



Government of **Western Australia**
Department of **Health**

Cardiovascular rehabilitation and secondary prevention pathway principles for Western Australia

**Cardiovascular Health Network
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Katie Anderson	Cardiac Rehabilitation Co-ordinator, Joondalup
Stephen Bloomer*	Clinical Lead, Cardiovascular Health Network; Project Manager, Clinical Governance Unit, Sir Charles Gairdner Hospital (SCGH)
Tom Briffa*	Research A/Prof, Cardiovascular Research Group Head, Population Health, University of Western Australia (UWA)
Craig Cheetham*	A/Professor Sports Science, Exercise & Health UWA; Chair: Western Australian Cardiovascular Health and Rehabilitation Association; Director: Cardiovascular Care WA; Exercise Physiologist
Carol Chong	Manager Chronic Disease Team, Bentley Armadale, Medicare Local
Joanna Clark	Clinical Nurse Specialist, Heart Failure, (SCGH)
Jessica Dean	(Previously) Senior Physiotherapist, Program Manager, Community Physiotherapy Services
Robyn Fowler	Senior Physiotherapist, Royal Perth Hospital (RPH)
Jacquie Garton-Smith*	Clinical Lead, Cardiovascular Health Network; Hospital Liaison General Practitioner, (RPH)
June Lee	Cardiac Coach, Public Health & Ambulatory Care, North Metropolitan Health Service
Agnes McGinty	Clinical Nurse Specialist, Critical Care Division, (RPH)
Helen McLean	Cardiac Coach, (RPH)
Shelley McRae*	Secondary Prevention Project Officer, The Heart Foundation
Andrew Maiorana*	Senior Exercise Physiologist, Cardiac Transplant Unit, (RPH)
Brigitte Nyenhuis	Cardiac Rehabilitation Coordinator, Fremantle Hospital & Health Service (FHHS)
Julie Prout	Cardiac Rehabilitation Coordinator(SCGH)
Julie Smith*	Secondary Prevention Project Officer, The Heart Foundation. Project Research Officer Cardiac Rehabilitation, (RPH)
Narelle Wilson	Cardiac Rehabilitation Coordinator, (RPH)
Josie Yeang	(Previously) Cardiac Rehabilitation Coordinator, (FHHS)

* Member of the Executive Advisory Group of the CVHN

These pathway principles were endorsed by the [CVHN Executive Advisory Group](#) and the Acute Coronary Syndromes Working Group.

Executive summary

Comprehensive cardiovascular rehabilitation and secondary prevention (CRSP) services have been shown to save lives, improve quality of life, reduce unplanned hospital admissions and to save money. However, referral to, and attendance at these important services, are suboptimal.

This document sets out pathway principles to guide comprehensive CRSP service provision in Western Australia (WA), and to standardise the consumer journey from the time of a cardiac or cardiovascular diagnosis, through exacerbations and possible hospital admissions.

CRSP have been combined to encourage a focus on a single continuum of care that is lifelong. This should assist the consumer/carer to access the most appropriate service for them by strengthening links across services (between hospitals, primary care, other community-based services) spanning metropolitan and regional areas, and the public and private sectors.

To increase access to and uptake of CRSP services by consumers, the pathway is underpinned by an opt-out principle ensuring that attendance at a CRSP service is 'usual care'. Referral to CRSP services should be the responsibility of all members of the multi-disciplinary team.

Flexible entry points and a menu-based, modular approach customised to consumer and carer preferences, is used. This can reduce barriers to participation, particularly for high risk, vulnerable groups.

The core components of a CRSP service are defined as:

Assessment

- Occurs at first point of contact (diagnosis, exacerbation or risk factor recognition) by the health care practitioner.
- Followed by regular periodic reassessments carried out to determine consumer progress (includes the impact of the various social determinants of health). These range from structured follow-ups in primary care, to case management by specialist practitioners, depending on the level of need.

Education and self-management strategies to promote behaviour change

- Provided by all members of the team, opportunistically at first point of contact and ongoing at multiple points to promote the benefits of CRSP and health literacy. Topics include: cardiovascular risk factor modification, symptom and heart disease management, the importance of medication adherence and regular medical assessment, and stepped role resumption.
- A CRSP management plan can be developed in partnership with the consumer/carer, to record milestones and goals. Referrals to other services may be required.

Exercise

- Group exercise, exercise instruction and/or advice are provided according to the consumer's clinical features, documented risk, psychosocial needs, circumstances and logistics.

Psychosocial support

- Promotes a deeper understanding of the challenges faced by the patient
- Helps to identify depressive and anxiety states that may require further review or intervention.

Medical follow-up

- Usually carried out by the person's general practitioner (GP), and, when appropriate, cardiologist or other physician. Includes review of biomedical markers (e.g. lipids, blood pressure), medication prescription and progress on all of the above.

It is recommended that the CRSP pathway principles are endorsed statewide to:

1. Ensure CRSP is a standard component of care ('usual care') for all eligible patients, with specific services for higher risk groups, e.g. Aboriginal people.
2. Provide flexible service options customised to consumer/carer needs that are appropriate to the stages of cardiovascular disease (CVD) management and level of risk.
3. Raise awareness amongst health professionals and consumers/carers that CRSP is part of the lifelong management of cardiovascular conditions.
4. Ensure that periodic reassessment, structured follow-up and/or specialised case management are integral components of CRSP services.
5. Encourage the health system to develop partnerships and strategies beyond traditional alignments to meet CRSP demand. These include communication, referral and collaboration across sectors, service levels and geographic boundaries.
6. Provide opportunities for workforce training and upskilling (including in the areas of behaviour change, and co-ordinated cardiovascular care) to meet CRSP service needs, including in primary care.
7. Determine the minimum data required to record, monitor and improve CRSP practice in WA, encouraging standardised reporting that aligns with Activity Based Funding and Management (ABF/M) and national key performance indicators.
8. Facilitate ongoing evaluation to determine whether services are meeting quality standards and expectations, and to improve access and outcomes particularly in Aboriginal and other high risk populations.

1 Background and Introduction

1.1 Introduction

All patients with a cardiovascular condition should be actively referred to accessible, comprehensive and ongoing CRSP services. Such services have been reported to improve survival¹⁻⁴, functional status, cardiovascular risk profile, and quality of life, resulting in fewer psychological disorders and unplanned hospital readmissions^{1, 5-7}, and saving money⁸.

In WA, the Acute Coronary Syndromes (ACS)⁹ and Heart Failure¹⁰ Models of Care support CRSP services and recommend collaboration across sectors. In 2013/14, a premium payment for Acute Myocardial Infarction (AMI) developed to incentivise quality care for patients in WA, also referred to CRSP services as best practice¹¹.

CRSP services begin with a cardiovascular diagnosis or presentation to hospital. An early needs assessment is carried out and opportunistic education provided by all members of the multidisciplinary health team. However, as the average length of stay in hospitals trends shorter, particularly for ACS, there are fewer inpatient opportunities for education, highlighting the important role of CRSP services post discharge^{7, 12}.

Despite the recognised benefits, less than half of all eligible patients take their prescribed medicines or adhere to lifestyle recommendations¹³. Only about a third of those who are eligible are referred to CRSP services, while even fewer actually attend¹⁴. Barriers to accessing services include the absence of effective referral procedures¹⁵, transport difficulties, work and social commitments, lack of perceived need and functional impairment⁷.

This document sets out pathway principles to address the barriers. The principles are applicable statewide, across the disease continuum and settings of care. They recognise the importance of alternative models of delivery in the community or home using telephone or internet technology^{14, 16, 17} and emphasise patient centred care that is lifelong, coordinated by the GP and supported by specialist CRSP practitioners where possible. There is also an emphasis on strong self-management skills, health literacy and involvement of the consumer and carer in decision-making.

A key aspect of these principles is structured co-ordination^{6,13} to assist consumers and carers to access the multiple services on offer across settings, providers and levels. The coordinated Secondary Prevention of coronary heart disease (CHD) for All in Need (SPAN)¹⁸ (Appendix 7.1) describes a united organisation of care that is flexible yet can facilitate standardisation of CRSP services. The CRSP principles help with:

- making CRSP part of 'usual care for all'
- standardising CRSP via a flexible, modular, menu-based approach that ensures each patient's journey is aligned with the pathway principles and contains all core components of care while meeting their needs
- viewing services that have different delivery methods or that cut across

- sectors, geographic, service level and public/ private boundaries as part of a single journey designated appropriate and acceptable to the consumer/ carer
- encouraging partnerships and referral to counter barriers to participation
 - recognising that secondary prevention of cardiovascular disease is a lifelong undertaking and is not time-limited¹⁴.

1.2 Defining the terms

Cardiac rehabilitation is defined as ‘all measures used to help people with heart disease return to an active and satisfying life and to prevent the recurrence of cardiac events’¹⁹

Secondary prevention is defined as “healthcare designed to prevent recurrence or complications of cardiovascular events in patients diagnosed with cardiovascular disease. It involves medical care, control of biomedical and behavioural risk factors, psychosocial care, education and support for self-management”²⁰.

Although the definitions of cardiac rehabilitation and secondary prevention are similar and are often used interchangeably, in this document cardiovascular rehabilitation is referred to as an important, sometimes time-limited, component of the secondary prevention continuum that is lifelong. Therefore, services should not be restricted to the phases described in the traditional view of cardiac rehabilitation, but be flexible to meet patient needs. The next WA Clinical Services Framework (CSF) will aim to further refine the definitions of cardiac rehabilitation and secondary prevention services to reflect outpatient services in hospitals and non-admitted services in the primary care setting.

1.3 Who will benefit?

All patients with CVD, CHD and heart failure, arrhythmias²², congenital heart disease and valvular heart disease should be referred to CRSP services as part of usual care, irrespective of age, sex, ethnicity and clinical condition. People with peripheral arterial disease also benefit greatly from early access to CRSP services²³.

Key numbers

- An Australian health survey that examined the biomedical results for chronic disease between 2011 and 2012 found that the majority of Australians aged 45 and over were at risk for CHD often with modifiable risk factors.
- CHD accounts for greater morbidity in Australia than any other single disease, and nearly one fifth of all deaths nationally¹⁴. In WA, there are approximately 12,000²⁵ hospital admissions every year for CHD of which more than 50% were in adults with established disease, reinforcing the need for secondary prevention strategies.
 - There are large differences in the incidence of CHD in Aboriginal vs. non-Aboriginal people, particularly females²⁶ due to the high prevalence of co-morbidities and risk factors in Aboriginal people²⁷.
- In 2006 the overall prevalence for Chronic Heart Failure was 1.5-2.0% of Australians²⁸. This ranged from 1% in those aged 50-59 years to 10% in those > 65 years and 50% in those over 85 years.

- There is a one in four lifetime risk of developing atrial fibrillation (AF) in those over 40 years²⁹. AF is associated with a threefold increase in the risk of developing heart failure with hospitalisation for the condition more prevalent than for heart failure³⁰.
- The prevalence of peripheral arterial disease in WA³¹ is 13.6% with the incidence of new cases being 3.7 per 100 patient-years.

2 Purpose and scope

2.1 Purpose

The CRSP pathway principles aim to guide and standardise the journey for patients who are at risk of, or have been diagnosed with a cardiovascular or cardiac condition, to ensure they attend CRSP services as part of their 'usual care'. This document also aims to increase access to, and uptake of these services by targeting key audiences including:

- area health service planners for planning and resource allocation
- CRSP practitioners to use as a basis for local patient pathways
- others with an interest in improving the overall management of cardiovascular and other cardiac conditions e.g. Medicare locals, GPs
- consumers and carers to assist with informed choice regarding care.

2.2 Scope

In scope

This document provides an overview of the principles on which the pathway, with its core components of combined CRSP service, is based. These components include early and ongoing assessment, education and self-management strategies for behaviour modification; exercise, psychosocial support and medical follow-up, with structured co-ordination to ensure that service provision is client, rather than organisationally, driven. This set of principles enables practitioners at any level to develop a local pathway.

Core component delivery maximises the benefits of the modular, menu-based approach. Options vary according to the skills and resources available and the level of need. As such, structured follow-up varies in intensity from a reminder system at primary care clinics, to case management by specialist cardiovascular rehabilitation practitioners.

Out of scope

- how to establish a CRSP service - excellent information is freely available e.g. [heart on-line](#)
- site specific pathways, however the optimal local pathways would align with the overarching principles
- standards of care
- referral criteria and the information needed when referring to another service
- a comprehensive list of CRSP services in WA. The Heart Foundation WA produces the [WA Cardiac Rehabilitation / Secondary Prevention Services](#)

[Directory.](#)

3. CRSP services in WA

Services range from the traditional comprehensive cardiac rehabilitation services (providing all core components of CRSP, usually post discharge) provided by a multidisciplinary team at tertiary hospitals and some large regional sites (Kalgoorlie, Albany, Esperance and Geraldton), to those that provide a single component usually by one provider e.g. exercise or education by a dietician, physiotherapist, exercise physiologist etc. Access to the latter are often limited to those with private health insurance.

The types of services available are illustrated in Appendix 7.1 in a statewide snapshot of services at October 2013. A comprehensive description of these services is available from the [WA Cardiac Rehabilitation / Secondary Prevention Services Directory](http://www.acra.net.au/cardiac-rehabilitation-program/cardiac-rehabilitation-program-directories) - <http://www.acra.net.au/cardiac-rehabilitation-program/cardiac-rehabilitation-program-directories>.

Culturally appropriate models of care for Aboriginal people are essential for the ongoing management of CHD but these are not routinely available. The Heart Health service at Derbarl Yerrigan Health Service, East Perth has shown convincing results³². Walyup Kworpadding Koort, South Metropolitan Health Service (SMHS), offers a CRSP service for people with chronic disease. Other regional Aboriginal Medical Services provide culturally appropriate services.

There are additional generic services that promote healthy lifestyles, support behaviour change and can supplement CRSP services. Activities such as joining the gym, a walking group, visiting the local pharmacist or phoning Quitline, along with access to web-based information and interactive programs may assist with meeting individual CRSP needs. In some cases, particularly for people in regional and remote areas, this may be all that is available locally. Patients without access to appropriate services will need to access regular health professional contact through alternative channels such as telephone or video calls, preferably as part of a structured program.

Specialist risk factor management services play a complementary role and include Familial Hypercholesterolemia WA, diabetes and hypertension management and disease specific self-management programs.

When comparing the services snapshot in Appendix 7.1 with the population who would benefit from CRSP services it is clear there are major gaps, particularly outside the tertiary hospitals. Many gaps in accessing CRSP services are due to geographic availability, variability in service delivery, lack of coordinated care and informal linkages between providers. Appendix 7.5 demonstrates how few areas in WA have access to CRSP less than one hour away. Due to the variation in services available across WA, a menu-based or modular approach, tailored to individual needs and combined with structured follow-up, is encouraged. For those with a higher complexity cardiovascular condition or needs, it is recommended the structured follow-up is carried out by a specialist CRSP case manager, which may be in person, by phone or possibly email. A menu-based approach with structured follow-up encourages rational resource use.

3.1 CRSP services – ‘Who, what, when, where, how’

A detailed guide to establishing a service is available at [Heartonline](http://www.heartonline.org.au) (<http://www.heartonline.org.au>). This website contains many practical tools and tips.

The George Institute for Global Health Australia held a National Secondary Prevention of CHD Summit¹⁴. The Summit Technical Report provides a ‘who, what, when, where, how’ of CRSP service delivery that is a useful guide to developing site specific pathways.

Table 1. National secondary prevention of CHD summit – Who, What, When, Where, How of CRSP delivery¹⁴

Who should deliver a secondary prevention programme (personnel)
<ul style="list-style-type: none">• Centralised care by a general practitioner (where possible)• Each patient is supported by a designated case manager• Flexibility in terms of specific health qualifications of case manager
What should the content of a programme be (content)
<ul style="list-style-type: none">• Initial assessment including risk factor assessment, health literacy, psychosocial and potential family involvement• Strategies aimed at evidence-based medication use and adherence, risk factor management, psychosocial issues and self management• Ongoing care and support including periodic assessment, reinforcement and potential referral
When should a programme be delivered and for how long (timing)
<ul style="list-style-type: none">• Programmes should commence as early as possible/suitable after diagnosis• Programme duration may vary within and between individuals so programmes should offer a variety of intensities at different times• Ongoing phase should be lifelong and not be time-limited
Where should a programme be delivered (setting)
<ul style="list-style-type: none">• Initial phase can be delivered in a variety of settings (eg, hospital, community, patient’s home) based on patient need, preference and resources• Ongoing care is best delivered in the community
How should a programme be delivered (format)
<ul style="list-style-type: none">• The method of programme delivery should vary between and within individuals and could include face-to-face visits, telephone, internet or web-based systems, video, DVD or written manuals. The format of contact and communication should be flexible based on patient preference, need and available resources.

4. Measuring the impact

To evaluate the impact of implementing the CRSP pathway principles and new models of service delivery in WA requires agreement on the minimum data to be collected statewide and across boundaries. Nationally this work is underway.

For WA Health services covered by the Activity Based Funding (ABF) system, the introduction of ABF should result in a more comprehensive picture of non-admitted (including out-patient) CRSP services. CRSP services as defined in this document, however, are delivered in a multitude of settings that are not necessarily covered by WA Health funding initiatives.

Since a single reporting system is unlikely to be achieved across organisations standardised reporting is essential. In addition, an increased focus on benchmarking will lead to clinically-driven data collection for non-admitted patients and the ability to monitor and manage services more effectively.

5. CRSP pathway principles

Cardiovascular diagnosis, exacerbation or risk factors

Including Coronary Heart Disease (and CABG), Heart Failure, Valvular Heart Disease, Arrhythmia (e.g. AF), Congenital Heart Disease

Primary care

Hospital presentation

Emergency department, Outpatient, Admission

• Needs assessment, education and resources •

Assessment on presentation by Nurse (Ward or Primary Care), Allied Health, Aboriginal Health Professional, GP and/or Medical (team) to determine individual needs, assess self-management capacity and commence education (Detail section 5a: additional information)

▲ Spectrum of complexity ▲

AT RISK OF CARDIAC CONDITION (MOD TO HIGH ABSOLUTE RISK)

LOWER COMPLEXITY CARDIAC CONDITION OR NEEDS

Considerations include, but not confined to:

- Independent
- LOS in hospital less than or equal to 3 days

HIGHER COMPLEXITY CARDIAC CONDITION OR NEEDS

Considerations include, but not confined to:

- Needs additional psychosocial support (eg. isolated, anxious, depressed)
- Major cardiac event and/or surgery
- LOS in hospital more than 3 days
- Complex co-morbidities

Complexity will determine the level of care required

◆ Referral ◆

Referral: by GP, Primary Care Nurse, Aboriginal Health Professional to secondary prevention service(s) most acceptable to person

◆ Referral and case management ◆

Referral: By Nurse, Allied Health, Aboriginal Health Professional or Medical team to specialised cardiac rehabilitation service(s) most acceptable to person
Case Management: By Cardiac Rehabilitation Coordinator, Heart Failure Nurse, telephone-based service provider or other before discharge or within the week after, to assess and plan early commencement of rehabilitation

♥ Secondary prevention and ongoing care ♥

Education, Self Management & Behaviour Change

Individual Consultation and/or Chronic Disease/ Secondary Prevention / Healthy Lifestyle Program.
By GP, Primary Care Nurse, Allied Health and/or Aboriginal Health Professional

Exercise

Community based exercise program and/or Individual exercise advice

Psychosocial Support

- ± Peer support group
- ± Individual consultation

By GP, Primary Care Nurse, Allied Health, Aboriginal Health Professional and/or Psychologist.

Medical Follow-up

Regular GP visits
Specialist if required

♥ Cardiac rehabilitation and ongoing care ♥

Education, Self Management & Behaviour Change

Specialised group, individual and/or telephone education.
(Detail section 5a: additional information)

Exercise

Specialised group and/or specialised individual exercise advice
Hospital based if clinically indicated or at patient's request.

Psychosocial Support

- ± Group Education Sessions (and/or peer support)
 - ± Individual Consultation (face to face or telephone)
- By Case Manager, Allied Health and/or Psychologist.

Medical Follow-up

Cardiology follow-up appointment post discharge & thereafter as required

GP follow-up within one week post discharge. thereafter as required

Periodic reassessment

Clinical judgement or patient request supersedes the secondary prevention/ cardiac rehabilitation pathway

5a. Notes to the CRSP pathway principles

Cardiovascular diagnosis, exacerbation or risk factors

Cardiac Rehabilitation / Secondary Prevention (CRSP) services start at the first point of contact, whether on presentation to a general practitioner, a visit to outpatients or admission to hospital. All persons with cardiovascular disease are suitable for CRSP interventions to reduce future cardiac events and improve quality of life.

• Needs assessment, education and resources •

- **Assessment** commences on presentation and includes evaluation of physical, medical, functional, cognitive and psychosocial needs. Considerations include clinical status, comorbidities, risk factors, health literacy, potential family involvement/ support, whether from a CALD/Aboriginal group (who need culturally appropriate and safe services), local services, patient commitments (e.g. work, transport) and socioeconomic status.
- **Education** commences on presentation, laying the foundations for self management and is the responsibility of all members of the multidisciplinary health care team. It includes providing resources and exploring options for ongoing services and support. Repeated messages provide a cumulative effect on learning.
- Depending on acuity and length of contact or stay, initial education may be confined to survival education, e.g. symptom management and medications. More in-depth learning about risk factor and self management and health literacy follows.
- Using standardised **resources** ensures consistency across services and sectors. (List of resources Appendix 7.5)

▲ Spectrum of complexity ▲

◆ Referral and case management ◆

- A **CRSP plan**, developed with the patient/ carer, tailors goals and the steps to achieve them. The plan takes account of the person's level of need, preferences and available resources.
- **Referral** is the responsibility of the **whole health team** and is to the service and level most **appropriate and accessible** to the consumer and carer.
- Effective referral relies on **two-way communication** and should cover all details of the patient journey thus far. The better the handover, the more the consumer and carer are likely to trust the new service provider.
- Structured follow-up with **periodic reassessment and/or case management** provides support for the consumer and/or carer to effectively self-manage their journey along the CRSP pathway. Case management assists in selection of the most suitable components of the pathway by providing links between services.
- A Directory of cardiac rehabilitation / secondary prevention services in WA is compiled regularly and is accessible at www.acra.net.au/cardiac-rehabilitation-program/cardiac-rehabilitation-program-directories
- [Heart-on-line](http://www.heartonline.org.au) supports clinicians to deliver evidence based cardiovascular disease prevention and rehabilitation and heart failure management. (Heart Foundation: www.heartonline.org.au). It includes useful and practical tools.

♥ Secondary prevention, cardiac rehabilitation and ongoing care ♥

Although the core components of CRSP are the same, the intensity and duration vary depending on the consumer's level of need, preferences and available resources. Those with higher complexity cardiac conditions or needs generally require specialised case management and cardiac rehabilitation or heart failure services. Progress is determined through **periodic needs assessment**.

Education for self-management strategies & behaviour change

- Education is delivered to increase knowledge and restore confidence and a sense of personal control.
- Can be face-to-face, use telephone, internet/web-based, video/DVD, motivational interviewing techniques.
- Consistent messages build on initial education and include:
 - Risk factor modification e.g. dietary changes, smoking cessation, weight loss
 - Self-management and health literacy
 - Evidence-based medication use and adherence, dispelling common concerns
 - Symptom control e.g. chest pain action plan.

Exercise

- Ranges from the general promotion of exercise and physical activity to an individually prescribed exercise program.
- Clinical features and risk influence the location, modality and intensity of exercise promoted. Review regularly.
- Other factors influencing selection of locations or modality are: transport, musculoskeletal limitations, functional capacity, psychosocial considerations, previous experiences or personal preference.

Psychosocial support

- Screen for anxiety, depression, other mental health issues. May be pre-existing or related to the event / diagnosis.
- Assess the impact of the external determinants of health eg housing, unemployment, socioeconomic status

Medical follow-up for periodic reassessment of:

- Blood tests eg lipids, blood sugar. BP, weight, reinforce importance of lifestyle changes and refer if required.
- Optimal medication dosage, adherence and symptom management.

6. Recommendations for WA

1. Ensure the CRSP pathway is a standard component of care ('usual care') for all eligible patients, with specific services for higher risk groups, e.g. Aboriginal people.
2. Provide flexible service options customised to consumer/carer needs and appropriate to the stages of cardiovascular disease (CVD) management and level of risk.
3. Raise awareness amongst health professionals and consumers/carers that CRSP is part of the lifelong management of cardiovascular conditions.
4. Ensure that periodic reassessment, structured follow-up and/or specialised case management are integral components of CRSP services.
5. Encourage the health system to develop partnerships and strategies beyond traditional alignments to meet CRSP demand. This includes communication, referral and collaboration across sectors, service levels and geographic boundaries.
6. Provide opportunities for workforce training and upskilling (including in the areas of behaviour change, and co-ordinated cardiovascular care) to meet CRSP service needs, including in primary care.
7. Determine the minimum data required to record and monitor CRSP practice in WA, encourage standardised reporting in line with Activity Based Funding and Management (ABF/M) and align with national key performance indicators.
8. Facilitate ongoing evaluation to determine whether services are meeting expectations and quality standards and improving access and outcomes, particularly in Aboriginal and other high risk populations.

7. Appendices

7.1 Key documents and peak bodies in this area

7.1.1 Achieving co-ordinated Secondary Prevention of CHD for All In Need

	Diagnosis and assessment	Risk reduction	Ongoing prevention	
GENERAL CONTENT	ASSESSMENT <ul style="list-style-type: none"> • Biomedical, physical, behavioural and psychosocial factors • Medications • Readiness to change and beliefs 	INFORMATION SESSION <ul style="list-style-type: none"> • Heart disease • Symptom management plan • Medication adherence • Being active • Healthy eating • Role/work resumption 	INDIVIDUAL PROGRAM <ul style="list-style-type: none"> • Based on preference*, need and goals • Target relevant risk factors and psychosocial issues • Ongoing care and support to encourage, reinforce and achieve behavioural change 	REASSESSMENT <ul style="list-style-type: none"> • Repeat baseline measures • Assess adherence
CONTACT	<i>With patient to support and actively engage</i> <ul style="list-style-type: none"> • in-person/phone/electronic/hard copy, flipchart <i>With treating physician(s) to engage, support and collaborate</i> <ul style="list-style-type: none"> • telephone/written/electronic³ 			
SETTING	Home (eg, BRUM)	Hospital (eg, CR, CHOICE,	COACH) Community†(eg, CHOICE, COACH)	
DURATION	30 minutes (if separate sessions) – 60 minutes (if combined)		0.5-60 hrs (eg from COACH to CR)	5-30 minutes
FORMAT	Individual	Individual (eg, CHOICE, SCRIP), group (eg CR), or family gathering (eg, in remote communities using flipcharts)	Individual (eg, COACH, CHOICE, SCRIP, BRUM), group (eg CR), or combination based on resources	Individual (eg, COACH, CHOICE)
Can be prescriptive (eg EuroAction, COACH) or patient-centred (eg, CHOICE, SCRIP)				

*risk factors can be addressed individually in a stepwise fashion or multiple concurrently; †includes General Practice and community "clinics"

³Electronic communication includes phone, personal digital assistants, facsimile, internet; Dr (doctor); BP (blood pressure); CR (facility cardiac rehabilitation); CHOICE¹² (Choice of Health Options In prevention of Cardiovascular Events); SCRIP¹¹ (Stanford Coronary Risk Intervention Project); COACH¹³ (Coaching patients On Achieving Cardiovascular Health); BRUM¹⁴ (Birmingham Rehabilitation Uptake Maximisation study); EuroAction¹⁰ (Nurse-coordinated multidisciplinary, family-based cardiovascular disease prevention programme).

(SPAN)

7.1.2 Heart Foundation

The Heart Foundation saves lives and improves health through funding world-class cardiovascular research, provides guidelines for health professionals and informs the public by assisting people with CVD. The organisation's purpose is to reduce premature death and suffering from heart, stroke and blood vessel disease in Australia. The Heart Foundation:

- developed nine key action areas for cardiac rehabilitation/ secondary prevention advocacy²⁰
- maintains a [directory of cardiac rehabilitation / secondary prevention services](#) and can be referred to by people wanting to locate services
- [Heart on-line](#)³³ (Heart Education Assessment Rehabilitation Toolkit) is a guide for heart health professionals. It provides evidence-based advice for each aspect of care (<http://www.heartonline.org.au>)

7.1.3 Australian Cardiovascular Health and Rehabilitation Association

Australian Cardiovascular Health and Rehabilitation Association (ACRA) is the peak body which provides support and advocacy for multidisciplinary health professionals to deliver evidence-based best practice across the continuum of cardiovascular care. ACRA's strategic plan³⁴ recognises:

- an ageing population, with complex chronic diseases, placing increasing demands on our health system
- Government health reforms increasingly focus on strategies that reduce the pressure on acute hospital beds
- inequity in access to better health outcomes
- new models of service provision for cardiac rehabilitation and related services
- increased health professional responsibility and accountability for their personal continuing professional development
- other professional organisations that are also aiming to provide a service to our members
- the need for access to evidence-based information to inform practice
- utilisation of information technology to facilitate communication.

7.2 Snapshot of CRSP services in WA – October 2013

Further detail is available in the [Heart Foundation WA Cardiac Rehabilitation / Secondary Prevention Services Directory \(http://www.acra.net.au/cardiac-rehabilitation-program/cardiac-rehabilitation-program-directories/\)](http://www.acra.net.au/cardiac-rehabilitation-program/cardiac-rehabilitation-program-directories/)

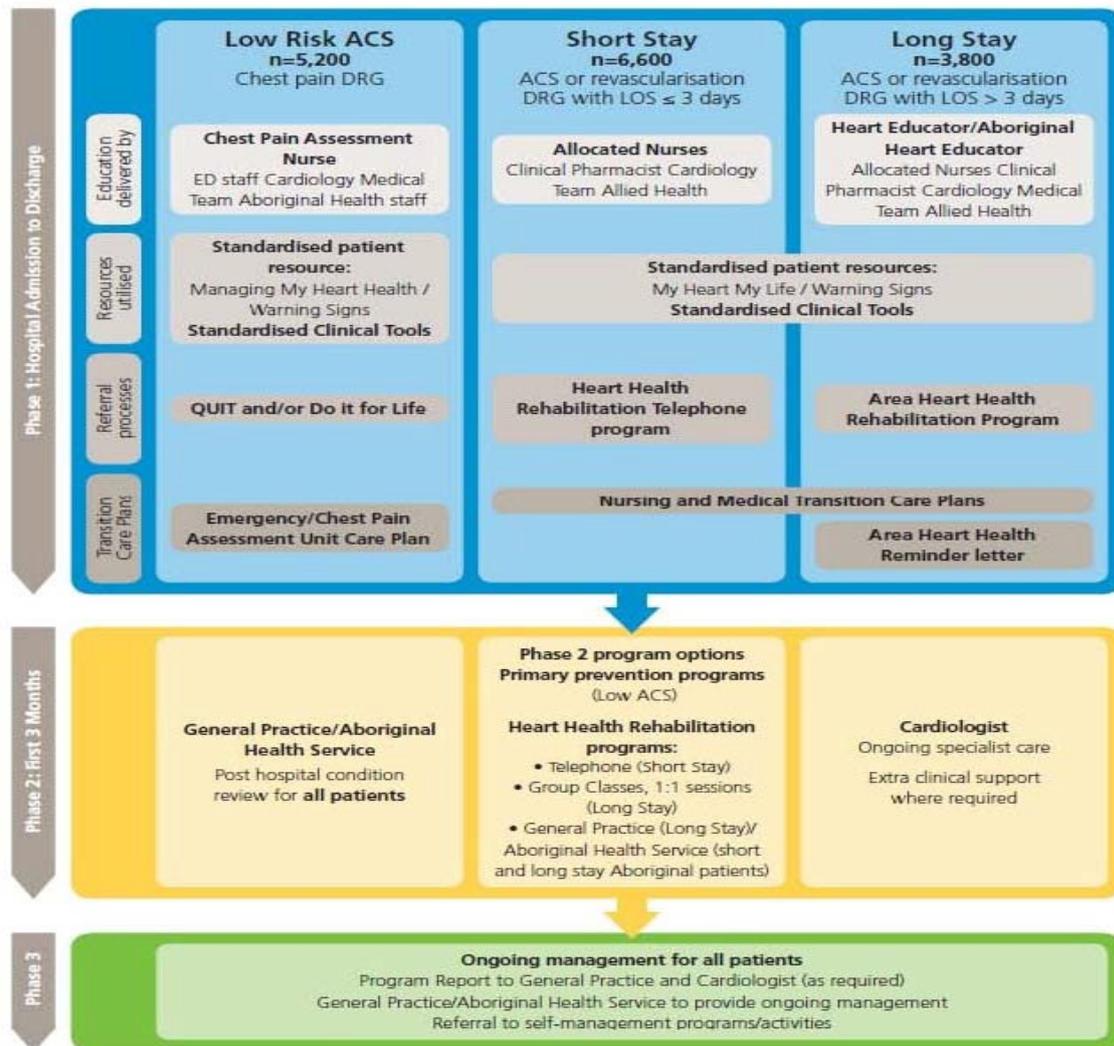
Oct 2013	Site	Teleph one follow-up	Referral to allied health service	Group Educat ion	Face To Face Consultati on	Group Exercise	Exercise Advice	
Comprehensive Hospital Cardiac Rehabilitation	Royal Perth Hospital	✓	✓	✓	✓	✓	✓	
	Fremantle Hospital	✓	✓	✓	✓	✓	✓	
	Sir Charles Gairdner Hospital	✓	✓	✓	✓	✓	✓	
	Hollywood/ Cardiovascular Care WA	✓	✓	✓	✓	✓	✓	
	Joondalup	✓	✓	✓	✓			
Comprehensive Community Cardiac Rehabilitation	Kalgoorlie	✓	✓	✓	✓	✓	✓	
	Albany	✓	✓	✓	✓	✓	✓	
	Esperance	✓	✓	✓	✓	✓	✓	
	Geraldton	✓	✓	✓	✓	✓	✓	
	Kworpadding Koort (Hilton)		✓	✓	✓	✓	✓	
	Derbarl Yerrigan (Perth)	✓	✓	✓	✓	✓	✓	
	Cardiovascular Care WA (Bayswater, Craigie, Melville)	✓	✓	✓	✓	✓	✓	
	Curtin University (Heart Failure Only)	✓	✓	✓	✓	✓	✓	
	BAML - Heart Beat	✓	✓	✓	✓	✓	✓	
Community / Non-comprehensive	Mount Hospital					✓		
	Saint John of God Hospital, Subiaco		✓			✓	✓	
	Saint John of God Hospital, Murdoch		✓			✓	✓	
	Heartmoves					✓		
	Community Physiotherapy Services		✓		✓	✓	✓	
	Kwinana					✓		
	Mandurah		✓			✓		
	University of Western Australia		✓			✓	✓	
	Joondalup Diabetes Community Team			✓				
	Edith Cowan University IpAC - Joondalup				✓	✓	✓	
Country / Non-Comprehensive	Port Hedland		✓			✓	✓	
	Carnarvon		✓			✓	✓	
	Northam			✓		✓		
	Three Springs					✓	✓	
	Morawa					✓	✓	
	Merredin						✓	
	Augusta, Bridgetown/Nannup, Busselton, Collie, Cowaramup, Derby, Harvey, Kununurra, Karatha, Tom Price, Morawa, Manjimup, Margaret River,		✓					✓
	Katanning		✓			✓	✓	
	Broome		✓	✓		✓	✓	
	Bunbury		✓			✓	✓	
	Wheatbelt Health Service	✓	✓					

NB. Some private health insurance companies offer telephone coaching services
These services are funded by a combination of: State, private and Federal e.g. Medicare locals

7.3 CRSP pathway examples

7.3.1 Cardiac rehabilitation: a model of care for South Australia 2011³⁵

Figure 1: Overview of the New Cardiac Rehabilitation Model of Care for SA



7.4 Relevant policy in WA

7.4.1 Existing Models of Care

The WA Cardiovascular Health Network developed evidence-based policies (Models of Care) that describe how health services should be delivered to consumers to ensure the **right** care is delivered at the **right** time, by the **right** team, in the **right** place. These are the *ACS Model of Care*³⁶, the *Model of Care for Heart Failure*¹⁰, the *Quick reference guide to Atrial Fibrillation: Information for the health professional*³⁷, the *Model of Care for the High Risk Foot*³⁸ and the *Familial Hypercholesterolemia Model of Care*³⁹.

7.4.2 Relevant strategic policies in WA

Other relevant strategic policies that inform the CRSP pathway principles are:

- the WA Health Promotion Strategic Framework 2012–2016⁴⁰ which outlines WA Health’s strategic directions and priorities for the primary prevention of avoidable chronic disease
- the WA Chronic Health Conditions Framework 2011-2015⁴¹, which serves as a platform for implementation of the recommendations from the chronic condition Models of Care across the continuum of care
- the WA Chronic Conditions Self-Management Strategic Framework 2011 – 2015⁴² that provides a focus for planning and delivery of self-management programs and support in WA
- the WA Primary Health Care Strategy⁴³ and the Clinical Services Framework²¹ also inform this policy
- Area health services’ documents that refer to CRSP e.g. Clinical Service Brief Cardiology for South Metropolitan Health Service⁴⁴
- the Premium Payment Program⁴⁵ established by WA Health as part of the implementation of ABF/M in 2012-13, was designed to improve sustainability of clinical practice by recognising and rewarding services that provide a very high level of best, evidence-based care. For 2013/14 a premium payment for AMI will be included with referral to cardiac rehabilitation services as a quality criterion.

7.5 Examples of heart health education resources

<p>ACS resources</p> <ul style="list-style-type: none"> Managing my heart health. At a glance: Record card * My heart, my life. A manual for patients with coronary heart disease * Heart Attack Warning Signs Action Plan and fact sheets * 	<p>Resources for CALD people</p> <ul style="list-style-type: none"> Heart Failure resources available in 17 languages * Healthy heart habits available in 11 languages * Warning Signs Action Plan *
<p>Heart Failure resources</p> <ul style="list-style-type: none"> Living well with chronic heart failure – information booklet * Living well with chronic heart failure information sheets * Heart failure patient health file (SMHS) will be available on Health Networks' website 	<p>Heart Health Resources for high risk patients</p> <ul style="list-style-type: none"> Healthy heart habits Information sheets * NVDPA Manage your heart and stroke risk Warning Signs Action Plan * Managing my heart health record card *
<p>Culturally and clinically appropriate health information to help Aboriginal and Torres Strait Islander peoples –</p> <ul style="list-style-type: none"> My Heart My Family Our Culture – information package on CV Risk Factors * Living Every Day with Heart Failure * 	<p>Healthy lifestyle resources</p> <ul style="list-style-type: none"> Australian Healthy Eating Guidelines LiveLighter campaign My healthy balance
<p>Other specific disease, procedure*, medication and device information (e.g. antiplatelet card) http://www.healthnetworks.health.wa.gov.au/projects/medication_card.cfm</p>	

* Heart Foundation resources available to download or preview at www.heartfoundation.org.au or Phone 1300 36 27 87 to order

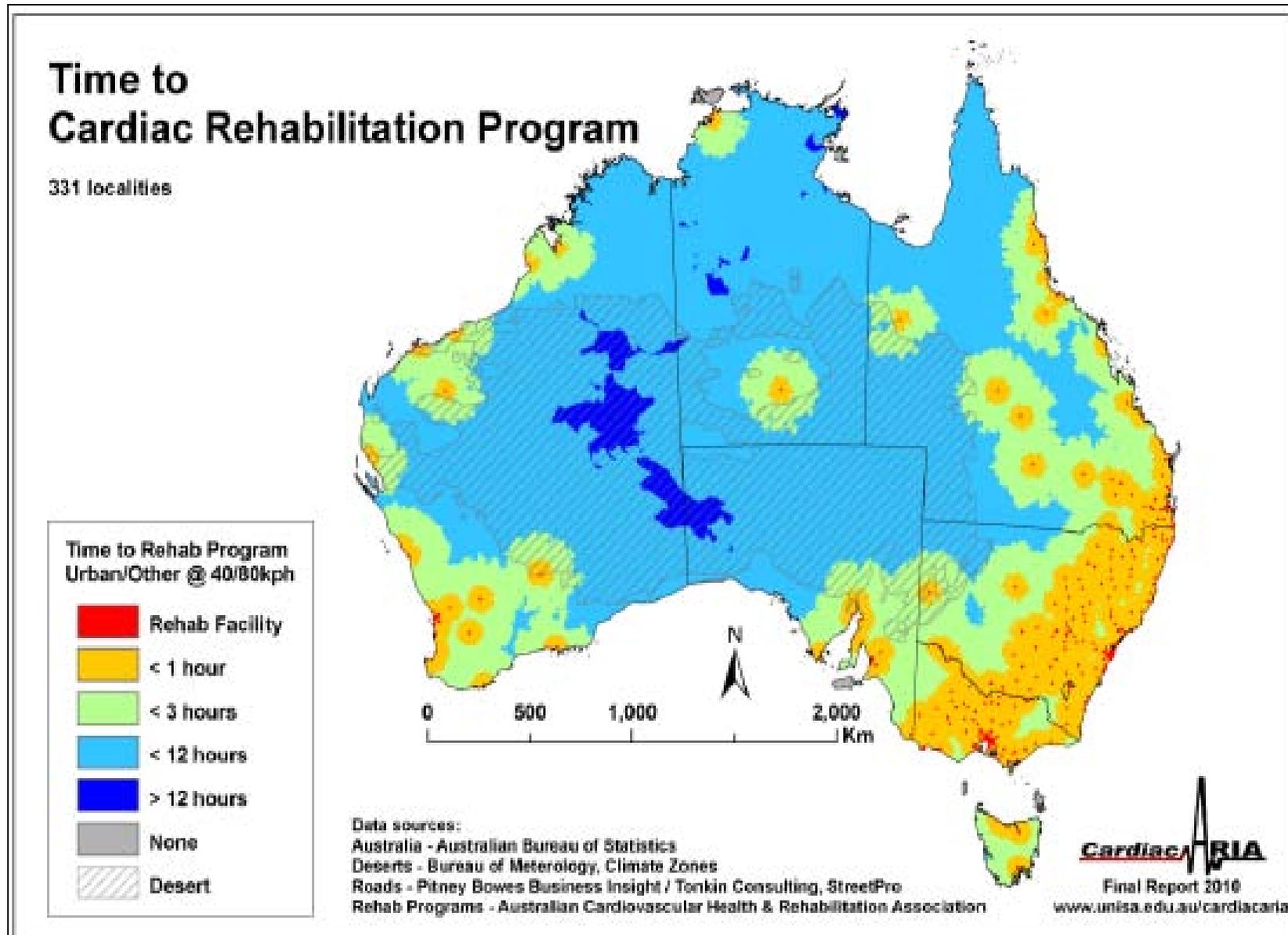
Additional resources may be found at:

<ul style="list-style-type: none"> Quitline 	<ul style="list-style-type: none"> Weight loss programs
<ul style="list-style-type: none"> Beyond Blue 	<ul style="list-style-type: none"> Relaxation tapes (at local library)
<ul style="list-style-type: none"> Diabetes WA including Aboriginal DVD: My Heart My Blood line My Culture. Shows links between heart disease and diabetes 	<ul style="list-style-type: none"> Heartmoves/ Heart Foundation Walking groups
<ul style="list-style-type: none"> Heart Support 	<ul style="list-style-type: none"> Living Longer Living Stronger : condition self –management classes
<ul style="list-style-type: none"> Heartnet. 	<ul style="list-style-type: none"> www.healthywa.wa.gov.au/

7.6 Working group chronology and developments

- **May 2011** - Cardiac, pulmonary and heart failure rehabilitation workshop held (NMHS and CVHN)
 - Priorities identified were improved access to services, the development of patient-centred pathways and the establishment of a statewide service.
- **October 2011** - Cardiovascular rehabilitation/ secondary prevention launch:
 - Priorities identified were the need for statewide planning and coordination, increased access to cardiovascular rehabilitation, particularly for high risk populations, improved data collection and the development of standardised rehabilitation pathways.
- **March 2012** - Cardiovascular rehabilitation/ secondary prevention reference group formed:
 - Re-examined and confirmed previous priorities and agreed that the development of statewide pathways and referrals would progress the majority of the priorities.
- **June – November 2012** - Working group formed from representatives of metropolitan services.
- **January – November 2013** - Pathway principles scope extended to secondary prevention. Pathway principles developed and primary care and country practitioners reference group consulted.
- **October/November 2013** - The CVHN developed a new premium payment for referral to cardiac rehabilitation/secondary prevention services post acute myocardial infarction.
- **November 2013** - Draft pathway principles amended to incorporate reference group feedback.

7.7 Time to a cardiac rehabilitation program



8. Acronyms

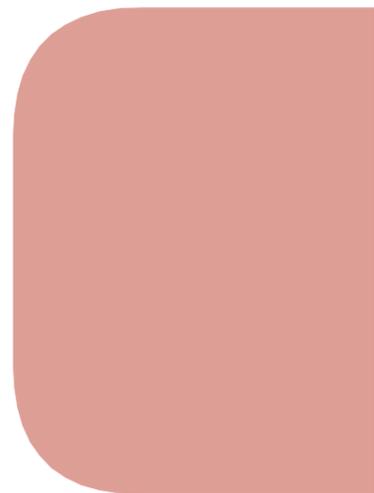
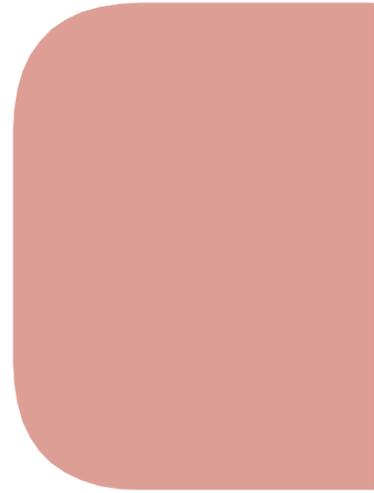
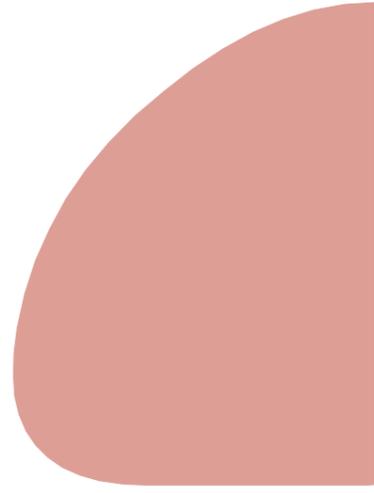
ABF	Activity based funding
ABF/M	Activity based funding and management
ACRA	Australian Cardiovascular Health and Rehabilitation Association
ACS	Acute Coronary Syndromes
AF	Atrial fibrillation
AMI	Acute Myocardial Infarction
CCWA	Cardiovascular Care WA
CHD	Coronary heart disease
CRSP	Cardiac rehabilitation and secondary prevention
CSF	Clinical Services Framework
CVD	Cardiovascular disease
CVHN	Cardiovascular Health Network
EAG	Executive Advisory Group
FHHS	Fremantle Hospital and Health Service
GP	General Practitioner
NMHS	North Metropolitan Health Service
RPH	Royal Perth Hospital
SCGH	Sir Charles Gairdner Hospital
SMHS	South Metropolitan Health Service
UWA	University of Western Australia
WA	Western Australia

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