Gap Analysis and Draft Recommendations

for the
South Australian Aboriginal Heart and Stroke Plan 2017-2021

The development of the South Australian Aboriginal Heart and Stroke Plan 2017-2021 is funded by SA Health.

Prepared by:
Wardliparingga Aboriginal Research Unit, SAHMRI
May 2016
Contents

Contents ........................................................................................................................................... 1

Introduction ...................................................................................................................................... 3

Cardiovascular Services Gap Analysis ............................................................................................. 6

1. Primary Preventive care - Health promotion and disease prevention services ......................... 6
2. Primary Preventive care - Risk assessment and management services ..................................... 10
3. Clinical suspicion of disease – Diagnostic investigation services ............................................. 14
4. Clinical suspicion of Disease - Specialist Services ..................................................................... 17
5. Acute Episode – Planned and urgent transfer and emergency retrieval services ...................... 20
6. Acute Episode - Acute Hospital Services .................................................................................... 25
7. Ongoing Care - Hospital discharge planning and follow-up services ....................................... 33
8. Rehabilitation, secondary prevention and ongoing care services .............................................. 38

Health System Enablers Gap Analysis ............................................................................................ 42

Governance and systems co-ordination .......................................................................................... 42

Funding ............................................................................................................................................ 44

Workforce ....................................................................................................................................... 47

Transport ....................................................................................................................................... 50

Technology ..................................................................................................................................... 53

Monitoring and evaluation .............................................................................................................. 55

Acknowledgements ........................................................................................................................ 58
**Introduction**

The South Australian Aboriginal Heart and Stroke Plan project is funded by SA Health as South Australia’s response to Australian Health Ministers Advisory Council’s (AHMAC) Better Care for Aboriginal and Torres Strait Islander project.

The project will be completed on 30 June 2016 with the final plan becoming South Australia’s response to Australian Health Ministers Advisory Council’s (AHMAC) National Better Cardiac Care for Aboriginal and Torres Strait Islander project.

There will be 3 distinct documents available at the completion of the project: 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. See figure for description.

**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 (this document)**

The **SA Aboriginal Heart and Stroke Gap Analysis** identified 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**

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.

...
This document presents the **SA Aboriginal Heart and Stroke Gap Analysis**.

The **gap analysis of services and subsequent draft service recommendations** for each stage of the patient’s journey for both cardiac and stroke related services. The structure of the section takes into consideration the key features of the AHWAC Better Care for Aboriginal and Torres Strait Islander project: Primary preventive care; clinical suspicion of disease; acute episode, and; ongoing care. It breaks each of these features into two parts:

- **Primary preventive care**:  
  - Health promotion and disease prevention  
  - Risk assessment and management

- **Clinical suspicion of disease**:  
  - Diagnostic investigation services  
  - Specialist services

- **Acute episode**:  
  - Planned and urgent transfers, and emergency retrieval services  
  - Acute hospital services

- **Ongoing care**:  
  - Hospital discharge planning and follow-up  
  - Rehabilitation, secondary prevention and ongoing care

Within each part, specific ‘**Key Findings**’ are outlined under the following headings:

- **Impact of heart disease and stroke**: findings that the research team has identified as particularly important
- **Services availability**: findings from the service mapping that the research team on where services are located
- **Service activity**: findings from the service and data analysis to describe who is using what services.

The ‘**Gap Analysis**’ identifies any gaps in service provision. It describes the gaps via **Gap Theme** as well as a description of the identified gaps. It uses the ESSENCE Standards (described below) to provide insight into what should be being provided as a minimum to Aboriginal people in South Australia to improve cardiovascular care.

The ‘**Draft Recommendations**’ describe a recommended solution to each **Gap Theme** and provide a description to expand on the ideas outlined in the Draft recommendation.

Finally, ‘**Enablers**’ are identified that will be imperative to successful implementation of the SA Aboriginal Heart and Stroke Plan:

- Statewide governance and systems co-ordination.  
- Sustainable funding.  
- A non-Aboriginal workforce able to provide culturally safe care.  
- An Aboriginal workforce able to meet the specific needs of clients and communities.  
- Monitoring and evaluation against evidence-based indicators.  
- Transport support to access appropriate care.  
- Technological solutions.
The Essential Service Standards for Equitable National Cardiovascular care for Aboriginal and Torres Strait Islander people (ESSENCE Standards) have been taken into consideration when undertaking the gap analysis and Draft recommendations in each section.

The ESSENCE Standards are at the back of the document in Appendix 1.

**Essential Service Standards for Equitable National Cardiovascular care for Aboriginal and Torres Strait Islander people - ESSENCE**

This project is underpinned by an evidenced based approach called **ESSENCE**. ESSENCE is a set of Essential Service Standards for Equitable National Cardiovascular care for Aboriginal and Torres Strait Islander people.

The ESSENCE Standards were developed in 2011-12 to articulate existing evidence and guidelines into a clear, coherent form that could be translated into practice. The ESSENCE Standards outline the minimum, acceptable level of care below which activity should not be permitted to fall. The 62 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. They represent the best available evidence and expert consensus and in 2014 were reviewed against recent literature to ensure the standards were current.

Following the establishment of the **ESSENCE Standards** a set of **ESSENCE Indicators** were developed to aid measurement of the standards into policy and practice. 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.

**Appendix 2** is a summary of all **Gaps**, the **Draft recommendations** and the **Enablers** that need to be addressed if success strategies and actions are going to be implemented and effective.
Cardiovascular Services Gap Analysis

1. Primary Preventive care - Health promotion and disease prevention services

Key findings from the CVD Profile

**Impact of heart disease and stroke:**

**Heart and Stroke:**

- There is significant burden of cardiovascular risk factors and diagnosed disease in the Aboriginal community, across all South Australian regions.
- Multiple risk factors for cardiovascular disease are highly prevalent in the Aboriginal community, particularly smoking, hypertension and stress and worry.
- Burden of disease is significant in young age groups, and particularly high for females aged 15 and over.
- The Aboriginal population have a high presence of comorbidity, particularly diabetes.
- Whilst the Aboriginal population carries high burden of risk factors and premature disease, there is little awareness and recognition of the impact that the disease has on the community.

**Service availability:**

**Heart and Stroke:**

- Greatest investment in primary prevention is currently in tobacco control programs. This is Federal and State funded and are delivered by Drug and Alcohol Services SA (DASSA), the Cancer Council, Aboriginal Health Council of SA (AHCSA), and Aboriginal Community Controlled Health services (ACCHOs). This includes local and state social media campaigns and smoking cessation support programs. Funding is all short term, with funding renewed from July 2016.
- There is effort in the delivery of nutrition and physical activity programs by AHCSA, the Royal Flying Doctor Service (RFDS) and the Heart Foundation. The remaining Obesity Prevention and Lifestyle program (OPAL) sites have a population wide focus and have little Aboriginal-specific activities.
- The 2 South Australian Primary Health Networks (PHNs) have responsibility for the primary health care sector and from July 2016, will commission services with the goal of improving health outcomes for the community, including for Aboriginal and Torres Strait Islander people. The PHNs currently manage the Close the Gap program for primary care.
- **In metropolitan Adelaide,** there are a mix of primary health care providers, including Nunkuwarrin Yunti (ACCHO), private GP practices and SA Health funded Aboriginal health services (AHS).
  - Nunkuwarrin Yunti and SA Health funded Aboriginal Health Services (AHSs) are recognised as culturally safe environments for Aboriginal clients.
  - Private GPs and ACCHOs are able to access Medicare Practice Incentive Payments-Indigenous Health Initiative (PIP-IHI), which enables clients to register for Close the Gap, and receive CTG scripts and must participate in training to improve cultural competence of their service. The success/quality is currently unknown.
In country South Australia, the main primary health care providers for Aboriginal clients are ACCHOs (11), the RFDS, private GP practices and CHSA health services (CHSA services predominantly in the Riverland and Yorke Peninsula):

- ACCHOs are recognised as providing holistic, comprehensive primary health care. ACCHOs are able to access Medicare PIP-IHI, and provide CTG scripts. However, a lack of sustainable funding agreements and access to workforce are issues for these services.
- The RFDS provide 24/7 GP phone and FIFO services to rural and remote areas. These are block funded by the Federal Government and without the ability to claim MBS. Clients in remote locations are able to access S100 scripts. RFDS also provide GP services to some ACCHOs.
- AHCSA Rural Aboriginal Health Worker Program funds 12 positions for AHWs in communities where there is no ACCHO, including the Riverland, Oodnadatta, Point Pearce, Raukkan and Meningie.
- Half of all GPs in country SA are international graduates, and often lack a focus on chronic disease prevention.

**Service activity:**

*Heart and Stroke:*

- Community members are supportive of Aboriginal specific healthy lifestyle and smoking cessation campaigns which are driven by Aboriginal leadership and have strong connection to the community.
- Aboriginal people in metropolitan Adelaide use a range of primary health care providers. Many use large GP services who have a ‘good reputation’ with the community and are co-located with allied services, clients know they will be bulk-billed and be able to access CTG scripts.
- Issues which community members raised when asked about barriers to accessing primary prevention were racism and discrimination, transport support/costs, restricted access to services when needed, availability of appointments across the week, bulk billing, and access to CTG scripts.

**Gaps identified - Health promotion and disease prevention services:**

*Heart and stroke gap: Description:*

<table>
<thead>
<tr>
<th>Limited health promotion and disease prevention programs that target Aboriginal people</th>
<th>Existing programs focus primarily on smoking cessation with limited nutrition and physical activity information.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>There has been significant financial contribution from both State and Federal Government through the Tackling Indigenous Smoking Initiative. However despite sustained efforts, smoking rates remain high across all age groups, including in pregnant women. While it is positive that Federal Tackling Indigenous Smoking Initiative funding has been extended until June 2018, there is limited and uncertain funding for nutrition and physical activity marketing campaigns and programs.</td>
</tr>
<tr>
<td></td>
<td>There was a strong message from community that there should be targeted community awareness campaigns about heart disease.</td>
</tr>
</tbody>
</table>
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 approaches.

| Limited awareness by community members and health professionals of the extent and impact of heart disease and stroke | Community members and health professionals are generally unaware of the extent and impact of disease on the Aboriginal community, and do not prioritise heart disease and stroke. |

**Draft service recommendations - Health promotion and disease prevention services:**

**Heart and Stroke: Description:**

**Draft service recommendation 1:** Establish sustainable heart, stroke and diabetes awareness and prevention campaign

Establish a state-wide community awareness campaign about heart disease and stroke prevention highlighting associated risk factors to support primary and secondary prevention messages regarding healthy lifestyles, risk identification and risk management.

This campaign should:

- be guided by a representative group of Aboriginal community members and services from across the state;
- be coordinated with other appropriate prevention programs and recognise any co-morbidity and chronic disease prevention initiatives which already exist in communities;
- recognise the impact of socio-economic determinants on health;
- focus on young Aboriginal adults, both men and women to prevent early onset of disease in the future;
- tell the story of survivors, and;
- consider the use of narratives to convey a holistic, culturally appropriate approach to health and wellbeing.

Smoking cessation programs should be supported with sustained funding.

**Draft service recommendation 2:** Increase awareness of health professionals about the extent and impact heart disease and stroke

Use the heart and stroke prevalence and incidence data to inform all associated health care professionals and support workers (specialists, GPs, cardiovascular nurses, allied health workers, Aboriginal health practitioners and workers) of the devastating impact heart disease and stroke has on community, and that it can be significantly reduced through the application of evidence based strategies and treatment.
Heart and stroke content should be introduced into the Aboriginal Health Worker Certificate 4 training.

**Draft service recommendation 3:**
Establish an Aboriginal Heart and Stroke hub in Port Augusta that coordinates and services the needs of Aboriginal people in the far north and west of SA.

This hub should incorporate services which span the continuum of disease, from primary prevention and risk identification, acute and ongoing care, and should include primary health care, transfer and retrieval services, specialist, hospital and rehabilitation services.

**Key enablers:**
- Statewide co-ordination.
- Sustainable funding.
- An Aboriginal workforce able to meet the specific needs of clients and communities.
- A non-Aboriginal workforce able to provide culturally safe care.
2. Primary Preventive care - Risk assessment and management services

Key findings from the CVD Profile

**Impact of heart disease and stroke:**

**Heart and Stroke:**

- Prevalence of high to severe blood pressure is 26% (compared to 23% in the non-Aboriginal population). Hypertension is seen at earlier ages in the Aboriginal population, with one third of all 35 to 44 year old Aboriginal people having high blood pressure.

- Two in five Aboriginal people aged 35-44 are reported as having a cardiovascular disease. Almost four in five people aged 55 years and over report having a cardiovascular disease.

![Prevalence of cardiovascular disease in the South Australian Aboriginal population aged 15 years and over, by age and sex](chart.png)

*Cardiovascular disease is defined in the AATSIHS and AHS as "Diseases of circulatory system", including the following ICD-10 codes: I01-I15, I20-I25, I60-I69, I95, I97-I99, R00-R01, R07.2, R60.*

*Data source: ABS; derived from 2012-13 AATSIHS; 2011-12 AHS*

**Heart specific:**

- The incidence of Acute Rheumatic fever (ARF) was 4.3 cases per 10,000 in the Aboriginal population in 2014. 17% of these cases were recurrent ARF.

**Service availability:**

**Heart and Stroke:**

- There are multiple service providers in the primary health care sector (as discussed in 2.1).

- For services which are able to access Medicare Benefits Scheme (MBS) funding, there are specific items which are available to support cardiovascular risk assessment and management:
  - Health Assessment for Aboriginal and Torres Strait Islander People (Item 715);
  - GP Management Plan (GPMP) (Item 721);
  - Coordination of Team Care Arrangements (TCA) (Item 723);
  - Review of a GP Management Plan or Coordination of a Review of Team Care Arrangements (Item 732).
A practice nurse, Aboriginal and Torres Strait Islander health practitioner, Aboriginal health worker or other health professional may assist in the delivery of these services.

- Aboriginal health services funded by Commonwealth will report on cardiovascular risk assessment results as part of nKPIs from June 2016
- There are Aboriginal-specific patient resources to support lifestyle modification for cardiovascular risk and ongoing management of acute rheumatic fever. These are supplied by RHDAustralia and the Heart Foundation with training support for health professionals available.
- ‘Get Healthy’ is a state-wide telephone coaching service funded by SA Health. It provides 1:1 phone coaching to support lifestyle modification.

**Heart specific:**
- SA Health funds, with some Commonwealth government assistance, the SA RHD register, which provides support to primary care providers in the follow-up of identified ARF cases, particularly for BPG administration. The program funds 3 positions, 1 in SA Health, 1 in AHCSA and 1 in Nganampa Health Council.

**Service activity:**

**Heart and Stroke:**
- There is limited data on the heart and stroke risk assessment and management activities in the primary health care sector. The uptake of the MBS Adult Health Check is, on average, around 15% for South Australia, with a significant increase since 2011-2012 but it is still unacceptably low.
- At a regional level, the Country Primary Health Network has twice the rate of update of adult health checks compared to the Adelaide Primary Health Network region. Both regions have seen a double in the update in 2013-14 from 2011-12.

**Heart specific:**
- Secondary prophylaxis for acute rheumatic fever has increased since the introduction of the SA RHD register. In 2015, 57% of cases on the register were received 80 percent or greater adherence to benzathine penicillin G (BPG) injection.

**Gap identification - Risk assessment and management services:**

**Heart and Stroke:**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple service providers causes confusion and poor coordination</td>
</tr>
<tr>
<td>There are multiple service providers in the primary health sector, which provides both benefits and disadvantages for Aboriginal clients.</td>
</tr>
<tr>
<td>There is a significant opportunity with the establishment of the PHNs, in collaboration with AHCSA, to support:</td>
</tr>
<tr>
<td>- co-ordination across the disparate service providers;</td>
</tr>
<tr>
<td>- workforce development for both non-Aboriginal and Aboriginal professionals;</td>
</tr>
<tr>
<td>- awareness of heart disease and stroke in the community, and;</td>
</tr>
<tr>
<td>- uptake of program specific funding to support care for Aboriginal clients.</td>
</tr>
<tr>
<td>Cardiovascular risk assessment and management not being undertaken</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>There is a lack of risk assessment and management services in the far north and west regions of SA</td>
</tr>
</tbody>
</table>

**Heart specific:**

| Poor awareness of acute rheumatic fever and rheumatic heart disease | While there has been some investment in this area and a valuable control program established more must be done to eradicate this preventable disease. |

**Draft service recommendations - Risk assessment and management services:**

<table>
<thead>
<tr>
<th>Heart and Stroke:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Draft service recommendation 4:</strong> Establish metropolitan and country primary health care provider coordination group/s to guide coordinated service provision</td>
<td>Establish a central coordination group for metropolitan Adelaide and Country SA to network heart and stroke related services for Aboriginal clients. This should engage all providers in the primary health care sector including ACCHOs, SA health funded services, PHN funded services and the private sector general practitioner and associated allied health services.</td>
</tr>
<tr>
<td><strong>Draft service recommendation 5:</strong> Increase use of cardiovascular risk assessment and management with protocol and toolkit</td>
<td>The central coordinating group, engaging all primary health care providers, should oversee the development and rollout of a protocol and toolkit to support the uptake of CV Risk Assessment. Funding mechanisms exist through MBS to undertake the a Heart and Stroke Check (CVD Absolute Risk Assessment as part of an Adult Health check), support ongoing management (General Practice Management Plan - GPMP and Team Care Arrangement - TCA) and support medication adherence through the Close the Gap funding medication funding and to support services to be CtG services. This protocol should be implemented amongst all service providers. Risk assessment and management should occur within the context of comprehensive, adequately resourced and appropriately funded</td>
</tr>
</tbody>
</table>
primary health care which is provided in a culturally safe environment.

Given the early onset of established disease, efforts should focus on risk assessment from age 15.

The group should support referral to specialist and allied health care services.

<table>
<thead>
<tr>
<th>Draft service recommendation 3:</th>
<th>Please refer to page 9.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish an Aboriginal Heart and Stroke hub in Port Augusta</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Draft service recommendation 6:</th>
<th>Support sustained funding of the Rheumatic Heart Disease Register, with additional resourcing to support health practitioner and community education activities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support the continuation of the existing RHD Control Program</td>
<td>In communities where there is high risk of ARF, there should be support for clinical staff to recognise and manage ARF and RHD. This should occur through the SA RHD Register.</td>
</tr>
</tbody>
</table>

**Key enablers:**
- Statewide co-ordination.
- Sustainable funding sources to support assessment and management.
- An Aboriginal workforce able to meet the specific needs of clients and communities.
- A non-Aboriginal workforce able to provide culturally safe care.
3. Clinical suspicion of disease – Diagnostic investigation services

Diagnostic investigation services are often used to support clinical decision making. In this document, diagnostic investigation services refers to services which provide testing which supports clinical decision making in a non-acute event. These include electrocardiogram, chest x-ray, echocardiogram, brain scans and bloods. This may be in a private service, an outpatient service as part of a hospital, or point of care testing.

Stroke specific: Investigations for stroke occur in an acute setting have been integrated into the retrieval and acute hospital care sections of the plan. Whilst transient ischaemic attacks (TIA) are an acute event, follow up investigations for often receive occur within outpatient/TIA clinics. TIA patients may also be referred for further diagnostic investigations for heart diseases (such as atrial fibrillation).

Key findings from the CVD Profile

Impact of heart disease and stroke:

Heart specific:

- Using the number of hospitalisations as a proxy, a significant need for clinical diagnostic investigations for heart disease (particularly coronary heart disease and chronic heart failure) emerges.
  - Number of hospitalisation are high from the north and west of the state, in particular the communities of: Port Augusta, Ceduna, Whyalla, Coober Pedy and Port Lincoln.
  - Number of hospitalisations are high from north-western and northern suburbs of Adelaide, in particular: Elizabeth, Port Adelaide Enfield, and Salisbury.
  - The majority of cases of acute rheumatic fever and/or rheumatic heart disease are in the far west and north of the state, and the southern and northern suburbs of Adelaide.
  - In the far west and north, there are a number cases in the following communities: Ceduna, Coober Pedy, APY lands, Port Augusta, Whyalla and Port Pirie.

Stroke specific:

- There is limited understanding of the incidence of TIA.

Service availability:

Heart specific:

- There are multiple providers of diagnostic investigation and technical services in South Australia. These include private providers and hospitals.
  - There are limited facilities in the suburbs around Elizabeth, other than LHM and one private provider.
  - There are limited facilities in the far north and far west.
  - In rural and remote regions, iCCnet provide point of care testing (POCT) devices to hospitals with no existing facilities. RFDS also have POCT facilities through iCCnet.
  - There is limited medical imaging workforce in rural and remote areas.
  - RDWA fund a sonographer to visit Port Augusta and Kimba.
  - There is also a visiting sonographer and radiographer at Nganampa Health Service.
  - There is little reach of Point of care (POCT) into the Aboriginal Community Controlled Health Organisation (ACCHO) sector. Nganampa Health Services, Ceduna Kooniba
Aboriginal Health Service, Oak Valley Health Service and Umoona Tjutagka Health Service have some POCT equipment but it is not linked to ongoing SA Health support.

- The SA RHD Register provides support to Primary Health Care providers to enable follow-up of ARF and RHD cases for serial echocardiography within recommended timeframes.

### Stroke specific:

- There are three metropolitan TIA clinics, located at the Lyell McEwin Hospital, Flinders Medical Centre, and Royal Adelaide Hospital. There are no TIA clinics in country SA, however there is access to telephone support. Country patients may be referred to a metropolitan TIA clinic.

### Service activity:

#### Heart specific:

- There is limited understanding of the scope or extent of activity to investigate CHD and CHF.
- ARF/RHD patients receive regular echocardiography; in 2015 58% of priority 1, and 71% of priority 2 cases received screening within guideline recommended timeframes. These levels increased from 2014.

### Stroke specific:

- There is limited understanding of the activity of TIA sufferers. Individuals may present at their primary health care centre or hospital.

### Gaps - Diagnostic investigation services:

#### Heart specific:  
**Description:**

<table>
<thead>
<tr>
<th>No data publicly available on the quality or quantity of available services</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no data outside of MBS records on receipt of diagnostic investigation and technical services.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poor access to diagnostic investigative services in northern Adelaide and the far west and north of SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is significant disease burden and limited diagnostic investigation and technical services</td>
</tr>
<tr>
<td>- in the far north and far west of the state, particularly, there is limited access to the medical imaging workforce.</td>
</tr>
<tr>
<td>- in northern and western suburbs metropolitan Adelaide.</td>
</tr>
</tbody>
</table>

To date, there has been little engagement with ACCHOs servicing rural and remote communities to support access to these services.

iCCnet support some Point of Care Testing devices (POCT) across services.

#### Stroke specific:
Poor access to diagnostic investigative services in country SA

There is limited access to diagnostic investigative services and follow-up care for TIA patients in country SA. There are very few MRIs, the preferred brain scan, in country.

Draft service recommendations - Diagnostic investigation services:

**Heart specific:**

**Description:**

**Draft service recommendation 7:** Establish a system to collect data on investigative and technical services to understand service provision on an ongoing basis

There should be a central coordinating body to ensure services are available in those areas where there is high need.

This should include increased support of the RFDS to increase accessibility to POCT testing in remote communities which they service.

POCT should be extended into the ACCHO sector, and adequate resources to support ACCHOs to increase accessibility in rural and remote communities.

In metropolitan Adelaide, the relevant LHN should ensure that in areas of high burden, there is adequate resources to meet demand, and that services are accessible to community.

**Key enablers:**

- Statewide co-ordination of ARF/RHD by SA RHD Register.
- Statewide co-ordination of diagnostic investigation and technical services by RDWA and Country Health SA.
- Technological solutions to support use of POCT and remote diagnosis.
- Transport support for clients to access care, when the service is unavailable in their community.
4. Clinical suspicion of Disease - Specialist Services

*Stroke specific:* Specialist neurology and neurosurgery services are discussed under the planned and urgent transfers and emergency retrieval services, and acute hospital services sections of this plan. Specialist services for stroke may include referral to cardiology and cardiac surgery, which is discussed specifically for heart. Services such as allied health providers are discussed under hospital discharge planning and follow-up services, and rehabilitation, secondary prevention and ongoing care.

**Key findings from the CVD Profile**

**Impact of heart disease and stroke:**

*Heart specific:*

- Using the number of hospitalisations as a proxy, there is significant need for access to specialist services for heart disease (coronary heart disease and chronic heart failure and rheumatic heart disease) (as discussed in 2.3).
- The majority of cases of acute rheumatic fever and/or rheumatic heart disease are in the far west and north of the state, and the southern and northern suburbs of Adelaide (as discussed in 2.3).

**Service availability:**

*Heart specific:*

- There are multiple cardiology and vascular surgery specialist services including: private providers (Adelaide Cardiology, SA Heart, Heart and Vascular Institute, Adelaide Vascular), SA Health employed specialists, and private specialists funded by RDWA.
  - Services to the far west and north of country SA are primarily provided by RDWA or SA Health. A majority of these services are located in local hospitals. Often the funding for one specialist to visit a community will come from multiple sources, for different elements of the trip (ie specialist time, transport).
  - Services provided to inner regional (Barossa, Hills and Fleurieu), the Riverland, Mallee and Coorong, Southeast, and Yorke Peninsula are primarily provided by private providers.
  - Services provided in metropolitan Adelaide are primarily provided by private providers or by SA Health (hospital outpatient services).
- There is very limited reach into Aboriginal Community Controlled Health Services, has any existing arrangements have been initiated by individual specialists or ACCHOs.
- There is limited use of tele-health, except some instances initiated by individual specialists.

**Service activity:**

*Heart specific:*

- There is limited understanding of the services being used by Aboriginal clients.

**Gaps - Specialist Services:**

*Heart specific: Description:*
Poor coordination causes overlap and gaps in specialist service availability

There are multiple providers of specialist services, significant overlap in the delivery of services in some regions, with very limited access to specialist services in other regions. Specialists services are rarely linked to ACCHOs.

Under-servicing: western and northern Adelaide suburbs; far north and far west SA

Metropolitan SA:
- There is underservicing in: the western suburbs and Port Adelaide; the northern suburbs, particularly Elizabeth and inner north-west; southern suburbs, particularly Noarlunga.

Country SA:
- There is underservicing in Port Augusta and in all communities north and west of Port Augusta.
- In Port Augusta, there are two visiting cardiologists (one which visits the hospital and the ACCHO), and one visiting vascular surgeon. There is one cardiologist visiting the APY lands, Ceduna, Coober Pedy, Port Lincoln and Wudinna.
- Services are dependent on individual specialist commitment to visiting specific locations, particularly in remote communities.

Lack of coordination between GP, specialist and investigative services

The current lack of communication and coordination results in required information not reaching the specialist or GP in time for appointments, leading to a lack of continuity of care for the client.

Specialist services not always culturally appropriate

There are perceptions of a lack of cultural appropriateness of the specialist service, particularly if not connected to the local Aboriginal health services.

Fragmented specialist care post discharge

Frequently the specialist seen in hospital is different to the one visiting a community. As a result there is a lack of continuity of care.

Unable to access transport to attend specialist services

The lack of transport support often results in poor follow up of patients.

In country regions, SA Health PATS funded transport for access to specialist services often not adequate to cover the costs.

Draft service recommendations - Specialist Services:

Heart specific:  

Description:
**Draft service recommendation 8:**
Statewide coordination to provide specialists where there is need

There should be a state-wide coordinating body which covers all of the state. Models of delivery should be based on locally defined service needs.

Approaches should consider the integration of services with ACCHOs and other primary care providers.

Specialist services should be consistent where possible in a specific regional location.

**Draft service recommendation 3:**
Establish an Aboriginal Heart and Stroke hub in Port Augusta

*Please refer to page 9.*

**Draft service recommendation 9:**
Investigate sustainable solutions and funding to address ongoing transport issues to ensure patients can access specialist care

**Key enablers:**
- Statewide co-ordination of ARF/RHD by SA RHD Register.
- Statewide co-ordination of specialist services by RDWA and Country Health SA in Country Health SA LHN; and Northern, Central and Southern LHNs in Adelaide.
- Technological solutions to support use of videoconferencing by specialists.
- A non-Aboriginal workforce able to provide culturally safe care.
- Transport support for clients to access care, when the service is unavailable in their community.
5. Acute Episode – Planned and urgent transfer and emergency retrieval services

Key findings from the CVD Profile

Impact of heart disease and stroke:

Heart specific:
- Using the number of hospitalisations as a proxy, there is significant need for access to acute care for coronary heart disease (as discussed in 2.3). This need is both in metropolitan Adelaide and in rural and remote communities.

Stroke specific:
- Aboriginal people in SA are 70% more likely to be hospitalised for stroke than non-Aboriginal counterparts (after age-standardisation). The burden is substantial in young age groups; Aboriginal people aged 25-64 are more than 3 times more likely to be hospitalised.
- Stroke accounts for 5% of all cardiovascular hospitalisations for Aboriginal people. Other cerebrovascular conditions account for an additional 2%.
- Females are over-represented, accounting for 56% of all Aboriginal hospitalisations (compared to 48% in non-Aboriginal population).
- 84% of Aboriginal stroke hospitalisations are for South Australian residents. 14% are NT residents.
- Half (52%) of strokes for Aboriginal people are ischaemic strokes, haemorrhagic strokes account for 18% of hospitalisations. The remainder are strokes which are not specified. Importantly, there are more haemorrhagic strokes and strokes which are “not specified” than in the non-Aboriginal population.
- Based on hospital data, there is significant burden in Port Augusta.

Service availability:

Heart and Stroke:
- Referrals to metropolitan hospitals are often based on historical pathways and relationships, and sometimes the availability of beds and the ability to respond to calls.
- SAAS provide coverage across South Australia, with integrated triage processes.
- In country SA: SAAS coordinate planned and urgent transfers and emergency retrievals, in coordination with RFDS.

Heart specific:
- Ambulances are equipped with 12-lead ECGs and are able to pre-alert hospitals for STEMI cases. Ambulances are not equipped with troponin.
- The Heart Foundation has a mainstream “Warning Signs of Heart Attack” campaign and some specific resources for Aboriginal people.
- In country SA: in an emergency, consultations from most country regions are within a well-established and systematic process, using the iCCnet service to access specialist advice, leads to processes that are effective and efficient to support patient care and evacuation. Troponin is available in country hospitals through iCCnet. iCCnet is initiated by the GP (either in the health service/hospital or the RFDS). There are integrated triage processes with Medstar, RFDS and iCCnet.
**Stroke specific:**
- The Stroke Foundation have a ‘FAST’ mainstream media campaign which promote recognition of stroke symptoms.
- Ambulances are equipped to perform a pre-hospital assessment and risk stratification.
- **In country SA:**
  - There are established protocols and procedures which facilitate engagement with a neurology specialist, however these have not been implemented across the state.
  - As part of Transforming Health, a 24/7 neurology support phone service is being developed. However, this has not been integrated into SAAS Medstar.

**Service activity:**

**Heart and stroke:**
- RFDS undertook 1703 evacuations and inter-hospital transfers for Aboriginal people with cardiovascular disease between 2006 and 2012 in South Australia and in the Central Australian region of the NT.
  - There were 137 primary evacuations from SA. The majority were evacuated to Alice Springs (n=113), and the remainder to Port Augusta or Adelaide.
  - There were 424 inter-hospital transfers from country SA with 287 (approximately 70%) to Adelaide, and 91 to Alice Springs, and the remainder to other SA and interstate locations.
  - Inter-hospital transfers to Adelaide included 121 from Port Augusta, 46 from Ceduna, and 41 from Coober Pedy.
  - There were 471 inter-hospital transfers from NT to SA.
    - There is differing levels of symptom recognition by community. Often family plays an important role in initiating care seeking.
    - For community members, a key issue is the cost of accessing ambulances, and lack of ambulance insurance. Those who can afford it report prioritising Ambulance insurance.
    - 58% of Aboriginal presentations to ED were via ambulance (air ambulance, helicopter, and ambulance service). This is similar to the non-Aboriginal population. There is significant variation by hospital:
      - Metropolitan hospitals have higher rates of ambulance arrival compared to country hospitals. At RAH, almost 80% arrive by ambulance. Noarlunga is an exception.
      - In country hospitals, proportion arriving by ambulance is approximately 40% for the large country sites. At Gawler, less than 10% arrive by ambulance.

**Gaps – Planned and urgent transfer and emergency retrieval services:**

<table>
<thead>
<tr>
<th>Heart and Stroke</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The real and perceived cost of ambulance use deters people calling 000 in an emergency</td>
<td>Community members and health professional highlighted issues with the cost of ambulance services which leads to issues of patients not accessing Ambulance services.</td>
</tr>
</tbody>
</table>
Aboriginal identification of patients is not formally or systematically asked during the emergency phase of their journey. The time critical nature of heart disease and stroke means that the focus is on best clinical practice guidelines. However there is little consideration for cultural requirements within the clinical system. Aboriginal identification is not formally undertaken until the patient reaches hospital.

Transfer and retrieval processes are not systematically culturally appropriate. There is little time to consider patient needs, such as family support, access to clothes, money and identification, and ensuring that patients and family members are fully aware of why they are being transported. However, these are key issues and factors for success when the patient reaches tertiary care. The role of escort is particularly important as they play the role of patient advocate as well as supporting the patient. The health status of the escorts often presents an issue to health services.

Poor coordination between referring and referral hospital. Issues often arise at the referral hospital if there is not sufficient coordination between referring and referral hospital prior to transfer. This is particularly common for NT patients. Medical records are not always transferred in a timely manner with previous history not reaching the referral hospital in adequate time.

Planned appointments from country regions are haphazard with limited funding for transport. In planned transfers from country regions PATS funding is often inadequate to cover the cost of necessary transport, for patient and escort. There are cases of “urgent” but “not acute” patients being admitted to country hospitals in order to access SAAS transport.

High need and low levels of service provision in Port Augusta and the north west region. Port Augusta had 19 stroke separations over a 5 year period, accounting for almost 30% of country presentations. The RFDS hub for central Australia is located in Port Augusta, and the city is a central point for access to the far west and north of the state. However, the hospital does not have the capacity to thrombolysie patients experiencing ischaemic stroke. This is further discussed in section 3.6.

**Heart specific:**

Access to point of care testing for troponin and other relevant diagnosis testing with suitable expert support. If iCCnet is involved, troponin results are usually available but iCCnet do not interact with all Country services.
Stroke specific:

Difficult to access specialist support in emergency event

There are established protocols and procedures for stroke specialist support and retrieval. However, these have not been disseminated or implemented. A 24/7 stroke support phone service which is being established should support this, and this should be integrated into the SAAS Medstar systems.

Draft service recommendations – Planned and urgent transfer and emergency retrieval services:

Heart and Stroke:

**Draft service recommendation 10:** Create awareness of warning signs and symptoms, and support Aboriginal people to have ambulance insurance

- Provide ongoing support to all relevant features of the Heart Foundation’s ‘Warning Signs of heart Attack’ campaign in the South Australian Aboriginal community
- Promote ambulance insurance to all Aboriginal people and subsidised for people with significant economic disadvantage

**Draft service recommendation 11:** All patients must be asked about their Aboriginal or Torres Strait Islander identification at first point of contact

- Establish and maintain a state wide system where identification of all Aboriginal patients supports 100% accurate identification of Aboriginal cardiovascular patients.
- Transfer and retrieval services and Emergency Departments must ask about identification question so that appropriate risk and cultural considerations are incorporated into management.

**Draft service recommendation 12:** Develop and implement an Aboriginal and Torres Strait Islander transfer and retrieval services protocol

- Develop a protocol for transfers and retrievals which ensures that the clinical and cultural requirements of a patient are met within clinical care. The protocol should include:
  - decision of the referring hospital (considering treatment needs, medical history, the presence of culturally safe environments, and access to community and family support);
  - appropriateness of the escort;
  - clinical and social preparation of the patient for transfer/retrieval.

This protocol should incorporate the effective communication of patient history to the hospital providing care.

This protocol should be disseminated and implemented state-wide.
Draft service recommendation 3: Establish an Aboriginal Heart and Stroke hub in Port Augusta

The Heart and Stroke Hub should be a central transfer and retrieval location if transfer or retrieval direct to Adelaide is not appropriate or able.

Heart specific:

Draft service recommendation 13: Provide state-wide network access to POCT through the iCCnet

All country hospitals and key points of medical contact including remote ACCHOs should have access to timely iCCnet specialist advice, access to troponin testing and other necessary POCT equipment.

Stroke specific:

Draft service recommendation 14: 24/7 stroke service integrated into SAAS Medstar

The 24/7 stroke specialist phone service for emergencies, which will be hosted by the RAH, should sit within SAAS Medstar protocols as part of a centralised specialist support and transfer/retrieval system.

Key enablers:

- Statewide co-ordination by SAAS.
- Technological solutions to aid risk stratification, rapid initial treatment decisions, and triage.
- A non-Aboriginal workforce able to provide culturally safe care.
- Transport support for clients to access care. This applies to both planned and urgent transfers and emergency retrievals, across all of South Australia.
6. Acute Episode - Acute Hospital Services

Key findings from the CVD Profile

Impact of heart disease and stroke:

Heart and Stroke:

- Aboriginal people in SA are 60% more likely to be hospitalised for a cardiovascular condition (after age-standardisation).
- The age profile of Aboriginal people admitted to hospital is significantly younger than the non-Aboriginal population.
- Port Augusta was the region with the highest number of hospitalisations by place of residence.

Heart specific:

- Aboriginal people are more than twice as likely to be hospitalised for CHD, CHF, and hypertension (after age-standardisation), and 36.6 times more likely to be hospitalised for ARF.
- Coronary heart disease accounts for over half of all cardiac and vascular hospitalisations in SA. Of these, 45% are for acute myocardial infarction.
- 60% of CHD hospitalisations in SA are South Australian residents, the remainder being largely NT residents.

Stroke specific:

- Aboriginal people in SA are 70% more likely to be hospitalised for stroke than non-Aboriginal counterparts (after age-standardisation) (as discussed in 3.5).
- Females are over-represented, accounting for 56% of all Aboriginal hospitalisations (compared to 48% in non-Aboriginal population).
- 84% of Aboriginal stroke hospitalisations are for South Australian residents (as discussed in 3.5).
- Half (52%) of strokes for Aboriginal people are ischaemic strokes, haemorrhagic strokes account for 18% of hospitalisations. The remainder are strokes which are not specified (as discussed in 3.5).

Service availability:

Heart and Stroke:

- There is widespread coverage of hospitals across the state, with EDs at metropolitan and many country hospitals.
- Aboriginal Liaison Units are located in each of the metropolitan hospitals (operated at an LHN level), and across large country hospitals, including Port Augusta, Whyalla, Ceduna, Port Lincoln, Berri, Mount Gambier and Gawler. Aboriginal Liaison Officers (ALOs) and nurses within the units are patient advocates and their role is to support the needs of patients. Models of ALU differ by LHN/hospital.
- There are hospital pharmacies located in each hospital. The model of the pharmacy differs between hospitals. All pharmacies are unable to provide scripts which are funded by CTG.
• Following transitions incorporated within Transforming Health, the RAH, FMC and LMH will be the three tertiary hospitals with cardiology units and cath labs; FMC and RAH will have cardiothoracic surgery units.
• There are established pathways for emergency and elective admission from the NT.
• Aboriginal-specific resources to support patient education available to all hospitals through Heart Foundation.

**Stroke specific:**
• A number of SA hospitals have capacity to provide brain imaging (CT scan and/or MRI).
• There are 3 metropolitan acute stroke units, one in each of the metropolitan LHNs (details correct following Transforming Health reform take effect):
  o RAH has 24/7 acute stroke unit, neurosurgery unit and TIA clinic, with onsite senior clinicians.
  o FMC has 8am-8pm acute stroke unit, neurosurgery unit and TIA clinic.
  o LMH has 8am-8pm acute stroke unit.
• There are hospitals in Country Health SA LHN with stroke units and in-hospital rehabilitation. These sites have capacity to thrombolyse with support from RAH:
  o Whyalla;
  o Berri;
  o Mount Gambier.
• All three sites have a clinician employed at the hospital by SA Health.
• As part of the Transforming Health reform, a Key Worker Program is being established to support the transition from acute care to rehabilitation and ongoing care.

**Service activity:**
**Heart and Stroke:**
• The rate of self-discharge is 34.8 per 1000 hospitalisation, compared to 4.2 per 1000 in the non-Aboriginal population. There is significant variation in self-discharge rates between hospitals, however across all Aboriginal rates are significantly higher.
• Key issues which were reported by the community include: the presence of racism and racial discrimination by hospital staff, including clinicians, nurses and support staff (in some cases severe); the cost of medications; limited access to ALOs and recognition that they have limited time and resources; lack of access to culturally appropriate care, including access to ngangkaris; and limited ability to involve family in care.

**Heart specific:**
• Central Adelaide LHN receives the greatest number of hospitalisations for Aboriginal people with heart disease. A majority of these are at RAH. Southern Adelaide LHN also receives a high number of Aboriginal patients, a majority of these are NT residents admitted to FMC.
• In Country SA, Port Augusta was the hospital with the highest number of admissions.
• There is evidence that Aboriginal patients are less likely to receive evidence-based care, including PCI for STEMI and reperfusion for STEMI. There is also evidence that there are delays in accessing care, including extended door-to-balloon time.
- Aboriginal people with a cardiac condition are more likely to die in hospital, after adjusting for age.

**Stroke specific:**
- Central Adelaide LHN receives the greatest number of hospitalisations for Aboriginal people with stroke. The majority of these are at RAH. County Health SA LHN has the next highest number of hospitalisations. FMC, LMH and TQEH receive have relatively few hospitalisations.
- In Country SA, Port Augusta was the hospital with the highest number of separations (19 over 5 years).
- There is little data on the quality of care as defined by receipt of evidence-based care. From the period July 2011 – June 2015, 10% (n=6) of Aboriginal hospitalisations with a principal diagnosis of ischaemic stroke/stroke not specified received thrombolysis. This is similar to the non-Aboriginal counterparts.

### Gaps - Acute hospital services:

<table>
<thead>
<tr>
<th>Heart and Stroke:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health professionals not aware of premature burden in Aboriginal patients</strong></td>
<td>Lack of awareness extends to age, gender, cultural understanding and the need to incorporate family members in decision making including consenting.</td>
</tr>
<tr>
<td></td>
<td>Lack of awareness exists across the hospital system, including at important points of interaction, such as the Emergency Department.</td>
</tr>
<tr>
<td><strong>Lack of systematic approach in managing the care of Aboriginal and Torres Strait Islanders people in the acute sector</strong></td>
<td>While all patients are treated on a clinical pathway there is a need to provide additional cultural and clinical services for Aboriginal patients in a systematic and organised way to ensure that all patients receive the best care possible and we reduce self-discharge rates.</td>
</tr>
<tr>
<td><strong>Poor identification of Aboriginal patients</strong></td>
<td>There is poor identification during Emergency Department triage and hospital admission.</td>
</tr>
<tr>
<td></td>
<td>Poor identification at hospitals dramatically limits the effectiveness of ALOs as they identify patients through the patient administration data.</td>
</tr>
<tr>
<td><strong>Non-Aboriginal workforce are not culturally competent</strong></td>
<td>There are clear examples of non-Aboriginal workforce not being adequately supported to provide culturally appropriate and safe care. Community referred to the lack of consideration of their cultural needs, which for them were often interlinked with their clinical needs and clinical outcomes.</td>
</tr>
</tbody>
</table>
| Poor coordination into and out of hospital | Hostel and step down units are limited with no facility in close proximity to Flinders Medical Centre. This leads to many issues with surgical patients.  
Lack of unified patient record number means that patient history including comorbidities and medication history is not automatically available.  
The cardiovascular needs of these patients (particularly medication and opportunities for cardiac education) should be recognised.  
There were many comments regarding the haphazard discharge process that leads to poor patients outcomes.  
Outcomes are often greatly improved with ALO involvement when they are available.  
There should be recognition that Aboriginal patients admitted for other conditions with underlying/comorbid cardiovascular disease. |
|---|---|
| Lack of sustainably funded, culturally and clinically skilled nursing staff to support patients in high need hospitals | The continuity of care across the patient pathway is left up to the best intentions of a few individuals.  
ALO services will working to their best efforts are not adequate and are without the needed clinical expertise.  
Services gaps were exposed when listening to many stories.  
There is a need a clinically trained staffed to specifically support Aboriginal patients, particularly the cultural considerations within the clinical context. |
| Aboriginal Liaison Units under resourced and not used efficiently | The role of Aboriginal Liaison Officers is highly valued but not well understood by staff within hospitals. ALOs were often sought to undertake tasks outside of their role.  
The limited access to ALOs reflects poorly on the hospital as reputation often deters community members from seeking care in hospitals with poor reputations. The ALU at CALHN is significantly understaffed given the throughput of patients across the RAH, TQEH and Hampstead. |
| Lack of health, cultural and financial support for patient and family during their hospital visit | It is recognised that, particularly for country patients, there are additional issues in receiving care in a tertiary hospital.  
The selection of the escort is an important decision that can significantly influence the experience in-hospital.  
Many services identified acute demands in supporting escorts is important to enable the most effective care, including access to accommodation and travel to and from the hospital (if required). Locality to family can be an important determinant in this. Also, escorts often has health issues that arise during a stay in Adelaide, |
which are often dealt with by the ALOs (however there are often poor relationships with local primary health care services).

**No Aboriginal-specific state-wide reporting against key indicators**

There is evidence that there are barriers to Aboriginal patients accessing timely, evidence-based clinical care.

There is no routine monitoring which enables measurement of indicators for Aboriginal people compared to non-Aboriginal people.

**Heart specific:**

**In-hospital education and phase 1 cardiac rehabilitation not culturally appropriate**

While some support is apparent with some resources that are culturally suitable, the confidence of staff is limited in how to effectively communicate with Aboriginal patients and the importance of family in these interactions.

**Stroke specific:**

**No specialist acute care in Port Augusta**

Whilst stroke units are located at Whyalla, Berri and Mount Gambier, the two hospitals which have the highest number of Aboriginal patients are Port Augusta and Ceduna. It is acknowledged that a stroke unit was established at Whyalla and not Port Augusta due to the availability of a SA Health employed clinician within the hospital. However, given that Port Augusta is the central hub for all services to the west and north, and the presence of the RFDS Central Australia hub and a hospital recognised for culturally safe environments, it is more appropriate to have a stroke unit located at Port Augusta. This is also an appropriate decision for non-Aboriginal flows, with co-location with RFDS.

---

**Draft service recommendations - Acute hospital services:**

**Heart and Stroke:**

**Description:**

**Draft service recommendation 2:**

Increase awareness of health professionals about the extent and impact heart disease and stroke

*Please refer to page 8.*

In hospitals, this should be applied to all staff, including clerical staff at ED, clinical staff at ED, clinical staff in cath labs and surgical units, and clinical staff on wards.

**Draft service recommendation 11:**

All patients must be asked about their Aboriginal or Torres Strait Islander

Establish and maintain a state wide system where identification of all Aboriginal patients supports 100% accurate identification of Aboriginal cardiovascular patients.
<table>
<thead>
<tr>
<th>Identification at first point of contact</th>
<th>Transfer and retrieval services and Emergency Departments must ask about identification question so that appropriate risk and cultural considerations are incorporated into management.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft service recommendation 12:</td>
<td>Develop a protocol for transfers and retrievals which ensures that the clinical and cultural requirements of a patient are met within clinical care. The protocol should include:</td>
</tr>
<tr>
<td>Draft recommendation 12:</td>
<td>• decision of the referring hospital (considering treatment needs, medical history, the presence of culturally safe environments, and access to community and family support);</td>
</tr>
<tr>
<td>Develop and implement an Aboriginal and Torres Strait Islander transfer and retrieval services protocol</td>
<td>• appropriateness of the escort;</td>
</tr>
<tr>
<td></td>
<td>• clinical and social preparation of the patient for transfer/retrieval.</td>
</tr>
<tr>
<td></td>
<td>This protocol should incorporate the effective communication of patient history to the hospital providing care.</td>
</tr>
<tr>
<td></td>
<td>This protocol should be disseminated and implemented state-wide.</td>
</tr>
<tr>
<td>Draft service recommendation 11:</td>
<td>Establish and maintain a state wide system where identification of all Aboriginal patients supports 100% accurate identification of Aboriginal cardiovascular patients.</td>
</tr>
<tr>
<td>Draft recommendation 11:</td>
<td>Transfer and retrieval services and Emergency Departments must ask about identification question so that appropriate risk and cultural considerations are incorporated into management.</td>
</tr>
<tr>
<td>All patients must be asked about their Aboriginal or Torres Strait Islander identification at first point of contact</td>
<td></td>
</tr>
<tr>
<td>Draft service recommendation 15:</td>
<td>All ward staff where there is interaction with cardiac and stroke patients need to have undertaken cultural awareness training.</td>
</tr>
<tr>
<td>Draft recommendation 15:</td>
<td>This is particularly important for staff in ED, cardiac and neurology wards.</td>
</tr>
<tr>
<td>All relevant clinical hospital staff must complete cultural competence training</td>
<td>All ward staff need access to staff who have in-depth cultural experience for support and mentoring at all times.</td>
</tr>
<tr>
<td>Draft service recommendation 16:</td>
<td>Aboriginal Liaison Units must be supported to provide much relied on services. This support must provide sustainable funding and resourcing.</td>
</tr>
<tr>
<td>Draft recommendation 16:</td>
<td>This is particularly critical for CALHN, based on the number of Aboriginal patients.</td>
</tr>
</tbody>
</table>
**Draft service recommendation 17:**
Cultural requirements must be considered within the clinical system

- a: Patient care must include emotional, financial, social and/or cultural support as well as clinical care. Family discussion face to face, by telephone or video connections must be facilitated as a matter of “normal” practice. This should include access to ngangkaris.

- b: Support for family members to be actively involved in patient care and decision making (as desired by the patient)

**Draft service recommendation 18:**
Culturally and linguistically appropriate communication must be prioritised to ensure all patients are the centre of the care and understand care options

- All conversations with Aboriginal clients should recognise both the cultural and clinical components of the conversation. This should include family members.

- This should consider: access to translators and the need for discussions with community to support the journey (including communal discussions for consent). This should be supported by the ALU.

**Draft service recommendation 19:**
Provide access to traditional healers to compliment western medicine

- All Aboriginal patients should have access to traditional healers, ngangkaris, if they request it. This should be supported by the ALU.

**Draft service recommendation 20:**
Develop standard reporting across the state against key performance indicators

- There should be mandatory annual reporting against key measures of measures of evidence-based clinical care by Aboriginal status.

- These should be established into existing reporting systems where they exist. Where there are not existing reporting systems, these should be established based on national reporting standards, with integration of reporting by Aboriginal status.

- Reporting feedback loops should be integrated into practice, at a site level.

**Draft service recommendation 21:**
In hospital patient education must use culturally relevant resources, include family members and prioritise suitable communication techniques including interpreters as needed

- There should be ongoing resourcing of Heart Foundation resources to be available for each patient.

- These should be used with families as well as patients.

- Staff need to be trained to work with Aboriginal patients in a culturally suitable manner

- Community expressed the number of ‘success stories’ of lifestyle modification which should be shared widely to encourage and others to do the same. These positive lifestyle modification stories should be shared with cardiac clinical staff to support increased cardiac education in-hospital.
Draft service recommendation 3:  
Establish an Aboriginal Heart and Stroke hub in Port Augusta

Please refer to page 9.

The hospital should have adequate resourcing to provide acute care for patients, with systems links to the RAH for transfer/retrieval. Port Augusta should have a stroke unit.

Heart specific:

Draft service recommendation 22:  
Establish a key cardiac nursing staff position at RAH, FMC, LMH and Port Augusta Hospital to support high risk patients and their families throughout their journey of care

There should be cardiac coordinator on cardiac/cardiac surgery wards for patients with high risk or complexity, including all Aboriginal and Torres Strait Islander patients. The coordinator should work with the ALU and the clinical staff to ensure adequate pre-operative planning and support, in-hospital support, and post-discharge planning and support.

These roles should be at centres with most need: RAH, FMC, LMH, and Port Augusta Hospital. These roles should be adapted to meet the particular needs of that hospital; considering what type of procedures they undertake, what conditions the patients have, and the place of residence of the patients.

Stroke specific:

Draft service recommendation 23:  
Stroke key worker role should be provided in a culturally appropriate manner

The role of the key worker within stroke units should be provided in a manner which is culturally safe.

Key enablers:

- Statewide co-ordination and governance.
- Technological solutions to aid risk stratification, rapid initial treatment decisions, triage, and efficient coordination of care across sites.
- A non-Aboriginal workforce able to provide culturally safe care.
- An Aboriginal workforce able to meet the specific needs of clients and communities.
- Sustainable funding of programs to support culturally safe environments in hospitals.
- Monitoring and evaluation against evidence-based indicators.
7. Ongoing Care - Hospital discharge planning and follow-up services

Key findings from the CVD Profile

*Impact of heart disease and stroke:*

**Heart and Stroke:**
- Aboriginal people in SA significantly more likely to be hospitalised for a cardiovascular condition, and at younger ages (further details see 2.6).
- Port Augusta was the region with the highest number of hospitalisations by place of residence (as discussed in 2.6).

**Heart specific:**
- Coronary heart disease accounts for over half of all cardiac and vascular hospitalisations in SA. Of these, 45% are for acute myocardial infarction (as discussed in 2.6).
- 60% of CHD hospitalisations in SA are South Australian residents, the remainder being largely NT residents (as discussed in 2.6).

**Stroke specific:**
- Almost half of all hospitalisations for stroke in the Aboriginal population occur before 55 years old (as discussed 3.5).
- Females are over-represented, accounting for 56% of all Aboriginal hospitalisations (as discussed 3.5).
- 84% of Aboriginal stroke hospitalisations are for South Australian residents (as discussed 3.5).

**Service availability:**

*Heart and Stroke:*
- Hospital pharmacists support post-discharge medications. In most scenarios, 7 days medications are supplied free, with additional costs for webster packs, or additional medication. In some instances, pharmacists also provide a medication list to patient, and send direct to PHC provider.
- As part of SA Health CTG, there was funding for Aboriginal Patient Pathway Officers (APPO). The role of the APPO was to support the journey into and out of hospital (in contrast to the ALO role which is focused solely in-hospital). The program was cut, however individual LHNs have maintained funding in certain places.
- PATS is in place to support transport home to country patients.
- There are Step Down Units in Northern Adelaide LHN (available for all patients in a metropolitan hospital), Port Augusta and Ceduna. Port Augusta only operates Monday-Friday.
- Those PHC providers who are able to access MBS funding are eligible to claim the following items (as discussed 2.2):
  - GP Management Plan (GPMP) (Item 721);
  - Coordination of Team Care Arrangements (TCA) (Item 723);
  - Review of a GP Management Plan or Coordination of a Review of Team Care Arrangements (Item 732).
- My Aged Care funding is available to support after-hospital care.
**Heart specific:**
- There is a central referral pathway established, hosted by iCCnet, and inputted by each hospital. This pathway supports referral into appropriate cardiac rehabilitation programs.
- Aboriginal-specific resources to support patient education available to all hospitals through Heart Foundation.

**Stroke specific:**
- As part of the Transforming Health reform, a Key Worker Program is being established to support the transition from acute care to rehabilitation and ongoing care. The Key Worker is a case manager who takes on the role of coordinating care, including physical, psycho-social and emotional support.

**Service activity:**

**Heart and Stroke:**
- There is little data to understand discharge and PHC follow-up.

**Heart specific:**
- 28% (N=25) Aboriginal people received referral to cardiac rehabilitation whilst an in-patient. This is compared to 34% of non-Aboriginal people. Referral rates to cardiac rehabilitation were higher in Country Health SA LHN hospital (46%, n=6) compared to Adelaide LHN hospitals (25%, n=19). (2013-2014)
- 75% of Aboriginal people eligible for cardiac rehabilitation were under 65 years old, compared to 47% of non-Aboriginal people. (2013-2014)
- Community voiced concerns about the lack of culturally appropriate cardiac rehabilitation, and the lack of cardiac rehabilitation which was accessible and appropriate for young people following a cardiac event.

**Stroke specific:**
- Anecdotally, half of stroke patients receive in-hospital rehabilitation, and half receive rehabilitation in the home.

**Gaps - Hospital discharge planning and follow-up services:**

**Heart and Stroke:**

<table>
<thead>
<tr>
<th>Description:</th>
<th>Pre-discharge education and discharge planning not done or poorly done</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Staff were not confident and did not have access to resources to provide culturally appropriate education rehabilitation.</td>
</tr>
<tr>
<td></td>
<td>Staff did not seek routinely seek the patients family for educational opportunities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description:</th>
<th>Discharge does not involve primary health care service providers and follow up with primary care services is limited</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>There were many comments regarding the haphazard discharge process that leads to poor patients outcomes.</td>
</tr>
<tr>
<td></td>
<td>Outcomes are often greatly improved with ALO involvement when they are available.</td>
</tr>
</tbody>
</table>
In many cases, discharge summaries are often not received by the referring hospital or the primary health care provider, or are significantly delayed (ie weeks) after patient discharge.

PHC providers often report knowing a patient has been hospitalised from the patient only. As a consequence there is often poor follow-up by the primary health care provider following hospitalisation.

<table>
<thead>
<tr>
<th>Medications not provided for more than one week – adherence difficult</th>
<th>Typically patients get one week of medication with the expectation that patients will visit their GP during this period for a consultation and to received ongoing medications but this is often unrealistic for patients who are travelling or staying in short term accommodation. As hospitals cannot access CtG scripts patients are likely to be asked to pay for medications that are distributed in hospital despite being eligible for free or subsidised medication in the community. Community members complain of the cost associated with hospital scripts, and then need to present at PHC provider to access CTG scripts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport home not funded properly</td>
<td>Funding provided by PATS is in most instances inadequate. Often, the mode of transport covered is contrary to patient best clinical interest, and puts individuals at high risk of re-presenting. Transport costs are only covered to return to place of hospital admission, not necessarily place of residence. In many cases, external service providers (including Native Title, HACC, police) often step in to address shortfall in funding. Flights home are often opportunistic by RFDS.</td>
</tr>
</tbody>
</table>

**Heart specific:**

| Lack of specialist follow-up | While this is done well in some places, it seems that specialist follow-up is not satisfactorily achieved across the state. |

**Stroke specific:**

| Difficulty accessing stroke rehabilitation specialists in country | General rehabilitation is available at all country hospitals with capacity, and there is specialist stroke rehabilitation available at the country centres with a stroke unit. However, there are difficulties accessing specialist stroke rehabilitation specialist services which are culturally appropriate. |

**Draft service recommendations - Hospital discharge planning and follow-up services:**
Heart and Stroke:  

**Draft service recommendation 24:**  
**Engage with patient and family members to develop a discharge plan**

Development of protocol to support discharge planning which engages the patient and their family, the primary health care provider (either the GP or nurse practitioner) and develops a strategy of appropriate discharge which considers: availability of ALO at time of discharge, specialist needs, and access to transport. This should be undertaken by the cardiac coordinator for cardiac patients, or the Key Worker for stroke patients.

**Draft service recommendation 25:**  
**Develop central referral service to primary care, specialist follow-up and cardiac/stroke rehabilitation**

Establish a specialised, web based central referral system for Aboriginal patients which facilitates:

- Discharge summary reaching primary care provider;
- 7-10 day follow-up in primary health care;
- Scripting of medication by primary health care provider;
- Referral to appropriate community-based rehabilitation program;
- Specialist follow-up in 3 months post-discharge;
- GP referral to allied health services as required

Specialist follow-up post hospitalisation should be improved. This follow up should support coordination of care with the primary health sector. In country SA, video-conferencing should be incorporated into standard practice.

This should be undertaken by the Key Worker for stroke.

**Draft service recommendation 26:**  
**Provide 30 days of medication on discharge free of charge to all Aboriginal and Torres Strait Islander patients**

Provide 30 day medications free of charge by the hospital pharmacy.

**Draft service recommendation 27:**  
**Ensure that there is adequately funding to support safe and suitable transport home from hospital**

Undertake a revision of funding to ensure that all country patients have ability to return to their home using a mode of transport which is appropriate for their health condition.

**Draft service recommendation 3:**  
**Establish an Aboriginal**

*Please refer to page 9.*
Heart and Stroke hub in
Port Augusta

Key enablers:
- Statewide co-ordination and governance.
- Technological solutions to support efficient coordination of care across sectors.
- A non-Aboriginal workforce able to provide culturally safe care.
- An Aboriginal workforce able to meet the specific needs of clients and communities.
- Sustainable funding of programs to support culturally safe environments in hospitals.
- Monitoring and evaluation against evidence-based indicators.
- Transport support for clients to return to community with using an appropriate mode of transport.
8. Rehabilitation, secondary prevention and ongoing care services

Key findings from the CVD Profile

Impact of heart disease and stroke:

Heart and stroke:

- There is significant burden of established cardiovascular disease in the Aboriginal community.
- This population is geographically distributed across the state, with particularly high burden in northern Adelaide and the far north and west of SA, including Port Augusta.
- 9.7% of Aboriginal people receiving an angiogram for ACS have had a prior stroke or TIA, 2.5 times more likely than non-Aboriginal people after age-adjustment.

Service availability:

Heart and stroke:

- Those PHC providers who are able to access MBS funding are eligible to claim the following items:
  - GP Management Plan (GPMP) (Item 721);
  - Coordination of Team Care Arrangements (TCA) (Item 723);
  - Review of a GP Management Plan or Coordination of a Review of Team Care Arrangements (Item 732).
  - A practice nurse, Aboriginal and Torres Strait Islander health practitioner, Aboriginal health worker or other health professional may assist in the delivery of these services.

- PHNs has CTG care coordination teams, which provide support for Aboriginal clients with chronic disease to stay on management plans, and assist in travel and follow-up appointments.

- PHNs have CTG funding for supplementary services which is available to provide funding for additional care and services as required by clients, which are not available through existing funding.

- Country Health SA LHN provide Better Care in the Community nursing support services in 13 communities, including communities with large Aboriginal populations.

- HACC funding is currently being redirected through the My Aged Care reform. This will provide funding for transition out of hospital, care in the home, respite care and care in aged care facilities.

Heart specific:

- There are cardiac rehabilitation services provided in metropolitan Adelaide, and some rural centres, including Gawler, Mount Gambier, Maitland and Ceduna. All patients living in country SA are eligible for the CATCH cardiac rehabilitation telephone service. There is limited face-to-face cardiac rehabilitation program in Port Augusta, Port Pirie, Whyalla, Port Lincoln or the Riverland.

- There is currently a Virtual Coordinated Care (VCC) pilot in Country Health SA which is supporting self-management of people with established hypertension, COPD, CHF and diabetes.

Stroke specific:
There are three metropolitan specialist stroke rehabilitation centres in metropolitan Adelaide, one in each of the metropolitan LHNs (details correct following Transforming Health reform take effect):

- TEQH will have in-hospital rehabilitation services.
- FMC will have in-hospital rehabilitation services on-site.
- Modbury will have in-hospital rehabilitation services.

There are three hospitals in Country Health SA LHN with stroke units and in-hospital rehabilitation:

- Whyalla;
- Berri;
- Mount Gambier.

All three sites have a clinician employed at the hospital by SA Health.

**Service activity:**

**Heart and stroke:**

- There is little data to understand ongoing care.
- Community voiced concerns about the lack of culturally appropriate rehabilitation, and the lack of rehabilitation which was accessible and appropriate for young people following an event. Community also voiced concerns on access to affordable medicines, the access to CTG scripts, and access to transport.

**Heart specific:**

- 24% (N=6) Aboriginal people who were referred for cardiac rehabilitation during hospital admission completed.

**Stroke specific:**

- There is little data to understand stroke rehabilitation.

**Gaps - Rehabilitation, secondary prevention and ongoing care services:**

<table>
<thead>
<tr>
<th>Heart and Stroke</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited prevention activities</td>
<td>This has been well described in the 2.1</td>
</tr>
</tbody>
</table>
| Overlap and gaps in accessibility to primary health care providers | Currently, there is significant overlap of services, which results in duplication and poor coordination for individuals. There are many players in the space including - My Aged Care packages although there are some limitations.  
  - The ACAT assessment does not consider condition-specific needs.  
  - There is specific funding for transition from hospital care.  
  - Age limitations often limit access to Aboriginal people. |
There are few services which support ongoing management which are appropriate for paediatrics, adolescents and young adults. Since younger people are not able to access My Aged Care, there are few services. There is currently no access to the National Disability Insurance scheme for anyone over the age of 13 in SA.

**Heart specific:**

| Cardiac rehabilitation not attended, and not culturally or age specific for Aboriginal people | There are limited face to face services in country SA, and whilst there is a phone service this may not be appropriate for all individuals, or there may not be phone access. Programs such as care coordination (PHN), Better Care in the Community, and VCC, which are providing additional support for Aboriginal clients on an individual needs based, culturally appropriate manner. These are well received by the community. These services need to be coordinated so patients receive quality services efficiently and effectively. |

**Stroke specific:**

| Stroke rehabilitation not culturally or age specific for Aboriginal people | Traditional models of rehabilitation are not appropriate for the younger profile of Aboriginal people, given the premature burden of disease. There are also concerns about the cultural appropriateness of services. |

**Draft service recommendations - Rehabilitation, secondary prevention and ongoing care services:**

<table>
<thead>
<tr>
<th>Heart and Stroke:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Draft service recommendation 1:</strong> Establish sustainable heart, stroke and diabetes awareness and prevention campaigns</td>
<td><em>Please refer to page 8.</em></td>
</tr>
<tr>
<td><strong>Draft service recommendation 28:</strong> Establish culturally evidence based cardiac and stroke rehabilitation services</td>
<td>Models of providing appropriate cardiac and stroke rehabilitation should be explored. This should consider models which are appropriate for the clients and the region, which will differ between metropolitan, regional and remote areas. There should be alternative models available to individuals based on their needs and preferences, including one-to-one, group, and phone. It should have a holistic approach and consider comorbidities.</td>
</tr>
</tbody>
</table>
Stroke rehabilitation services should include hospital and community services which are close to the person’s home. Provide services with or through ACCHOs.

Draft service recommendation 4:
Establish a primary health care provider coordination group to guide coordinated service provision

Heart specific:

Draft service recommendation 3:
Establish an Aboriginal Heart and Stroke hub in Port Augusta

Please refer to page 9.

Stroke specific:

Draft service recommendation 29:
Ongoing primary health and specialist care must be coordinated

Services should be integrated in a manner which supports the client to navigate multiple services, without duplication and confusion. This should support care from a multidisciplinary team with additional support where necessary, and should be centred on the client and family.

Key enablers:

- Statewide co-ordination.
- Technological solutions to support efficient coordination of care across sectors and aid videoconferencing with specialists.
- A non-Aboriginal workforce able to provide culturally safe care.
- An Aboriginal workforce able to meet the specific needs of clients and communities.
- Sustainable funding of programs.
- Monitoring and evaluation against evidence-based indicators.
- Transport support to access appropriate care.
Health System Enablers Gap Analysis

Governance and systems co-ordination

Current status

**Better Cardiac Care for Aboriginal and Torres Strait Islander people**
- Better Cardiac Care (BCC) for Aboriginal and Torres Strait Islander People project is an initiative of the Australian Health Ministers’ Advisory Council.
- The five priority areas and associated actions are agreed national priorities and high-impact initiatives for implementation. The areas and actions are aligned with current national and international best practice guidelines for cardiac care and chronic disease.
- All states instructed to initiate state based projects to deliver BCC.
- AIHW are reporting on BCC indicators annually where possible.

**Transforming Health**
- Transforming Health is seeking a systematic approach to ensuring all South Australians have equitable access to the best and most reliable health care possible. Transforming Health is overseen by a Ministerial Clinical Advisory Group.
- At this stage, Transforming Health is focused on reform in acute services in metropolitan Adelaide.
- Focussing on “Patient centred care - right time, right place, right service”
- The Stroke Clinical working group is identifying ways to enable stroke units to meet the Transforming Health and National Standards for stroke care.
- The Acute Coronary Syndrome (ACS) – Chest Pain Clinical Working Group is developing efficient models of care for chest pain. The first stage of the project will deliver a state wide standardised pathway for the management of people presenting to an emergency department with chest pain.

**South Australian Aboriginal Health Partnership**
- The SAAHP brings together the State and Commonwealth Governments and the Aboriginal Community Controlled Health Sector to improve Aboriginal health and wellbeing outcomes in South Australia.
- The SAAHP has 5 key focus areas: improving Aboriginal people’s access to health and wellbeing services; identifying priority areas for action; responding to emerging health issues in the Aboriginal community; capacity building, and; workforce development.

**Australian Commission on Safety and Quality in Health Care**
- The ACSQHC is a partnership of the Australian, state and territory governments to lead and coordinate national improvements in safety and quality in health care.
- National Safety and Quality Health Service (NSQHS) Standards were developed by the Commission to drive the implementation of safety and quality systems and improve the quality of health care in Australia. The 10 NSQHS Standards provide a nationally consistent statement about the level of care consumers can expect from health service organisations.
- 2017 will see the introduction of Version 2 of the Standards. There will be 9 revised Standards which include 6 specific actions that link to improving the health of Aboriginal and Torres Strait Islander people.
**Statewide Clinical Networks**

- The Statewide Cardiac and Stroke Clinical Networks were established to increase the level of clinicians' involvement in the planning of health services. The networks sought to coordinate better delivery of services, improve health outcomes for all South Australians and ensure a strong, sustainable health workforce.

- The Networks were disbanded in April 2015.

**SA Academic Health Science and Translation Centre (SA Centre)**

- In March 2015 the Centre was established 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.

- There is an Aboriginal Health Research Priority area at the centre.

- Its membership includes SA Health, SAHMRI, University of Adelaide, Flinders University, University of South Australia, Aboriginal Health Council of South Australia, Health Consumers Alliance of South Australia, Adelaide Primary Health Network, Country SA Primary Health Network, Cancer Council SA.

---

**Gaps – Governance and systems co-ordination**

**Description:**

Lack of a focused governance framework to drive reform on heart and stroke for Aboriginal people in SA

Whilst there are many governance bodies which interact with this work, there is no focused governance framework to drive reform on improvements in heart disease and stroke for Aboriginal people in the SA.

---

**Draft system enabler recommendations - Governance and systems co-ordination**

**Draft system enabler recommendation 1:**

**Develop an SA Aboriginal Heart and Stroke Plan implementation group**

The implementation group should oversee the implementation of the plan and facilitate systems coordination. The group should have representation by community, and service providers and policy makers across the continuum of disease. It needs to recognise the diversity of health services which have a role to play in improving heart and stroke care for Aboriginal people, and should have representation from across these sectors.

The implementation group should engage with SAAHP, Transforming Health, the ACSQHC to ensure that the implementation of the plan is integrated with these frameworks.

The SA Academic Health Science and Translation Centre could be an appropriate home for the implementation group.
Funding

Current status

Health promotion funding:
- A majority of funding in the health promotion area has been through Federal and State Closing the Gap funding.

Primary health care funding:
- Mainstream funding for primary health care is through the Medicare Benefits Scheme (MBS). MBS is a fee-for-service scheme which covers a wide range of consultations, procedures and tests conducted by general practitioners. These include Aboriginal and Torres Strait Islander Assessment (Item # 715) and General Practice Management Plans (GPMP) (Item # 721) and Team Care Arrangements (TCA) (Item 723 and 732).
- MBS funding is only available to services which are not funded by SA Health (one exemption has been made in SA).
- Close the Gap Practice Incentive Payment – Indigenous Health Initiative (PIP-IHI) General Practice practices can register for PIP-IHI to better service the chronic disease needs of Aboriginal or Torres Strait Islander people. Each practice needs to have more than one consulting doctor and the practice undertakes training to operate in a culturally responsive manner. These practices must be mainstream GP clinics or/and Aboriginal Health Services (AHS) (some State-funded PHC and all ACCHOs) where GP’s are working. GP’s or Nurse Practitioners at a PIP-IHI registered clinic can prescribe CtG Medications on a PBS scripts with CTG annotation to access subsidised medications. Hospitals cannot be part of the PIP-IHI program and therefore cannot prescribe CtG scripts.
- AMS’s receive pool funding from the Australian Government Department of Health to provide services primarily to Aboriginal and Torres Strait Islander people.

Investigations and specialist funding:
- Mainstream funding for out-of-hospital services are through the Medicare Benefits Scheme (MBS). MBS is a fee-for-service scheme which covers a wide range of consultations, procedures and tests.
- In rural and remote areas, the Federal Government provides funding through the Rural Health Outreach Fund. In SA, the fund holder for this is Rural Doctors Workforce Agency (RDWA).

Hospital funding:
- Public hospitals are funded through the Australian Health Care Agreements (between State and Federal governments) and the SA government. Hospitals receive activity based and pool funding. The activity based funding has a loading for Aboriginal patients.

Ongoing care and aged care funding:
- Aged care funding has just undergone significant reforms. Aged care support (including transition care from hospital) is now directed through the My Aged Care program.

Aboriginal-specific program funding:
- In recent years, Aboriginal-specific program funding has been through the Closing the Gap funding. Closing the Gap funding has been available at both State and Federal government levels. At a Federal Government level, some of this funding has been redirected through the Primary Health Networks (formerly Medicare Locals).
- SA Health Closing the Gap funding expires 30 June 2016, and there have not yet been any commitments to extend funding.
- Federal Government have committed to some extensions of the Closing the Gap funding past 30 June 2016.

**Gaps – Funding**

<table>
<thead>
<tr>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-term project and program funding</strong></td>
</tr>
<tr>
<td>Much of the funding which supports Aboriginal people at risk of or with heart disease and stroke is short term project or program funding. There is limited core funding. This results in short-term interventions which have insufficient time to demonstrate outcomes. Delayed re-funding of programs results in uncertainty and difficulties in maintaining a workforce.</td>
</tr>
<tr>
<td><strong>Fragmentation in programs</strong></td>
</tr>
<tr>
<td>There is often fragmentation in programs due to overlaps in funding and short-term cycles of programs.</td>
</tr>
<tr>
<td><strong>Community lack control over direction of funding</strong></td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>Under-utilisation of MBS items</strong></td>
</tr>
<tr>
<td>There is apparent under-utilisation of MBS items, particularly the Aboriginal and Torres Strait Islander Adult Health Check (Item 715), GP Management Plan (Item 721), and Team Care Arrangements (Item 723). Improved utilisation of these available funding sources, with appropriate integration of cardiovascular risk assessment and management, could support improved primary health care.</td>
</tr>
<tr>
<td><strong>Close the Gap scripts cannot be initiated in hospital</strong></td>
</tr>
<tr>
<td>Hospital pharmacies cannot authorise CtG scripts. As a result the current process to provide medication to Aboriginal or Torres Strait patients on discharge causes confusion, expense, limits access and promotes double handling.</td>
</tr>
<tr>
<td><strong>Loading for Aboriginal and Torres Strait Islander patients not necessarily committed to improving Aboriginal care.</strong></td>
</tr>
<tr>
<td>Selected PHC services (those receiving Indigenous Health Practice Incentive Payment) and hospitals receive a ‘loading’ for providing care to Aboriginal patients. However, the additional funding if often not committed to improving care for Aboriginal and Torres Strait Islander patients.</td>
</tr>
<tr>
<td><strong>Lack of funding for evaluation of programs makes evidence of effectiveness difficult to demonstrate</strong></td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
Draft system enabler recommendations - Funding

**Draft system enabler recommendation 2:** Commit core funding to specifically target improved Aboriginal care and outcomes

Funding bodies should commit the ‘loading’ received for Aboriginal patients to specifically target improved care and outcomes for Aboriginal patients. This should be committed in the form of core funding, not time-limited program or project funding.

**Draft system enabler recommendation 3:** Improved uptake of MBS items and PIP-IHI funded services

Primary health care services should be supported to improve their uptake of MBS items, particularly the Aboriginal and Torres Strait Islander Adult Health Check (Item 715), GP Management Plan (Item 721), Team Care Arrangements (Item 723) and PIP-IHI services and CtG medications.

**Draft system enabler recommendation 4:** Funding for evaluation of programs and projects

All project and program funding should have specific evaluation funding attached, to support the development of evidence-based health service delivery.

**Draft system enabler recommendation 1:** Develop an SA Aboriginal Heart and Stroke Plan implementation group

*Please refer to page 43.*

The implementation group should facilitate discussion across funding bodies to prevent duplication of funding and fragmentation of programs.
Workforce

Current status

Aboriginal workforce

- South Australia is lacking an adequate Aboriginal workforce. SA Health goal is 2%, currently SA about 0.97%.
  - Approximately half of the Aboriginal workforce in SA Health is in metropolitan services, half in country services.
  - Currently there is not a clear SA-wide Aboriginal employment and workforce strategy. Workforce team in SA Health Aboriginal Health Branch was lost during restructure.

- Continuity of staff is an issue. Retention is difficult due to short-term funding arrangements and a lack of support for Aboriginal staff in positions.

- Aboriginal Health Practitioners and Workers receive some cardiovascular-specific training. However this could be strengthened.

- Aboriginal Liaison Officers are presently lacking structured career pathways and opportunities for progression and promotion. Some hospitals have Aboriginal Liaison Units which are significantly under-resourced based on need.

- Aboriginal staff often get “pulled in many directions” which makes it challenging to do their specific role.

- ACCHOs have strong Aboriginal workforce. However short-term funding which raises issues with retention and job security.

Non-Aboriginal workforce

- Lack of cultural competence training across SA Health. Programs not adequately supported (lack of funding and governance support), and are not mandatory.
  - AMSs have strong cultural competency integrated into culturally appropriate models of care.

- Continuity of staff an issue, particularly in rural and remote communities. Particular issues in accessing GPs and specialist workforce. Half of rural GP workforce internationally trained, often focussed on communicable diseases.

Cardiovascular-specific workforce:

- Access to cardiovascular-specific staff an issue, particularly in lower-socioeconomic areas in metropolitan Adelaide and in rural and remote communities.

- Much of the cardiovascular-specific workforce lack cultural competency.

- There is a lack of care coordination into and out of hospital. Aboriginal Liaison Officers are restricted to hospital setting are unable to provide coordination support outside of their setting.
  - FMC has model of cardiac coordinators for NT patients. However this program is on project-specific funding which expires mid-2016.
  - Aboriginal Patient Pathway Officer Position funded under SA Health Closing the Gap program, but most positions were defunded in 2013 with reduced FTE positions being continued in Port Augusta (0.6 FTE) and Ceduna (6FTE). The Port Augusta position is still vacant. Some LHNs provided funding for limited APPO positions.
### Gaps – Workforce

**Description:**

The 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 individuals, increased self-discharge, and disparities in receipt of care and disparities in health outcomes.

There are individuals within all sectors which demonstrate cultural competency, however these are the exception, not the norm. There are also examples across sectors which have established frameworks for cultural competence, particularly Aboriginal Medical Services and selected wards within hospitals.

<table>
<thead>
<tr>
<th>Gaps – Workforce</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of culturally competent workforce in mainstream services</td>
<td>The 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 individuals, increased self-discharge, and disparities in receipt of care and disparities in health outcomes.</td>
</tr>
</tbody>
</table>
| Insufficient Aboriginal workforce | Across the health workforce in South Australia, there is insufficient numbers of Aboriginal workforce. This is demonstrated by SA Health only achieving 50% of their target workforce. Having insufficient Aboriginal workforce impacts on the care received by Aboriginal people within the health care system. This is confounded by the lack of a culturally competent non-Aboriginal workforce. Increasing the Aboriginal workforce requires:  
  - Support to become a health practitioner, including financial and social support  
  - Support to undertake training and education, including financial and social support  
  - Incentives to enter workforce, including financial incentives and supportive work environments. |
| Limited awareness of the extent and impact of heart disease and stroke | Health professionals are generally unaware of the extent and impact of disease on the Aboriginal community, and do not prioritise the identification and management of heart disease and stroke. |
| Limited workforce in geographic areas of need | 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. |
Draft system enabler recommendations - Workforce

**Description:**

**Draft system enabler recommendation 5: Mandatory cultural competence of all health care providers**

There should be a mandatory requirement that all health care providers in South Australia demonstrate cultural competency.

The mandatory training should extend beyond ‘cultural awareness’ to ‘culturally competent practice’.

There should be a consistent framework for cultural competency training and demonstration, with tools and capability frameworks attached.

**Draft system enabler recommendation 6: Increased Aboriginal workforce**

There should be a commitment to increase the Aboriginal health workforce. This should be across all sectors of care, and should include increased numbers of Aboriginal people undertaking training in ‘mainstream’ and Aboriginal-specific career pathways, including medicine, nursing, allied health, and Aboriginal health practitioner training.

Each sector should identify approaches to increase the Aboriginal health workforce at all levels.

SA Health should have an Aboriginal employment and workforce strategy.

**Draft service recommendation 2: Increase awareness of health professionals about the extent and impact heart disease and stroke**

Please refer to page 8.

**Draft system enabler recommendation 7: Improved access to workforce in geographic areas of need**

There is a need to have sustained efforts to improve access to the workforce in areas of need. This needs to include GPs, nurses, allied health workers and cardiologists.

The focus needs to be on areas in metropolitan Adelaide and in rural and remote SA.

Efforts can span from the training and education sector, to improved employment incentives.
**Transport**

**Current status**

*Planned admission or out patients appointment*

- There is some level of financial support for transport costs via car, bus or plane from rural and remote locations via PATS.
  - PATS is a reimbursement scheme, therefore patients have to pay up-front. PATS often does not cover the full cost of travel.
  - There is confusion about PATS entitlements and administration processes, both for intra and interstate travel.
  - Travel for the patient escort is dependent on perceived need for escort.
  - Issues with coordination gaps, long wait times for buses & isolated remote bus stops with night pick up/drop off times. There are limited services in some communities.
- In metropolitan Adelaide people use corporate shuttle, taxi, bus, or own/ family/friend transport and some services provide transport.
- Corporate Shuttle has recently had funding reduced with SAHLHN and NALHN cutting services completely while Country LHN and Primary Health Networks (PHN) are still using services in a limited manner.
- PHN supplementary services supports transport for primary health care and specialist appointments if the person is on the Care Coordination program.

**Emergency care & transport to hospital**

- Emergency transport provided by SAAS (Including Medstar) and RFDS (for rural and remote communities)
- The perceived and real cost of accessing an ambulance access in an emergency is a barrier to seeking care. Fee can be waived for Aboriginal people, but this is not widely communicated or understood by Aboriginal communities.

**Discharge and return home**

- Issues with patients being discharged without a transport plan to return home.
- If an individual has been transported by SA Health from a hospital, PATS will only cover cost of returning to hospital, not returning home. This is a significant issue in remote communities.
- There are concerns about the mode of travel for the individual’s condition. Buses are often inappropriate for cardiac patients who have just been discharged after heart surgery.
- Step Down Units are located in Adelaide, Port Augusta and Ceduna. The Port Augusta Step Down Unit has limited open times. The Adelaide based step down unit is not convenient to Flinders Medical Centre
- Aboriginal support staff utilise a range of other services to ensure safe return to home for patients and their families from Non-Government Organisations, Native Title Funding, Crime Prevention Funding, through to assisting with purchasing a family car.
- Corporate Shuttle occasionally transport patients back to home in regional centres if negotiated by hospitals.
- PHNs supplementary services may become involved in assisting with transport if the person is on the Care Coordination program.
Gaps – Transport

**Description:**

**Difficulties in accessing primary health care services due to lack of transport**

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.

**The real and perceived cost of ambulance use deters people calling 000 in an emergency**

Community members and health professional highlighted issues with the cost of ambulance services which leads to issues of patients not accessing Ambulance services.

**Transfer and retrieval processes are not systematically culturally appropriate**

There is little time to consider patient needs, such as family support, access to clothes, money and identification, and ensuring that patients and family members are fully aware of why they are being transported. However, these are key issues and factors for success when the patient reaches tertiary care.

The role of escort is particularly important as they play the role of patient advocate as well as supporting the patient. The health status of the escorts often presents an issue to health services.

**Transport home not funded properly**

Funding provided by PATS is in most instances inadequate.

Often, the mode of transport covered is contrary to patient best clinical interest, and puts individuals at high risk of re-presenting.

Transport costs are only covered to return to place of hospital admission, not necessarily place of residence. In many cases, external service providers (including Native Title, HACC, police) often step in to address shortfall in funding.

Flights home are often opportunistic by RFDS.

---

**Draft system enabler recommendations - Transport**

**Draft system enabler recommendation 8:** Review of transport support services across SA, across the continuum of care

Review transport support services in metropolitan Adelaide and rural and remote South Australia. The review should acknowledge that transport issues are a significant barrier to accessing health care services across the continuum for Aboriginal people.

**Draft service recommendation 12:**

Please refer to page 23.
Develop and implement an Aboriginal and Torres Strait Islander transfer and retrieval services protocol

Draft service recommendation 27: Ensure that there is adequately funding to support safe and suitable transport home from hospital

Please refer to page 36.
Technology

Current status

Electronic health systems:

- SA Health’s Enterprise Patient Administration System (EPAS) will provide the foundation for delivering South Australia’s state-wide electronic health record. Sites in scope to receive EPAS include all metropolitan hospitals and associated health services, GP Plus Health Care Centres and GP Plus Super Clinics, SA Ambulance Service Headquarters and two country hospitals, Mount Gambier and Port Augusta.

- The federal My Health Record system will become an individual’s national electronic health record. The My Health Record system is a nationally controlled digital health record for a consumer that contains a summary of their health information. An opt out system is currently being trialled in two sites with plans for opt out to be rolled out Australia wide in 2018.

- In the future, some patient information from EPAS (such as patient discharge summaries) will be linked to the national My Health Record system.

- The integrated Point of Care Clinical System (iPOCCS) program electronically captures all point of care data, including pathology and ECG results, into an individual patient record and stores them in a central database. The database is accessible to approved health staff on any computer with the internet. This enables general practitioners and specialists to have real time access to patient results outside of the health network. All point of care tests performed in CHSALHN hospitals are automatically downloaded and viewable in the iPOCCS system. (Can this be linked to other systems? EPAS etc)

Tele-health:

- Country Health SA has established more than 180 video conferencing units in more than 90 locations spanning 76 country towns as well as the Adelaide metropolitan area. Some units are within Aboriginal health services.

- Cardiologist and neurologist specialist telephone services: the 24/7 cardiologist phone service, run through the iCCnet, provides country doctors with direct access to a cardiologist. It is proposed through Transforming Health, a similar service be established at the RAH for stroke.

- The Country Access To Cardiac Health (CATCH) program is a telephone-based phase 2 cardiac rehabilitation service provided by iCCnet and funded by the two SA PHNs.

- The Virtual Clinical Care (VCC) Home Telemonitoring Service (pilot) utilises home-monitoring technology to detect significant changes in an individual’s health, which may require rapid intervention to avoid hospitalisation. Clients are provided with clinical measurement equipment linked to a telehealth device that transmits clinical information to a secure database monitored by staff daily at iCCnet. Clinical parameters outside of the clients predetermined ‘normal’ range are identified by the monitoring system and the client contacted via an agreed escalation process. The VCC is facilitated through the Better Care in the Community program.

- Videoconferencing is currently being trialled by RDWA (not cardiovascular-related) and by some specialists.

Point of care testing:

- Point of care testing (POCT) 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. POCT is used widely in SA, particularly in country
hospitals, for cardiovascular disease. A number of ACCHOs have also purchased POCT machines.

### Gaps – Technology

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of funding for innovative solutions</td>
</tr>
<tr>
<td>Lack of integration of technological solutions into models of care</td>
</tr>
</tbody>
</table>

### Draft system enabler recommendations - Technology

**Draft system enabler recommendation 9:**
Identify successful technological solutions and integrate into models of care

When an efficient and effective technological solution has been identified, these solutions should be integrated into existing models of care.

This has been demonstrated with the CATCH program and use of POCT testing by iCCnet.

Northern Territory government has successfully rolled out Video conferencing with cardiac specialists.

Opportunities currently exist with the uptake and roll-out of video-conferenced specialist appointments.

**Draft system enabler recommendation 10:**
Support communication between health records across sectors

There should be improved efforts to improve the communication between the health records controlled by different sectors of care. Issues of security and privacy currently pose a significant barrier to external access and flow of information between sectors.
Monitoring and evaluation

Current status
The SA Aboriginal Cardiovascular Health Profile, developed as phase 1 of the development of the SA Aboriginal Heart and Stroke Plan provides a comprehensive baseline for future monitoring and evaluation. The measures cover:

- population profile;
- socio-economic status;
- population health status;
- the provision of services;
- the quality of care (defined as receipt of evidence-based care) across the continuum of risk and disease, and across sectors, and;
- health outcomes.

Existing indicators:

- Essential Service Standards for Equitable National Cardiovascular Care (ESSENCE) for Aboriginal and Torres Strait Islander people – Measurement Indicators: The ESSENCE measurement indicators are a comprehensive set of measures to monitor key processes and outcomes for reducing disparities in Aboriginal cardiovascular health.
- Better Cardiac Care for Aboriginal and Torres Strait Islander people: The Better Cardiac Care for Aboriginal and Torres Strait Islander people forum developed a set of 21 Better Cardiac Care measures that were designed to ensure implementation and ongoing monitoring of the five priority areas and associated actions.
- Aboriginal and Torres Strait Islander Health Performance Framework is a biennial report which forms the authoritative evidence base for Aboriginal and Torres Strait Islander health policy. It reports against 68 performance measures.
- The nKPIs capture data from over 200 primary health care organisations that receive funding from the Australian Government Department of Health to provide services primarily to Aboriginal and Torres Strait Islander people. The nKPIs seek to improve the delivery of primary health-care services by supporting continuous quality improvement activity among service providers.
- Australian Commission on Safety and Quality in Health Care has established clinical care standards and associated indicators for ACS and stroke.

Existing monitoring tools and bodies:

- The South Australian Health Performance Council is an independent body which reviews the performance of South Australia’s health systems.
- Australian Commission on Safety and Quality in Health Care (ACSQHC) National Safety and Quality Health Service Standards outline standards of care. Hospitals must be accredited against these standards.
- The Australian Institute of Health and Welfare (AIHW) is a major national agency set up by the Australian Government to produce independent and authoritative health and welfare information and statistics. The Institute develops a range of reports on Aboriginal cardiovascular health, and has most recently reported against the Better Cardiac Care measures for Aboriginal and Torres Strait Islander people at a national level.
• Overcoming Indigenous Disadvantage is a regular report against key indicators of Indigenous wellbeing and disadvantage, commissioned by the Council of Australian Governments (COAG).

• SA Health Hospital dashboards are up-to-date snapshots of the performance of the SA Health hospitals against identified measures. There is currently a dashboard for stroke and apparently an ACs dashboard is on the drawing board.

Gaps – Monitoring and evaluation

Description:

<table>
<thead>
<tr>
<th>Gaps</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of monitoring and evaluation to drive improvements in care</td>
<td>Whilst there are multiple indicators and monitoring tools and bodies, there are limited feedback loops to identify disparities and initiate improvements in care.</td>
</tr>
<tr>
<td>Lack of funding for evaluation of programs makes evidence of effectiveness difficult to demonstrate</td>
<td>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.</td>
</tr>
</tbody>
</table>

Draft system enabler recommendations – Monitoring and evaluation

Draft system enabler recommendation 4: Funding for evaluation of programs and projects

Draft system enabler recommendation 11: Ongoing monitoring of disparities in Aboriginal heart and stroke health, care and outcomes with integrated feedback loops

Draft service recommendation 20: Develop standard reporting across the state against key performance indicators

Please refer to page 31.
Acknowledgements
This project is funded by SA Health under Close the Gap.

The project team would like to acknowledge the following organisations and individuals who have contributed to the knowledge in the cardiovascular health profile and the gap analysis (in no particular order):

- Aboriginal community members and Aboriginal Community Reference Group members
- SA Aboriginal Heart and Stroke Plan Steering Committee members
- Aboriginal and Torres Strait Islander Health Branch, SA Health
- Aboriginal Health Council of SA
- Adelaide Primary Health Network
- Aṉangu Ngangkari Tjutaku Aboriginal Corporation
- Australian Commission on Safety and Quality in Health Care (ACSQHC)
- 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
- Royal Flying Doctor Service
- Rural Doctors Workforce Agency
- South Australian Rheumatic Heart Disease Program
- South Australian Health and Medical Research Institute
- Statewide Cardiology Clinical Networks
- Stroke Foundation
- Umoona Aged Care
- Watto Purrrunna Aboriginal Health Service

And the following groups:

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

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 (Hampstead Centre and The Queen Elizabeth Hospital)
• Women’s and Children’s Hospital
• Port Augusta Hospital

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
  o Aboriginal Health
  o iCCnet
  o Ceduna District Health Service
  o Central Yorke Peninsula Hospital (Maitland)
  o Coober Pedy Hospital and Health Service
  o Gawler Health Service
  o Mount Gambier Hospital
  o Murray Mallee Community Health Service
  o Port Augusta Hospital and Regional Health Service
  o Port Augusta Step-Down Unit
  o Port Lincoln Hospital and Health Service
  o Port Pirie Regional Health Service
  o Port Pirie GP Plus Health Care Centre
  o Riverland Regional health Services
  o Riverland Community Health Service
  o 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