**

1. Make sure that adequate funding is allocated to secondary prevention services, including cardiac rehabilitation.

2. Provide flexible secondary prevention service options that are:
   - tailored to the needs of populations and individuals
   - appropriate to various stages of cardiovascular disease (CVD) management (acute, subacute and ongoing care)
   - readily accessible via all levels of the health system.

3. Integrate secondary prevention into the patient journey for all people with CVD and include cardiac rehabilitation as a standard component of care for everyone with coronary heart disease (CHD).

4. Develop and fund a framework for comprehensive secondary prevention of CVD within primary care.

5. Implement systems to make sure that mental health is assessed in everyone with CVD, and that people receive effective mental healthcare.

6. Establish a system of professional development and recognition for health professionals delivering secondary prevention services, and support them to perform their role within a flexible workforce model.

7. Develop clear terminology to describe CVD and its management, including cardiac rehabilitation and other secondary prevention services, and use this consistently across all levels of the health system.

8. Develop educational resources for patients and carers that:
   - are accessible, credible and standardised
   - can be provided through various media
   - target a range of literacy levels
   - can be adapted to meet the needs of ethnoculturally diverse communities.

9. Develop national key performance indicators for secondary prevention services and implement systems to collect standardised outcome data.
Secondary prevention of cardiovascular disease

A call to action to improve the health of Australians
National Heart Foundation of Australia
Heart Foundation
Secondary prevention of cardiovascular disease

Terms used

**Acute care (inpatient care)**
In the context of secondary prevention of cardiovascular disease (CVD), ‘acute care’ refers to the initial hospital stay following a heart attack or other heart condition, or a procedure such as coronary revascularisation (see also ‘subacute care’ and ‘maintenance and ongoing care’).

**Acute coronary syndromes**
An umbrella term for heart attacks and unstable angina.

**Angioplasty**
See ‘coronary angioplasty’.

**Cardiac rehabilitation continuum**
The coordinated system of long-term care necessary to help people with coronary heart disease (CHD) (e.g. heart attack, angina or chronic heart failure) or people who have had heart surgery return to an active and satisfying life. It also helps to prevent the recurrence of cardiac events or new cardiovascular conditions in these people.

The cardiac rehabilitation continuum includes and complements the healthcare provided by specialists (e.g. cardiologists) and general practitioners (GP). It involves personal assessment and modification of risk factors, purpose-designed exercise programs, health education, counselling, behaviour modification strategies and support for self-management.

Note: the term ‘cardiac rehabilitation’ is commonly used to refer to structured short-term programs for delivering this type of care during the initial period after hospitalisation. In this document, the term ‘cardiac rehabilitation continuum’ is used to emphasise the contemporary understanding that this care should be provided for the rest of a person’s life, according to their needs at each stage of their recovery.

**Cardiovascular disease (CVD)**
An umbrella term that refers to the range of heart, stroke and blood vessel diseases. In this document, CVD refers mainly to the group of conditions caused by atherosclerosis (see also ‘coronary heart disease’), such as CHD, stroke and peripheral arterial disease, and associated conditions, such as chronic heart failure.

**Coronary angioplasty**
A medical procedure used to treat CHD (see also ‘coronary heart disease’). During coronary angioplasty, a small balloon is inflated inside one or more of the coronary arteries to open up an area of the arteries that has become very narrow. This improves blood flow to the heart. After angioplasty is performed to open a narrowed artery, a special expandable metal tube (a ‘stent’) is usually put into the artery, expanded, and left in place to keep the artery open.

Coronary angioplasty can be used to treat angina, or as an emergency procedure to try to restore blood flow to the heart after a heart attack (see also ‘coronary revascularisation’).

**Coronary heart disease (CHD)**
The condition in which the coronary arteries (the arteries that supply oxygen and nutrients to the heart muscle) become clogged with fatty material called ‘plaque’ or ‘atheroma’. Plaque slowly builds up on the inner wall of the arteries, causing them to become narrow. This process is called ‘atherosclerosis’.

If the arteries become too narrow, the blood supply to the heart muscle is reduced. This may lead to symptoms such as angina. If a blood clot forms in the narrowed artery and completely blocks the blood supply to part of the heart, it can cause a heart attack.

**Coronary revascularisation**
The group name for the set of surgical procedures to improve blood flow to the heart muscle. These include coronary artery bypass graft surgery (‘CABG’, ‘bypass surgery’ or ‘open heart surgery’) and percutaneous transluminal coronary intervention (coronary angioplasty).

**Cultural competence**
A set of attitudes, skills, behaviours and policies that enable organisations and staff to work effectively in intercultural situations. It reflects the ability to acquire and use knowledge of the health-related beliefs, attitudes, practices and communication patterns of patients and their families to improve services, increase community participation, and close the gaps in health status among diverse population groups.

**Maintenance and ongoing care**
In the context of secondary prevention of CVD, this refers to healthcare to maximise health and wellbeing for the duration of a person’s life. Healthcare can be delivered using various methods and involves multidisciplinary care according to the person’s needs. It may be coordinated by primary care health professionals, such as GPs, within the community. Healthcare may involve periodic contact with a cardiac rehabilitation service or other secondary prevention services, such as self-management support, after an initial period of regular, frequent contact (see also ‘acute care’ and ‘subacute care’).

**Secondary prevention of CVD**
Healthcare designed to prevent recurrence of cardiovascular events (e.g. heart attack or stroke) or complications of CVD in patients with diagnosed CVD. It involves medical care, modification of behavioural risk factors, psychosocial care, education and support for self-management (including adherence to prescribed medicines), which can be delivered in various settings.

Examples of evidence-based secondary prevention strategies for CVD include cardiac rehabilitation services and multidisciplinary CHF management services.

**Subacute (outpatient) care**
In the context of secondary prevention of CVD, ‘subacute care’ refers to the period of follow-up treatment after hospital discharge (see also ‘acute care’ and ‘maintenance and ongoing care’). It may involve participation in a defined and structured cardiac rehabilitation program, or care provided by a multidisciplinary healthcare team.

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† The term ‘secondary prevention’ is used by different groups to refer to different aspects of preventive care. This document uses the definition common in clinical literature, where it simply refers to the prevention of recurrences or complications. (Source: Australian Institute of Health and Welfare. Prevention of cardiovascular disease, diabetes and chronic kidney disease: targeting risk factors. Cat. no. PHE 118. Canberra: AIHW, 2009.)
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Introduction

Purpose

This paper sets out the key actions needed to be made by governments, health system planners, policy makers, health professionals and consumers to achieve the best health outcomes for Australians with diagnosed cardiovascular disease (CVD). It is based on the best available evidence and intended to support advocacy for effective programs and services to prevent recurrent cardiovascular events (e.g. heart attack, heart failure and stroke) in these people.

Improving wellbeing and preventing further cardiovascular events (‘secondary prevention’) are essential goals of healthcare for people with CVD. Contemporary secondary prevention strategies, such as cardiac rehabilitation, accelerate recovery, improve symptom management and improve quality of life, while reducing recurrent cardiovascular events and hospitalisations. However, these services are only effective if they are accessible and suitable, and if people with CVD are referred to and participate in them.

The Heart Foundation has developed the nine key action areas in this paper in consultation with leading researchers and health professionals with expertise in secondary prevention. Figure 1 illustrates the relationship between these key action areas.

If implemented across the various levels of the health system, these key actions would significantly improve access to secondary prevention services, improve patients’ wellbeing, and help to prevent deaths and disability associated with CVD.

Scope

This paper focuses on secondary prevention strategies, such as cardiac rehabilitation services, for people with CVD.

While people with chronic heart failure (CHF) or stroke can participate in cardiac rehabilitation services, these people benefit most from specialised multidisciplinary management that is purpose-designed for their individual needs. People at high risk of a cardiovascular event who have not yet experienced one may also participate in secondary prevention services. However, this paper focuses on the care of people with diagnosed CVD.

Cardiovascular disease (CVD) is a collective term for heart, stroke and blood vessel diseases. The cardiovascular conditions most relevant to this document are those caused by atherosclerosis, such as coronary heart disease (CHD), stroke and peripheral arterial disease, and associated conditions, such as CHF.

Secondary prevention of CVD refers to healthcare that aims to prevent the recurrence of cardiovascular events (e.g. heart attack or stroke) or complications of CVD in people diagnosed with CVD. It can be delivered in various settings and involves medical care, modification of behavioural risk factors, psychosocial care, education and support for self-management (including adherence to prescribed medicines). Examples of evidence-based secondary prevention strategies for CVD include cardiac rehabilitation services and multidisciplinary CHF management services.

Note: this usage overlaps with the concept of ‘tertiary prevention’ as defined in the fields of public health and epidemiology. However, in this document, secondary prevention refers to prevention of disease complications or recurrence, consistent with the usage common in clinical literature.

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*The Heart Foundation acknowledges policy initiatives by other organisations, such as the National Stroke Foundation, Diabetes Australia and Kidney Health Australia, and government agencies that are engaged in promoting the secondary prevention of CVD. This paper aims to complement parallel and related policy development work by these organisations and agencies.
Background: cardiac rehabilitation in context

Since the 1960s, the Heart Foundation has recognised and promoted cardiac rehabilitation for patients with CVD. Cardiac rehabilitation is recommended as an evidence-based secondary prevention measure for people who have had a heart attack, coronary revascularisation procedures (coronary artery bypass graft surgery or percutaneous transluminal coronary intervention), or other heart or blood vessel disease.4

Contemporary secondary prevention services (including cardiac rehabilitation services and CHF management services) are safe and beneficial for people of all ages, and have been associated with reduced hospital readmissions, better quality of life and improved symptoms.5 Cardiac rehabilitation improves exercise tolerance, symptoms, blood lipid levels, sense of general wellbeing, chances of quitting smoking, and survival rates.6 A study conducted in Victoria showed a 35% increase in survival five years after acute myocardial infarction (heart attack) or revascularisation procedures among people who attended cardiac rehabilitation compared with people who did not.7

The cost-effectiveness of cardiac rehabilitation and multidisciplinary CHF management is well established.5,9 An Australian study estimated that, among patients who have experienced an acute coronary syndrome (heart attack or unstable angina), cardiac rehabilitation costs approximately $42,535 per quality-adjusted life year saved (allowing for the effect on survival), compared with standard care.5 This level of cost-effectiveness is consistent with the levels accepted by decision-making authorities such as the Pharmaceutical Benefits Advisory Committee.9

While traditional cardiac rehabilitation has typically been delivered in the hospital outpatient setting, newer delivery models are increasingly being trialled over longer time frames and in a range of community settings, including general practice. Alternative models, such as telehealth, have been shown to be effective.5,10

Cardiac rehabilitation is the coordinated system of care necessary to help people with CVD (e.g. heart attack, angina, CHF or heart surgery) return to an active and satisfying life, and helps to prevent the recurrence of cardiac events or new cardiovascular conditions.4 It includes and complements the care provided by individual medical specialists and general practitioners (GP).4

Effective cardiac rehabilitation services include the following components (in addition to appropriate specialist medical care):4

- individual assessment
- modification of risk factors
- purpose-designed exercise programs
- health education and counselling
- behaviour modification strategies
- support for self-management.

Care across the cardiac rehabilitation continuum should respond to the individual’s needs and can involve education and support to manage medicines; psychosocial assessment and support; assessment and modification of the home environment; referral to ongoing community-based maintenance programs; development of a personalised care plan; and referral to various services as needed.
Home-based cardiac rehabilitation may include a combination of home visits, web-based support, telephone support, telemedicine or specifically developed self-education materials. However, more research is needed to determine which secondary prevention models provide the greatest benefit for patients. The Australian Cardiovascular Health and Rehabilitation Association (ACRA), the Heart Foundation, researchers and service providers are continually working to refine best-practice models of care.

Why this call to action?

Despite strong evidence for the benefits of secondary prevention services, these are currently underutilised in Australia. Among people eligible for cardiac rehabilitation:

- referral rates are low
- fewer than one in three people referred actually attend
- even fewer people participate for the full intended period
- people at highest risk of recurrent disease are least likely to participate in cardiac rehabilitation.

Similarly, it remains a challenge to ensure participation in purpose-designed CHF management services for the people who would benefit.

Limited availability of accessible cardiac rehabilitation and CHF management services in our public and private health sectors is partly due to a lack of dedicated funding for these services. A range of barriers to delivery and uptake has also been documented. These include people's indifferent perceptions of these services, health professionals' failure to refer people to available services, inefficient administrative processes, lack of commitment by hospital management and staff, lack of flexibility of services to meet individual needs, and the location of secondary prevention services.

The Heart Foundation works to make sure that all eligible people have access to, and participate in, secondary prevention services – and cardiac rehabilitation in particular. Our work involves leading the development of policies, guidelines, resources and programs to support health professionals and patients. This paper supports, and should be read in conjunction with, the 2009 ACRA policy statement. The ACRA statement outlines an integrated and coordinated approach to preventing recurrent CVD events in Australia.

We have reviewed current evidence and opinion to identify the most effective strategies for improving access to evidence-based secondary prevention services, recognising that many issues affect the delivery of this care. This paper includes nine key action areas that make recommendations to improve access, uptake and quality of services for people with CVD. These recommendations can be taken up by governments, health system planners, policy makers, health professionals and consumers to improve secondary prevention services, and can be incorporated into policy documents, funding applications and reports.
Secondary prevention of cardiovascular disease: Nine key action areas
Why is this important?
Within a chronic disease management framework, the secondary prevention of CVD represents a significant proportion of client need and costs. However, current funding for secondary prevention services for CVD and cardiac rehabilitation is fragmented, largely discretionary, and fails to guarantee the continuity of existing services. The resulting uncertainty impedes long-term service planning, prevents the implementation of quality-improvement initiatives, and restricts health professionals’ capacity to provide good clinical services.

Currently there are no financial incentives for service providers who routinely promote cardiac rehabilitation attendance among their clients. Similarly, there is no incentive for other providers to improve their practice in this area.

What difference will this make?
Adequate funding for secondary prevention services for CVD will:
• enable services to plan for a predetermined volume of patients and deliver adequate services accordingly
• facilitate the implementation of referral pathways and consolidate systems of care
• facilitate planning for an adequate dedicated workforce
• enable ongoing professional development for staff
• enable efficient data collection for research, outcome monitoring and quality assurance.

What must be done?
• Recognise that secondary prevention services for CVD are a major component of chronic disease management programs and there is need to integrate services and budgets accordingly.
• Revise hospital funding mechanisms to recognise and support cardiac rehabilitation as an indispensable component of hospital care for people with CVD-related conditions (e.g. via Casemix coding). Implement consistent use of a hospital record code for cardiac rehabilitation (e.g. ICD10 Z50.0).*
• Ensure adequate funding specifically for administrative support within cardiac rehabilitation services, to enable the optimal allocation of clinical staff time to patient care.
• Establish dedicated funding for cardiac rehabilitation services within primary care (e.g. via Medicare Benefits Schedule items for GPs, nurses and allied health professionals). See Key action area 4 on page 11.
• Establish a system of incentive payments to:
  – increase rates of referral to cardiac rehabilitation services by primary care providers
  – support ongoing secondary prevention in general practice (see Key action area 4 on page 11).

Why is this important?

Current secondary prevention services fail to meet the needs of people at highest risk of recurrent cardiac events, including Aboriginal and Torres Strait Islander people. Attendance rates for cardiac rehabilitation are even lower among the Indigenous population than other Australians, despite the fact that Aboriginal and Torres Strait Islander people are twice as likely to die from CHD.\(^1\)\(^3\)\(^17\)

Mainstream cardiac rehabilitation services are also under-attended by women, younger patients, other ethnocultural minorities, people of lower socioeconomic status and people with mental illness. Access to cardiac rehabilitation services is limited for Australians living in rural and remote regions, while access to other secondary prevention services is limited in all regions.

The ACRA recommends the development of flexible secondary prevention services that are tailored to the needs, preferences and circumstances of patients and their carers. It suggests these services need to be culturally competent, while also being appropriate for their clinical status.\(^5\)

In addition to traditional hospital-based delivery models, effective cardiac rehabilitation can be delivered through home visits, telephone support, telemedicine, specifically developed self-education materials, and combinations of these.\(^4\)

Cardiac rehabilitation services should be linked with primary care services, community health services and acute care services to ensure access for patients at all stages of care.

What difference will this make?

Offering a range of flexible secondary prevention options that are linked to all health sectors will:

- increase access to cardiac rehabilitation
- increase uptake of cardiac rehabilitation services by at-risk populations, including people in rural and remote communities, Aboriginal and Torres Strait Islander people, and culturally and linguistically diverse communities
- increase health system efficiencies by maximising the use of existing services and structures.

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\(^1\) For an overview of barriers to cardiac rehabilitation for Aboriginal and Torres Strait Islander people, and recommendations for increasing the uptake and effectiveness of cardiac rehabilitation in this population, refer to the National Health and Medical Research Council publication *Strengthening cardiac rehabilitation and secondary prevention for Aboriginal and Torres Strait Islander Peoples: A guide for health professionals.*\(^17\)
What must be done?

- Allocate dedicated funding to secondary prevention services, including cardiac rehabilitation (see Key action area 1 on page 7).
- Fund research to identify the most effective delivery models for various patient groups.
- Develop and support a variety of evidence-based cardiac rehabilitation services, including community-based services that deliver cardiac rehabilitation via home visits, telephone and other methods that suit patient circumstances (e.g. enabling care delivery on a drop-in basis during half-day open sessions in community settings).
- In consultation with local communities, design cardiac rehabilitation services that particularly target population groups that do not participate in services currently offered, including women, younger patients, Aboriginal and Torres Strait Islander people, and culturally and linguistically diverse communities. Establish and support effective cardiac rehabilitation outreach services for Aboriginal and Torres Strait Islander people in remote regions.
- Streamline links between acute and primary care sectors to improve collaboration in the ongoing care of patients with CVD and referral rates to existing and new cardiac rehabilitation services. Develop well-defined pre- and post-discharge protocols in acute care services to make sure that patients receive appropriate follow up. Address access barriers by assessing patient needs as early as possible during the hospital stay and identifying an appropriate referral option before discharge.
- Establish strong collaboration and efficient referral pathways between mainstream health services and Aboriginal community-controlled health services.
- When planning secondary prevention services, particularly cardiac rehabilitation services:5
  - involve cardiologists and GPs
  - use existing local resources
  - involve Aboriginal and multicultural health workers where appropriate
  - develop women-only groups if appropriate
  - develop patient resources in languages other than English
  - consider practical factors affecting ease of access (e.g. session times, transport and parking).
- Support Aboriginal health workers and Aboriginal community support workers who work within Aboriginal community-controlled health services/Aboriginal medical services to deliver cardiac rehabilitation services.
- Ensure training in cultural competency for all non-Indigenous health professionals who provide cardiac rehabilitation and secondary prevention services for Aboriginal and Torres Strait Islander people.
- Ensure access to language interpreters as required.
- Ensure that people receive culturally appropriate education materials to support self-management.
Key action area 3

Integrate secondary prevention into the patient journey for all people with CVD and include cardiac rehabilitation as a standard component of care for everyone with CHD.

Why is this important?

To make sure that all eligible people are referred to suitable cardiac rehabilitation services, these services must be integrated into the patient journey* and not seen as extra options outside mainstream healthcare. This involves making sure that patients and their carers are aware of and expect cardiac rehabilitation as a standard service, and that healthcare providers at all levels of the health system collaborate to provide and promote these services routinely.

Effective cardiac rehabilitation must be integrated with ongoing management provided within primary, community and acute healthcare services, all of which must support people to self-manage their chronic disease (e.g. taking medicines, following lifestyle management advice, and monitoring and interpreting symptoms).

What difference will this make?

Making sure that evidence-based cardiac rehabilitation is integrated into all services at the policy level will:

- make cardiac rehabilitation standard practice
- make sure that eligible people are routinely referred to effective cardiac rehabilitation services
- help to promote equal access to services for all eligible people
- help to make sure that services meet or exceed a defined minimum standard of care
- increase community awareness of the benefits of cardiac rehabilitation
- raise people’s expectations of, and demand for, cardiac rehabilitation services.

What must be done?

- Incorporate referral to cardiac rehabilitation services into formal, standardised health service protocols (‘clinical pathways’ or ‘patient pathways’)† as a mandatory element of care for all eligible people with CVD. Enable such pathways to be adapted to local needs, including the needs of Aboriginal and Torres Strait Islander people.
- Incorporate referral to cardiac rehabilitation into formal practice standards and quality indicators within all jurisdictions.
- Establish protocols within acute hospital services to make sure that discharge planning occurs early during the patient’s stay. This will enable the healthcare team to identify the most appropriate cardiac rehabilitation option and to work with patients and their primary care providers to encourage attendance.
- Establish a national system of electronic patient records to facilitate efficient communication between healthcare providers and streamline the patient journey.
- At stakeholder level, advocate for the development of a national plan for the implementation of these pathways.
- Develop and implement key performance indicators that effectively monitor the success (e.g. percentage of eligible patients referred to and participating in programs) and outcomes (e.g. program completion rates) of cardiac rehabilitation referral systems.
- Implement the current Practitioner Guidelines for Cardiac Rehabilitation developed by the ACRA.6,18

* The ‘patient journey’ refers to the use of services and interaction with various providers throughout the health system and across the course of disease.
† Clinical pathways incorporating automatic referrals currently apply to people with acute coronary syndromes in some jurisdictions (e.g. Queensland and the Australian Capital Territory).
Key action area 4

Develop and fund a framework for comprehensive secondary prevention of CVD within primary care.

Why is this important?

Primary care is an important setting for the care of people with chronic and/or complex care needs, including the secondary prevention of CVD. Health professionals in primary care settings have a pivotal role to play in identifying eligible people, referring people to cardiac rehabilitation, and managing people with CVD according to guideline recommendations.

However, significant management gaps exist in the care of people with CVD in primary care. These gaps are a major contributor to unnecessary morbidity, mortality and cost to the Australian healthcare system. People at high risk of a cardiovascular event, including people with CVD, remain under-treated in Australian general practice. The Heart Foundation’s review of management gaps for the treatment of CHD in general practice found significant disparities between guideline recommendations and actual clinical practice in Australia. For example, preliminary baseline data from the Australian Primary Care Collaboratives (APCC) show that, at best, blood pressure is treated to target in only 48% of patients with CHD.

Modelling has shown that improved interventions in general practice for Australians with CHD could reduce coronary events by as much as 15% and coronary deaths by 17%. Modelling also suggests that a comprehensive CHD program has the potential to save between 7,576 and 23,554 disability-adjusted life years, with a relatively modest financial investment. Therefore, we recommend the implementation of a national comprehensive approach to CVD management in primary care, with appropriate funding arrangements.

In Australia, there has been a substantial shift in the payment system for GPs towards incentives that encourage evidence-based care of patients with chronic diseases in line with a disease management framework that emphasises systematic, coordinated care and self-management. The Australian Government’s commitment to a National Primary Health Care Strategy provides an opportunity to establish primary care systems and funding models to enable people who are at high risk of a cardiovascular event (e.g. heart attack or stroke) to be identified early for preventive care. It also supports better care for people with an existing cardiovascular condition.

What difference will this make?

A well-developed primary care framework for the secondary prevention of CVD will:

- increase referral rates to secondary prevention services
- overcome the current problem of discontinuity of care when patients are not followed up after discharge from acute services
- enable some components of cardiac rehabilitation to be delivered by GPs and practice nurses
- support GPs and practice nurses in effectively coordinating secondary prevention services delivered by a local multidisciplinary team.

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* The ‘disability-adjusted life year’ (DALY) is a unit developed by the World Health Organization to measure total potential life lost due to the combination of premature death and years of ‘healthy’ life lost due to poor health or disability.
What must be done?

• Increase rates of referral by general practice to secondary prevention services by:
  – strengthening links between primary care and acute/subacute services involved in delivering secondary prevention services
  – establishing effective referral pathways.

• Establish a dedicated general practice program for CVD to increase identification rates and improve management. Such a program should:
  – use disease registers to manage patient recall and monitoring
  – promote the use of care plans that incorporate lifestyle risk factor management, evidence-based pharmacotherapy, appropriate referral to other providers, and self-management support for patients
  – involve financial incentives to improve the quality of care (e.g. practice incentive payments like those applicable to other chronic disease conditions such as diabetes and asthma)
  – build on existing chronic disease and quality care initiatives in general practice, including the Australian Primary Care Collaboratives Program and Practice Incentives Program
  – support and delineate the roles of practice nurses in secondary prevention
  – be implemented through general practice organisations (divisions of general practice and general practice networks).

• Train and support GPs to make full use of existing Medicare Benefits Schedule chronic disease management items for primary care coordination of multidisciplinary care (general practice management plans and team care arrangements, including GP items and practice nurse and Aboriginal health worker monitoring and support) for secondary prevention of CVD.

• Scope the needs for the delivery of secondary prevention services for CVD through Medicare Locals.
Why is this important?

Comprehensive secondary prevention of CVD involves identifying people with, or at risk of developing, mental health* disorders and providing or arranging referral to effective assessment and management. Health providers caring for people with CVD need to be aware of the following facts.

- Depression is highly prevalent in people with CHD, including people with myocardial infarction (heart attack) and unstable angina, and people undergoing revascularisation procedures or heart valve surgery. Overall, depression is about three times more common in cardiac patients than in the general population, and even higher in people with CHF.26–31
- Approximately 15–20% of people hospitalised with acute myocardial infarction (heart attack) meet formal diagnostic criteria for major depression. An even higher proportion of people show elevated levels of depressive symptoms when they undergo screening using self-report inventories.26–31
- Studies in outpatient and primary care settings show that rates of depression in the community are higher among people living with CHD compared with people without diagnosed CHD.26
- Depression often coexists with other mental health disorders, such as anxiety, which may worsen cardiovascular outcomes.26 These other mental health disorders should be assessed and managed by an appropriately trained mental health professional.
- There is a strong, consistent inverse relationship between the quality of social support and both the development of CHD in initially healthy people and adverse prognostic outcomes in people with existing CHD. Social isolation and lack of social support often co-occur with mental health disorders and are significant risk factors for CVD.27,28
- Despite their high risk for poor outcomes, people with, or at high risk of developing, mental health disorders, such as depression, are less likely to attend cardiac rehabilitation services than other eligible people.33,34
- People with comorbid mental health disorders are less likely than people without mental health disorders to modify their cardiovascular behavioural risk factors, such as smoking, physical inactivity and unhealthy eating, and are less likely to take their medicines as prescribed.35,36
- Healthcare utilisation and costs are higher in people with comorbid mental health disorders.37,38
- Among people with cardiac conditions, the presence of a comorbid mental health disorder is associated with reduced quality of life.39,40

People from the following groups may be at particular risk of coexisting CVD and mental health disorders.

- **People with severe mental health disorders:** people with severe mental disorders, such as schizophrenia and bipolar disorder, have a high risk of developing CVD.41
- **Aboriginal and Torres Strait Islander people:** rates of mental health services use are disproportionately high among Aboriginal and Torres Strait Islander people compared with other Australians.42 It is particularly important to identify mental disorders in these populations given that they are also at higher risk of developing CVD than other Australians.
- **Women:** the higher prevalence of depression in women within the general community is also seen among women with CHD.43 Younger women appear to be at particularly high risk.43
- **People who are socially isolated:** people who report a lack of quality social support are at higher risk of developing CVD and of having poorer CVD outcomes than people with good social support.27,28

People with, or at high risk of developing, mental health disorders are also less likely to participate in secondary prevention, such as cardiac rehabilitation. Therefore, routine screening for depression in the acute hospital setting – as well as in the subacute, cardiac rehabilitation and maintenance and ongoing care stages – is necessary to facilitate early intervention.

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* Within a holistic healthcare framework, mental health encompasses psychological, emotional, social, cultural and spiritual wellbeing.
What difference will this make?

Systematic identification and management of cardiac patients with, or at high risk of developing, mental health disorders will:

- make sure that unrecognised and previously undiagnosed mental health disorders are not a barrier to attending cardiac rehabilitation and secondary prevention programs
- reduce delays in diagnosis and treatment for depression, anxiety and other mental health disorders
- reduce the risk that unrecognised and untreated comorbid mental health disorders adversely impact on the secondary prevention outcomes for cardiac patients.

While there is currently no direct evidence that screening for and treatment of depression and anxiety disorders leads to improved CVD morbidity and mortality, comprehensive care involves identification and treatment of these serious and debilitating conditions.\(^{27,31}\)

What must be done?

- Develop national clinical practice guidelines for the care of patients with CHD and comorbid mental health disorders (e.g. depression and anxiety) that include recommendations on screening, clinical assessment, diagnosis and treatment (pharmacological and psychological). These guidelines should:
  - take into account health system, provider and patient issues across the patient journey (including acute, subacute and ongoing care settings)
  - be developed through a consultation process involving cardiology, mental health and public health experts
  - take into account national health reform initiatives such as the Better Access Initiative (better access to psychiatrists, psychologists and GPs through the MBS)\(^{†}\) and the National Primary Health Care Strategy,\(^{44}\) as well as initiatives for mental health, such as beyondblue\(^‡\) and the Cardiac Depression Collaborative Australia.

- Establish clear protocols to make sure that anyone in whom a mental health disorder is identified or suspected during contact with CVD services is referred to appropriate care providers for further assessment and treatment (including psychological, medical and pharmacological management).

- Establish referral and consultation links between acute, subacute and community-based CVD services and specialist mental health professionals (psychiatrists and clinical psychologists) who are trained and experienced in working with people with comorbid cardiovascular conditions.

- Provide adequate training and clinical supervision for cardiology health professionals in all settings to equip them with skills to screen people for mental health disorders and collaborate with mental health providers in caring for people with comorbid mental health disorders and CVD.

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\(^‡\) For more information, visit www.beyondblue.org.au.
Key action area 6

Establish a system of professional development and recognition for health professionals delivering secondary prevention services, and support them to perform their role within a flexible workforce model.

Why is this important?

Health professionals delivering evidence-based secondary prevention services need specific knowledge and skills in addition to their professional qualification (e.g. degree, diploma or certificate of registration) and discipline (e.g. medicine, nursing, Aboriginal health, physiotherapy, occupational therapy, exercise physiology, psychology, social work, pharmacy or dietetics).

Professional development necessary for cardiac rehabilitation and CHF management services staff may include training in adult education, physical activity programs, cultural competence (see key action area 2 on page 8), case management, motivational interviewing and cognitive behaviour therapy. In particular, designated coordinators of multidisciplinary cardiac rehabilitation services need to have knowledge of CVD, health promotion, program planning and evaluation, and access to ongoing professional development.

Delivery models for secondary prevention must be flexible to allow for diversity in the workforce and clinical settings, including acute, subacute, primary care and other community-based services. Effective secondary prevention of CVD involves the coordination of a multidisciplinary team, which may be co-located or consist of a network of collaborating providers. For people working in rural and remote regions, who may be the sole trained health professional delivering this ongoing care, secondary prevention may be coordinated through referral and support from specialists at regional health services.

Administrative inefficiencies in the delivery of secondary prevention services can reduce the time available to staff to provide clinical services, and impede the development and implementation of improvements.
What difference will this make?

A system of professional recognition and support for health professionals delivering cardiac rehabilitation services will:

- increase the capacity of existing services
- improve the quality of care
- strengthen the workforce by improving staff retention rates
- increase job satisfaction.

What must be done?

- Establish a system of formal professional recognition for health professionals delivering cardiac rehabilitation services. Such recognition for various disciplines may involve:
  - credentialling
  - agreed minimum standards
  - a system of annually reviewed core competencies, developed and administered by relevant professional associations
  - clearly delineated career pathways in secondary prevention.
- Set up and adequately fund an ongoing and robust system for professional development in secondary prevention of CVD that is:
  - responsive to the demands of evolving secondary prevention services
  - accessible to all disciplines
  - recognised by all relevant professional associations, which would have responsibility for determining, monitoring and reviewing core competencies.
- Clearly delineate the roles and responsibilities of all staff involved in secondary prevention services.
- Establish a framework for quality improvement that involves documenting, monitoring and reporting work processes and protocols that promote best practice.
- Through a system of increasing remuneration, reward staff who acquire and maintain professional qualifications and who work long term in secondary prevention services.
Key action area 7

Develop clear terminology to describe CVD and its management, including cardiac rehabilitation and other secondary prevention services, and use this consistently across all levels of the health system.

Why is this important?

Inconsistent language is used within the Australian health system to describe healthcare services and the recovery process for people with diagnosed CVD, particularly people who have experienced a cardiac event, such as heart attack. The use of overlapping terms for clinical conditions (e.g. ‘ischaemic heart disease’ and ‘coronary heart disease’) is confusing for health professionals, patients and carers, and complicates data management. The evolution of secondary prevention services, particularly cardiac rehabilitation, has also resulted in confusion over definitions and eligibility for programs and services. Primary, secondary and tertiary care services are often unclearly defined. This absence of consistent terminology compromises the effectiveness of communication between health professionals and patients, and may contribute to inefficiencies.

What difference will this make?

The consistent use of standardised terminology by all stakeholders – including health professionals, researchers and policy makers – will improve:

- communication between healthcare providers
- communication between healthcare providers and patients
- coordination of care and patient flow across the continuum of healthcare services
- documentation of care and the useability of clinical data systems
- integration of secondary prevention into clinical pathways for people with CVD (see Key action area 3 on page 10)
- efficiency of referral processes
- accessibility of services, such as cardiac rehabilitation.

What must be done?

- Define terminology clearly and include reference to previously used terms.
- Advocate for consistent use of agreed terminology.
- Educate healthcare providers, consumers and other stakeholders (including researchers, managers and policy makers), to make sure that everyone is aware of agreed terminology.
Key action area 8

Develop educational resources for patients and carers that:

- are accessible, credible and standardised
- can be provided through various media
- target a range of literacy levels
- can be adapted to meet the needs of ethnoculturally diverse communities.

Why is this important?

Current recommendations for the ongoing management of CVD emphasise the importance of self-management,\(^1\) which requires clear and readily accessible information for patients and their carers. Secondary prevention services have adopted disparate self-management information resources for patients. Literacy levels are inconsistent, information is not standardised or regularly updated, and dissemination is often ad hoc. Access to this information is limited for remote communities and Aboriginal and Torres Strait Islander people.

What must be done?

- Undertake a national audit of information resources currently used by secondary prevention services, evaluating their quality and identifying gaps.
- Determine which formats, media and technologies will enable the most effective communication with each of the various target populations.
- Allocate adequate funding to develop, disseminate and promote standardised information in all states and territories.
- Establish a portal (e.g. a dedicated website) to enable people with CVD, carers and health professionals to access information and download or order resources.

What difference will this make?

Nationwide availability of standardised, credible information resources will:

- lead to better harmonisation between services
- promote more systematic dissemination of information
- benefit people who access multiple services
- better target under-served populations
- reduce duplication costs by avoiding the need for each service to develop its own materials
- ensure currency and accuracy of information.
Key action area 9

Develop national key performance indicators for secondary prevention services and implement systems to collect standardised outcome data.

Why is this important?

Current national recommendations for secondary prevention services include the consistent collection and monitoring of data to enable efficient delivery of clinical care, appropriate allocation of resources, and monitoring of the performance of services.\textsuperscript{1,5}\n
The Australian Government’s National Health and Hospitals Reform agenda emphasises the “smart use of data, information and communication to support an agile, self-improving system”.\textsuperscript{45}\n
At present, there is no nationally agreed:

- minimum data set of outcome indicators for secondary prevention
- coordinated evaluation process
- quality-improvement system.

What difference will this make?

Development and implementation of a national system for data collection and management – including nationally agreed key performance indicators – will:

- facilitate the exchange of data between services
- improve data management processes
- enable more accurate assessment of uptake and outcomes of secondary prevention services (e.g. participation and readmission rates)
- enable comparison between the effectiveness of different methods and delivery approaches
- enable more accurate cost–benefit analyses
- enable services to conduct quality improvement programs
- enable benchmarking across services.

What must be done?

- Adopt standard definitions of eligibility for, and participation in, secondary prevention services, including completion of discrete programs and registration for maintenance and ongoing care.
- Develop a nationally agreed minimum data set (including demographics, measures of clinical outcomes and service use) and a system that ensures consistent data collection by all CVD services.
- Develop national key performance indicators based on realistic procedural and clinical targets. These performance indicators should include measures of referral to secondary prevention services, attendance, retention and completion, and clinical outcomes (e.g. readmission to hospital).
- Incorporate within the electronic data system an automated process in which patients with CVD-related diagnostic codes are identified and referred to cardiac rehabilitation services for follow up.
Heart Foundation resources for the secondary prevention of CVD

The Heart Foundation provides quality information and tools for health professionals, patients and consumers.

Listed below are the Heart Foundation’s resources for the secondary prevention of CVD. For a complete list of resources or to order copies of these resources, contact the Heart Foundation.

Phone: 1300 36 27 87
Email: health@heartfoundation.org.au
Website: www.heartfoundation.org.au

Health professional resources

• Recommended framework for cardiac rehabilitation ‘04
• Reducing Risk in Heart Disease 2007 (Updated 2008)
• Guide to management of hypertension 2008 (Updated August 2009)
• National Heart Foundation of Australia physical activity recommendations for people with cardiovascular disease
• ‘Stress’ and coronary heart disease: psychosocial risk factors
• Multidisciplinary care for people with chronic heart failure. Principles and recommendations for best practice

Patient resources

• My heart, my life
• Managing my heart health
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