South Australian Aboriginal Heart and Stroke Plan 2017-2021

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Produced by the Wardliparingga Aboriginal Research Unit, SAHMRI

Preface

The first peoples of Australia, the Aboriginal and Torres Strait Islander peoples were living strong and well within what is now called South Australia. In large part, this was a consequence of maintaining strong connections to Law, Country, culture, family, ceremony, and Spirit prior to the dispossession and dispersal of these first peoples of Australia. The policies that led to the active disempowerment and disenfranchisement of Aboriginal people are directly linked to the types of differential outcomes that can be seen in Aboriginal housing, employment and education outcomes now. Furthermore, these differential outcomes are related in mutually causal ways to the disparities in health status that currently characterise Aboriginal cardiovascular health in South Australia. It is worth noting that poor health and wellbeing also leads to a reduced economic base for Aboriginal families and communities in South Australia, and that the strength of a community's economic base is itself a determinant of health. These dynamics are important considerations for a strategic, state-wide approach to cardiovascular care in South Australia.

Contents

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- Ms Betty Branson
- Vincent Branson
- Uncle David Branson
- Aunty Joan Clark
- Aunty Janice Rigney
- Uncle Greg Sinclair
- Uncle Major Sumner (Uncle Moogy)
- Christine Williams

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- Rosy Tirimacco, iCCnet CHSA
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- John Woodall, RFDS
- Chris Zeitz, CALHN

- The South Australian Aboriginal communities

- Aboriginal and Torres Strait Islander Health Branch, SA Health
- Aboriginal Health Council of SA
- Adelaide Primary Health Network
- Aṉangu Ngangkaṟi Tjutaku Aboriginal Corporation
- Australian Commission on Safety and Quality in Health Care (ACSQHC)

Aboriginal Liaison Units from the following hospitals:

- Flinders Medical Centre (also Repatriation Hospital and Noarlunga Hospital)
- Lyell McEwin Hospital (also Modbury Hospital)
- Royal Adelaide Hospital (also Hampstead Centre and The Queen Elizabeth Hospital)
- Women's and Children's Hospital
- Port Augusta Hospital

- Cancer Council
- Close the Gap programs
- Corporate Shuttle
- Country SA Primary Health Network
- Drug and Alcohol Services of South Australia
- Heart Foundation SA
- Heart theme, SAHMRI
- High Blood Pressure Research Council Australia
- Marla Community Health Service
- National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data (NAGATSIHID)
- National Aboriginal Community Controlled Health Organisation
- Northern Health Network
- OPAL Program
- Public Health Partnerships Branch, SA Health
- Royal Flying Doctor Service
- Rural Doctors Workforce Agency
- SA Rheumatic Heart Disease Control Program
- South Australian Health and Medical Research Institute
- Statewide Cardiology Clinical Networks
- Stroke Foundation
- Transforming Health, SA Health
- Umoona Aged Care
- Watto Purrunna Aboriginal Health Service
- Workforce Planning, Attraction and Retention, SA Health

Aboriginal Community Controlled Health Services:

- Ceduna Koonibba Aboriginal Health Service
- Kalparrin Community
- Nunyara Aboriginal Health Service
- Nganampa Health Council and Mimili clinic
- Nunkuwarrin Yunti
- Oak Valley Health Service
- Pangula Mannamurna, Muna Paiendi
- Pika Wiya Health Service
- Port Lincoln Aboriginal Health Service
- Tullawon Health Service
- Umoona Tjutagku Health Service Aboriginal Corporation

Cardiologists, cardiac surgeons and nurses from the following organisations:

- Flinders Medical Centre
- Lyell McEwin Hospital
- Royal Adelaide Hospital
- The Queen Elizabeth Hospital
- Women's and Children's Hospital
- Country Health SA LHN
- Port Augusta Hospital

South Australian Local Health Networks:

- Central Adelaide Local Health Network (LHN)
- Northern Adelaide LHN
- Southern Adelaide LHN
- Women's and Children's LHN
- Country Health SA LHN, SA Health
  - Aboriginal Health
  - iCCnet CHSA
  - Ceduna District Health Service
  - Central Yorke Peninsula Hospital (Maitland)
  - Coober Pedy Hospital and Health Service
  - Gawler Health Service
  - Mount Gambier Hospital
  - Murray Mallee Community Health Service
  - Port Augusta Hospital and Regional Health Service
  - Port Augusta Step-Down Unit
  - Port Lincoln Hospital and Health Service
  - Port Pirie Regional Health Service
  - Port Pirie GP Plus Health Care Centre
  - Riverland Regional health Services
  - Riverland Community Health Service
  - Whyalla Hospital and Health Service

Stroke specialists from the following organisations:

- Flinders Medical Centre
- Lyell McEwin Hospital
- Royal Adelaide Hospital
- The Queen Elizabeth Hospital
- Women's and Children's Hospital

Universities:

- Flinders University
- University of Adelaide
- University of South Australia

Acronyms

ACCHO	Aboriginal Community Controlled Health Organisation
ACEM	Australian College of Emergency Medicine
ACN	Australian College of Nursing
ACNC	Australian Cardiovascular Nursing College
ACSQHC	Australian Commission on Safety and Quality in Health Care
AHCSA	Aboriginal Health Council of SA
AHMAC	Australian Health Ministers' Advisory Council
AHW	Aboriginal Health Worker
ALU	Aboriginal Liaison Unit
AMA	Australian Medical Association
APA	Australian Physiotherapy Association
ARF	Acute rheumatic fever
BCC	Better Cardiac Care for Aboriginal and Torres Strait Islander people
BPG	Benzathine penicillin G
CHSA	Country Health SA
CPD	Continuing professional development
CSANZ	Cardiac Society of Australia and New Zealand
CVD	Cardiovascular disease
ED	Emergency Department
ESSENCE	Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people
GP	General Practitioner
iCCnet CHSA	Integrated Cardiovascular Clinical Network Country Health SA
LHN	Local Health Network
nKPI	National Key Performance Indicators for Aboriginal and Torres Strait Islander primary health care
NSQHSS	National Safety and Quality Health Service Standards
NVDPA	National Vascular Disease Prevention Alliance
MBS	Medicare Benefits Schedule
MRI	Magnetic resonance imaging
PATS	Patient Assistance Transport Scheme
PBS	Pharmaceuticals Benefits Scheme
PHC	Primary Health Care
PHN	Primary Health Network
POCT	Point of care testing
RACGP	Royal Australian College of General Practitioners
RAH	Royal Adelaide Hospital
RDFS	Royal Flying Doctors Service
RDWA	Rural Doctors Workforce Agency
RHD	Rheumatic heart disease
SAAHP	SA Aboriginal Health Partnership
SAAS	SA Ambulance Service
SA Centre	SA Academic Health Science and Translation Centre
SSA	Stroke Society of Australasia
TH	Transforming Health
TIA	Transient ischaemic attack
WHO	World Health Organisation

A glossary of terms is available at the end of this document.

Executive Summary

The SA Aboriginal Heart and Stroke Plan 2017-2021 was developed in 2015/16 by a project team at the Wardliparingga Aboriginal Research Unit at the South Australian Health and Medical Research Institute (SAHMRI). The development of the plan, commissioned by SA Health, reflects South Australia's response to an Australian Health Ministers Advisory Council project, Better Cardiac Care for Aboriginal and Torres Strait Islander people. The project was guided by an expert Steering Committee, a Community Reference Group, two Key Stakeholders Roundtables and numerous consultation meetings with service delivery agencies, policy makers and non-Government organisations.

The purpose of the Plan is to guide the delivery of evidence-based services for the prevention and management of those at risk of, and with, cardiovascular disease in South Australia. The vision of the Plan is to improve cardiovascular (CV) care and reduce cardiovascular morbidity and mortality for Aboriginal and Torres Strait Islander Peoples in South Australia.
The targets in the plan are:

- To reduce the age-standardised (recognises differences in population age structures) mortality rate for cardiovascular conditions;
- To increase identification and management of those at high cardiovascular risk;
- To reduce the rate of 30 day and 12 month unplanned re-hospitalisations following an acute heart or stroke event.

There is strong evidence that the project is needed, with cardiovascular diseases (heart and stroke) representing the largest cause of death for Aboriginal South Australians (26%). Aboriginal people experience heart disease and stroke at significantly younger ages than non-Aboriginal South Australians. The greatest disparities exist in the young age groups (25 to 54 years). See figure 1 below.

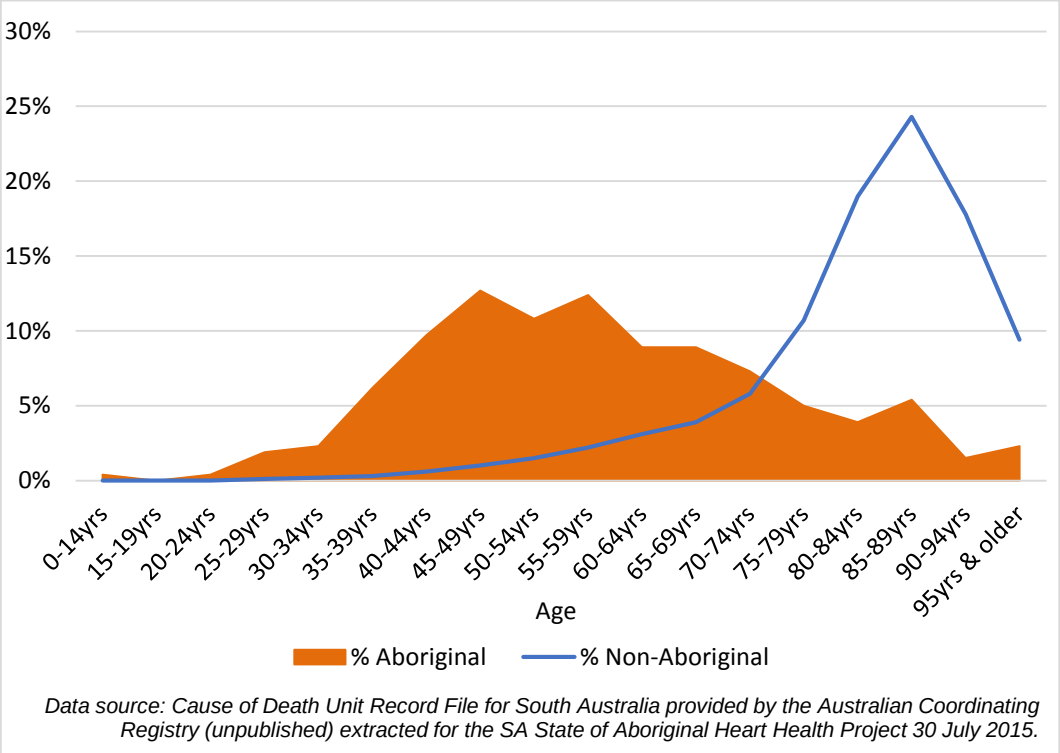


Figure 1: Deaths from CVD (I00-I99), by Aboriginal status and age, SA 2006-2012

Additionally, Aboriginal people are 60% more likely to be hospitalised for a principal diagnosis of CV disease than non-Aboriginal people. Importantly, the Aboriginal community in South Australia are very committed to supporting disease prevention and management messages, especially with respect to surviving and managing acute heart and stroke events.

The SA Aboriginal Heart and Stroke Plan 2017-2021

The Plan focusses on 'evidence-based, culturally appropriate cardiovascular services' that should be provided across the life course and continuum of care. Twenty-two service strategies have been identified, with some requiring either minor or major service reorientation while others require new investment. The definition of 'culturally appropriate cardiovascular care' is described. Extensive input from the Community Reference Group and other key stakeholders has aided the development of this underpinning definition. Importantly, the Plan is based on a strong and current evidence base that is articulated in the Essential Service Standards for Equitable Cardiovascular CarE (ESSENCE). The Plan also identifies six 'essential enablers', with eleven related strategies, that need to be addressed to ensure successful implementation of the service strategies.

Evidence-based, culturally appropriate cardiovascular services

Cross-sector services
1: Review and reorient current mechanisms to improve delivery of culturally appropriate comprehensive primary health care services
2: Develop a state-wide model for delivering cardiovascular care to Aboriginal people, with enhanced regional and remote service networks. Port Augusta should host a regional coordination centre that coordinates and enhances services for Aboriginal people in the far north and west of SA
3: Maintain and expand the existing SA Rheumatic Heart Disease Control Program
4: Enhance care for the identification, acute and ongoing care of children and adolescents with heart disease and stroke by paediatric cardiology services, with effective transition pathways into adult cardiology services
Primary preventive care
5: Establish sustainable heart, stroke and diabetes awareness and prevention campaign/s across SA
6: Increase the use of cardiovascular risk assessment and management in all primary care settings
Clinical suspicion of disease
7: Develop and implement a model of care and referral pathways to provide timely access to non-acute diagnostic services for identification and management of disease
8: Establish a coordinated state wide specialist outreach service plan
Acute episode care
9: Increase awareness of the warning signs and symptoms of heart attack and stroke among the Aboriginal community and service providers
10: Improve access to emergency care by reducing the out-of-pocket costs of ambulance services
11: Establish a system to identify Aboriginal or Torres Strait Islander status at the first point of medical contact
12: Develop and implement a transfer and retrieval services protocol that responds to the clinical and cultural needs of Aboriginal people
13a: Maintain and expand iCCnet CHSA to provide coordinated services from first medical contact to definitive care for regional and remote Aboriginal patients with acute heart disease
13b: Implement a regional system of care from first medical contact to definitive care for regional and remote Aboriginal patients with stroke or TIA
14a: Provide best practice clinical and cultural care for Aboriginal heart disease patients at all South Australian hospitals, with targeted efforts at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Port Augusta Hospital and Ceduna Hospital
14b: Provide best practice clinical and cultural care for Aboriginal stroke patients at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Riverland General Hospital, Mount Gambier and Districts Health Service, Whyalla Hospital and Health Service, Port Augusta Hospital and Ceduna Hospital
15: Establish an Aboriginal heart and stroke Aboriginal Health Practitioner/Nurse Coordinator position at Royal

Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Port Augusta Hospital and Ceduna Hospital to support Aboriginal patients and their families throughout their journey of care
16: Establish systems and services at the new Royal Adelaide Hospital that prioritise the needs of metropolitan, regional and remote Aboriginal people receiving care for heart disease and stroke
17: Develop a state-wide approach to a rheumatic valvular surgery centre of excellence
Ongoing care
18: Develop a model of care and protocols to provide patient centred and safe discharge from hospitals
19: Develop a central referral service that ensures continuity of care from hospital to primary care, specialist follow-up and cardiac/stroke rehabilitation
20: Establish a model of culturally appropriate, evidence-based cardiac and stroke rehabilitation services
21: Build capacity in primary health care to provide coordinated management, secondary prevention and ongoing care for clients with established disease
22: Establish culturally appropriate models of care and protocols for palliative and end of life care specifically for Aboriginal patients

Essential enablers for effective strategy

Governance and systems coordination
1: Establish a SA Aboriginal Heart and Stroke Plan governance group aligned with Transforming Health and in partnership with the SA Advanced Health Research and Translation Centre
Sustainable funding
2: Establish a governance group to identify sustainable funding to support the implementation of the Plan
Sustainable workforce development
3: Introduce mandatory training and demonstration of cultural competence of all cardiovascular health care providers
4: Increase the Aboriginal health workforce in number and capacity across the continuum of heart and stroke care
5: Increase the heart and stroke specialist workforce in western and northern Adelaide, and the far west and north of South Australia
6: Increase awareness of health professionals about the extent and impact of heart disease and stroke
Transport and accommodation support
7: Improve transport services to ensure Aboriginal people have safe home-to-care-to-home journeys
8: Provide 24/7 step-down units in southern and northern Adelaide Local Health Network (LHN), Port Augusta and Ceduna
Information and communications technology solutions
9: Invest in resources, coordination and systems for tele-health, point of care testing, virtual care and video-conferencing
10: Improve the utilisation and communication of information across patient information management systems
Monitoring and evaluation
11: Develop and implement a monitoring and evaluation framework for the SA Aboriginal Heart and Stroke Plan

The architecture and content of the Plan provides a road map for service providers across South Australia to improve the cardiovascular outcomes of Aboriginal and Torres Strait Islander peoples living and receiving cardiovascular care in this state. It recognises the importance of a coordinated, multi-pronged, culturally inclusive approach. The implementation of this Plan has the potential to make real and lasting improvements to help close the life expectancy gap between Aboriginal and non-Aboriginal people.

Guiding Principles for the SA Aboriginal Heart and Stroke Plan

The following 12 principles should guide the implementation of the South Australian Aboriginal Heart and Stroke Plan. These were developed with stakeholders during consultation meetings.

1. **Ensure equity in access to services**
   Access to and the provision of health care services should be on the basis of need.
2. **Use a holistic approach in the provision of services**
   Always consider each individuals physical, spiritual, cultural, emotional and social well-being and recognise the impact of the social determinants on health when determining the type and method of care.
3. **Ensure a family-centred approach to service provision**
   Where-ever possible and agreed, family members and carers should be involved in the provision of care including care planning, decision making and education.
4. **Invest in building relationships with Aboriginal people**
   The development of trusting relationships with Aboriginal people should be prioritised by staff and services during the planning, delivery and evaluation of health care.
5. **Provide culturally safe healthcare services**
   Services must be culturally appropriate and safe for patients and their families. This includes zero tolerance of racism.
6. **Services should be underpinned by cultural knowledge and scientific evidence**
   Health practitioners should seek to learn from and respect Aboriginal and Torres Strait Islander peoples' cultural knowledge as well use the best available scientific evidence to inform practice.
7. **Invest in Aboriginal leadership and Aboriginal staff in services provision**
   Aboriginal people must be given opportunities to lead and deliver services with the support of non-Aboriginal colleagues.
8. **Prioritise prevention activities whenever possible**
   Wellness and prevention activities should be prioritised at all stages of the care continuum with patients and their families.
9. **Build local capacity to deliver patient centred services**
   Invest in local services and build local expertise to ensure there is capacity to deliver quality services where there is need.
10. **Involve all key stakeholders in governance**
    All key stakeholders should be included in the governance structure that addresses both the clinical and cultural needs of the plan.
11. **Promote a system that encourages innovation and adaptation**
    Develop a system that promotes and enables innovation and adaptation as knowledge, skills and experience evolve.
12. **Ensure system wide and service accountability**
    Ensure accountability through prioritising monitoring and evaluation against the plan.

SA Aboriginal Heart and Stroke Plan

Introduction

Purpose:

To develop the SA Aboriginal Heart and Stroke Plan 2017-2021 to guide the delivery of evidence-based services for the prevention and management of those at risk of, and with, cardiovascular disease in South Australia.

Vision:

To improve cardiovascular care and reduce cardiovascular morbidity and mortality for Aboriginal and Torres Strait Islander Peoples in South Australia.

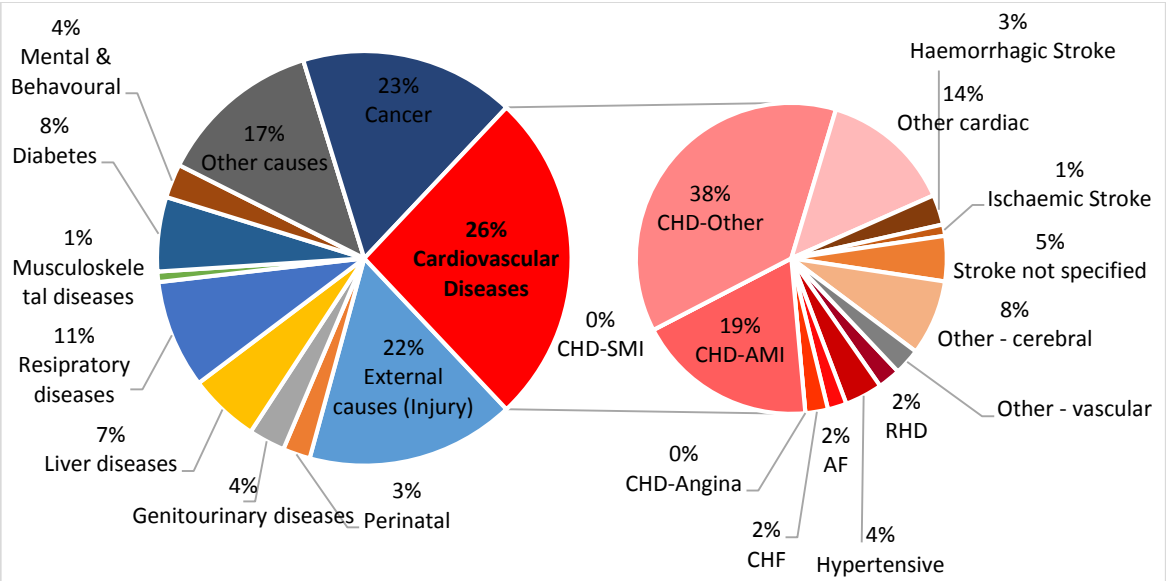
Targets:

- Reduce the age-standardised (recognises differences in population age structures) mortality rate for cardiovascular conditions.
- Increase identification and management of those at high cardiovascular risk.
- Reduce the rate of 30 day and 12 month unplanned re-hospitalisations following an acute heart or stroke event.

Context:

Why does South Australia need an Aboriginal Heart and Stroke Plan?

Cardiovascular diseases represent the largest cause of death for Aboriginal South Australians (26%), with coronary heart disease accounting for over half of all Aboriginal cardiovascular deaths (56%) (see Figure 2). Stroke (ischaemic, haemorrhagic and non-specified) account for 14% of all cardiovascular deaths. Hypertension, chronic heart failure, atrial fibrillation and rheumatic heart disease account for smaller proportions.



Data source: Cause of Death Unit Record File for South Australia provided by the Australian Coordinating Registry (unpublished) extracted for the SA State of Aboriginal Heart Health Project 30 July 2015.

Figure 2: Aboriginal deaths 2006-2012, SA, by primary cause of death, cardiovascular cause dis-aggregated by cardiovascular condition

The age at which Aboriginal people pass away due to cardiovascular diseases is dramatically different from the non-Aboriginal population, peaking between 45 and 59 years of age for Aboriginal people, and a single peak at 85 years of age for non-Aboriginal people (see Figure 3).

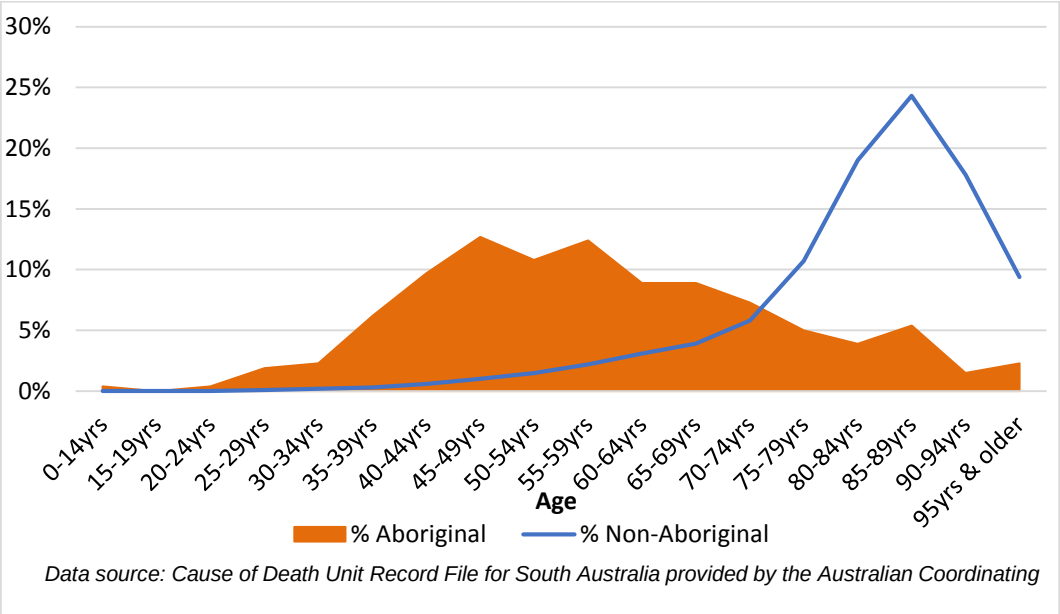


Figure 3: Deaths from CVD (I00-I99), by Aboriginal status and age, SA 2006-2012

The loss of so many at such young ages has repercussions for the social infrastructure and cultural capital available within Aboriginal communities across South Australia. This is largely as a consequence of losing future Elders, potential community leaders, parents, grandparents and role models, as well as substantial losses of cultural knowledge and economic capacity. The passing of key individuals can be devastating for entire South Australian communities.

This pattern of premature cardiovascular mortality contributes to an age distribution for Aboriginal people that is radically different from non-Aboriginal people. In SA, the Aboriginal population accounts for 2.3% of the population, totalling 37,408 persons. The Aboriginal population is young, with a mean age of 22 years, compared to the non-Aboriginal population where the mean age is 39 years. 50% of the Aboriginal population are under the age of 55 years. Figure 4 shows this distribution by age and gender.

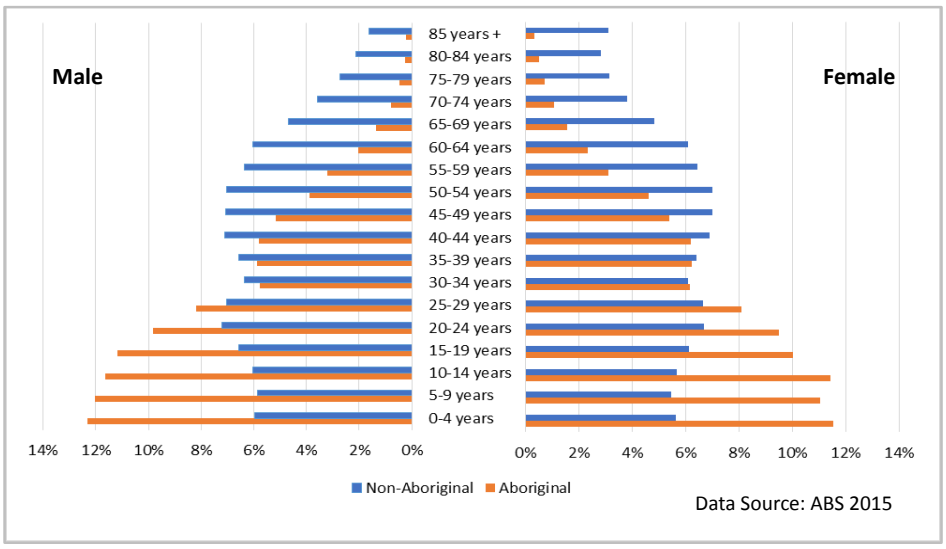


Figure 4: South Australian age distribution (5 year age brackets), by Aboriginal status and sex

Risk factor burden contributing to premature onset of Cardiovascular Disease

The risk factors for developing cardiovascular diseases are multiple and complex. They include:

> **modifiable risk factors** that can usually be controlled by lifestyle modification and/or medication: high blood pressure, high blood cholesterol, cigarette smoking, physical inactivity, poor nutrition, being overweight, psychological distress, diabetes, chronic kidney disease, low birth weight
>
> and
>
> **non-modifiable risk factors:** family history, age, gender

Cardiovascular risk should be considered within Aboriginal concepts of health and wellbeing which include the physical, psychological and community wellbeing, and within the context of the burden of co-morbidities such as diabetes, kidney disease and cancer.

Aboriginal people are significantly more likely to be experiencing higher rates for a number of cardiovascular risks factors, when compared to non-Aboriginal people. Aboriginal people carry a profile of significant cardiovascular risk burden from young ages.

Smoking:

Smoking prevalence is more than double in the Aboriginal population (42.1%) compared to the non-Aboriginal population (17.5%). The smoking rate stays high for the Aboriginal population (ABS, 2015). There are more current smokers among Aboriginal males than females.

Smoking during pregnancy: The current smoker rate for Aboriginal women at first antenatal visit is 51 %, more than 2 and a half times higher for Aboriginal women when compared to non-Aboriginal women. The percentage of women who quit before first visit are the same for Aboriginal and non-Aboriginal women (5.4%).

Physical activity:

Aboriginal people are more likely to be doing the recommended levels of physical activity compared to non-Aboriginal people (Aboriginal: 52% vs non-Aboriginal: 39%) (ABS, 2015). However, there is significant variation by sex. Aboriginal females are more likely to be meeting these recommendations than non-Aboriginal females. Aboriginal males are more than 30% less likely to be achieving sufficient physical activity compared to non-Aboriginal males.

Obesity:

Body mass index (BMI): is the most common measure of overweight and obesity. Fifty-six percent of Aboriginal people are overweight or obese, compared to 58% of non-Aboriginal people. However, the 2012 SA Aboriginal health survey found that almost 80 percent of Aboriginal people are overweight or obese, with over 50 percent alone obese.

Waist circumference: reflects mainly subcutaneous abdominal fat storage and has been shown to positively correlate to disease risk. Aboriginal females are more likely to be at a substantially increased risk (Aboriginal females: 70%, non-Aboriginal females: 51%). There is little difference between Aboriginal and non-Aboriginal males (42.5 percent versus 40.5 percent).

Stress and worry (psychological distress):

For both males and females, Aboriginal persons report significantly higher levels of psychological distress than non-Aboriginal persons. Aboriginal people are significantly more likely to have experienced a family stressor in the past 12 months when compared to non-Aboriginal people (see Figure 5).

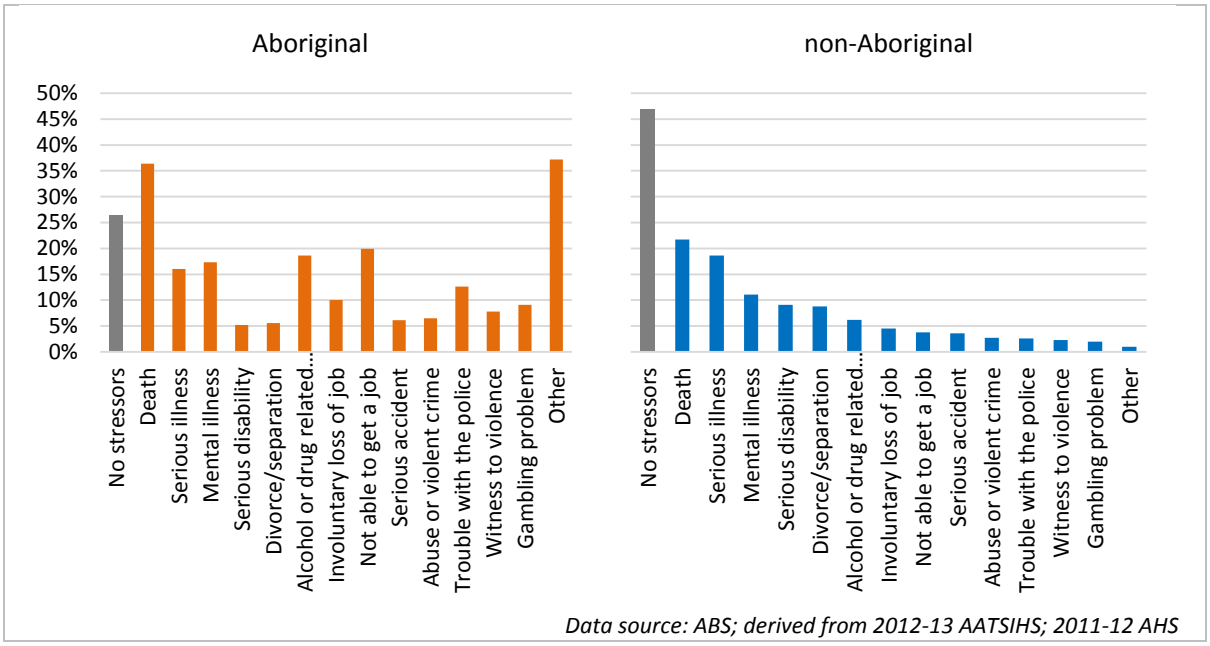
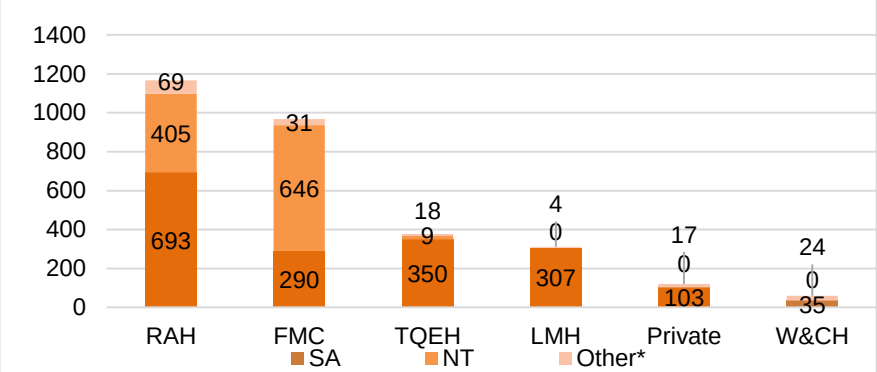


Figure 5: Family stressors reported by SA Aboriginal and non-Aboriginal respondents

Current hospitalisation trends for Aboriginal people with heart disease and stroke

In total there were 4,053 South Australian hospital admissions for Aboriginal people with a principal diagnosis of cardiovascular disease for the period July 2010-June 2015. Of all hospital separations for Aboriginal people in SA hospitals, 69% were SA residents, while Northern Territory residents made up 27% of Aboriginal separations to South Australian hospitals. Approximately 7 in 10 hospital admissions for Aboriginal people were emergency admissions. The Aboriginal population is 8% more likely to have an emergency admission for a hospital separation with a principal diagnosis of cardiovascular disease than the non-Aboriginal population.

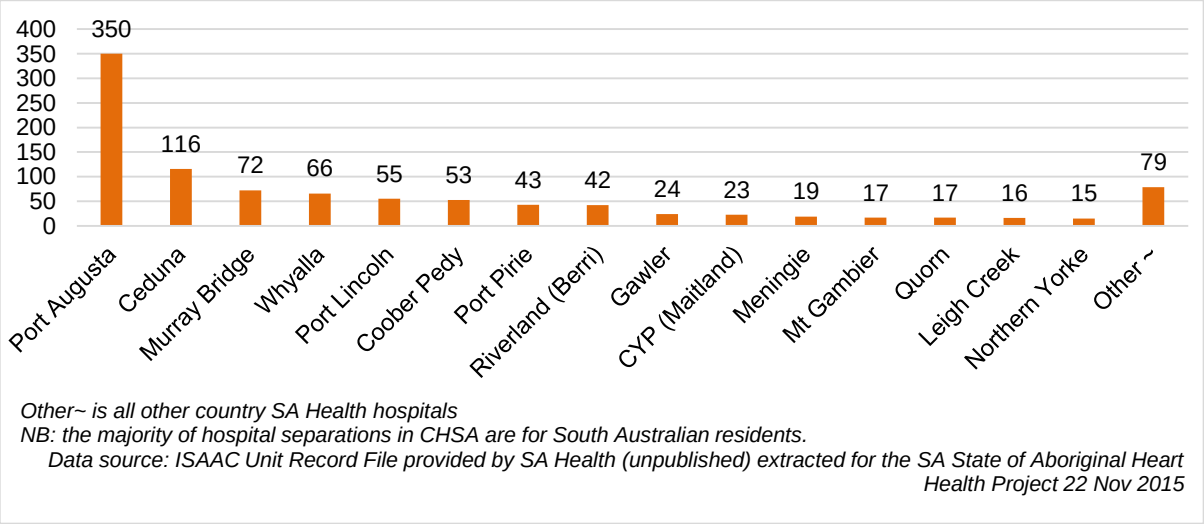
The Royal Adelaide Hospital has the highest number of separations of Aboriginal patients with a principal diagnosis of CVD. Port Augusta has the highest number of separations in country SA. The number of hospitalisations by hospital are shown for metropolitan Adelaide (see Figure 6) and country regions (see Figure 7).



Other is all other separations excluding those whose place of residence is SA or NT*
Data source: ISAAC Unit Record File provided by SA Health (unpublished) extracted for the SA State of Aboriginal Heart Health Project 22 Nov 2015

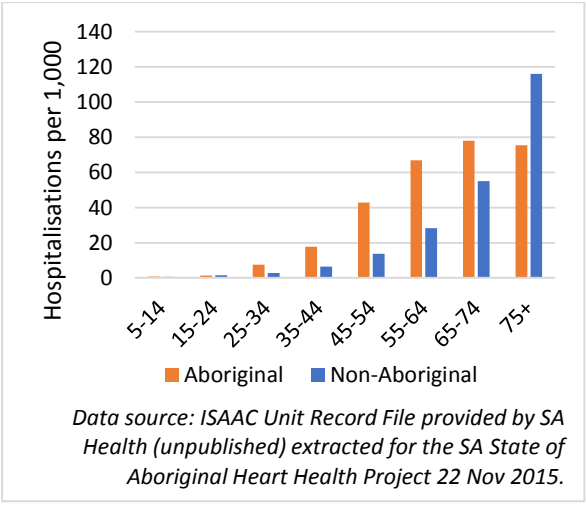
RAH = Royal Adelaide Hospital; FMC = Flinders Medical Centre; TQEH = the Queen Elizabeth Hospital; LMH = Lyell McEwin Hospital; W&CH = Women's and Children's Hospital.

Figure 6: Aboriginal separations – Metropolitan Hospitals, with a principal diagnosis CVD, July 2010-June 2015, by state/territory of residence



Other~ is all other country SA Health hospitals
NB: the majority of hospital separations in CHSA are for South Australian residents.
Data source: ISAAC Unit Record File provided by SA Health (unpublished) extracted for the SA State of Aboriginal Heart Health Project 22 Nov 2015

Figure 7: Aboriginal separations – Country Hospitals, with a principal diagnosis CVD, July 2010-June 2015



Data source: ISAAC Unit Record File provided by SA Health (unpublished) extracted for the SA State of Aboriginal Heart Health Project 22 Nov 2015.

Figure 8: Age-specific hospitalisation rate for CVD, by Aboriginal status, July 2010 - June 2015

After adjusting for age, the Aboriginal hospitalisation rate for principle diagnosis of CVD was 26.0 per 1,000, compared to 16.7 per 1,000 non-Aboriginal people, meaning Aboriginal people were 60% more likely to be hospitalised for a principal diagnosis of CVD.

The hospitalisation rate for Aboriginal people was substantially higher than the non-Aboriginal comparison for ages 25 to 74. The greatest relative disparity is in the 45-54 age group (Aboriginal: 42.8 per 1,000 vs non-Aboriginal: 13.8 per 1,000). There are also substantial differentials for the age groups 25-34, 35-44, 55-64 and 65-74 (see Figure 8).

What is the self-discharge rate?

Aboriginal people with a principal diagnosis of CVD were more likely to self-discharge than non-Aboriginal people (see Figure 9). After adjusting for age, the rate of self-discharge for Aboriginal adults was 36.5 per 1,000 hospitalisations, compared to 9.4 per 1,000 for non-Aboriginal hospitalisations. There have been no significant improvements in the rate of self-discharge between July 2010-June 2015, compared to the previous 5 year period.

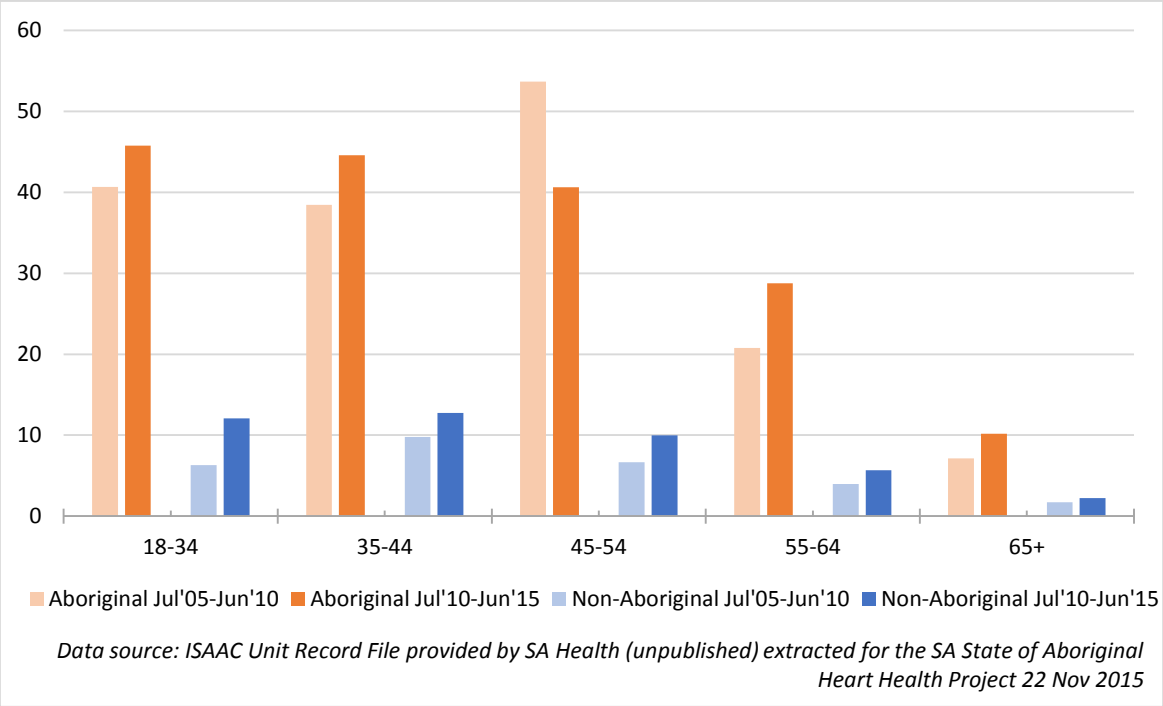


Figure 9: Self-discharge rate per 1,000 hospitalisations for separations with a principal diagnosis of CVD, by Aboriginal status, age and year, July 2005 - June 2015

The crude rate of self-discharge varied significantly by hospital, for both Aboriginal and non-Aboriginal hospitalisations (see Figure 10). For all hospitals, there was a significant difference in the rate of self-discharge between Aboriginal and non-Aboriginal separations. The feedback from community was that the high rates of self-discharge reflect in part the discomfort felt by Aboriginal people in hospital.

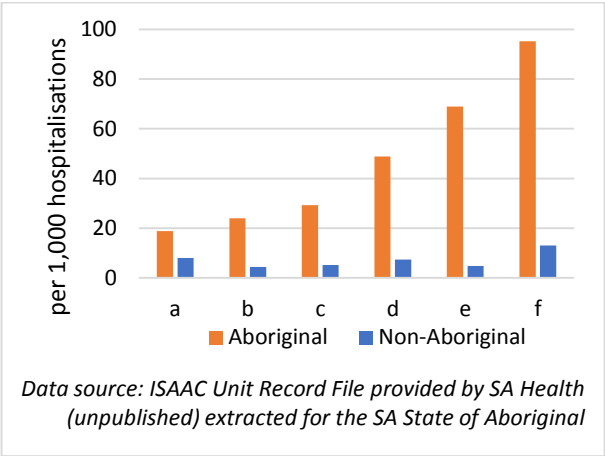


Figure 10: Self-discharge rate per 1,000 hospitalisations for separations with a principal diagnosis of CVD, by Aboriginal status and hospital (de-identified), July 2010 - June 2015

What is the quality of services provided against evidence-based standards of care?

The Essential Service Standards for Equitable National Cardiovascular Care for Aboriginal and Torres Strait Islander people (ESSENCE) Measurement Indicators have been established to guide the development and implementation of policies that serve to reduce the gap in life expectancy experienced by Aboriginal and Torres Strait Islander peoples. There are 22 indicators covering 43 measures. A sample of measures are presented here.

ESSENCE Indictor - (ST-segment elevation myocardial infarction) STEMI patients receiving percutaneous coronary intervention (PCI)

Over a 10 year period (July 2005-June 2015, there were 335 hospitalisations for Aboriginal people with a principle diagnosis of STEMI at a major tertiary hospital capable of performing PCI.

The distribution of ST-segment elevation myocardial infarctions (STEMIs) is significantly different in the Aboriginal population compared to the non-Aboriginal population, with 85% of Aboriginal hospitalisations for STEMI occurring before the age of 60 for Aboriginal people, compared to 35% of non-Aboriginal hospitalisations.

What is a ST-segment elevation myocardial infarction (STEMI)?

A STEMI as one type of acute heart attack. A heart attack is one type of coronary heart disease.

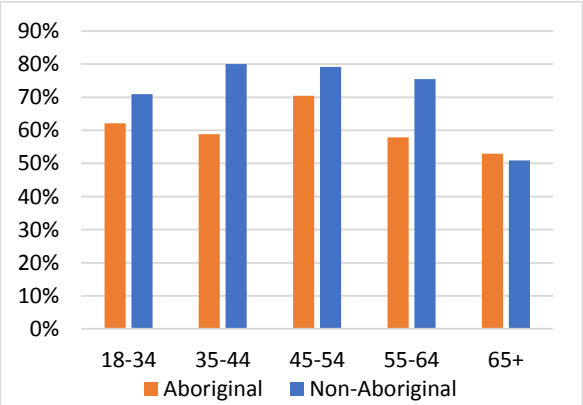
STEMI Is diagnosed by an electrocardiogram (ECG) test. Heart attack occurs when an area of plaque within an artery which supplies the heart muscle with blood (coronary artery) ruptures and suddenly blocks the supply of blood (Heart Foundation, 2012).

After adjusting for differences in the age profiles, 61% of Aboriginal hospitalisations received a PCI, compared to 72% of non-Aboriginal hospitalisations.

When looking at the age-specific rate, in all age groups other than 65 years and over Aboriginal people were less likely than non-Aboriginal hospitalisations to receive a PCI. The age groups with the greatest disparity were the 35-44 age group (Aboriginal: 59% vs non-Aboriginal: 80%) and the 55-64 age group (Aboriginal: 58% vs non-Aboriginal:76%) (see Figure 11). There was improvement in the receipt of PCI for the period July 2010-June 2015 compared to the previous 5 year period.

What is percutaneous coronary intervention (PCI)?

Percutaneous coronary intervention (PCI) is an invasive treatment for a STEMI. It involves putting a catheter (a flexible tube) with a deflated balloon via the major artery in the leg or arm, through the body to a narrowing in the arteries which supply the heart muscle (coronary arteries). At the narrowing, the balloon is inflated to open the artery, allowing blood to flow. A stent may be placed in the artery to help keep it permanently open (Heart Foundation, 2012).



Data source: ISAAC Unit Record File provided by SA Health (unpublished) extracted for the SA State of Aboriginal Heart Health Project 22 Nov 2015

Figure 11: Proportion of people with a STEMI treated by PCI, by Aboriginal status, age and year, July 2005 - June 2015

ESSENCE Indicator - STEMI patients not receiving invasive revascularisation (Percutaneous coronary intervention (PCI) or Coronary artery bypass graft (CABG))

Over a 10 year period (July 2005 - June 2015), there were 230 hospitalisations for Aboriginal people with a principal diagnosis of STEMI at Flinders Medical Centre and Royal Adelaide Hospital (the only two sites with facilities to perform PCI and CABG).

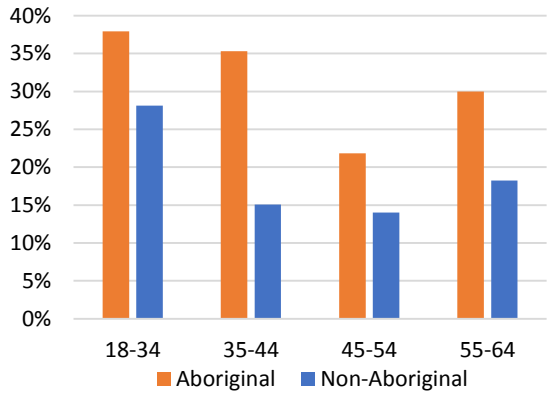
What is coronary artery bypass graft (CABG)?

A coronary artery bypass graft (CABG) is an invasive treatment for a STEMI. It involves taking a blood vessel from another part of the body, and grafting it to bypass blockages in the arteries which supply the heart muscle (coronary arteries). This restores blood flow (Heart Foundation, 2012).

The proportion of Aboriginal hospital patients who did not receive any reperfusion therapy on their index admission was 32%, compared to 23% of non-Aboriginal hospitalisations, after adjusting for differences in the age profile.

Aboriginal hospital patients in all age groups were less likely to receive any revascularisation within the index admission, compared to non-Aboriginal hospitalisations (see Figure 12).

Furthermore, between July 2005 - June 2010 and July 2010 - June 2015, the proportion of Aboriginal hospital patients who did not receive any reperfusion therapy on their index admission increased, compared to the non-Aboriginal proportion which decreased. Therefore both the absolute and relative disparity increased.



Data source: ISAAC Unit Record File provided by SA Health (unpublished) extracted for the SA State of Aboriginal Heart Health Project 22 Nov 2015

Figure 12: Proportion of people with a STEMI who were not revascularised within the index admission (RAH and FMC only), by Aboriginal status and age, July 2005 - June 2015

ESSENCE Indicator - Ischaemic stroke patients receiving intravenous thrombolysis

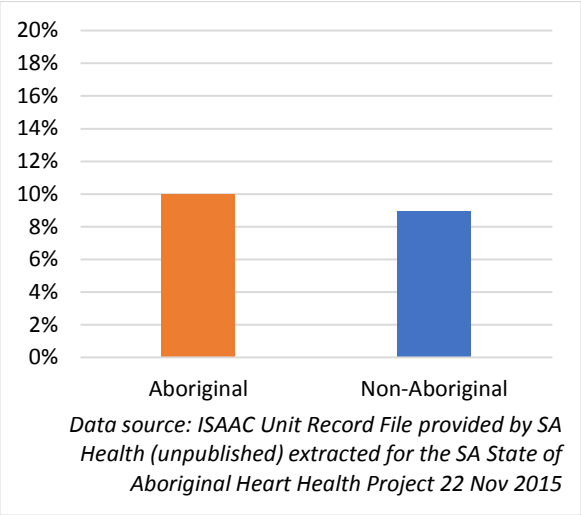
There were 60 Aboriginal patients who had a principal diagnosis of ischaemic stroke at Royal Adelaide Hospital, The Queen Elizabeth Hospital, Flinders Medical Centre and Lyell McEwin Hospital between July 2011 and June 2015.

Of the 60 Aboriginal hospitalisations, 6 (10%) received thrombolysis. This is compared to 9% of non-Aboriginal hospitalisations (Figure 13).

What is ischaemic stroke?

An ischaemic stroke is one of two types of stroke. The ischaemic stroke occurs when plaque within an artery breaks off and lodges in the artery of the brain, suddenly blocking the supply of blood.

The other type of stroke is a haemorrhagic stroke, which is a break in the wall of a blood vessel in the brain, which results in bleeding (Stroke Foundation, 2016a).



Data source: ISAAC Unit Record File provided by SA Health (unpublished) extracted for the SA State of Aboriginal Heart Health Project 22 Nov 2015

Figure 13: Crude proportion of people with a principal diagnosis of ischaemic stroke receiving thrombolysis, by Aboriginal status, July 2011 – June 2015

What is intravenous thrombolysis?

Intravenous thrombolysis is a treatment for ischaemic stroke, a drug (called rt-PA) that breaks down blood clots, which allows blood flow to return. Intravenous thrombolysis cannot be used to treat haemorrhagic stroke (Stroke Foundation, 2016b).

For full details on all the data in the plan refer to the SA Aboriginal Cardiovascular Health Profile.

What are the priority issues identified by the Aboriginal community, health service providers, clinicians and policy makers?

A range of issues and priorities have been identified from consultations with Aboriginal people and communities, health service providers, clinicians and policy makers during the development of this plan. These include:

Prevention a community priority

Prevention-based education and health promotion activities are very important to the community and should include culturally appropriate approaches, including narratives and personal stories. Raising awareness of the importance of heart attack and stroke and associated risk factors is a priority given the impact of these conditions. Activities should include stories of heart and stroke survivors making lifestyle changes, and should provide family's perspectives.

Prevention activities should start at young ages given the premature burden of cardiovascular disease.

Lack of awareness of the impact and extent of heart and stroke on the Aboriginal community

Both community and health professionals are shocked by the extent and young age at onset of heart disease and stroke on the Aboriginal population.

Lack of transport is a major barrier to access

The provision of transport is an issue at all stages of the patient's journey. This is irrespective of metropolitan, regional or remote location. This includes transport to medical services, including primary care and specialist services, and returning home after a hospitalisation. SA Health funded patient aided/assisted transport scheme (PATS) does not support the needs of patients.

The cost of ambulance services

The perceived and real costs of ambulance services in an emergency were identified by community members and some service providers. There is a need to increase access to SA Ambulance Services in an

emergency by increasing use of ambulance insurance and using systems that are already in place to reduce the burden of out of pocket costs.

Racism is a major issue

Experiences of racism within the health system were widely recognised. These ranged from feeling unsafe and racist comments by staff, to exclusion from accessing services during an acute event. The provision of culturally respectful health services free of institutional racism that address the needs of Aboriginal people is required.

Identification of Aboriginal or Torres Strait Islander status

Aboriginal patients spoke of not wanting to identify as Aboriginal due to fear of poor treatment as a consequence. Staff did not want to ask the question regarding identification due to fear of abuse. Identification needs to become a standard procedure that is built into systems for all to use. It must become "the norm" for staff to ask, collect and record Aboriginal or Torres Strait Islander status and for all patients to feel comfortable in providing information on how they identify.

Comprehensive primary health care services

Patients in primary health care want access to general practice services that bulk bill, can provide Close the Gap services (including scripts for Close the Gap medications), and are linked to multi-disciplinary services. There is confusion for patients and service providers due to the diversity of funding sources and the conditions attached to funding.

Patients are often lost in the system, especially post-discharge

Patients are still regularly lost post-discharge resulting in limited or no follow-up. In some cases referring hospitals, primary health care providers and specialists are not aware of patients being discharged and discharge reports are not received, specialist are not looping in to primary care, and patients often travel significant distances for very short out-patient appointments.

There needs to be better coordination from hospitals to primary health service providers and specialists to ensure follow-up and rehabilitation services are available.

Issues with workforce

The majority of hospital staff, some specialists and some general practice staff have very low levels of cultural competence. There are limited numbers of Aboriginal staff with clinical expertise and limited numbers of Aboriginal Liaison staff across all hospitals in SA. Investment is needed in both hospital and primary care to increase cultural awareness and cultural competence. Developing the cardiovascular workforce is widely identified by all stakeholders as a priority.

Access to culturally appropriate services

There was strong support for services being sensitive to the needs of Aboriginal people. This should include access to traditional healers including Ngangkari services.

Linking ACCHOs to acute service providers

The importance of connecting Aboriginal Community Controlled Health Organisations (ACCHOs) to acute service providers in terms of emergency protocols, pre-admission and discharge referral pathways, specialist services and ongoing training and development was highlighted. Links to Country Health SA iCCnet and acute stroke telephone services, disease identification and management and video conferencing services should be prioritised.

Systematic identification of Aboriginal patients in an emergency

Identifying Aboriginal patients at first point of medical contact and sharing this information with specialist services as they help triage patients was supported by clinicians across the system.

Learnings from cardiac services in the Northern Territory

The inclusion of Cardiac Coordinators in the workforce in Royal Darwin Hospital and Alice Springs Hospital has significantly helped link services and improve outcomes for patients. The NT has also invested in telemedicine and it is being accepted and widely used by Aboriginal and Torres Strait Islander patients, their families and services providers. It has helped to overcome issues including informed consent and ongoing patient management arising from patients being separated from community during treatment.

Access to accommodation

There was concern regarding accommodation for patients coming from regional and remote locations and their escorts. There were particularly issues for patients at Flinders Medical Centre, given the significant distance from hostels and the Stepdown Service in northern Adelaide.

Build on existing effective services

Services that were already operating effectively were recognised by community members and services providers. These should be built on with secure, ongoing funding and support. These include:

- exercise classes in community centres;
- emergency retrieval services operated by South Australian Ambulance Service (SAAS) and Royal Flying Doctor Service (RFDS);
- Country Health SA (CHSA) iCCnet services, including point of care testing and support with specialist advice;
- Closing the Gap (CtG) services being delivered by Primary Health Networks (PHNs);
- ACCHOs services;
- central referral to cardiac rehabilitation; and
- Virtual Coordinated Care (VCC) program being run by CHSA.

These themes were confirmed by the SA Aboriginal Heart and Stroke Community Reference Group and have been used to inform the strategies in the plan.

SA Aboriginal Heart and Stroke Plan

The Framework

The SA Aboriginal Heart and Stroke Plan 2017-2021 is driven by a framework with three elements (see Figure 14).

1. Patients, family and community
2. Evidence-based, culturally appropriate cardiovascular services
3. Essential enablers for effective strategy implementation

1. Patients, family and community

The individual, their family and community must be positioned at the centre of all stages of care. A holistic approach should acknowledge the physical, social, emotional, cultural and spiritual aspects which make up the individual and collective wellbeing and ensure that all aspects of wellbeing are considered during diagnosis, treatment, management and ongoing care.

2. Evidence-based, culturally appropriate cardiovascular services

Evidence-based cardiovascular services, provided in a culturally appropriate way, should be accessible to all Aboriginal people in South Australia across the continuum of care. For the purpose of this plan, the continuum of care has been separated into 4 stages, with each stage split into two service groups.

Stage 1: Primary preventive care

Definition - Promotion of healthy lifestyles, prevention of disease, and assessment and management of risk and early disease as part of comprehensive primary health care.

Service group 1a - Health promotion and disease prevention services

Service group 1b - Risk assessment and management services

Stage 2: Clinical suspicion of disease

Definition - Timely diagnosis of heart disease and stroke and associated risk factors and access to specialist services and support by specialists as close to the individual's home as possible.

Service group 2a - Diagnostic investigation services

Service group 2b - Specialist services

Stage 3: Acute episode

Definition - Equitable access to the best and most reliable acute health care possible, which delivers high quality, well configured, patient centred services in hospital.

Service group 3a - Planned and urgent transfers, and emergency retrieval services

Service group 3b - Acute hospital services

Stage 4: Ongoing care

Definition - Optimisation of transitions of care out of hospital, rehabilitation, and the provision of ongoing preventive care.

Service group 4a - Hospital discharge planning and follow-up services

Service group 4b - Rehabilitation, secondary prevention and ongoing care services

There is an additional section that refers to strategies for **Cross sector services** that should span the continuum of care.

3. Essential enablers for effective strategy implementation

The essential enablers identified in the plan are critical to facilitate the effective delivery of evidence-based, culturally appropriate cardiovascular services. They span across the health care system and are often outside the direct responsibility of cardiovascular services.

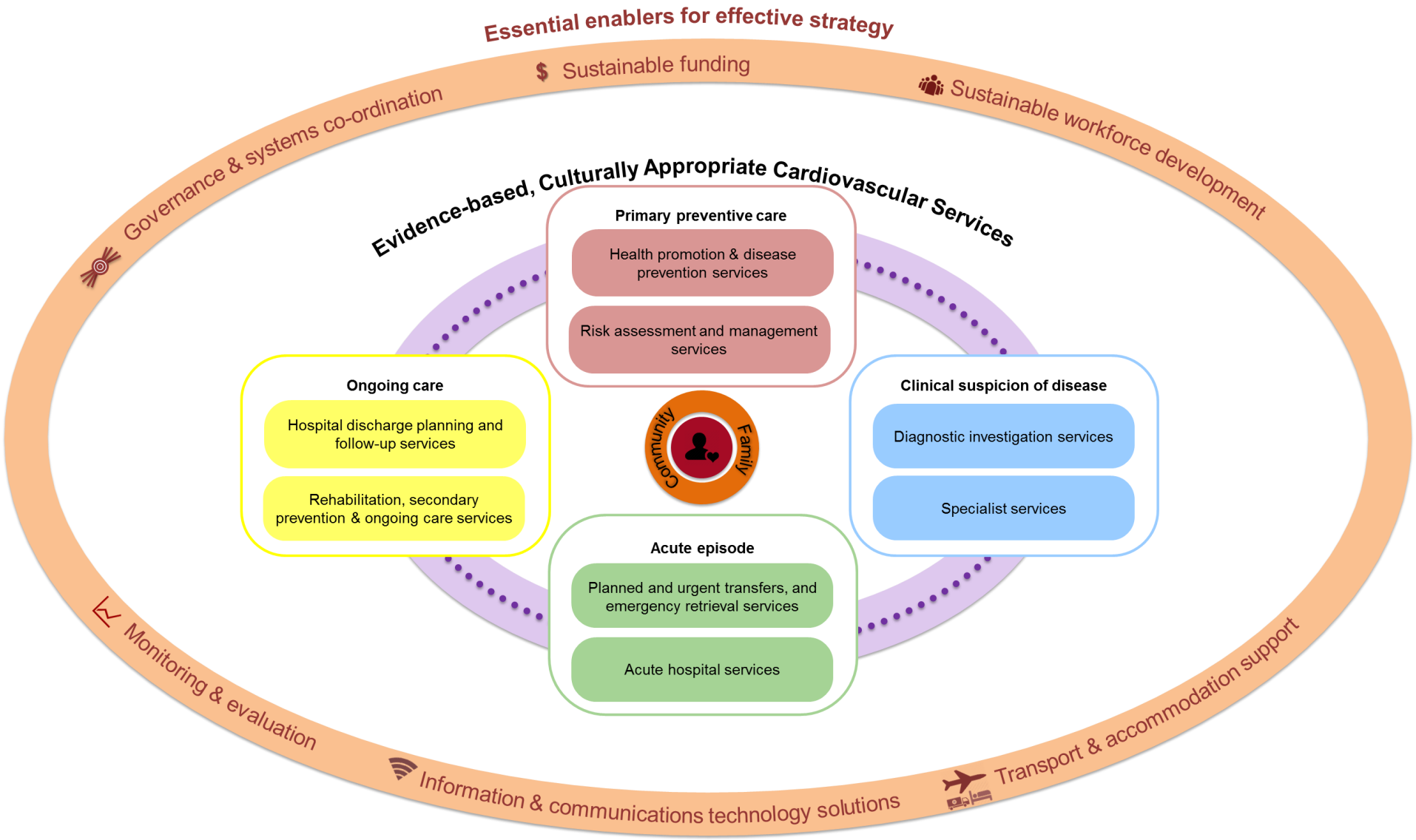
The Plan outlines six essential enablers:

- **Governance and systems co-ordination:**
  A governance structure that can drive system change and improvements in heart and stroke outcomes for Aboriginal people in South Australia while also incorporating Aboriginal leadership.
- **Sustainable funding:**
  Sustainable funding for the implementation of the Plan that will include service provision, governance and coordination, evaluation and the reorientation of practice and prioritisation of existing services.
- **Sustainable workforce development:**
  A workforce which is clinically and culturally competent in providing care to Aboriginal people.
- **Transport and accommodation support:**
  All Aboriginal people are able to safely access health care for heart and stroke, regardless of where they live or their socioeconomic status.
- **Information and communications technology solutions:**
  The use of innovations in information and communications technology to overcome existing challenges of providing effective, coordinated heart and stroke care to Aboriginal people in South Australia.
- **Monitoring and evaluation:**
  A system that monitors and evaluates the SA Aboriginal Heart and Stroke Plan.

The SA Aboriginal Heart and Stroke Plan is concerned about the following conditions:

- Cardiac disease, including:
  - Coronary Heart Disease (also known as ischaemic heart disease): including Acute Coronary Syndromes (ACS) [ACS includes angina and myocardial infarction]
  - Chronic Heart Failure
  - Atrial Fibrillation
  - Hypertension
  - Acute Rheumatic Fever and Rheumatic Heart Disease
- Cerebrovascular disease, including
  - Ischaemic and Haemorrhagic Stroke
- Vascular disease, including
  - Atherosclerosis
  - Peripheral vascular disease

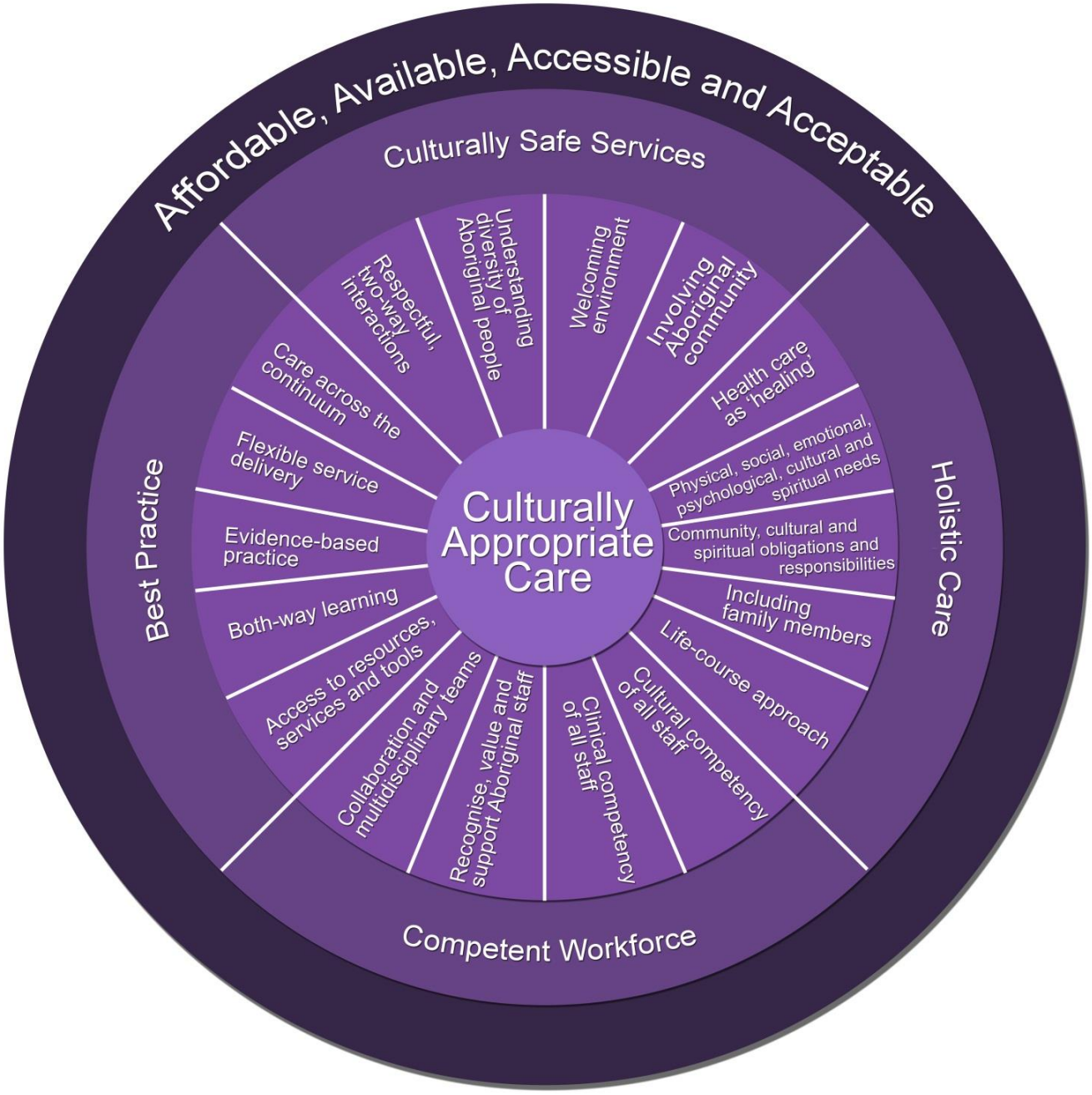
Framework of the SA Aboriginal Heart and Stroke Plan 2017-2021 *(Figure 14)*



What is culturally appropriate care?

All care provided by services for Aboriginal and Torres Strait Islander people should be conducted in a manner which is tailored to an individual in connection with their family, community, culture, spirituality and Country. It is important to recognise and understand the diversity of Aboriginal people across South Australia. There are many differing cultural profiles, norms and practices operating within this state and for Aboriginal patients who travel from interstate. Care must be respectful and culturally sensitive to take account of their particular circumstances.

The diagram below shows the relationship between services that are: available, accessible, acceptable and affordable (outermost circle) and also highlights four main features that are vital to delivering culturally appropriate care: culturally safe services; holistic care; clinically and culturally competent workforce; and best practice care (adapted from Davy et al 2016). The needs of individuals and communities should be considered in relation to each feature.



Adapted from "A Wellbeing Framework for Aboriginal and Torres Strait Islander Peoples Living with Chronic Disease" (Davy et al 2016)

Defining the features of culturally appropriate services

Culturally safe services

Culturally safe services refer to services that expect and perform zero tolerance for racism at any level. Cultural safety is supported by services that:

- develop and maintain respectful, two-way interactions between staff and patients (and their families and broader communities);
- recognise and appropriately respond to the diversity of Aboriginal individuals and communities;
- provide a welcoming environment, both physically and relationally; and
- actively involve Aboriginal community members or representative groups in priority setting, governance and accountability.

Holistic care

Holistic care is supported by services that:

- approach health care as 'healing', and support engagement with Traditional Healers and healing practices;
- respond to holistic and personal needs of patients, including their physical, social, emotional, psychological, cultural and spiritual needs;
- accommodate the complex family, community, cultural and spiritual obligations and responsibilities that patients or their family members may be experiencing;
- include family members in planning, decision-making or education, where appropriate; and
- recognise that for many Aboriginal people, a life-course approach is cyclical, and extends from pre-conception (e.g. adolescent nutritional or sexual health; health promotion) through to post-mortality (e.g. palliative care, end-of-life care, support around grief and loss).

Best practice care

Best practice care is supported by services that:

- provide coordinated care across the continuum (i.e. prevention, primary care, acute services, tertiary care, ongoing follow-up or rehabilitation, etc.);
- approach service delivery in flexible ways that can accommodate diverse needs;
- support both-way learning regarding Aboriginal cultural knowledges and practices, as well as the best available scientific evidence to inform practice;
- apply evidence-based practice; and
- ensure access to all relevant resources, services and tools to support effective delivery of care.

Culturally and clinically competent workforce

A culturally and clinically competent Aboriginal and non-Aboriginal workforce is supported by services that:

- foster collaboration within and between multi-skilled or multidisciplinary teams;
- recognise, value and support the unique contributions of Aboriginal staff members, as well as respect and provide support for the unique challenges they may encounter;
- ensure clinical competency of all staff, including providing training and support, as required; and
- ensure cultural competency of all staff, including providing training and support, as required.

What does it mean to deliver evidence-based cardiovascular services for Aboriginal people

Evidence-based care means that where possible the best available evidence from around the world is used to guide the development and delivery of services. When peer reviewed, published literature is not available, "expert consensus" can be used to guide service provision.

The SA Aboriginal Heart and Stroke Plan is underpinned by an evidenced based approach based on the ESSENCE (Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people) Project (see Box 1).

The ESSENCE Standards have been used in this project to conceptualise the shape and content of the Plan.

The ESSENCE Indicators will be used to measure the success of the implementation of the Plan. The data collection activity has involved the development of a Cardiovascular Health Profile for South Australia against any ESSENCE measures where data is currently available. This can act as a baseline for any future evaluation.

Box 1: ESSENCE

Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people.

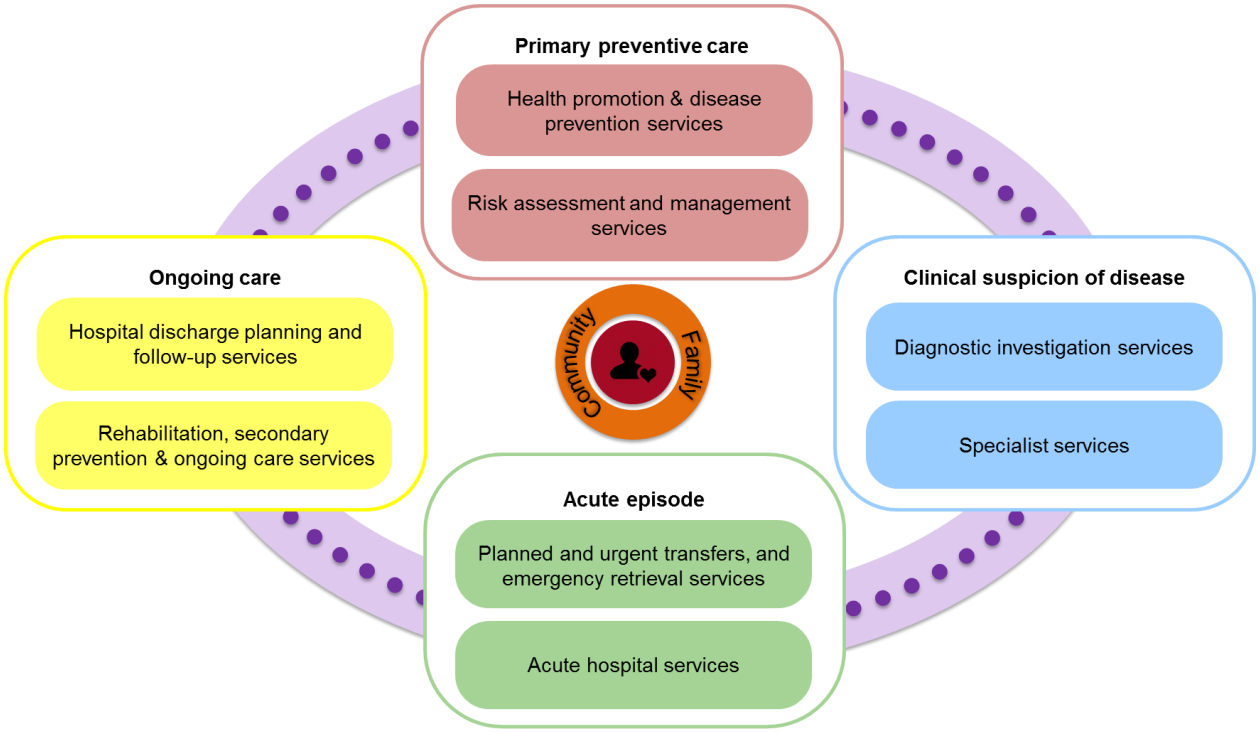
- The ESSENCE Standards articulate existing evidence and guidelines in a clear, coherent form that can be translated into practice. They were developed in 2011-12 and updated in 2014 and outline the minimum, acceptable level of care below which activity should not be permitted to fall (Brown 2015a; Brown 2015b).
- The 62 ESSENCE Standards cover critical cardiovascular conditions including coronary heart disease, stroke, chronic heart failure, rheumatic heart disease and hypertension and focuses on primary prevention, risk identification and management in primary care, and the management of disease in specialist, acute care and post-acute care settings. The ESSENCE Standards are informed by the Australian and international evidence base.
- Following the establishment of the ESSENCE Standards, a set of ESSENCE Indicators were developed to aid measurement of the standards. There are 16 indicators that represent 33 measures which can be used to monitor quality of services based on delivery of evidence-based care, and 6 outcome indicators with 10 measures which can be used to monitor cardiovascular health outcomes. The ESSENCE Indicators are aligned with national cardiac, stroke and Aboriginal and Torres Strait Islander health indicator sets.

As an appendix to this document, there is a matrix that maps all the strategies and enablers in the Plan against the ESSENCE Actions and Measures.

SA Aboriginal Heart and Stroke Plan

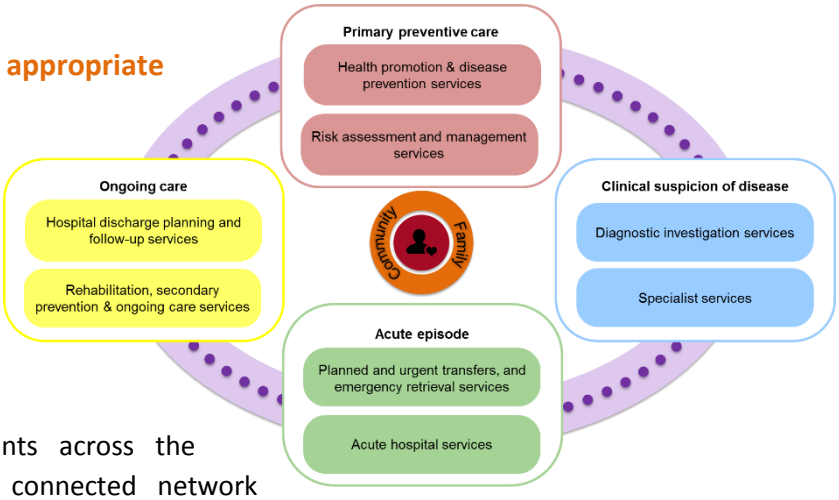
Part 1: Strategies for evidence-based, culturally appropriate cardiovascular services

Evidence-based cardiovascular services, provided in a culturally appropriate way should be provided across the life course and continuum of care to reduce the impact and extent of illness and premature mortality from heart disease and stroke in the Aboriginal community.



Strategies for evidence-based, culturally appropriate cardiovascular services

Cross-sector services



What are cross-sector services?

Strategies that have relevance across the health care system from prevention to ongoing care.

What are we trying to achieve?

Enhancing services that have touch points across the continuum of care to help facilitate a connected network approach to service provision.

What is currently happening?

- 36% of Aboriginal South Australians report having three or more long term health conditions.
- Almost 30% of all SA Aboriginal people live in the far north or far west of SA.
- Aboriginal people are 36 times more likely to be hospitalised for acute rheumatic fever, and 60% more likely to be hospitalised for rheumatic heart disease (July 2005 – June 2015).

Primary Care

- There are currently many providers in the primary care space and a variety of funding and service models being implemented (Aboriginal Community Controlled Health Organisations, SA Health funded services and private practice).
- About 50% of Aboriginal people access comprehensive primary care services that are provided by Aboriginal Community Controlled Health Services. Access to community controlled services is not possible in some areas of metropolitan Adelaide and country SA. SA Health funded services provide services in these gaps however their services are restricted.
- While chronic disease is a priority, cardiovascular disease is not overtly prioritised in the chronic disease focus.
- Primary Health Networks (PHNs) are funded to commission programs that provide patient coordination and support.
- Private General Practice, that are Practice Incentive Payment-Indigenous Health Initiative approved and aligned with allied health services including pharmacy, are being utilised by Aboriginal people particularly in the western suburbs of Adelaide.

Statewide Regional Network

- The iCCnet CHSA run a network that provides timely access to specialist advice in an emergency. Their service has expanded to include cardiac rehabilitation and ongoing management.
- Statewide stroke services are networked through a volunteer neurologist network and the country stroke services based at Whyalla, Berri and Mount Gambier. There is no effective ongoing coordination.
- The SA Cardiac Clinical Network and SA Stroke Clinical Network formally ceased in 2015.
- Acute Coronary Syndrome (ACS) and Stroke are priorities in Transforming Health.

Rheumatic Heart Disease Control Program

- SA Health coordinates the SA Rheumatic Heart Disease Control Program. This program currently has federal government funding and is linked to the Rheumatic Heart Disease Australia network. It includes a robust register with over 200 active cases, and in addition facilitates education, training and support to communities and health services.
- SAHMRI is undertaking a RHD prevalence study (SACRHD) in SA schools, recruiting 2000 children.

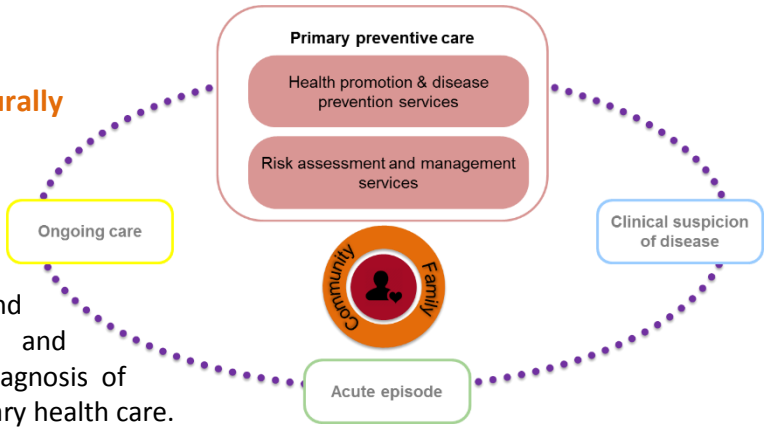
Strategy: cross sector services		
Strategy detail	**Responsibility**	**Partners**
1: Review and reorient current mechanisms to improve delivery of culturally appropriate comprehensive primary health care services		
Review and, where necessary reorient, current mechanisms to improve access to and coordination of care in primary health care services for Aboriginal clients. Comprehensive primary health care services should provide clients with continuous, accessible, high-quality and patient-centred care. The review and re-orientation should ensure that services: - co-ordinate cardiovascular care across the continuum of disease, including prevention, risk assessment and management, ongoing management and secondary prevention of established disease, and palliative and end of life care; - prioritise antibiotic prophylaxis for rheumatic heart disease; - have access to multidisciplinary, specialist and support services, for clients and clinicians; - support clients and their families to facilitate appointments, provide transport support, and minimise out-of-pocket costs; - improve utilisation of funding mechanisms to support improved access by Aboriginal clients; - effectively implement electronic quality improvement systems; - utilise video-conferencing and information and communications technology solutions where appropriate; and - have a sufficient workforce which is clinically and culturally competent in providing culturally appropriate comprehensive primary health care services, including GPs, nurses, Aboriginal health practitioners and Aboriginal health workers. This may involve increasing the availability of ACCHOs where there is an identified need by community.	Governance Leadership Group	AHCSA PHC services SA Health RDWA PHNs
2: Develop a state-wide model for delivering cardiovascular care to Aboriginal people, with enhanced regional and remote service networks. Port Augusta should host a regional coordination centre that coordinates and enhances services for Aboriginal people in the far north and west of SA		
The state-wide model must facilitate delivery of the following services: - outreach diagnostic and management clinics (See Strategy 7); - 24/7 acute specialist advice (See Strategy 13a, 13b); - referral pathways and clinical guidelines for acute event assessment, transfers, specialist referrals and follow-up care (See Strategy 12, 13a, 13b, 14a, 14b, 18, 19, 21); - in-patient cardiac and stroke coordinator (Strategy 16); - formalised links between acute and primary health care providers and allied health practitioners (See Strategy 13a, 13b, 19, 21); - structured rehabilitation programs (See Strategy 20); - data collection and reporting systems (See Enabler Monitoring & evaluation); - integrated use of information and communications technology solutions (See Enabler Information and communications technology solutions); - coordination of transportation (Strategy 13a, 13b, Transport	Governance Leadership group	All

Strategy: cross sector services		
Strategy detail	**Responsibility**	**Partners**
and accommodation support); - standard medication kits, protocols and stock management systems for acute patients at regional and remote centres; - improved feedback and reminder systems to support clinicians (Information & communications technology solutions); - service planning and clinical leadership (Governance & systems coordination); - regular mandatory training and competencies for clinical staff (Sustainable workforce development); - reviews and evaluations of processes, costs and outcomes (Monitoring & evaluation); and - support systems for General Practitioners providing rehabilitation care (Strategy 20). The Port Augusta coordination centre must guide coordination of services as outlined above for the far north and west, with implementation of on-the-ground, local services in rural and remote communities.		
3: Maintain and expand the existing SA Rheumatic Heart Disease Control Program		
The SA Rheumatic Heart Disease Program must be expanded to become a full control program including the following elements: - continued commitment from national, regional and local services to ensure long-term funding and governance support; - an effective advisory committee; - ongoing coordinating team; - an electronic patient register that contains data elements that support quality patient management and reporting requirements; - advocacy for a stable supply of benzathine penicillin G (BPG); - support primary health care services to provide primary and secondary antibiotic prophylaxis; - active surveillance for cases of acute rheumatic fever and rheumatic heart disease and assessment and monitoring of the burden of disease; - partnerships between clinicians and public health services to support the needs of people with acute rheumatic fever/rheumatic heart disease and the community; - provision of education for health practitioners and health workers, and supported health education for the community, those with disease and their families; - activities guided by locally relevant, evidence-based guidelines; - notification of acute rheumatic fever/rheumatic heart disease supported by public health surveillance activities; - coordination of a system which identifies and prioritises services for those at highest risk; - a mechanism for monitoring delivery of secondary prophylaxis and ongoing care; and - evaluation of patient management and program activities.	SA Health Commonwealth Government	AHCSA PHNs ACCHOs Heart Foundation

Strategy: cross sector services		
Strategy detail	**Responsibility**	**Partners**
4: Enhance care for the identification, acute and ongoing care of children and adolescents with heart disease and stroke by paediatric cardiology services, with effective transition pathways into adult cardiology services		
The existing models of care for the identification and management of paediatric cardiac issues be enhanced to: - consolidate the Women's and Children's Hospital as the statewide provider of specialist services and advice (within and outside hospital) for paediatric cardiology; - improve access to care as close to home as possible for specialist paediatric cardiology services in urban, regional and remote areas; - support the coordination of care for hospitalisation, especially those travelling interstate for surgery, including pre-admission planning, transport support, inter-hospital communication, discharge planning, ongoing specialist services and linkages to primary health care services; - support the early recognition and management of risk factors for cardiovascular disease; and - develop safe and effective pathways for transition to adult care; and - recognise the special needs of Aboriginal patients transitioning from paediatric to adult services.	SA Health	WCH

Strategies for evidence-based, culturally appropriate cardiovascular services

Stage 1 - Primary preventive care



What is primary preventive care?

The promotion of healthy lifestyles and disease prevention, the assessment and management of risk and the early diagnosis of disease as part of comprehensive primary health care.

What are we trying to achieve?

Improved access and uptake of evidence based preventive health interventions to reduce future burden of disease.

What is currently happening?

- 40% of Aboriginal people aged 35-44 report having a cardiovascular disease.
- Over 30% of Aboriginal people aged 35-44 report having hypertension.
- Almost 80% of Aboriginal people aged 55 years and over report having a cardiovascular disease.

Health promotion and disease prevention

- There are currently no Aboriginal-specific cardiovascular health promotion or disease prevention programs being run state wide, nor chronic disease prevention programs. There are mainstream services available to Aboriginal people.
- There is some federal and state funding for tobacco control initiatives, however it is time limited.
- There is very limited, uncertain funding for nutrition and physical activity prevention activities, primary led by Aboriginal Health Council of SA (AHCSA).
- Mental Health programs may be supported under new Primary Health Network funding.
- There is a strong message from community that there should be targeted community awareness campaigns about heart disease and stroke to encourage healthy lifestyles, risk management and primary prevention and ongoing management messages. This should have strong community leadership and use of culturally appropriate and strength based approaches.

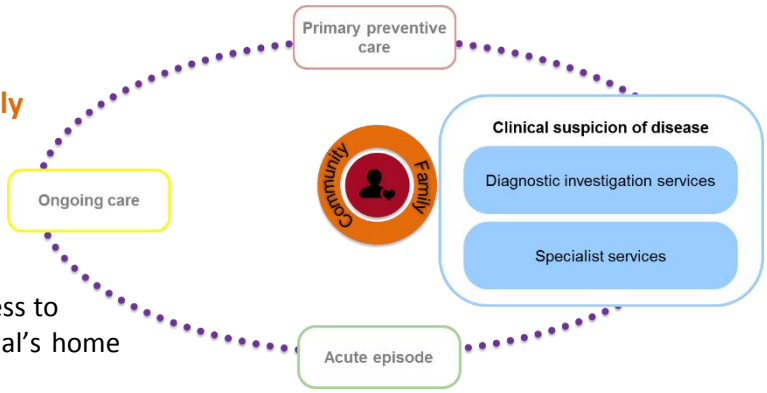
Cardiovascular risk assessment and management

- There is strong evidence to support cardiovascular risk assessment and management with Aboriginal and Torres Strait Islander people.
- Cardiovascular Risk Assessment and subsequent management in Aboriginal Community Controlled Health Services can be improved. There will be a new Cardiovascular Risk Assessment indicator added to the Indigenous primary health care national key performance indicators (nKPIs) for Aboriginal Community Controlled Health Organisations from 1 July 2016.
- Cardiovascular Risk Assessment and subsequent management in state funded Aboriginal Health Services and private general practice is unknown but is likely to be low given Adult Health Check data (15% of adults had an Adult Health Check recorded).
- Blood pressure and cholesterol checks, as independent risk markers, are being undertaken in some primary care settings but management levels are unclear.
- Most community members have little knowledge of the existence or benefits of cardiovascular risk assessments.
- Given the early onset of established disease, efforts should focus on cardiovascular risk assessment from age 15.
- Cardiovascular risk assessment and management has been a successful focus of work in the Northern Territory.

Strategy: Primary preventive care		
Strategy detail	**Responsibility**	**Partners**
Health promotion and disease prevention		
5: Establish sustainable heart, stroke and diabetes awareness and prevention campaign/s across SA		
Develop an awareness and prevention campaign for heart, stroke and diabetes. This must: - focus across the life course, with specific approaches for different age groups; - recognise the social and economic disadvantage experienced by many Aboriginal people, and the role these factors play in risk behaviours and health status; - have key focus on physical activity, nutrition, smoking and mental health; - be coordinated with other appropriate prevention programs, including schools based programs, as part of a holistic, culturally appropriate approach to health and wellbeing; - use a strength based approach focusing on the stories of survivors, and consider the use of narratives to convey the key health messages; - learn from and build upon existing effective awareness and prevention campaigns; - promote early detection of disease through annual cardiovascular risk assessments as part of an adult health check; and - be aligned with the Strategy for Type 2 Diabetes Mellitus in Aboriginal people in SA.	SAAHP	PHNs SA Health Public Health Branch Community Heart Foundation RFDS DASSA
Risk assessment and management		
6: Increase the use of cardiovascular risk assessment and management in all primary care settings		
Support uptake of cardiovascular risk assessment and management through the development of a model of care, including protocol, toolkit and implementation plan. This must: - facilitate assessment in people aged 15 years and over at least once every year, as part of Adult Health Check; - support timely, appropriate management of risk and established disease, including lifestyle advice, support and long-term pharmacological and non-pharmacological treatment; - integrate management into holistic approaches to care; - support referral to primary care, acute sector, specialist services and allied health care services including pharmacy; - outline integration into key elements of practice management such as patient information management systems, workforce requirements and continuous quality improvement; - support approaches to improve access, including bulk billing and transport support; - be developed through coordination between all primary health care providers, allied health, and pharmacies; and - be integrated with management of other disease, particularly diabetes mellitus and kidney disease.	Governance Leadership Group	AHCSA ACCHOs SA health funded services PHN funded services Private sector GPs NVDPA Heart Foundation Stroke Foundation RFDS PHNs

Strategies for evidence-based, culturally appropriate cardiovascular services

Stage 2 - Clinical suspicion of disease



What is clinical suspicion of disease?

Timely diagnosis of heart disease and access to specialist services as close to the individual's home as possible.

What are we trying to achieve?

Improved access to services to identify disease, or markers of disease, as early as possible.

What is currently happening?

- There is very limited data on utilisation of diagnostic and specialist services to inform this section.
- As at December 2015, 58% of severe, and 71% of moderate acute rheumatic fever/rheumatic heart disease patients received regular echocardiography screening within guideline recommended timeframes.

Diagnostic investigation services

- Medicare Benefits Scheme records of receipt of diagnostic investigation and technical services are the only records available and are not routinely aggregated by Aboriginal status.
- The far north and far west of the state have very limited access to diagnostic investigation and technical services, however a significant Aboriginal population who are likely to need heart and stroke services live in these regions.
- The northern and western suburbs of metropolitan Adelaide have limited access to the medical imaging services however a significant Aboriginal population who are likely to need heart and stroke services live in these regions.
- There has been limited integration of diagnostic services into Aboriginal Community Controlled Health Organisations (ACCHOs) servicing rural and remote communities.
- The iCCnet CHSA support point of care testing devices (POCT), including but not limited to troponin, holter testing, glucose monitoring, 24 hour blood pressure monitoring, and stress testing.
- There is limited access to diagnostic investigative services and follow-up care for transient ischemic attack (TIA) patients in country SA. There are very few magnetic resonance imaging (MRI) facilities in country SA.

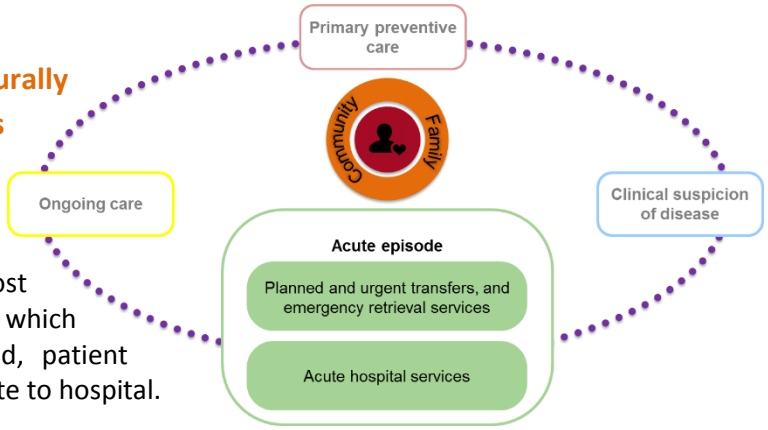
Specialist services

- Specialist physicians play a role in facilitating access to diagnostic services for cardiac conditions.
- There is poor coordination of specialist service across the state with multiple providers and significant overlap in some regions and very limited access to specialist services in other regions.
- There is a lack of specialist services in relation to need in:
    - western and northern Adelaide suburbs;
    - the far north and far west of South Australia.
- There is a lack of coordination between the general practitioner (GP), specialist and investigative services and fragmented specialist care post discharge.
- Specialist services are not routinely linked to all Aboriginal Community Controlled Health Organisations (ACCHOs) and specialist services are not always culturally appropriate.
- Patients are unable to routinely access transport to attend specialist outreach services not funded by SA Health.

Strategy: Clinical suspicion of disease		
Strategy detail	**Responsibility**	**Partners**
Diagnostic investigation services		
7: Develop and implement a model of care and referral pathways to provide timely access to non-acute diagnostic services for identification and management of disease		
Develop and implement a model of care and referral pathways for non-acute diagnostic services for suspected coronary heart disease, transient ischaemic attack, management of acute rheumatic fever/rheumatic heart disease and chronic heart failure. This must: - include electrocardiography, echocardiography, coronary angiography, chest x-ray, magnetic resonance imaging (MRI) brain scan, haematology, stress test, ambulatory blood pressure and holter tests; - outline what should be provided across SA, based on geographic accessibility and burden of disease across the population; - provide care as close to home as possible; - consider appropriate definitions of 'accessible' within appropriate timeframes; - be developed through a central coordinating body; - be integrated with electronic patient information management systems; and - develop and integrate information and communications technology solutions to improve clinical information sharing, including point of care testing (POCT) and videoconferencing.	SA Health	iCCnet CHSA LHNs AHCSA PHNs ACCHOs RFDS RDWA
Specialist services		
8: Establish a coordinated state wide specialist outreach service plan		
Develop a coordinated specialist outreach service plan for metropolitan, rural and remote SA. The plan must: - provide on-the-ground cardiac, stroke, allied health and nurse specialists across the State to deliver specialist care for stroke, acute rheumatic fever/rheumatic heart disease, chronic heart failure, coronary heart disease, and atrial fibrillation; - provide ongoing specialist support and up skilling to primary health care providers, including General Practitioners (GPs), nurses and nurse practitioners, and Aboriginal Health Workers; - integrate information and communications technology solutions including teleconferencing and videoconferencing to supplement usual face-to-face consultations in rural and remote communities; - ensure that models of delivery of specialist services are defined by local service needs and current provision of primary care services; - integrate specialist services within Aboriginal Community Controlled Health Organisation (ACCHO) sector where preferred by that service; - incorporate specialist services into follow-up care (Strategy 20); - be informed by existing mapping of services; and - incorporate monitoring, including services activity, community need and outcomes (Monitoring & evaluation).	SA Health	iCCnet CHSA LHNs AHCSA ACCHOs PHNs RFDS RDWA

Strategies for evidence-based, culturally appropriate cardiovascular services

Stage 3 - Acute episode care



What is acute episode care?

Equitable access to the best and most reliable acute health care possible, which delivers high quality, well configured, patient centred services in hospital and on route to hospital.

What are we trying to achieve?

Development of the acute system to ensure that retrieval and transfer services and the major tertiary hospitals (Royal Adelaide Hospital, Flinders Medical Centre and Lyell McEwin Hospital), as well as Port Augusta and Ceduna hospitals provide the best care to Aboriginal heart and stroke patients first time, every time. All systems should be aligned and integrated within Transforming Health. Riverland, Whyalla and Mt Gambier Hospitals have key responsibilities in stroke care.

What is currently happening?

- After adjusting for different age profiles, Aboriginal people were 60% more likely than non-Aboriginal people to be hospitalised for a principal diagnosis of CVD (July 2010-June 2015).
- From 2006-2012, the Royal Flying Doctors Service (RFDS) undertook 137 primary evacuations and 424 inter-hospital transfers from SA for people identified as Aboriginal for CVD.

Planned and urgent transfers, and emergency retrieval services

- In an emergency many Aboriginal people do not call 000 due to the real and the perceived cost of ambulance use (see Enabler 4 - Transport and Accommodation Support for more information).
- Aboriginal identification of patients is not formally or systematically collected/registered during the emergency phase of their journey.
- Transfer and retrieval processes are not systematically culturally appropriate.
- There is poor coordination between referring and referral hospital.
- Planned appointments for patients from country regions are often haphazard with limited funding for transport.
- There is high need for but low levels of service provision in Port Augusta and the northwest region.
- When considering heart specific services, access to point of care testing for troponin and other relevant diagnosis testing is an issue in some locations if the iCCnet CHSA is not involved.
- With respect to stroke it is difficult to access specialist support in an emergency event, overnight or at the weekend.

Acute hospital services

- There is poor coordination of Aboriginal patients into and out of hospital.
- The non-Aboriginal workforce is often not culturally competent and has limited cultural awareness.
- There is a lack of an Aboriginal workforce in heart and stroke acute care.
- Aboriginal people are significantly more likely to self –discharge than non-Aboriginal patients.
- There is poor identification of Aboriginal patients across the system with many reasons given for not asking all patients about their Aboriginal and/or Torres Strait Islander status.
- There is a lack of health, cultural and financial support, including nursing staff who are both culturally and clinically skilled, for patients and families during their hospital visit.
- There are pockets of good practice in-hospital cardiac education and some resources specifically for Aboriginal and Torres Strait islander people, such as the Heart Foundation's "My Heart, My Family, Our Culture", but not all have been designed for the South Australian community.
- Experiences of racism in hospitals are regularly reported by Aboriginal patients and their families.

- Aboriginal Liaison Units are under resourced and not used efficiently or effectively in all cases.
- There is no specialist stroke acute care in Port Augusta despite high demand.
- There is no Aboriginal-specific state-wide reporting against key indicators for the acute setting.

Strategy: Acute episode		
Strategy detail	**Responsibility**	**Partners**
<u>Planned and urgent transfers, and emergency retrieval services</u>		
9: Increase awareness of the warning signs and symptoms of heart attack and stroke among the Aboriginal community and service providers		
State and Federal Governments to provide financial support to the Heart Foundation's 'Warning Signs of Heart Attack' and Stroke Foundation's 'FAST' campaigns in the South Australian Aboriginal community. The campaigns must: - have messages which are culturally and geographically appropriate; and - be integrated with the broader heart, stroke and diabetes awareness and prevention campaign (see Strategy 1).	Commonwealth Govt SA Health	AHCSA SAAHP Heart Foundation Stroke Foundation
10: Improve access to emergency care by reducing the out-of-pocket costs of ambulance services		
Explore and develop approaches to reduce the out-of-pocket cost of transport by ambulance for people with significant economic disadvantage. The final approaches must be: - integrated into a systems response; - supported by the Aboriginal community; and - promoted throughout the Aboriginal communities in SA.	SAAS SA Health	AHCSA SAAHP PHNs Heart Foundation Stroke Foundation
11: Establish a system to identify Aboriginal or Torres Strait Islander status at the first point of medical contact		
Establish and maintain a system where identification of all Aboriginal patients occurs as early as possible. This will enable appropriate clinical decision making in recognition of specific risk, and consideration of cultural elements of care to be incorporated into management. The system must be: - integrated into electronic patient information management systems; - incorporated into workforce training; - written into care pathways; and - implemented across SA Ambulance Service (SAAS), Royal Flying Doctors Service (RFDS), emergency services and departments, and hospitals.	SA Health LHNs SAAS RFDS	iCCnet CHSA
12: Develop and implement a transfer and retrieval services protocol that responds to the clinical and cultural needs of Aboriginal people		
The protocol must include: - consent; - clinical preparation of the patient; - collection of primary care service details; - collection of patient history where possible; - patient and family education about the health issue and what is	SA Health SAAS RFDS	LHNs AHCSA

Strategy: Acute episode		
Strategy detail	**Responsibility**	**Partners**
about to occur; - selection and preparation of the escort; - consideration of financial resources for the patient and family; and - consideration of social support for the patient and family. The protocol should: - be triggered by identification (see Strategy 11); - be implemented in all non-metropolitan services which have patients which are transferred and/or retrieved; and - help facilitate the transfer of information from the hospital of origin to the referral hospital and hence be part of the formal communication system.		
13a: Maintain and expand iCCnet CHSA to provide coordinated services from first medical contact to definitive care for regional and remote Aboriginal patients with acute heart disease		
Maintain and expand iCCnet CHSA for regional and remote Aboriginal patients with acute heart disease, from first point of medical contact to definitive care. The regional system must: - ensure state-wide network access to timely specialist advice through the iCCnet CHSA is continued; - enable video-conferencing to support thrombolysis admission; - link ACCHOs into the state-wide network access to timely specialist advice through the iCCnet CHSA and extended to the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands; - establish feasibility of providing thrombolysis in large remote clinics, with adequate resourcing for training and support for medical and nursing staff; - provide adequate resourcing to iCCnet CHSA to provide point of care testing (POCT) equipment, training and support to all country hospitals and key points of medical contact including remote Aboriginal Community Controlled Health Organisations (ACCHOs); - incorporate results from point of care testing (POCT) and electrocardiograms (ECGs) into a state-wide electronic database to record, share and store results with specialists and across sites; - integrate the transfer and retrieval services protocol (Strategy 11); and - be integrated into triaging and coordination processes with referring and receiving hospitals.	iCCnet CHSA	SA Health
***13b: Implement a regional system of care from first medical contact to definitive care for regional and remote Aboriginal patients with stroke or* Transient Ischemic Attack (*TIA*)**		
Implement a regional system of care for regional and remote Aboriginal patients with stroke or TIA from first point of medical care to definitive care, building on current SA Health protocols. The regional system must: - ensure state-wide network access to timely specialist advice through the 24/7 stroke specialist phone service located at the Royal Adelaide Hospital; - integrate the 24/7 stroke specialist phone service into SA	SA Health (TH) SAAS MedStar	RFDS LHNs

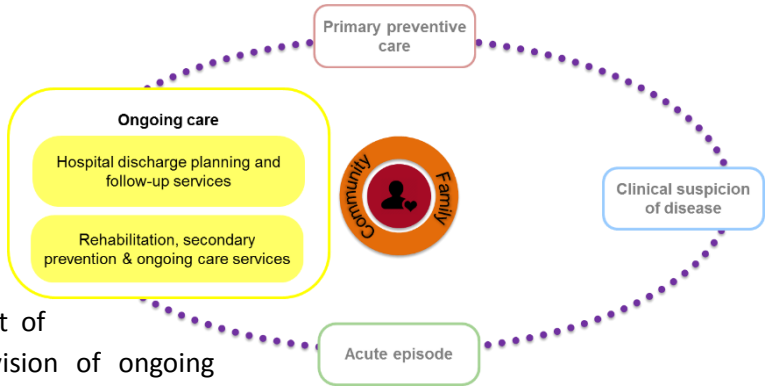
Strategy: Acute episode		
Strategy detail	**Responsibility**	**Partners**
Ambulance Service (SAAS) MedStar service; - enable video-conferencing to support thrombolysis admission at country stroke services; - utilise the Royal Adelaide Hospital as the primary tertiary hospital; - connect Aboriginal Community Controlled Health Organisations (ACCHOs) into the state-wide network, to enable timely specialist advice; - explore feasibility of providing thrombolysis in Port Augusta and Ceduna, with adequate resourcing for training and support for medical and nursing staff; - provide adequate training and support to all country hospitals and key points of medical contact including remote Aboriginal Community Controlled Health Organisations (ACCHOs), including use of pre-hospital screening tool and triage and retrieval processes; - support implementation of models of care for stroke and transient ischaemic attack (TIA) patients in rural and remote locations; and - incorporate results from magnetic resonance imaging (MRIs) into an electronic system to enable access to films for decision making.		
<u>Acute hospital services</u>		
14a: Provide best practice clinical and cultural care for Aboriginal heart disease patients at all South Australian hospitals, with targeted efforts at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Port Augusta Hospital and Ceduna Hospital		
For those hospitals with the largest throughput of Aboriginal heart patients, develop a service which is nationally recognised for providing best practice Aboriginal heart clinical and cultural care. Care should meet the Australian Commission on Safety and Quality in Health Care (ACSQHC) Acute Coronary Syndromes (ACS) Standards. Effective delivery of care should include: - identification of all Aboriginal patients; - care delivered in a culturally appropriate manner; - timely access to emergency care by a competent clinician; - timely access to reperfusion therapies appropriate to the resourcing at that site, with systems to facilitate transfer within a coordinated regional system, within the index admission; - specialist cardiac care units with dedicated staff and appropriate treatment capacity to that hospital; - all cardiovascular clinical staff achieving cultural competence including Emergency Department, cardiac and outpatient services; - adequate resourcing of Aboriginal Liaison Units to enable Aboriginal Liaison Officers (ALOs) to work with ward staff and support Aboriginal patients, escorts and family members; - in-hospital communication to ensure that all patients and their families and communities are informed and have control of their care;	SA Health Hospital and LHNs	Heart Foundation

Strategy: Acute episode		
Strategy detail	**Responsibility**	**Partners**
- in-hospital education to ensure that all patients receive education using culturally relevant resources, with involvement of family members; and - established referral systems to primary health care and rehabilitation services.		
14b: Provide best practice clinical and cultural care for Aboriginal stroke patients at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Berri Hospital, Mount Gambier Hospital, Whyalla Hospital, Port Augusta Hospital and Ceduna Hospital		
For those hospitals with the largest throughput of Aboriginal stroke patients or are SA Health Stroke Centres develop a service which is nationally recognised for best practice Aboriginal stroke clinical and cultural care. Care should meet the SA Health Stroke Management Procedures & Protocols and the Australian Commission on Safety and Quality in Health Care (ACSQHC) Stroke Standards. Effective delivery of care should include: - identification of all Aboriginal patients; - care delivered in a culturally appropriate manner; - timely access to emergency care (including imaging) by a culturally and clinically competent clinician; - timely access to thrombolysis for ischaemic stroke; - systems to facilitate timely transfer within a coordinated regional system, within the index admission; - specialist stroke units/services with dedicated staff and appropriate treatment capacity to that hospital; - all cardiovascular clinical staff achieving cultural competence including Emergency Department, neurology, rehabilitation and outpatient services; - adequate resourcing of Aboriginal Liaison Units to enable (Aboriginal Liaison Officers (ALOs) to work with ward staff and support Aboriginal patients, escorts and family members; - in-hospital communication to ensure that all patients, and their family and community are informed and have control of their care; - in-hospital education to ensure that all patients receive education using culturally relevant resources, with involvement of family; and - established referral systems to rehabilitation services and ongoing care.	SA Health Hospital and LHNs	Stroke Foundation
15: Establish an Aboriginal heart and stroke Aboriginal Health Practitioner/Nurse Coordinator position at Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Port Augusta Hospital and Ceduna Hospital to support Aboriginal patients and their families throughout their journey of care		
These roles should be adapted to meet the particular needs of that hospital and the region. The positions should be a regional coordination role. The role of the coordinator must: - have clinical skills in heart and stroke care; - be focused on case management and coordination of services; - ensure adequate pre-operative planning and support; - ensure in-hospital support for patient and their families, and facilitate communication and education;	SA Health	

Strategy: Acute episode		
Strategy detail	**Responsibility**	**Partners**
- support pre-discharge planning, development of a discharge plan and communication of that plan to primary health care services; - support specialist outreach and ongoing care; - implement models of care in-hospital to improve cultural competent care; and - establish local cardiovascular planning committees.		
16: Establish systems and services at the new Royal Adelaide Hospital that prioritises the needs of metropolitan, regional and remote Aboriginal people receiving care for heart disease and stroke		
Based on the current service patterns and expected future throughput, the new Royal Adelaide hospital will have the largest number of Aboriginal patients for heart disease and stroke in SA. As a new service, systems of care should be designed to ensure: - provision of best practice clinical and cultural care for Aboriginal heart disease and stroke patients (See Strategy 13a and 13b); - development of an Aboriginal heart and stroke Aboriginal Health Practitioner/Nurse Coordinator position (See Strategy 14); - the provision of outreach services as part of a coordinated state wide specialist outreach service (See Strategy 7); - integration of cardiology services within the iCCnet CHSA network (See Strategy 12a); - the 24/7 stroke specialist phone service located at the Royal Adelaide Hospital (See Strategy 12b); - the new Royal Adelaide Hospital is the primary tertiary referral hospital for all regional and remote Aboriginal stroke patients (See Strategy 12b); - identification of Aboriginal or Torres Strait Islander status at first point of contact (See Strategy 10); - patient centred and safe discharge systems(See Strategy 17); and - ongoing monitoring systems (See Monitoring & evaluation).	SA Health CALHN	
17: Develop a state-wide approach to a rheumatic valvular surgery centre of excellence		
Given the burden of rheumatic heart disease in South Australia and the pathway from the NT for rheumatic heart disease patients, a single, state-wide rheumatic valvular surgery centre of excellence should be developed. This surgical centre of excellence must: - have necessary volume of cases to develop and maintain technical expertise; - have established systems to provide clinically and culturally appropriate pre- and post-operative care (See Strategy 13a); - enable decision making for treatment options to involve the patient, their family, the primary health care team and the referring specialist; - utilise planned transfer protocols (See Strategy 11); - is integrated and shares patient information with the SA Rheumatic Heart Disease Control Program (See Strategy 3); - establish post surgical follow-up and specialist support to primary health care for long term management; - have systems initiate and support ongoing primary health, diagnostic and specialist care (See Strategy 4, 5, 20); and - have the capacity to provide treatment as early as possible.	Commonwealth Govt	SA Health

Strategies for evidence-based, culturally appropriate cardiovascular services

Stage 4 - Ongoing care



What is ongoing care?

Optimisation of transitions of care out of hospital, rehabilitation, and the provision of ongoing preventive care.

What are we trying to achieve?

A system that connects patients leaving the acute sector with high quality ongoing, accessible care including rehabilitation and management in primary care.

What is currently happening?

- Between January 2013-December 2014, 25 Aboriginal people received a referral to cardiac rehabilitation as an in-patient (28%), compared to 34% of non-Aboriginal people.
    - 75% of Aboriginal people eligible for cardiac rehabilitation were under 65 years old, compared to 47% of non-Aboriginal people.
    - Six Aboriginal people who were referred to cardiac rehabilitation completed (24%); this was slightly higher than the non-Aboriginal rate.

Hospital discharge planning and follow-up

- Pre-discharge education and discharge planning is often not undertaken.
- When pre-discharge education and discharge planning is undertaken, it rarely involves family members.
- Follow up with primary care services is limited and patients often fall through gaps during this transition phase and are lost to follow up post discharge.
- Medications are usually only provided for one week and patients are usually billed for medications.
- Hospitals cannot issue “Close the Gap” prescriptions. This leads to confusion and frustration with eligible patients and creates a barrier to ongoing medication adherence.
- If a patient is transferred or retrieved from a country hospital as an inpatient, and discharged from the tertiary hospital, patient aided transport scheme (PATS) does not fund or support travel home.
- There is a lack of specialist follow-up for cardiac patients.
- There are difficulties accessing stroke rehabilitation specialists in country areas.

Rehabilitation, secondary prevention and ongoing care

- Cardiac rehabilitation referral rates during in-hospital stay are low.
- Cardiac and stroke rehabilitation services are not culturally or age specific for Aboriginal people.
- There are limited community based culturally appropriate prevention activities for patients to access post discharge. There are models of effective programs interstate which should inform any services in SA.
- PHNs are funding some successful programs that engage with community members across SA and especially in Northern Adelaide.
- There are some overlaps and gaps in primary health care services in both metropolitan and country areas that provide ongoing management and support services.
- Once Aboriginal patients commence a Cardiac rehabilitation programs their completion rates are higher than that of non-Aboriginal people. However, they remain low compared to best-practice.
- There are opportunities for improving palliative and end of life care.

Strategy: Ongoing care		
Strategy detail	**Responsibility**	**Partners**
Hospital discharge planning and follow-up		
18: Develop a model of care and protocols to provide patient centred and safe discharge from hospitals		
A state-wide model of care should be developed to guide patient centred, safe discharge processes from hospital. Each hospital should develop a site-specific protocol based on the model of care. The model of care must incorporate: - engagement with patient and family members in planning; - involvement of Aboriginal Liaison Unit/Aboriginal support services; - the predicted need for follow-up specialist care; - access to funded transport to home; - access to 30 days of medication free of charge to all Aboriginal and Torres Strait Islander patients - this should be co-ordinated with the Close the Gap script subsidies available through Medicare/Pharmaceutical Benefits Scheme (PBS); - central referral to primary care and rehabilitation; and - communication of discharge summary be provided to the individual's primary care provider and any other providers involved in that individual's hospitalisation.	Governance Leadership Group	LHNs SA Health
19: Develop a central referral service that ensures continuity of care from hospital to primary care, specialist follow-up and cardiac/stroke rehabilitation		
Establish a web-based central referral service through the iCCnet CHSA to enable effective and timely clinical communication and handover occurs following discharge. The service using predominantly telephone follow-up must facilitate: - a discharge summary reaching primary care provider within 48 hours post discharge; - a patient follow-up visit at the preferred primary health care service 7-10 days post discharge; - scripting of medication by primary health care provider; - referral to an appropriate rehabilitation program chosen by patient (inpatient, outpatient, community-based or rehabilitation in the home); and - General Practitioner (GP) referral to multidisciplinary specialist and support services and use of a General Practitioner (GP) Management Plan and Team Care Arrangements. The referral service should have test-and-learn cycles integrated into implementation.	iCCnet CHSA	LHNs SA Health Hospitals PHC services Heart Foundation PHNs RFDS
Rehabilitation, secondary prevention and ongoing care		
20: Establish a model of culturally appropriate, evidence based cardiac and stroke rehabilitation services		
Review existing models of cardiac and stroke rehabilitation, and develop services for culturally appropriate services for Aboriginal clients. The model must: - ensure coverage across metropolitan, regional and remote SA; - ensure all clients have timely access to services (8 weeks post-discharge);	SA Health	SACRA PHNs RFDS iCCnet

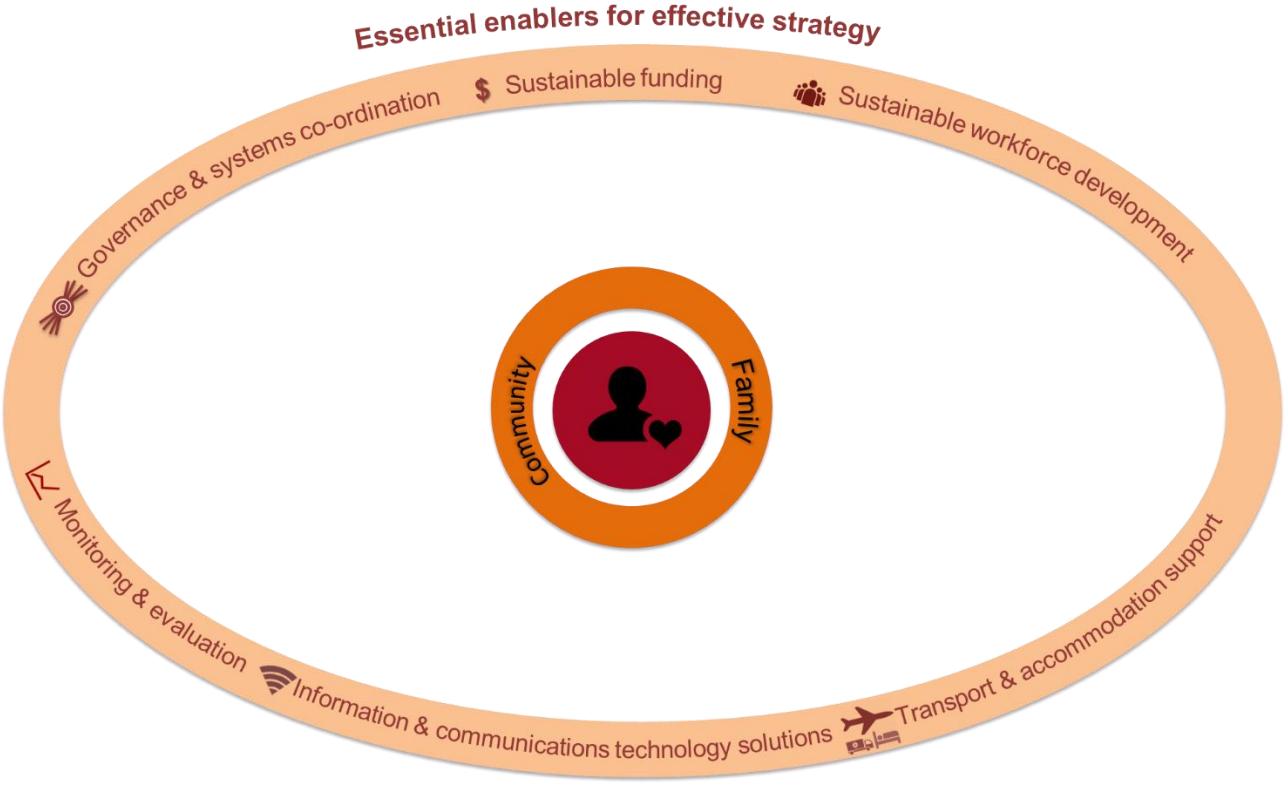
Strategy: Ongoing care		
Strategy detail	**Responsibility**	**Partners**
- support client choice in mode of rehabilitation through multiple models, including one-to-one, group, and telephone/virtual programs; - ensure cardiac rehabilitation services cover core components in a service; and - involve the family, specialist, primary health care practitioner.		
21: Build capacity in primary health care to provide coordinated management, secondary prevention and ongoing care for clients with established disease		
Build the capacity, through workforce, funding and collaboration with other services, of primary health care to provide coordinated management, secondary prevention and ongoing care for Aboriginal clients with established disease. This must include: - utilisation of multidisciplinary team care; - delivery of education and support for lifestyle modification for risk factors management, rehabilitation and secondary prevention activities; - provision of palliative and end of life care; - support from cardiac and stroke specialists; - coordination with diagnostic and specialist services, facilitated through a regional network; and - development of a clinically and culturally competent workforce.	Governance Leadership Group	PHNs RFDS
22: Establish culturally appropriate models of care and protocols for palliative and end of life care specifically for Aboriginal patients		
Develop a model of palliative and end of life care for Aboriginal people with advanced symptoms that are refractory to optimal treatment. The model must: - facilitate advanced care planning; - involve patients, family and community, where appropriate, in discussion on end-of-life care decisions; - support increased workforce capacity in providing palliative and end of life care; - increase service coordination between palliative, cardiac and stroke services; - enable access to palliative care in the home and/or institutional setting as chosen by the patient and their family/carer; and - support return to country where appropriate. The protocol should be based on the models of care, and should be implemented in primary health care, hospitals and aged care services.	SA Health	PHNs

SA Aboriginal Heart and Stroke Plan

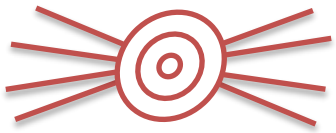
Part 2: Essential enablers

There are key activities within the health care system that are critical to the successful delivery of evidence-based, culturally appropriate cardiovascular services.

These essential 'enablers' often span across the health care system, are outside the direct responsibility of cardiovascular services.



Essential enablers for effective strategy



Enabler 1 - Governance and systems coordination

What is governance and systems coordination?

There is a need for an independent, governance structure to drive the implementation and evaluation of the plan and to facilitate system coordination. The governance group must include all agencies that have key responsibilities in the plan and consumers.

What are we trying to achieve?

A governance structure that can drive system change and improvements in heart and stroke outcomes for Aboriginal people in South Australia while also incorporating Aboriginal leadership.

What is currently happening?

- Nationally, in 2014 the Better Cardiac Care for Aboriginal and Torres Strait Islander people project (BCC) led a focus on improving Aboriginal cardiovascular health. This was developed by the Australian Health Ministers' Advisory Council (AHMAC) and all states were asked to implement BCC in their state. There has been varying progress across states. There is a BCC monitoring system in place through the Australian Institute of Health and Welfare.
- The Australian Commission on Safety and Quality in Health Care (ACSQHC), in partnership with the Australian, state and territory governments, is leading and coordinating national improvements in safety and quality in health care. The ACSQHC are responsible for the National Safety and Quality Health Service Standards (NSQHSS), against which all hospitals require accreditation. Version2 of the Standards, to be released in 2017, will have actions specific to systems change to improve outcomes for Aboriginal and Torres Strait Islander people.
- In South Australia,
    - The South Australian Aboriginal Health Partnership (SAAHP) is the lead group bringing together the State and Commonwealth Governments and the Aboriginal Community Controlled Health Sector to improve Aboriginal health and wellbeing outcomes in South Australia.
    - SA Health through the Transforming Health Project is driving a major effort to develop a systematic approach to ensure all South Australians have equitable access to the best and most reliable health care possible. An Indigenous Working Group is soon to be formed to advise the Transforming Health Ministerial Clinical Advisory Group (MCAG).
    - SA Health through Transforming Health have projects focusing Acute Coronary syndromes and Stroke.
    - The NHMRC awarded SA Advanced Health Research and Translation Centre, whose membership includes SAHMRI, SA Health, AHCSA, both PHNs, all SA Universities, the Consumer Health Alliance and the Cancer Council, seeks to continuously enhance the rate of translation of research into health care in order to create a self- improving and high quality health system, which is sustainable. Aboriginal Health is a research priority of this Centre.
    - With the dissolving of the Cardiac and Stroke Statewide Clinical Network in 2015 there is no focused governance framework that currently exists to drive reform on improvements in heart disease and stroke for Aboriginal people in the SA.

Enabler strategy: Governance and systems coordination		
Strategy detail	**Responsibility**	**Partners**
1: Establish a SA Aboriginal Heart and Stroke Plan governance group aligned with Transforming Health and in partnership with the SA Advanced Health Research and Translation Centre		

Develop a governance group to oversee the implementation of the plan and facilitate systems coordination. The SA Aboriginal Heart and Stroke Plan governance group should be aligned with Transforming Health (through the Ministerial Clinical Advisory Group), and developed in partnership with the SA Advanced Health Research and Translation Centre. Systems coordination for Aboriginal patients should be aligned with effective systems coordination for all South Australians.
 	
It must recognise, work with and build on the existing clinical, professional and administrative structures that already have responsibilities to deliver quality services for Aboriginal peoples. These could include clinical governance structures associated with RFDS, RDWA, PHN Clinical Council and SA Health Clinical Caucus.
 	
It will align with SA Health's clinical data strategy and interact with Safety and Quality Division.
 	
The governance structure must:
- recognise the diversity of health services which have a role to play in improving heart and stroke care for Aboriginal people;
- have representation from all key parties involved in the continuum of care for Aboriginal people, including representation of the Aboriginal community;
- have an independent chair;
- must be adequately resourced to fulfil the desired role;
- have a dedicated, funded executive officer;
- have integrated monitoring and reporting against Plan targets to quantify impact; and
- have an accountability mechanism into SA Health; and Commonwealth Department of Health.
 	
An Aboriginal Community Reference Group, with both metropolitan and country representation, should be convened.
 	
Ongoing community and stakeholder forums, (eg Roundtables and meetings) should be held to feedback and maintain connection to those involved in implementing the plan.
 	
The governance group would oversee the two implementation stages:
- Implementation Stage 1: July - Dec 2016
  ○ Establish governance
  ○ Develop full costing and resource requirements for implementation and evaluation
  ○ Obtain funding support for implementation
- Implementation Stage 2: Jan 2017 – Dec 2021
  ○ Implementation of the plan as per agreement in Stage 1
	SA Advanced Health Research and Translation Centre
	
	SA Health	

Essential enablers for effective strategy

Enabler 2 - Sustainable funding

What is sustainable funding?

The allocation of adequate, long-term funding within the health system to deliver safe, effective, efficient care.

What are we trying to achieve?

Sustainable funding for the implementation of the Plan that will include service provision, governance and coordination, evaluation and the reorientation of practice and prioritisation of existing services.

What is currently happening?

- There are multiple funding sources for Aboriginal health care across all sectors, from Federal and State budgets.
- New reforms, such as those occurring with Medicare, My Aged Care, and Primary Health Networks, demonstrate the ever-changing, complex nature of the financing of the South Australian health care system.
- The Close the Gap program and project funding has seen significant investment over the last 6 years but the future is uncertain.
- Ongoing funding is largely through mainstream funding bodies, such as MBS and hospital funds. Within these mainstream funding streams, there are 'loadings' for services to provide care to Aboriginal people, recognising the complexity of disease and care required.
- Current funding initiatives include MBS items including Aboriginal and Torres Strait Islander Adult Health Check (Item 715) GP Management Plan (Item 721) Team Care Arrangements (Item 723) – and the Close the Gap (CtG) Practice Incentive Payment Indigenous Health Initiative (PIP-IHI) that support GP's to register their practices and provide CtG prescriptions to CtG registered patients that attract funding subsidies in community based pharmacies.
- Much of the project or program funding which supports Aboriginal people at risk of or with heart disease and stroke is short-term. This results in short-term interventions which have insufficient time to demonstrate outcomes. Often, delayed re-funding of short-term programs results in uncertainty and difficulties in maintaining a workforce.
- There is often fragmentation in programs due to overlaps in funding and short-term cycles of programs.
- There are barriers to accessing funding streams. For example, there are restrictions on what services can access funding (such as Close the Gap scripts, MBS funding). This contributes to confusion for both providers and community members on how to access funding streams, and a disengagement from the system. It also contributes to the apparent under-utilisation of funding streams.
- There is a lack of control by community over the use of available funds. This results in dis-engagement and lack of community commitment to programs.

Enabler strategy – Sustainable funding		
Strategy detail	**Responsibility**	**Partners**
2: Governance group to identify sustainable funding to support the implementation of the Plan		
The governance group should identify sustainable funding to support the implementation of the plan. This must include: - develop business cases for the strategies within the Plan; - identify and promote uptake of existing funding, including MBS, hospital loading for Aboriginal patients, and Closing the Gap; and, - fund program evaluation.	Governance group	

Essential enablers for effective strategy

Enabler 3 – Sustainable workforce development

What is sustainable workforce development?

The provision of a health workforce which has the clinical and cultural competence to provide safe, evidence based care to clients.

What are we trying to achieve?

A workforce which is clinically and culturally competent in providing care to Aboriginal people, through:

- Employing more Aboriginal people across all levels of the health workforce so that Aboriginal people play a key part in the design and delivery of health services.
- Developing the cultural competence of the wider health workforce.
- Improving clinical capacity to prioritise identification and management of cardiovascular disease.

What is currently happening?

- Across the health workforce in South Australia, there are insufficient numbers of Aboriginal employees within the health workforce. This is demonstrated by SA Health achieving less than 50% of their workforce targets for Aboriginal employees. Having insufficient Aboriginal workforce impacts on the care received by Aboriginal people within the health care system. This is compounded by the lack of a culturally competent non-Aboriginal workforce.
- The non-Aboriginal workforce across multiple sectors of health care clearly lacks culturally competency, including primary health care, diagnostic investigations and specialist services, and hospital services. The lack of cultural competency in the workforce contributes to the continuation of systemic, institutional racism, limited or delayed interaction with the health care system by Aboriginal individuals, increased self-discharge, and disparities in receipt of care and therefore disparities in health outcomes for Aboriginal people.
- There are individual staff members within all sectors who demonstrate cultural competency, however these are the exception, not the norm. There are also examples across several sectors which have established frameworks for cultural competence, particularly Aboriginal Medical Services and selected wards within hospitals.
- Mainstream staff in the health system:
    - are generally unaware of the extent and impact of heart disease and stroke on the Aboriginal community, especially with respect to the early age of disease onset; and
    - do not prioritise the identification and management of heart disease and stroke.
- There are difficulties in attracting (general and cardiovascular-specific) health practitioners to geographic areas with high need. This is particularly true in the far north and west of SA. There is a specific issue around access to outreach specialist services in northern and north-west Adelaide and the far north and west of SA.

Enabler strategy: Sustainable workforce development		
Strategy detail	**Responsibility**	**Partners**
3: Introduce mandatory training and demonstration of cultural competence of all cardiovascular health care providers		
Introduce a mandatory requirement that all cardiovascular health care providers in South Australia demonstrate cultural competency. This includes primary health, allied health, specialist outreach specialist, emergency, acute and rehabilitation services. Training should include: - Aboriginal pre-colonisation and post-colonisation history, including history of dispossession; - the experiences of Aboriginal clients receiving cardiovascular care - relationships in Aboriginal communities; - diversity in Aboriginal cultures; - what culturally appropriate services are; - guidance on how to provide culturally competent care; and - basic language (appropriate to the region). Models must be flexible in mode of delivery, but meet minimum levels of content and demonstration of competency. Demonstration of cultural competency should be ongoing. All services should have access to cultural mentors.	SA Health	PHNs ACSQHC RACGP ACN
4: Increase the Aboriginal health workforce in number and capacity across the continuum of heart and stroke care		
Develop a targeted approach to increase the Aboriginal health workforce. This should: - be across all sectors of care including medicine, nursing, allied health, Aboriginal health practitioner and Aboriginal health worker training; - identify approaches to increase numbers of Aboriginal people undertaking training in 'mainstream' and Aboriginal-specific career pathway; - include Aboriginal specific positions in cardiac and stroke specialisations; - support capacity building within communities; and - build on SA Health Aboriginal employment and workforce strategy.		AHCSA SA Health PHNs ACSQHC RACGP ACN CSANZ
5: Increase the heart and stroke specialist workforce in western and northern Adelaide, and the far west and north of South Australia		
Develop and implement strategies to increase the heart and stroke specialist workforce in areas of need, particularly western and northern Adelaide, and the far west and north of South Australia. This needs to include nurses, allied health workers and cardiologists. Efforts must include: - the training and education sector; - improved employment incentives; and - support of local capacity building.	SA Health	SA Health PHNs AHCSA RDWA

Enabler strategy: Sustainable workforce development		
Strategy detail	**Responsibility**	**Partners**
6: Increase awareness of health professionals about the extent and impact of heart disease and stroke		
This should be: - based on the data from the SA Aboriginal cardiovascular health profile, and highlight the early onset of heart and stroke in young Aboriginal people; - convey the devastating impact heart disease and stroke has on community; - note that the impact of heart disease and stroke can be significantly reduced through the application of evidence based strategies and treatment; and - be included in sector-specific competency training, such as risk assessment and management in primary health care.		Heart Foundation Stroke Foundation AHCSA PHNs SA Health RDWA AMA, RACGP, CSANZ, SSA, ACN, ACNC, ACEM, APA

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Essential enablers for effective strategy

Enabler 4 - Transport and accommodation support

What is transport and accommodation support?
The provision of appropriate and timely transport to Aboriginal people experiencing socio-economic disadvantage, to ensure safe and timely access to care.

What are we trying to achieve?
All Aboriginal people able to safely access health care for heart and stroke, regardless of where they live or their socioeconomic status.

What is currently happening?

- Many community members, both in metropolitan Adelaide and rural and remote communities referred to transport as a barrier to accessing primary health, allied health and specialist services.
- Some services provide transport or provide financial support for transport. This includes community buses, provision of transport by the primary health care services, or funding and organisation of transport through the Primary Health Network. This is usually allocated on a case by case basis.
- SA Health provides some funding for transport support for patients using their services (PATS).
    - There are two types of PATS - Patient Aided Transport (Support patients when they are inpatients moving from hospital to hospital) and Patients Assisted Transport (Support for patients when they need to attend outpatient appointments).
    - Funding provided by PATS for rural and remote clients was identified as inadequate in most instances and confusing.
    - Often the mode of transport covered by PATS is contrary to patient's best clinical interests and puts individuals at high risk of re-presenting.
- While the role of escorts is recognised as important in patient care, this is often not acknowledged by funding for transport, which fails to cover the cost.
- When considering acute, time critical care, there are a range of services available to all Aboriginal people in South Australia in an emergency, but access may be an issue for a range of reasons. Community members and health professionals highlighted issues with the cost of ambulance services which leads to issues of patients not accessing ambulance services.
- Ambulance Insurance for Aboriginal patients and their families are being funded by some Primary Health Networks in South Australia through their Close the Gap Supplementary Services funding.
- South Australian Ambulance Services (SAAS) is currently working with Aboriginal Community Controlled Health Organisations (ACCHOs) to waive some outstanding Ambulance accounts for Aboriginal patients who are suffering hardship. This is not promoted by SAAS.
- While the Stepdown Unit at Kanggawodli, (Northern Adelaide Local Health Network/Central Adelaide Local Health Network) is well used by metropolitan acute services to discharge patients after their hospital stay, there is a gap in the Southern Adelaide Local Health Network especially for patients visiting Flinders Medical Centre. Hostels, cabins and hotels are used in an ad hoc manner.
- Stepdown Services in Port Augusta have been reduced and this has impacted on care.

Strategy: Transport and accommodation support		
Strategy detail	**Responsibility**	**Partners**
7: Improve transport services to ensure Aboriginal people have safe home-to-care-to-home journeys		
Develop a transport process to ensure that Aboriginal clients have safe home-to-care-to-home journeys. The model must: - Minimise out-of-pocket expenses to patients with health care needs; - include primary health services, diagnostic services, specialist services, and hospital; - ensure that all clients have transport that suits their medical condition; - coordinate transport with the health service; - ensure that all regional and remote patients who are transferred as an in-patient are transferred back to the closest hospital to their home, as an inpatient; and - have post-discharge transport coordinated by the Heart and Stroke Coordinator prior to discharge.	SA Health Country Health SA LHN	PHN
8: Provide 24/7 step-down units in southern and northern Adelaide LHNs, Port Augusta and Ceduna		
Develop or enhance step-down units to meet the clinical and cultural demand of regional, remote and interstate Aboriginal clients. The 24/7 step down units must: - be partnered with the hospital, with transport provided to and from the step down unit; - be adequately staffed with a clinically and culturally competent workforce; and - accommodate escorts and family.	SA Health	

Essential enablers for effective strategy

Enabler 5 - Information and communications technology solutions

What are information and communications technology solutions?

The application of organised and co-ordinated knowledge and skills, including technological devices, procedures and systems, to solve a health problem and improve quality of lives (WHO, 2016).

What are we trying to achieve?

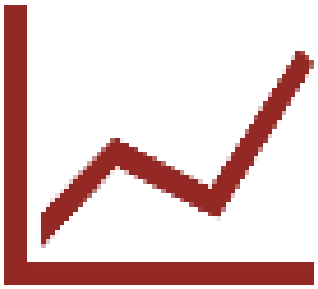
The use of innovations in information and communications technology to overcome existing challenges of providing effective, coordinated heart and stroke care to Aboriginal people in South Australia.

What is currently happening?

- Healthcare reform, challenging productivity targets and increased consumer expectation of the care they will receive is driving the integration of new technologies across Australia's healthcare system. Innovative technologies have the potential to complement mainstream health care and assist with delivering sustainable care into the community. Innovative technologies can help address specific challenges faced by healthcare including: reducing cost and utilisation; delivering better outcomes in a lower cost environment, and; improving access and the patient experience.
- Innovative technologies including videoconferencing, point of care testing (POCT) and home monitoring devices (blood pressure, weights, pulse oximetry, glucose and temperature) have been shown to effectively complement care.
- There are multiple pilots trialling innovative technology to improve the delivery of care, particularly to rural and remote clients around Australia. Particularly of note is the use of video conferencing to support heart disease related outreach services in the Northern Territory with Aboriginal people. As the efficacy and efficiency of these information and communications technology solutions are demonstrated, there should be core funding made available to enable these solutions to be common practice.
- There has been limited integration of information and communications technology solutions in a systematic manner into models of care in South Australia.
- Some Aboriginal Community Controlled Health Services across SA, including the Aboriginal Health Council of SA (AHCSA), are establishing the infrastructure to be part of a telemedicine/video conference network. To date these facilities are not being utilised extensively.
- Country Health SA, through the iCCnet CHSA, is utilising a few approaches that are supported by information and communications technology solutions to enhance service delivery. These include Point of Care Testing (POCT) across the state, the Country Access to Cardiac Health (CATCH) Program where Cardiac Rehabilitation is being delivered by telephone with supporting databases for health professionals and Virtual Coordinated Care (VCC) where patients can be monitored remotely for chronic diseases which then are expedited to a face to face home visit when required.
- There are multiple electronic health systems which offer opportunities for better communication of information across services and sectors. These should be considered as important enablers in providing coordinated care.
- With the future Federal Government investment in "My Health Record", following the "opt out" pilots in 2017, there may be considerable opportunities to improve the collection, linking and follow-up of patients and their medical records. The Northern Territory has used its unique patient identifier system to deliver strong outcomes linking the acute sector to primary care.

Strategy: Information and communications technology solutions		
Strategy detail	**Responsibility**	**Partners**
9: Invest in resources, coordination and systems for tele-health, point of care testing, virtual care and video-conferencing		
Invest in resources, coordination and systems for tele-health, point of care testing, virtual care and video-conferencing to integrate into routine models of care. Funding mechanisms to support innovative technologies need to be identified so that these services become sustainable.	SA Health	Country Health SA RDWA ACHSA ACCHOs RFDS
10: Improve the utilisation and communication of information across patient information management systems		
Develop an approach to improve the utilisation and communication of information between the patient information management systems, centred on the My Health Record. This should consider issues of security and privacy.	SA Health PHNs AHCSA	ACCHOs SA health funded services PHN funded services Private sector GPs

Essential enablers for effective strategy



Enabler 6 - Monitoring and evaluation

What is monitoring and evaluation?

The ongoing review and analysis of progress towards achieving the objectives set with a strategic plan; should be guided by a monitoring and evaluation plan that links to key indicators.

What are we trying to achieve?

A system that monitors and evaluates the SA Aboriginal Heart and Stroke Plan, including:

- measuring progress of specific strategies against targets;
- measuring achievement or otherwise of key indicators;
- providing integrated and direct feedback loops to service providers; and
- supporting continual improvement of health care services and systems.

What is currently happening?

- There are multiple indicators and monitoring tools relating to Aboriginal health outcomes at the state and national levels, including through the SA Health Performance Council, the Health Performance Framework, Overcoming Indigenous Disparities and Australian Institute of Health and Welfare, specifically through their Better Cardiac Care Report.
- There are limited direct feedback loops using these data reports to identify disparities and initiate improvements in care. The Indigenous primary health care national key performance indicators (nKPIs), within the Aboriginal Community Controlled sector, are positioned to support feedback to services within a continuous quality improvement process.
- Programs and projects often do not receive adequate funding to enable evaluation and demonstrate their level of effectiveness. This perpetuates short-term funding cycles and fragmentation of programs.
- There are opportunities to facilitate monitoring and evaluation of this Plan through SA Health and Medical Research Institute (SAHMRI) as it is positioned as a research and evaluation resource for South Australia that is formally connected to SA Health.
- SA Health have already developed an indicator dashboard for Stroke Clinicians via the system LARS (Local Health Networks Analytics and Reporting System). This is supported by Transforming Health. Under Transforming Health Acute Coronary Syndromes (ACS) priority area will soon commence the development of an ACS Indicator data cube that will lead to and ACS LARS dashboard. SA Health's Clinical Data Strategy will enhance the existing LARS system through the development of a clinical data reporting system governed the newly established SA Health Clinical Data Steering Committee. LARS is unique in that people involved in providing the service are able to review their data at any time.

Strategy: Monitoring and evaluation		
Strategy detail	**Responsibility**	**Partners**
11: Develop and implement a monitoring and evaluation framework for the SA Aboriginal Heart and Stroke Plan		
Develop and implement a monitoring and evaluation framework of Aboriginal heart and stroke in SA. The monitoring and evaluation structure must: - use the SA Aboriginal Cardiovascular Health Profile (2016) as a baseline; - develop key performance indicators including both qualitative and quantitative measures; - use the indicator set to measure performance across the system: including health promotion, primary health care, diagnostic services, specialist services, acute services, rehabilitation services and secondary prevention services, and the transition between these service sectors; - use and extend, where needed, SA Health's clinical data reporting system LARS (Local Health Networks Analytics and Reporting System) to develop a specific Aboriginal health data cube, starting with cardiovascular key performance indicators, aligned with ESSENCE and spanning the continuum of care; - use patient journey mapping tools to measure changes for patients over time; - integrate continuous quality improvement into all health services; - establish a centralised register to report on patient outcomes in all cardiac and stroke units; and - provide reports to the Governance Committee.	SAHMRI	SAAHP SA Health PHNs SA Clinical Data Committee

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Glossary

ACCHO	An ACCHO is a primary health care service initiated and operated by the local Aboriginal community to deliver holistic, comprehensive, and culturally appropriate health care to the community which controls it (through a locally elected Board of Management).
AHCSA	The Aboriginal Health Council of South Australia (AHCSA) is an ACCHO membership-based peak body with a leadership, watchdog, advocacy and sector support role.
BPG	Benzathine penicillin G (BPG) injection is the only effective and cost-effective rheumatic heart disease control strategy at both community and population level.
iCCnet CHSA	The Integrated Cardiovascular Clinical Network Country Health South Australia (iCCnet CHSA), aims to provide a state-wide provider clinical network which supports the practice of evidence based medicine and continuous quality improvement in the management of cardiovascular disease in diverse settings across regional, rural and remote South Australia. The fundamental aim of iCCnet CHSA is to remove barriers to the access to necessary, safe cardiovascular care and to improve clinical outcomes.
LHN	A local hospital network (LHN) is an organisation that provides public hospital services in accordance with the National Health Reform Agreement. There are five LHNs in SA.
RDWA	The Rural Doctors Workforce Agency provides the workforce to enhance the health and wellbeing of rural communities in SA.
PATS	The Patient Assistance Transport Scheme (PATS) is a subsidy program that provides money to pay for some travel, escort and accommodation costs when rural and remote South Australians travel over 100 kilometres each way to see a specialist.
PHNs	Primary Health Networks (PHNs) have been established with the key objectives of increasing the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes, and improving coordination of care to ensure patients receive the right care in the right place at the right time. PHNs will achieve these objectives by working directly with general practitioners, other primary health care providers, secondary care providers and hospitals to facilitate improved outcomes for patients.
POCT	Point of care testing are tests performed near or at the site of a patient that will be used to make a clinical decision and to take appropriate action which will help lead to improved health outcomes.
SAAS Medstar	SA Ambulance Service (SAAS) MedSTAR is South Australia's single emergency medical retrieval service. Responsible for providing care to the critically ill and injured throughout the SA Health care region and beyond, MedSTAR is committed to providing a world leading emergency medical retrieval service. SAAS MedSTAR utilises road, rotary wing and fixed wing transport platforms. SAAS MedSTAR also performs back transfers of patients to rural and interstate facilities for paediatric and neonatal patients on a regular basis.
Transforming Health	The State Government is committed transforming our healthcare system to provide the quality care, effectiveness and adaptability that South Australians expect and deserve. Transforming Health this this reform.

Appendix 1: Background to development of the SA Aboriginal Heart and Stroke Plan

Background:

Since 2009 in South Australia there have been a variety of activities focussed on cardiovascular disparities as experienced by Aboriginal people with the aim of reducing inequalities in accessing care. Despite the efforts of a range of committed organisations and individuals, there remains a lack of coherence, coordination and coverage of heart and stroke care for Aboriginal people across the State. As a result poor cardiovascular outcomes for Aboriginal people continue to be experienced.

In early 2015 the Wardliparingga Aboriginal Research Unit was commissioned by SA Health to develop a state-wide plan to guide service development and the reorientation of services to improve cardiovascular care and outcomes for Aboriginal people over the next five years. This project was SA Health's response to Australian Health Ministers Advisory Committee (AHMAC) request for all Australian states to deliver against the national "Better Cardiac Care for Aboriginal and Torres Strait Islander People 2014" (BCC) framework.

The Wardliparingga Aboriginal Research Unit, within the South Australian Health and Medical Research Institute (SAHMRI), has a mission to conduct research that is of direct relevance to Aboriginal people in South Australia. Our research is focused on reducing the significant gap between the health status and life opportunities available to Aboriginal people when compared to other Australians. Wardliparingga's goal is to generate positive, long-term change for Aboriginal families and communities in South Australia.

Development of the SA Aboriginal Heart and Stroke Plan:

At the commencement of this project a Steering Committee consisting of key organisations, clinicians and policy makers was established. Professor Alex Brown, the lead of Wardliparingga, chaired the Steering Committee. A Community Reference Group was established and included members of the Aboriginal community with "lived experience" of CVD. Two members of the Community Reference Group represented this group on the Steering Committee.

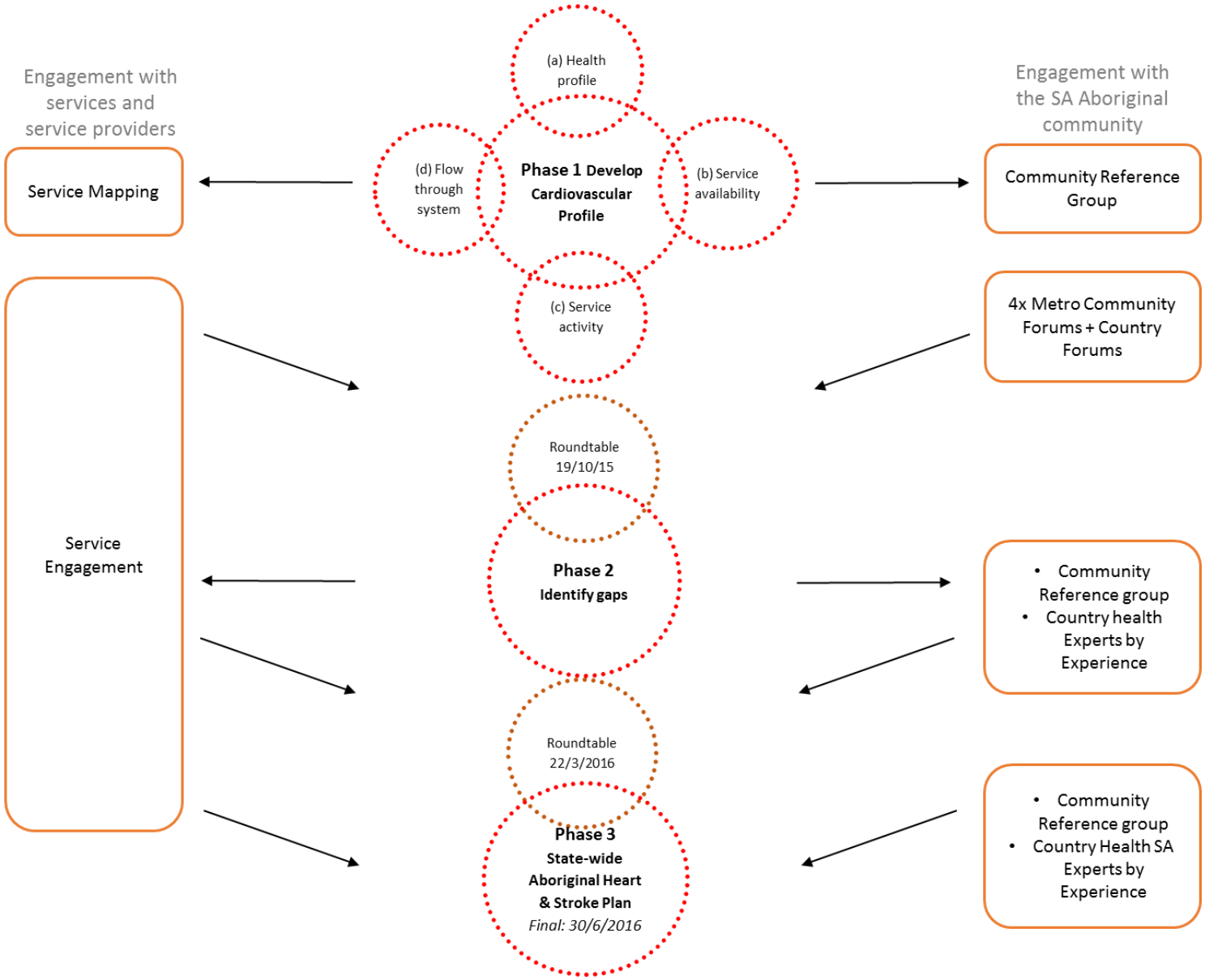
The project involved three distinct phases:

Phase 1 - Understanding the cardiovascular health profile of Aboriginal people in South Australia, including demographic profile, burden of risk and disease, service availability, and service activity.

Phase 2 - Undertaking a gap analysis of the provision of evidence-based, culturally appropriate services against need, as defined by community, service providers and policy makers. This was informed by the cardiovascular health profile developed in Phase 1.

Phase 3 – Developing a state-wide Aboriginal Heart and Stroke Plan, based on the knowledge from phases 1 and 2.

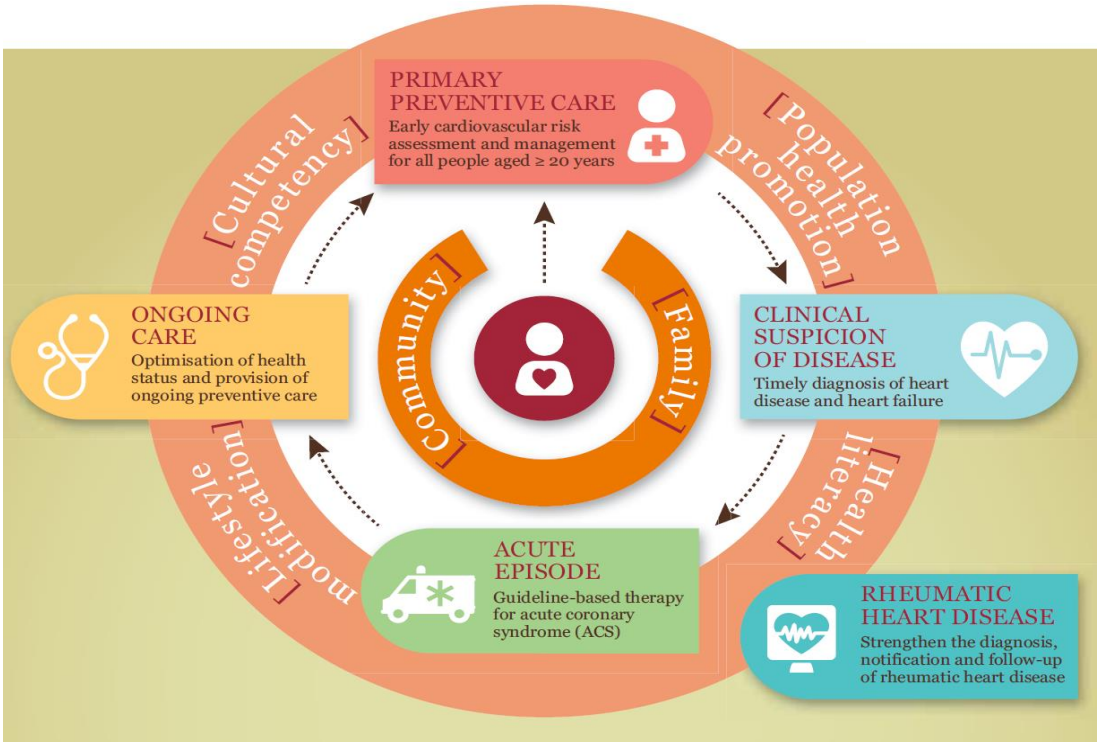
Throughout the project there has been consultation with staff in a range of government departments, community members, non-government organisations, clinicians, service providers and policy makers. This has enabled a robust understanding of the current state and national policy context of implementing a plan such as this within South Australia. There have been two roundtable stakeholder forums, which have brought together key stakeholders to develop the plan. A full list of organisations who have been involved in discussions on the plan to date is provided in the acknowledgements.



Phased approach to the development of the SA Aboriginal Heart and Stroke Plan

How was the SA Aboriginal Heart and Stroke Framework developed?

The SA Aboriginal Heart and Stroke Plan framework is based on the national "Better Cardiac Care for Aboriginal and Torres Strait Islander People 2014" (BCC) framework (AHMAC, 2014).



The "Better Cardiac Care for Aboriginal and Torres Strait Islander People 2014" framework

The following modifications were made to the BCC framework as part of the consultation:

- The expansion from cardiac to all cardiovascular disease, including stroke and transient ischaemic attack.
- The addition of essential 'enablers' to facilitate the effective delivery of services.
- The broadened of definitions of the 'stages of care'.
- The identification of the service groups under each stage of care.
- The incorporation of rheumatic heart disease across the continuum of the 'stages of care'.
- The incorporation of "population health promotion", "health literacy" and "lifestyle modification" across the continuum of the 'stages of care'.
- Incorporation of "cultural competency" into the sustainable workforce development component of essential 'enablers'.

As an appendix to this document, there is a matrix that maps all the Strategies and Enablers in the Plan against the Better Cardiac Care Actions and Measures.

Project Outputs

What resources are available at the conclusion of the project?

The project was completed on 30 June 2016, becoming South Australia's response to Australian Health Ministers Advisory Council's (AHMAC) National Better Cardiac Care for Aboriginal and Torres Strait Islander project.

Three distinct documents are available: The SA Aboriginal Cardiovascular Disease Profile 2016, The SA Aboriginal Heart and Stroke Gap Analysis, and The SA Aboriginal Heart and Stroke Plan 2017-2021.

The SA Aboriginal Cardiovascular Disease Profile 2016

The **SA Aboriginal Cardiovascular Disease Profile 2016** documents the cardiovascular health of Aboriginal people in SA, the service availability, and service activity. The Profile provides the evidence for the development of the SA Aboriginal Heart and Stroke Gap Analysis and Plan, and provides a baseline for future monitoring and evaluation. The document includes information on demographics, risk factor prevalence, impact of heart disease and stroke, service activity by sector and against national indicators, and patient flow through the system.

The SA Aboriginal Heart and Stroke Gap Analysis

The **SA Aboriginal Heart and Stroke Gap Analysis** identifies gaps in the cardiovascular health care system for Aboriginal clients. The Gap Analysis was informed by the SA Aboriginal cardiovascular disease profile 2016 and extensive consultation with community members, service providers and policy makers. The document provides an overview of the current status, details gaps, and documents draft recommendations.

The SA Aboriginal Heart and Stroke Plan 2017-2021 (this document)

The **SA Aboriginal Heart and Stroke Plan 2017-2021** details strategies to improve the heart and stroke care for Aboriginal people in SA and to reduce cardiovascular morbidity and mortality. The Plan includes needs driven, evidence based service provision across the continuum of care and recognises that there are some key enablers that are vital if the services are to be effectively implemented. The Plan has been informed by the Profile and the Gap Analysis.

Appendix 2: Enablers & activity strategies matrix

Service strategies ✓ = Aligned ✓✓ = Direct Link	Enablers					
	Governance & systems coordination	Sustainable funding	Sustainable workforce development	Transport & accom-modation support	Information & communication technology solutions	Monitoring & evaluation
1: Review and reorient current mechanisms to improve delivery of culturally appropriate comprehensive primary health care services	✓	✓	✓	✓	✓	✓
2: Develop a state-wide model for delivering cardiovascular care to Aboriginal people, with enhanced regional and remote service networks. Port Augusta should host a regional coordination centre that coordinates and enhances services for Aboriginal people in the far north and west of SA	✓✓	✓	✓	✓	✓	✓
3: Maintain and expand the existing SA Rheumatic Heart Disease Control Program	✓	✓	✓		✓	✓
4: Enhance care for the identification, acute and ongoing care of children and adolescents with heart disease and stroke by paediatric cardiology services, with effective transition pathways into adult cardiology services	✓	✓	✓	✓	✓	✓
5: Establish sustainable heart, stroke and diabetes awareness and prevention campaign/s across SA	✓	✓			✓	✓
6: Increase the use of cardiovascular risk assessment and management in all primary care settings	✓	✓	✓		✓	✓
7: Develop and implement a model of care and referral pathways to provide timely access to non-acute diagnostic services for identification and management of disease	✓	✓	✓		✓	✓
8: Establish a coordinated state wide specialist outreach service plan	✓	✓	✓		✓	
9: Increase awareness of the warning signs and symptoms of heart attack and stroke among the Aboriginal community and service providers	✓	✓			✓	✓
10: Improve access to emergency care by reducing the out-of-pocket costs of ambulance services	✓	✓		✓✓		✓
11: Establish a system to identify Aboriginal or Torres Strait Islander status at the first point of medical contact	✓		✓	✓	✓	✓
12: Develop and implement a transfer and retrieval services protocol that responds to the clinical and cultural needs of Aboriginal people	✓	✓	✓	✓✓	✓	✓
13a: Maintain and expand iCCnet CHSA to provide coordinated services from first medical contact to definitive care for regional and remote Aboriginal patients with acute heart disease	✓	✓	✓	✓	✓	✓
13b: Implement a regional system of care from first medical contact to definitive care for regional and remote Aboriginal patients with stroke or TIA	✓	✓	✓	✓	✓	✓

Service strategies ✓ = Aligned ✓✓ = Direct Link	Enablers					
	Governance & systems coordination	Sustainable funding	Sustainable workforce development	Transport & accom-modation support	Information & communication technology solutions	Monitoring & evaluation
14a: Provide best practice clinical and cultural care for Aboriginal heart disease patients at all South Australian hospitals, with targeted efforts at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Port Augusta Hospital and Ceduna Hospital	✓	✓	✓	✓	✓	✓
14b: Provide best practice clinical and cultural care for Aboriginal stroke patients at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Berri Hospital, Mount Gambier Hospital, Whyalla Hospital, Port Augusta Hospital and Ceduna Hospital	✓	✓	✓	✓	✓	✓
15: Establish an Aboriginal heart and stroke Aboriginal Health Practitioner/Nurse Coordinator position at Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Port Augusta Hospital and Ceduna Hospital to support Aboriginal patients and their families throughout their journey of care	✓	✓	✓✓			✓
16: Establish systems and services at the new Royal Adelaide Hospital that prioritises the needs of metropolitan, regional and remote Aboriginal people receiving care for heart disease and stroke	✓	✓	✓	✓	✓	✓
17: Develop a state-wide approach to a rheumatic valvular surgery centre of excellence	✓	✓	✓	✓	✓	✓
18: Develop a model of care and protocols to provide patient centred and safe discharge from hospitals	✓	✓	✓	✓	✓	✓
19: Develop a central referral service that ensures continuity of care from hospital to primary care, specialist follow-up and cardiac/stroke rehabilitation	✓	✓	✓		✓	✓
20: Establish a model of culturally appropriate, evidence based cardiac and stroke rehabilitation services	✓	✓	✓		✓	✓
21: Build capacity in primary health care to provide coordinated management, secondary prevention and ongoing care for clients with established disease	✓	✓	✓		✓	✓
22: Establish culturally appropriate models of care and protocols for palliative and end of life care specifically for Aboriginal patients	✓		✓			✓

Appendix 3: Alignment of the SA Aboriginal Heart and Stroke Plan strategies to Better Cardiac Care for Aboriginal and Torres Strait Islander people and Essential Service Standards for Equitable National Cardiovascular care (ESSENCE) for Aboriginal and Torres Strait Islander people

Service strategies	Better Cardiac Care for Aboriginal and Torres Strait Islander people		Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people	
	Actions	**Measures**	**Standards**	**Indicator measure**
1: Review and reorient current mechanisms to improve delivery of culturally appropriate comprehensive primary health care services	Action 2.1 Action 4.3	Measure 4.2 Measure 4.3 Measure 4.4 Measure 5.4	I.4.2, I.4.5, I.6.2 III.1.1, III.1.2 V.3.2, V.3.4, V.3.6, V.4	Service measure 11b Service measure 14a
2: Develop a state-wide model for delivering cardiovascular care to Aboriginal people, with enhanced regional and remote service networks. Port Augusta should host a regional coordination centre that coordinates and enhances services for Aboriginal people in the far north and west of SA	Action 2.1		I.6.1, I.6.4 IV.1.5	Service measure 14a
3: Maintain and expand the existing SA Rheumatic Heart Disease Control Program	Action 5.1 Action 5.2 Action 5.3 Action 5.4	Measure 5.1 Measure 5.2 Measure 5.3 Measure 5.4	V.1.1, V.1.2, V.2.1, V.2.2, V.3.1, V.3.2, V.3.4, V.3.5, V.3.6, V.4	Service measure 7a, 7b Service measure 15a
4: Enhance care for the identification, acute and ongoing care of children and adolescents with heart disease and stroke by paediatric cardiology services, with effective transition pathways into adult cardiology services	Action 5.1 Action 5.4	Measure 5.1 Measure 5.2	V.1.1, V.1.2, V.2.1, V.3.5	Service measure 5a, 5b
5: Establish sustainable heart, stroke and diabetes awareness and prevention campaign/s across SA	Action 1.3		V.1.1, V.3.1 VI.1.2	Service measure 3a, 3b, 3c, 3d
6: Increase the use of cardiovascular risk assessment and management in all primary care settings	Action 1.1 Action 1.3	Measure 1.1 Measure 1.2 Measure 1.3	I.2.1, I.2.2, I.2.3, I.2.4 II.1.1 III.1.1 V.3.1, V.3.5 VI.1.1, VI.1.2, VI.1.3, VI.2	Service measure 4a Service measure 5a, 5b Service measure 6a, 6b
7: Develop and implement a model of care and referral pathways to provide timely access to non-acute diagnostic services for identification and management of disease	Action 2.1	Measure 2.1 Measure 2.2	II.1.1 III.1.2 V.2.2, V.3.2	Service measure 5c

Service strategies	Better Cardiac Care for Aboriginal and Torres Strait Islander people		Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people	
	Actions	**Measures**	**Standards**	**Indicator measure**
8: Establish a coordinated state wide specialist outreach service plan	Action 2.1	Measure 2.3 Measure 4.3	II.1.1 III.3.1	Service measure 14a
9: Increase awareness of the warning signs and symptoms of heart attack and stroke among the Aboriginal community and service providers	Action 3.1			
10: Improve access to emergency care by reducing the out-of-pocket costs of ambulance services			I.3.1, I.6.1 II.2.1	
11: Establish a system to identify Aboriginal or Torres Strait Islander status at the first point of medical contact			I.6.6	
12: Develop and implement a transfer and retrieval services protocol that responds to the clinical and cultural needs of Aboriginal people	Action 3.2		I.3.1, I.6.1 II.2.1, II.2.2, II.2.3, II.2.4, II.2.5, II.2.6, II.2.7 IV.1.3, IV.1.4	Service measure 8a, 8b, 8c Service measure 9a, 9b, 9c Service measure 10a
13a: Maintain and expand iCCnet CHSA to provide coordinated services from first medical contact to definitive care for regional and remote Aboriginal patients with acute heart disease	Action 3.2		I.3.1, I.6.1, I.6.4 II.2.1, II.2.2, II.2.3 III.2.1	Service measure 8a Service measure 9a, 9b
13b: Implement a regional system of care from first medical contact to definitive care for regional and remote Aboriginal patients with stroke or TIA	*Stroke not included in Better Cardiac Care*		I.3.1, I.6.1, I.6.4 IV.1.1, IV.1.2, IV.1.3, IV.1.4, IV.1.5, IV.1.6	Service measure 8c Service measure 9c
14a: Provide best practice clinical and cultural care for Aboriginal heart disease patients at all South Australian hospitals, with targeted efforts at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Port Augusta Hospital and Ceduna Hospital	Action 3.3 Action 4.1	Measure 3.1 Measure 3.2 Measure 3.3 Measure 3.4 Measure 3.5	I.3.1, I.3.2, I.4.1, I.5.1, I.6.4, I.6.6 II.2.1, II.2.2, II.2.3, II.2.4, II.2.5, II.2.6, II.2.7, II.2.8, II.2.9, II.2.10 III.2.1 V.2.1	Service measure 8a, 8b Service measure 9a, 9b Service measure 10a Service measure 12a Service measure 13b Service measure 14a
14b: Provide best practice clinical and cultural care for Aboriginal stroke patients at the Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Women's and Children's Hospital, Berri Hospital, Mount Gambier Hospital, Whyalla Hospital, Port Augusta Hospital and Ceduna Hospital	*Stroke not included in Better Cardiac Care*		I.3.1, I.3.2, I.4.1, I.5.1, I.6.4, I.6.6 IV.1.2, IV.1.3, IV.1.4, IV.1.5, IV.1.6, IV.2.1,	Service measure 8c Service measure 9c Service measure 10a Service measure 12a Service measure 13a,

Service strategies	Better Cardiac Care for Aboriginal and Torres Strait Islander people		Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people	
	Actions	Measures	Standards	Indicator measure
			IV.2.2	13b Service measure 14a
15: Establish an Aboriginal heart and stroke Aboriginal Health Practitioner/Nurse Coordinator position at Royal Adelaide Hospital, Flinders Medical Centre, Lyell McEwin Hospital, Port Augusta Hospital and Ceduna Hospital to support Aboriginal patients and their families throughout their journey of care			I.3.2, I.3.3, I.4.1, I.6.6	Service measure 12a
16: Establish systems and services at the new Royal Adelaide Hospital that prioritises the needs of metropolitan, regional and remote Aboriginal people receiving care for heart disease and stroke	Action 3.3 Action 4.1	Measure 3.1 Measure 3.2 Measure 3.3 Measure 3.4 Measure 3.5	I.3.1, I.3.2, I.4.1, I.5.1, I.6.4, I.6.6 II.2.1, II.2.2, II.2.3, II.2.4, II.2.5, II.2.6, II.2.7, II.2.8, II.2.9, II.2.10 III.2.1 IV.1.2, IV.1.3, IV.1.4, IV.1.5, IV.1.6, IV.2.1, IV.2.2 V.2.1	Service measure 8a, 8b, 8c Service measure 9a, 9b, 9c Service measure 10a Service measure 12a Service measure 13a, 13b Service measure 14a
17: Develop a state-wide approach to a rheumatic valvular surgery centre of excellence	Action 5.5		I.3.1, I.3.2, I.3.3, I.4.1, I.5.1, I.6.4, I.6.5, I.6.6 V.3.5	Service measure 16a
18: Develop a model of care and protocols to provide patient centred and safe discharge from hospitals		Measure 3.4 Measure 4.4	I.3.2, I.3.3, I.4.1, I.6.1, I.6.2, I.6.6 II.2.10 III.2.2 IV.2.1, IV.2.2	Service measure 11a Service measure 12a
19: Develop a central referral service that ensures continuity of care from hospital to primary care, specialist follow-up and cardiac/stroke rehabilitation	Action 4.2 Action 4.3	Measure 4.1 Measure 4.2 Measure 4.3	I.3.3, I.4.2, I.4.3, I.4.4, I.6.2 III.3.1 IV.2.2	Service measure 12b Service measure 13a, 13b Service measure 14a
20: Establish a model of culturally appropriate, evidence based cardiac and stroke rehabilitation services	Action 4.4		I.4.1, I.4.2, I.4.3, I.4.4, I.6.6 III.3.2	Service measure 13c
21: Build capacity in primary health care to provide coordinated management,	Action 4.2	Measure 4.1	I.1.2, I.4.1, I.4.2,	Service measure 7a

Service strategies	Better Cardiac Care for Aboriginal and Torres Strait Islander people		Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people	
	Actions	**Measures**	**Standards**	**Indicator measure**
secondary prevention and ongoing care for clients with established disease	Action 4.3	Measure 4.2 Measure 4.4	I.4.3, I.4.4 III.3.2 V.3.1, V.3.4, V.3.6 VI.2	Service measure 11b Service measure 12b
22: Establish culturally appropriate models of care and protocols for palliative and end of life care specifically for Aboriginal patients			I.4.5	

Enabler strategies:	Better Cardiac Care for Aboriginal and Torres Strait Islander people		Essential Service Standards for Equitable National Cardiovascular carE for Aboriginal and Torres Strait Islander people	
	Actions	**Measures**	**Actions**	**Measures**
1: Establish a SA Aboriginal Heart and Stroke Plan governance group aligned with Transforming Health and in partnership with the SA Advanced Health Research and Translation Centre	Action 2.1		I.6.4	Service measure 14a Service measure 15a
2: Governance group to identify sustainable funding to support the implementation of the Plan			I.2.1, I.2.2, I.2.4, I.4.2	
3: Introduce mandatory training and demonstration of cultural competence of all cardiovascular health care providers			I.6.6	
4: Increase the Aboriginal health workforce in number and capacity across the continuum of heart and stroke care	-	-	-	-
5: Increase the heart and stroke specialist workforce in western and northern Adelaide, and the far west and north of South Australia	-	-	-	-
6: Increase awareness of health professionals about the extent and impact of heart disease and stroke			I.6.3	
7: Improve transport services to ensure Aboriginal people have safe home-to-care-to-home journeys	Action 5.4	Measure 5.2 Measure 5.3	I.3.1, I.6.1, I.6.3 V.1.1, V.1.2	
8: Provide 24/7 step-down units in southern and northern Adelaide LHNs, Port Augusta and Ceduna	-	-	-	-
9: Invest in resources, coordination and systems for tele-health, point of care testing, virtual care and video-conferencing			I.6.4	
10: Improve the utilisation and communication of information across patient information management systems	Action 1.2		I.6.2	
11: Develop and implement a monitoring and evaluation framework for the SA Aboriginal Heart and Stroke Plan	Action 1.2 Action 3.3 Action 3.4	Measure 6.1 Measure 6.2	I.6.5	CVD Outcome 1a CVD Outcome 2a, 2b CVD Outcome 3a CVD Outcome 4a, 4b CVD Outcome 5a, 5b, 5c CVD Outcome 6a