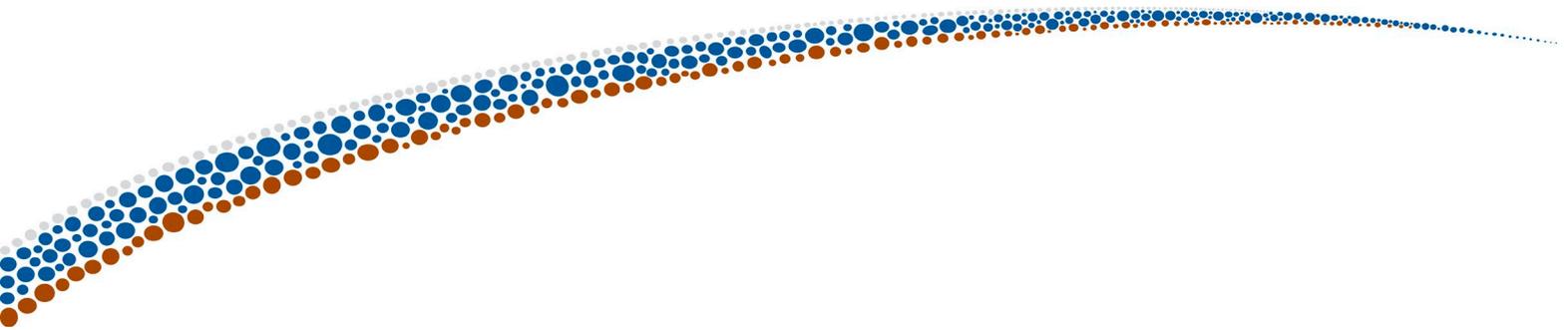




Government of **Western Australia**  
Department of **Health**  
**Aboriginal Health**

*“Equitable and timely access to the best quality and safe care”*  
*“A culturally respectful and non-discriminatory health system”*

# Access to Hospital Procedures: an evidence-based review on access to hospital procedures for Aboriginal patients



Evidence Review Paper

January 2020

## Using the term Aboriginal

Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. Aboriginal and Torres Strait Islander may be referred to in the national context and Indigenous may be referred to in the international context. No disrespect is intended to our Torres Strait Islander colleagues and community.

## Suggested citation

Aboriginal Health Policy Directorate, 2020, *Access to Hospital Procedures – an evidence-based review on access to hospital procedures for Aboriginal patients*, Department of Health of Western Australia, Perth.

## Enquiries should be directed to:

Aboriginal Health Policy Directorate  
Public and Aboriginal Health Division  
Department of Health Western Australia  
189 Royal Street  
EAST PERTH WA 6004

Phone: (08) 9222 2478

Email: [Aboriginal.Health@health.wa.gov.au](mailto:Aboriginal.Health@health.wa.gov.au)

# Contents

<b>1. Introduction</b>	<b>1</b>
<b>2. Objective</b>	<b>1</b>
<b>3. Methodology</b>	<b>2</b>
<b>4. Findings</b>	<b>2</b>
4.1. What is the access to hospital procedure performance measure?	2
4.2. Why is access to hospital procedure important for a patient's care outcome and health service improvement?	3
4.3. To what extent and how does access to hospital procedure performance measure explain the impact on the healthcare disparity between Aboriginal and non-Aboriginal patients?	5
4.4. To what extent has the access to hospital procedures performance measure been monitored and reported across national and State/territory levels?	15
4.5. Why the inclusion of access to hospital procedures performance indicator in the HSPR will assist the health system manage performance and support service improvement for Aboriginal people?	17
4.5.1. Examples of what can be done and what work	18
<b>5. Conclusion</b>	<b>23</b>
<b>6. References</b>	<b>24</b>
<b>7. List of tables</b>	<b>27</b>
<b>8. List of figures</b>	<b>27</b>

# 1. Introduction

Representing only 3.9 per cent of the total WA population or 100,512 people (Australian Bureau of Statistics, 2018a), Aboriginal people experience a significant higher level of unmet health care needs and lower health and hospital care outcomes than non-Aboriginal people (Australian Health Ministers' Advisory Council, 2017). Aboriginal people are over represented amongst the poor and disadvantaged, and have lower life expectancies of around 67 years old for males and 72 years old for females compared to non-Aboriginal people who usually live to the age of 80 males and 84 for females in WA (Australian Bureau of Statistics, 2018b; Durey & Thompson, 2012).

In the last decades progress has been made for Aboriginal peoples' access to the best quality and safe hospital-based care according to needs. However, there is still significant inequality occurring, particularly access to hospital based diagnostic and treatment procedures (Australian Health Ministers' Advisory Council, 2017; Cunningham, 2002; Dwyer, O'Donnell, Willis, & Kelly, 2016).

Hospital-based 'diagnostic' and 'therapeutic' methods or procedures (hereafter described as hospital procedures) have been known as effective diagnostic and treatment procedures for many ill-health conditions. While Aboriginal people are more likely to be admitted into hospital, they are less likely to receive hospital procedures during hospital stays compared to non-Aboriginal people (Australian Health Ministers' Advisory Council, 2017).

One of the key strategic areas of the *Sustainable Health Review* (SHR) is "to guide the direction of the WA health system to deliver patient-first, innovative and financially sustainable care" and "to put people at the centre of care and ensuring people have access to care when they need it". The SHR recommended reducing inequity in health outcomes and access to care for Aboriginal people and families. The SHR further emphasises that the WA health system cannot improve what it does not measure or fully understand (Department of Health, 2019).

This paper explores the existing evidence to build a case for the inclusion of "access to hospital procedures" performance measure as a new performance indicator (PI) for the *WA Health Service Performance Report* (HSPR) and WA Health 'Our Performance' web-based public reporting on patient experience and outcomes. The new indicator will provide targeted and timely information, and analysis to assist the WA health system manage performance. It will also further improve transparency and accountability and drive clinical service improvement for better hospital care outcomes for Aboriginal people.

## 2. Objective

The objective of this paper is to undertake a desktop research and evidence review to build a case and advocacy agenda for the inclusion of an access to hospital procedures performance indicator in the HSPR. The indicator will assist the WA health system manage performance and support service improvement for Aboriginal patients.

### 3. Methodology

The review is guided by the following questions:

1. What is the access to hospital procedures performance measure?
2. Why is it important for a patient's care outcome and health service improvement?
3. To what extent and how does this performance measure explain the impact on the healthcare disparity between Aboriginal and non-Aboriginal patients?
4. To what extent has this performance measure been monitored and reported at a national level and in other jurisdictions?
5. Why and how the inclusion of access to hospital procedures performance indicator in the HSPR will assist the WA health system manage performance and support service improvement for Aboriginal patients?

### 4. Findings

#### 4.1. What is the access to hospital procedure performance measure?

The *Aboriginal and Torres Strait Islander Health Performance Framework Report* (HPF) defines the access to hospital procedures performance measure as “the key hospital procedure differentials between Aboriginal and Torres Strait Islander Australians and other Australians in hospital separations with the same principal diagnosis and among admitted hospital patients” (Australian Institute of Health Welfare, 2015).

Hospital procedures refer to the “diagnostic” and “therapeutic” methods used with the intention of determining, measuring, or diagnosing, or treating of a patient's condition. An admitted patient care or hospital procedure is further defined as clinical intervention that:

- is surgical in nature, and/or
- carries a procedural risk, and/or
- carries anaesthetic risk, and/or
- requires specialised training, and/or
- requires special facilities or equipment only available in an acute care setting.

Procedures therefore may include surgical investigative and therapeutic procedures. Procedure codes are based on the Australian Classification of Health Interventions (ACHI) (Australian Institute of Health and Welfare, 2016; Australian Institute of Health Welfare, 2019c).

The HPF defines the principal diagnosis as “the diagnosis mainly responsible for occasioning a service event or episode of care. The episode of care principal diagnosis is further defined as the diagnosis established after study to be chiefly responsible for occasioning an episode of admitted patient care, an episode of residential care or an attendance at the health care establishment”.

Hospital-based procedures have been known as effective diagnostic and treatment methods for many ill-health conditions (Australian Institute of Health Welfare, 2019a;

Steen, 1990). Under the HPF reports, the access to hospital procedure performance measure provides both data and policy analysis regarding the disparity in access to hospital-based procedures between Aboriginal and non-Aboriginal patients in both private and public hospitals, and at the national and jurisdictional levels. The aim of this performance measure is to:

- measure and monitor progress in access to hospital based diagnostic and treatment procedures
- improve understanding on the issues for healthcare professionals and healthcare providers
- inform service improvement strategies for equitable and timely access to hospital procedures for Aboriginal patients.

#### **4.2. Why is access to hospital procedure important for a patient's care outcome and health service improvement?**

For decades, hospital procedures have been known and used by health professionals as important and effective tools to investigate, diagnose, restore physical function, treat and/or manage health conditions including diseases, injuries and aging (Australian Commission on Safety and Quality in Health Care, 2018a; Steen, 1990).

Equitable and appropriate need-based access to hospital procedures is critical for improving hospital care and overall health and wellbeing outcomes for Aboriginal people. For example, it is well documented that circulatory disease is the biggest cause of mortality among Aboriginal people (Australian Health Ministers' Advisory Council, 2017). For patients with acute coronary syndrome (ACS) receiving diagnostic angiography and definitive revascularisation procedures is vital for diagnosis, establishment of treatment regime, rehabilitation and restoring physical function, and ongoing management of care (National Heart Foundation of Australia, 2016b). Timely access to these procedures can make a huge difference in Aboriginal patients' lives (Australian Institute of Health Welfare, 2018).

Although hospital-based procedures such as percutaneous coronary interventions or coronary artery bypass grafts are well established and effective treatments of coronary heart disease, there is strong evidence that Aboriginal people when admitting to hospitals with ACS events do not receive the necessary recommended evidence-based care compared to non-Aboriginal patients (Cunningham, 2002; Spadaccio & Benedetto, 2018).

In 2016, Aboriginal people admitted to hospital with ACS experience:

- more than twice the in-hospital coronary heart disease mortality rate
- a 16 per cent lower rate of recommended diagnostic procedures or treatment (diagnostic angiography or a definitive revascularisation procedure)
- a 25 per cent lower rate of recommended percutaneous coronary intervention or stent procedure (Australian Institute of Health Welfare, 2018).

The capacity to access and use health care is vital to good and equitable health (CSDH, 2008). Improving Aboriginal people's access to hospital procedures and reducing the disparities requires hospitals and health care providers to take all necessary and culturally appropriate approaches to build organisation capacity in

making the real changes that respond to the needs of Aboriginal people (Department of Health, 2015).

The access to hospital procedure performance measure is an important safety and quality measure for monitoring hospital capacity to respond effectively to Aboriginal patients' health care needs. The successful implementation of initiatives/actions recommended in the *National Safety and Quality Health Service (NSQHS) Standards* can support improvements. These include implementing:

- clinical governance standards
- continuous service improvement (or Continuous Quality Improvement- CQI) processes and
- actions to address unwarranted health care variation (Australian Commission on Safety and Quality in Health Care, 2017b).

Clinical governance is the set of relationships and responsibilities established by a health service organisation to ensure good clinical outcomes and the delivery of health care that is safe, high quality, consumer focused and continuously improving (Australian Commission on Safety and Quality in Health Care, 2017a). Clinical governance and guidelines provide directions and benefits that patients will be cared for in the appropriate and consistent manner regardless of where or by whom they are cared for (Woolf, Grol, Hutchinson, Eccles, & Grimshaw, 1999).

WA health system's *Clinical Governance, Safety and Quality Policy Framework* embeds service improvement process. It specifies "the clinical governance, safety and quality requirements that all Health Service Providers (HSPs) must comply with in order to ensure consistent clinical care across the WA health system". It aims to ensure:

- patients receive care that is safe, effective, appropriate to their needs, timely and efficient
- minimum standards and consistency are maintained with continuous improvement across the WA health system
- clinical governance structures and processes are maintained across the WA health system.

There are three key principles that underpin the WA health system policy framework:

- care is consumer and career centred
- care is driven by information
- led for high performance (Department of Health, 2018).

Service improvement process refers to improving the quality of healthcare through the implementation of strategies, policies and procedures to improve health outcomes for the patients (Department of Health, 2018). It involves implementing an initiative to promote change or maintain good practice to enhance care and may be known as practice development. The service improvement process that is culturally appropriate and responsive to the needs of Aboriginal people has the potential to improve equitable and timely access to the best quality and safe care for Aboriginal patients (Australian Commission on Safety and Quality in Health Care, 2017b) .

It is desirable for some variation in healthcare due to differences in population preferences and health status, as well as improved practice and innovation. However, unwarranted or unwanted variation that does not respond to patients' needs and preferences need to be addressed (Australian Commission on Safety and Quality in Health Care and Australian Institute of Health and Welfare, 2014).

The three *Australian Atlas of Healthcare Variation* series consider how healthcare varies: firstly, between people living in different areas; secondly between people with and without socioeconomic disadvantages, and finally between Aboriginal and non-Aboriginal patients. A number of unwanted variations and inequities in access to hospital procedures have been identified. The Atlases found that Aboriginal patients with the highest burden of disease often have the lowest rate of investigation or treatment procedures when compared to non-Aboriginal patients. Accessible data and information about variation in hospital care are vital for both clinicians and patients to make fully informed decisions to optimise benefits and minimise harms (Australian Commission on Safety and Quality in Health Care, 2018b).

Monitoring and investigating variation in access to hospital procedures can assist health service providers identify if and where appropriate and equitable diagnostic and treatment options are being offered to patients according to their needs. It will also inform strategies, actions and changes that need to be undertaken to address unwanted variation and disparities experienced by Aboriginal patients.

#### **4.3. To what extent and how does access to hospital procedure performance measure explain the impact on the healthcare disparity between Aboriginal and non-Aboriginal patients?**

It is well documented that Aboriginal patients have poorer access to hospital procedures than non-Aboriginal patients. Major barriers include:

- poor communication and engagement with patients
- health care providers' poor cultural awareness and cultural competency
- a lack of integrated and coordinated care
- negative hospital experience and patient choice
- presumption on Aboriginal patients' poor adherence to medications and treatment procedures
- bias on complex conditions and comorbidities usually found among Aboriginal patients (Ilton et al., 2014; Ong & Weeramanthri, 2000; Tavella et al., 2016).

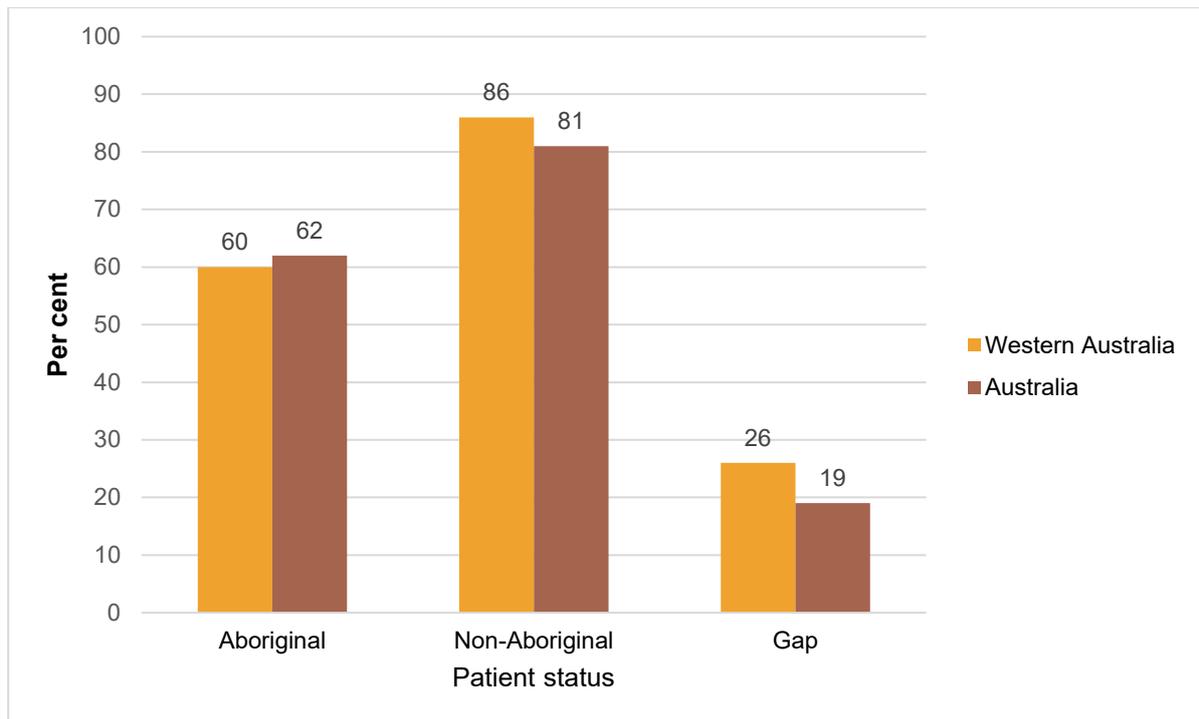
Analysis of hospitalisation data across Australia between 2013-2015 identified a wide range of factors that were associated with the likelihood of receiving a procedure when patients were admitted to hospital. The most significant factors were:

- whether the hospital was public or private
- the number of additional diagnosis recorded for the patient
- the principal diagnosis for which a person was admitted
- state or territory of usual residence
- Aboriginal status
- age group
- remoteness of usual residence, and

- gender (Australian Health Ministers' Advisory Council, 2017).

From July 2013 to June 2015, excluding hospital stays involving dialysis, the age standardised rate of hospitalisations in Western Australia which a hospital procedure recorded was 60 per cent for Aboriginal patients, compared to 86 per cent for non-Aboriginal patients, representing a rate difference (gap) of 26 percentage points. Nationally in the same period, the overall rate difference between Aboriginal and non-Aboriginal patients was 19 percentage points (Figure 1).

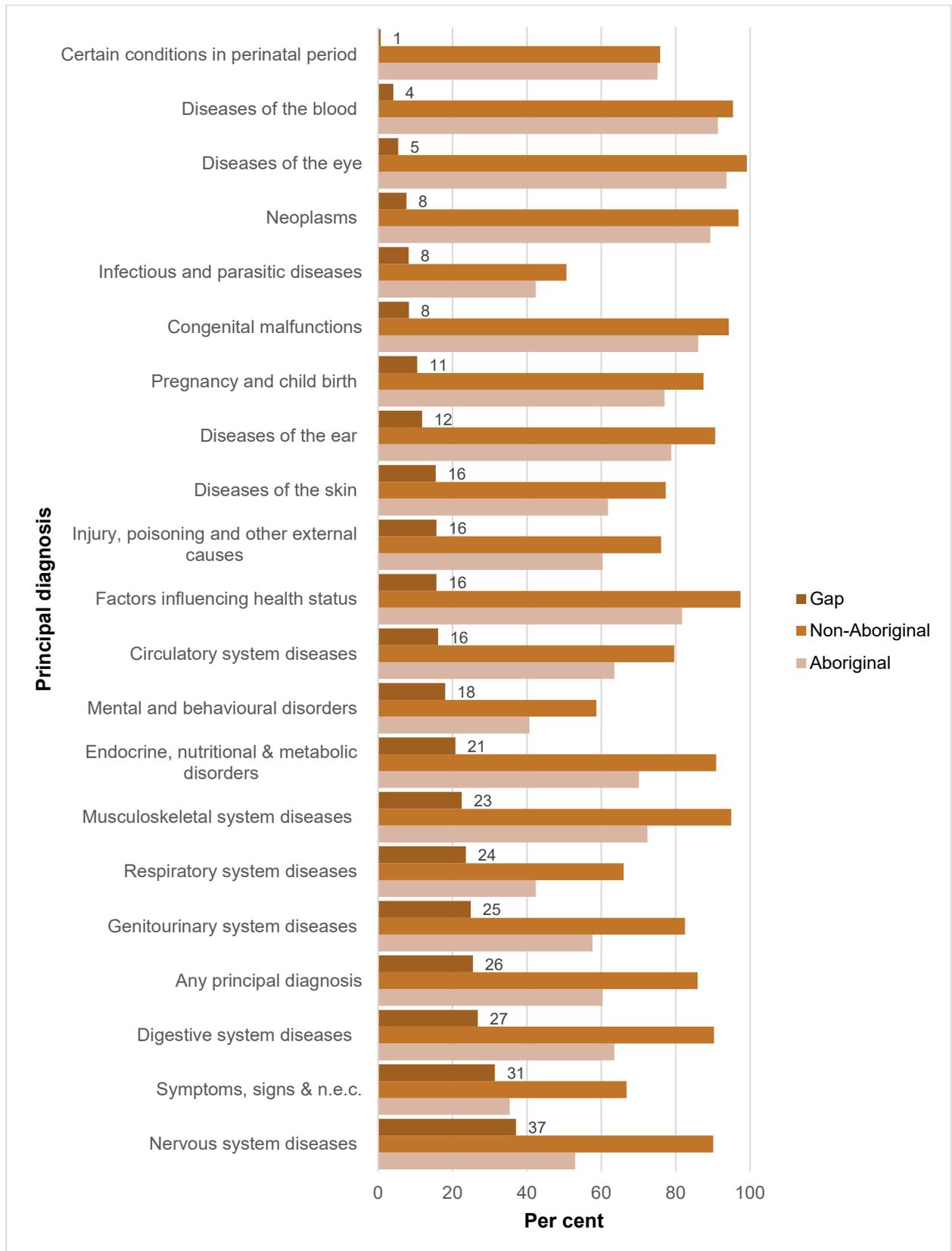
**Figure 1: Proportion of hospitalisation with a procedure performed, by patient status, WA and Australia (excluding care involving dialysis), 2013-15**



Source: (Australian Health Ministers' Advisory Council, 2017).

Between July 2013 to June 2015, in Western Australia and across all principal diagnosis group (excluding dialysis), hospitalisations related to diseases of the nervous system was ranked the highest in the rate difference in having hospital procedures recorded between Aboriginal and Non-Aboriginal patients (37 percentage points), followed by symptoms and signs and not elsewhere classified (n.e.c) (31 percentage points) and diseases of the digestive system (27 percentage points), (Figure 2).

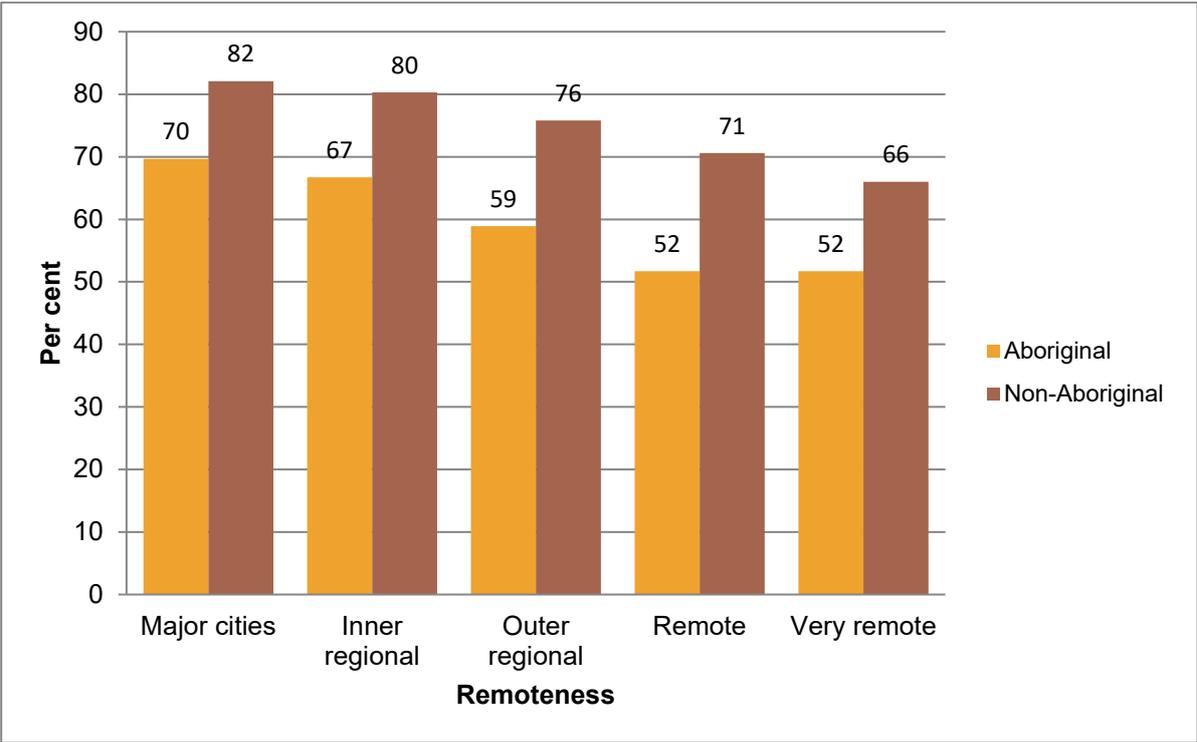
**Figure 2: Proportion of hospitalisations with a procedure reported, by principal diagnosis and patient status, Western Australia, July 2013 to June 2015**



Source: (Australian Health Ministers' Advisory Council, 2017).

Across Australia and across all age groups of patients, analysis by geographical location of remoteness revealed a decline in access to hospital procedures by both Aboriginal and non-Aboriginal patients as remoteness increased, while the disparity (gap) between the two groups remained high (Figure 3).

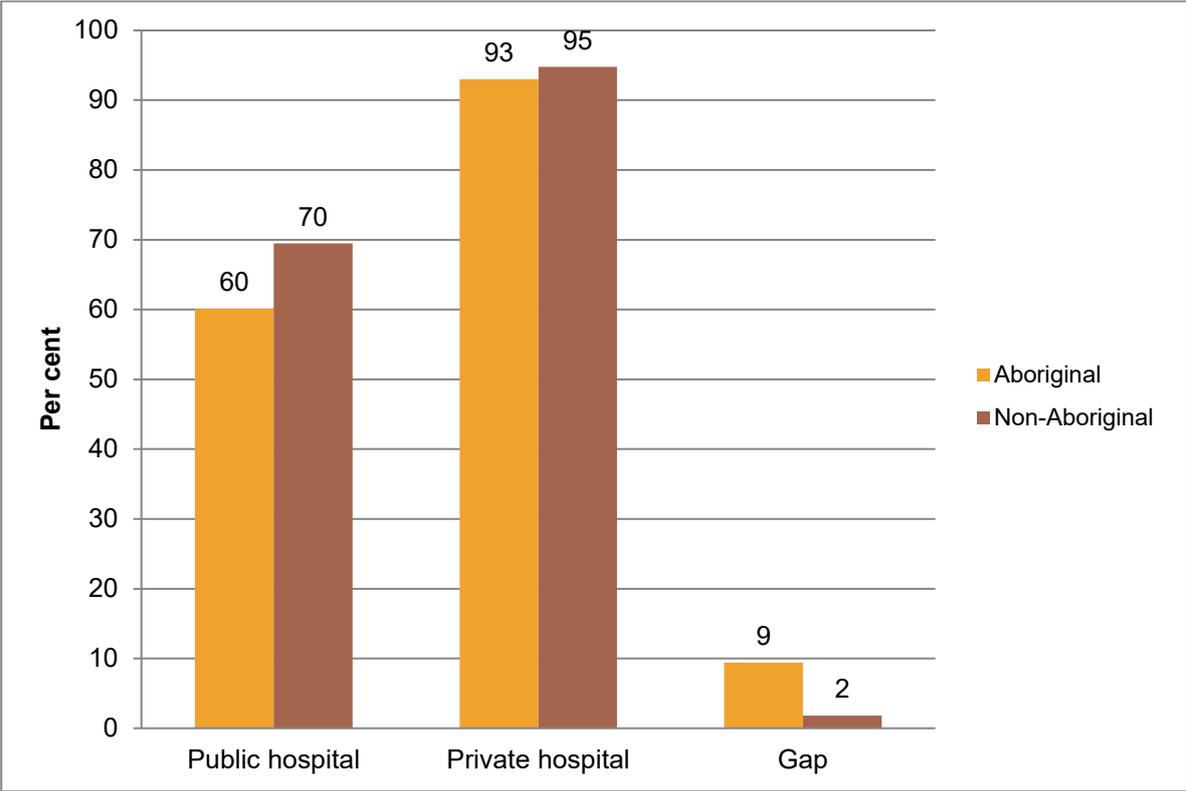
**Figure 3: Proportion of hospitalisations with a procedure recorded, by Aboriginal status and remoteness, Australia, July 2013 to June 2015**



Source:(Australian Health Ministers’ Advisory Council, 2017).

In the period of two years to June 2015, across Australia, 93 per cent (or 22,839) of hospitalisations for Aboriginal patients (excluding hospital care involving dialysis) that occurred in private hospitals had a hospital procedure recorded, while only 60 per cent (or 242,429) of hospitalisations with a procedure recorded occurred in public hospitals (Figure 4).

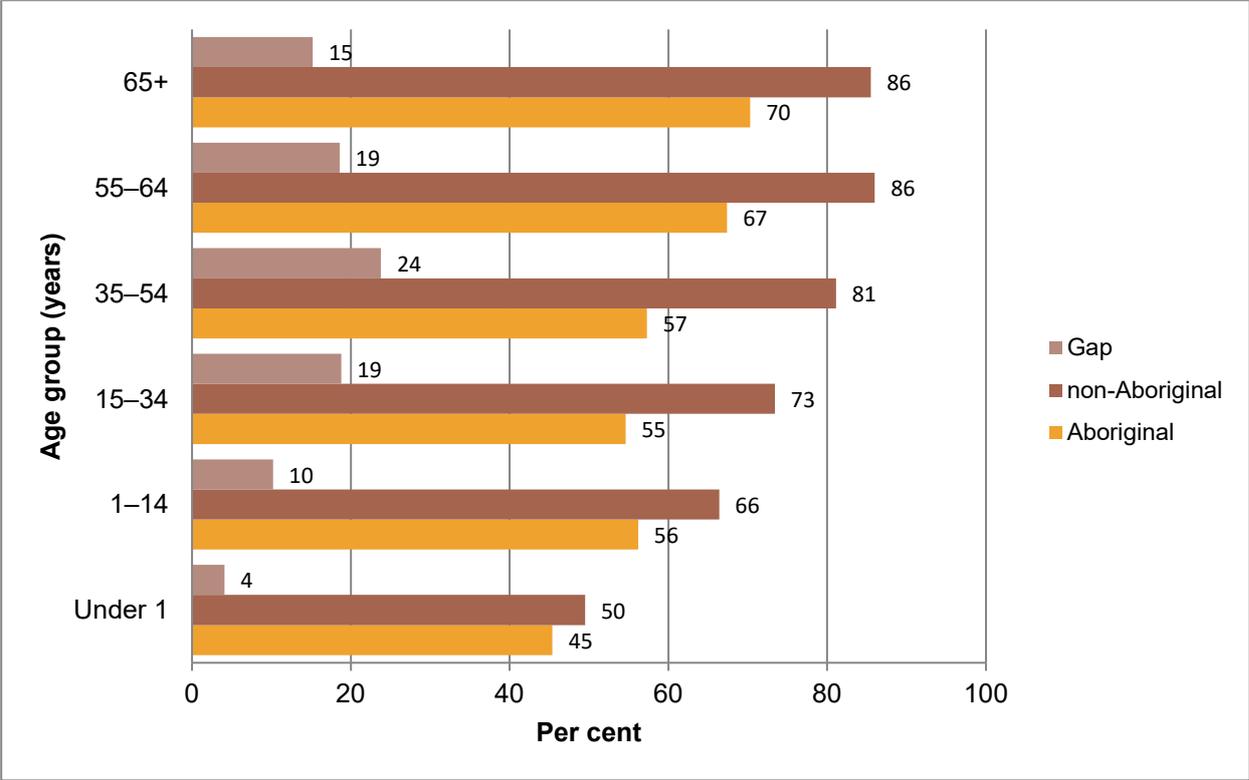
**Figure 4: Proportion of hospitalisations with a procedure recorded, by hospital sector, Australia, July 2013 to June 2015**



Source:(Australian Health Ministers’ Advisory Council, 2017).

Nationally, from July 2013 to June 2015 across all age groups, the age-standardised percentage of hospitalisations for Aboriginal patients which a hospital procedure recorded increased with age, from 47 per cent (for 0-4-year group) to 70 per cent (for 65 year and over group). The highest disparity (gap) in receiving hospital procedures between Aboriginal and non-Aboriginal patients was 24 percentage points for patients aged between 35-54 years old. (Figure 5).

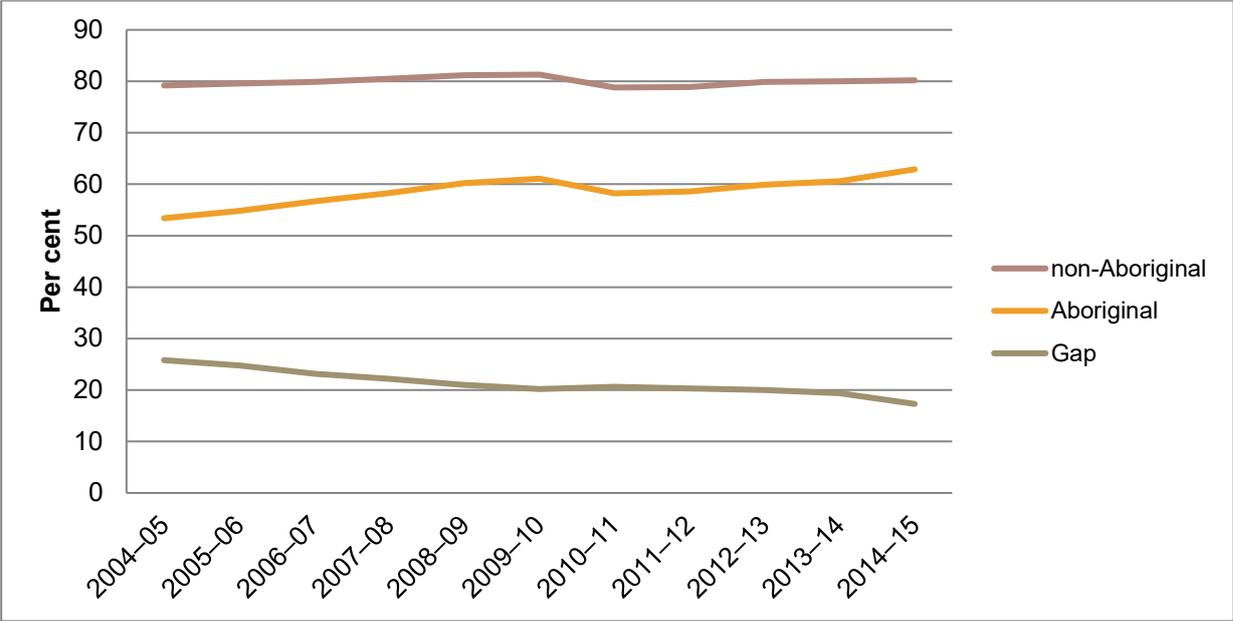
**Figure 5: Proportion of hospitalisations with a procedure recorded, by patient age group, Australia, July 2013 to June 2015**



Source: (Australian Health Ministers' Advisory Council, 2017).

Across Australia, for Aboriginal patients excluding hospital care involving dialysis, the age-standardised proportion of hospitalisations which a hospital procedure was recorded increased by 10 percentage points, from 53 per cent in the 2004-05 financial years to 63 per cent in the 2014-15 financial years. The evidence indicated a reduction in the gap (percentage point difference) between Aboriginal and non-Aboriginal patients from 26 percentage points in 2004-05 to 17 percentage points in 2014-15. (Figure 6)

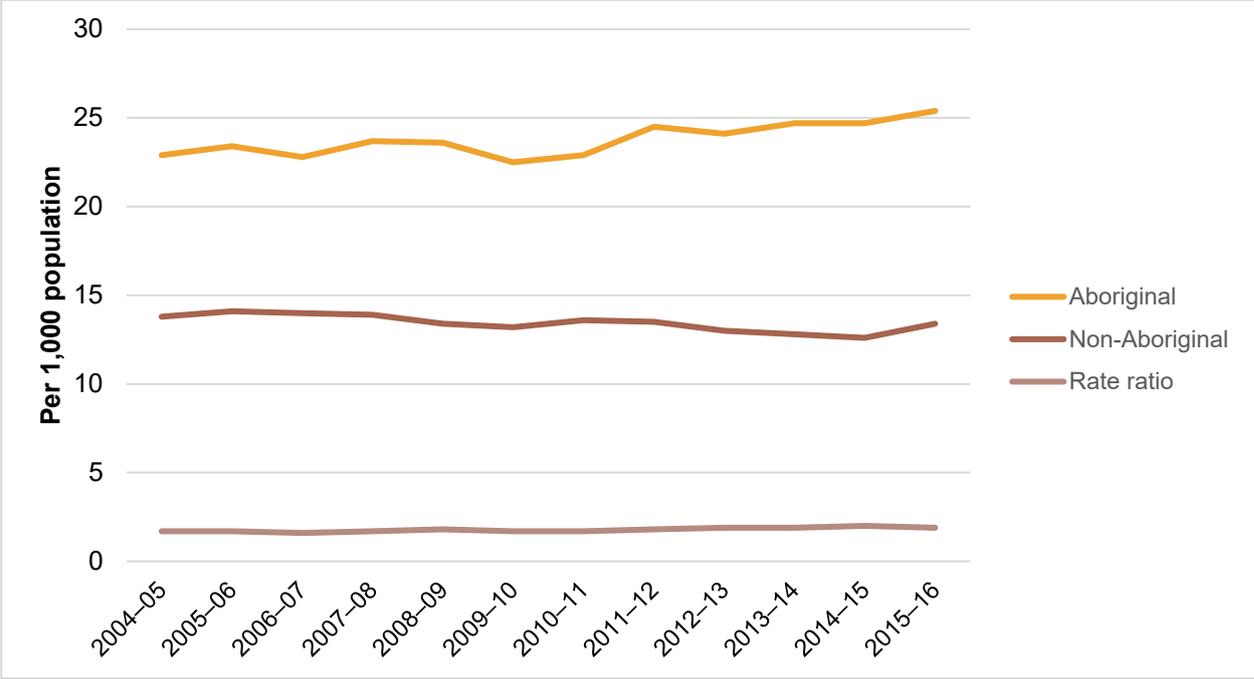
**Figure 6: Trend over time of age-standardised proportions of hospitalisations with a procedure reported, Australia, 2004-05 to 2014-15**



Source: (Australian Health Ministers’ Advisory Council, 2017).

Cardiovascular disease or cancer which are both major causes of premature death amongst Aboriginal people living in Australia. The evidence shows that from 2004-05 to 2015-16, the hospitalisation rates for heart conditions for Aboriginal people gradually increased over time compared to non-Aboriginal people for whom the rates were stable over the same period. In 2015-16 Aboriginal people were twice as likely to be hospitalised for a cardiac condition (25 per cent) compared to non-Aboriginal people (13 per cent) (Figure 7) (Australian Institute of Health Welfare, 2018; Walsh & Kangaharan, 2017).

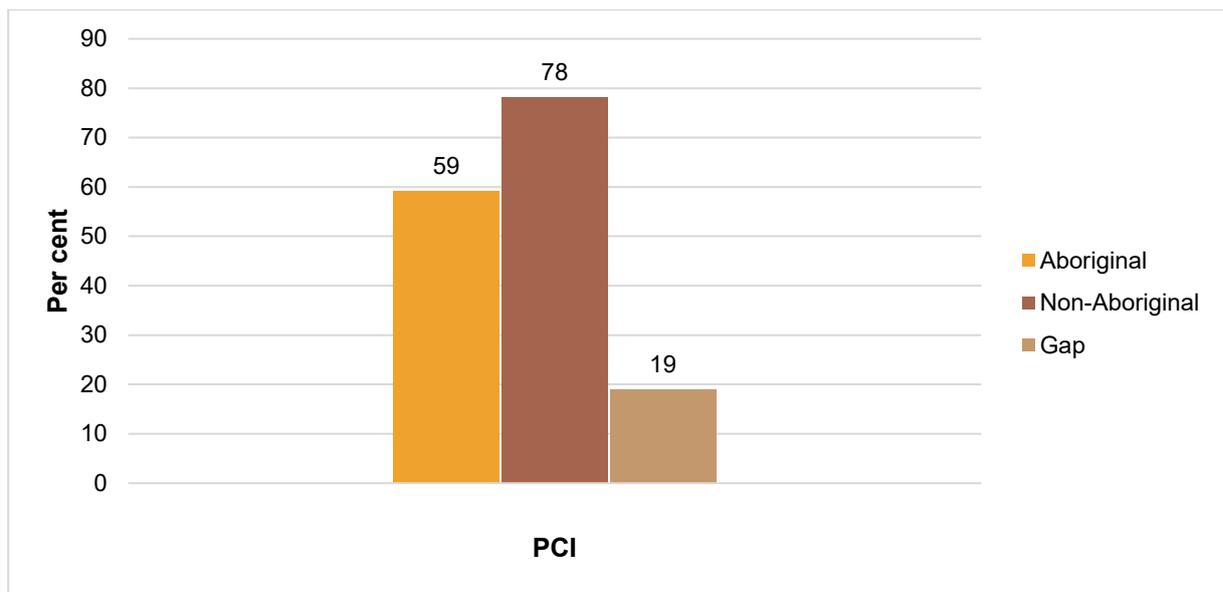
**Figure 7: Age-standardised hospitalisation rate for cardiac conditions, by patient status, Australia 2004-05 to 2015-16**



Source:(Australian Institute of Health Welfare, 2018).

Furthermore, the evidence also indicates that between 2013–14 and 2015–16, only 59 per cent of Aboriginal patients who suffered from a severe heart attack or ST-segment-elevation myocardial infarction (STEMI) received treatments with a percutaneous coronary intervention (PCI) compare to 78 per cent of those for non-Aboriginal patients. This represented a rate difference of 19 percentage points between Aboriginal patients and non-Aboriginal patients receiving the hospital procedures they required (Figure 8).

**Figure 8: Age-standardised proportion of hospitalisations for STEMI that were treated by PCI, by patient status, 2013-14 to 2015-16**



Source: (Australian Institute of Health Welfare, 2018).

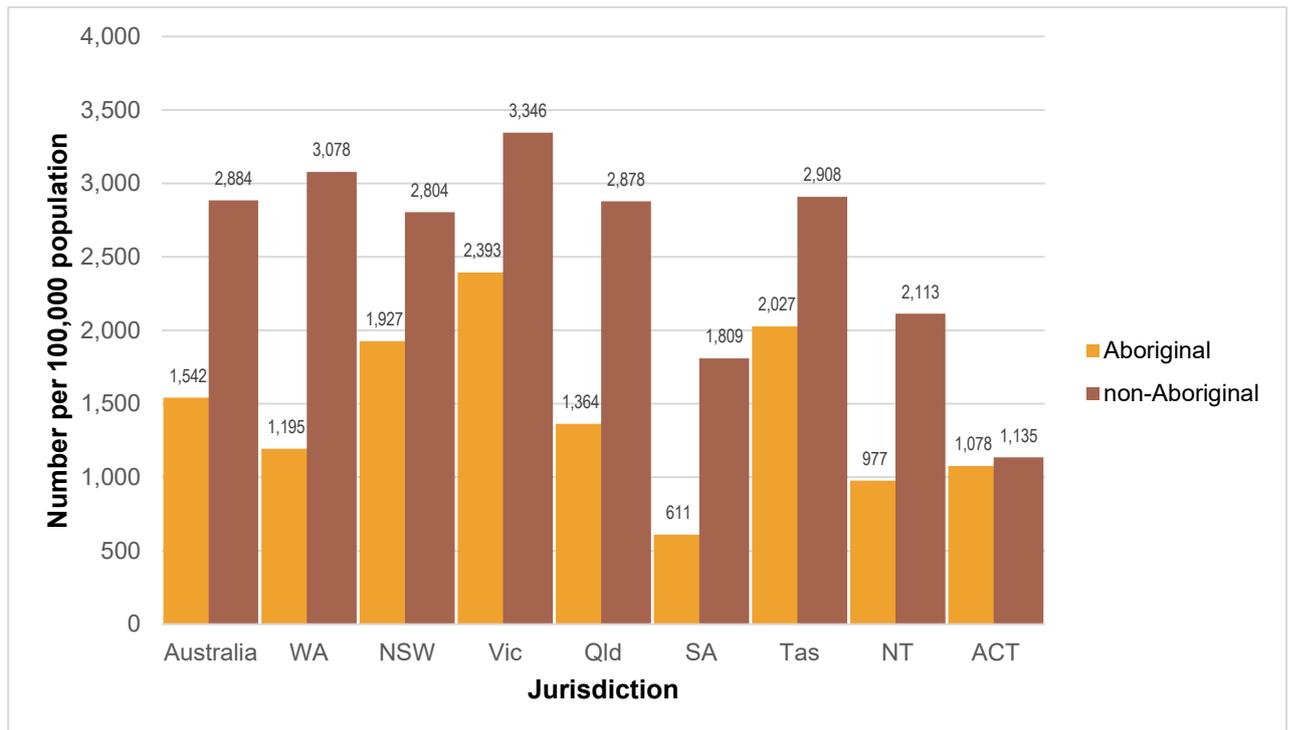
In 2011-15, Aboriginal people were 1.4 times more likely to die from cancer than non-Aboriginal people. Cancer was the second leading cause of mortality among Aboriginal people in Australia, accounting for 21 per cent of the deaths, and the most common causes of the deaths were cancers of the digestive organs and respiratory organs (28 per cent and 27 per cent, respectively)(Australian Health Ministers’ Advisory Council, 2017). In Australia between 1998 and 2013, while the incidence of bowel cancer remained unchanged among non-Aboriginal people, it significantly increased among Aboriginal people.

Colonoscopy is an effective evidence based procedure and most of colonoscopies are carried out for diagnosis of bowel cancer (Australian Commission on Safety and Quality in Health Care, 2018b). There were 765,411 hospitalisations for colonoscopy across Australia in 2016-17, accounting for 2,881 hospitalisations per 100,000 population. The rate of hospitalisation for inpatient colonoscopy varied across jurisdictions and the rate was 7.4 times as high in the area with the highest rate compared to the area with the lowest rate. The variation did not appear to align with patterns of need. There was greater use of colonoscopy in areas with higher socioeconomic status, with low bowel cancer incidence and mortality rates,

compared to the area with the highest incidence and mortality rates (low socioeconomic status areas).

Aboriginal people in WA were 2.6 times less likely to receive inpatient colonoscopies compared to non-Aboriginal people (Australian Commission on Safety and Quality in Health Care, 2018b) (Figure 9). The lower rates of hospitalisations for colonoscopy indicate inadequate and inequitable access to this effective evidence-based hospital procedure among Aboriginal people.

**Figure 9: Age-sex standardised hospitalisations for colonoscopy per 100,000 population, by state/territory, 2016-17**



Source: (Australian Commission on Safety and Quality in Health Care, 2018b).

The scale and magnitude of the disparities for access the hospital procedures outlined above are “more likely a result of subtler systemic practices, not ill-intentioned but still discriminatory, and almost invisible within an individual patient-provider encounter” (Fisher & Weeramanthri, 2002). This should prompt the need for monitoring, review and improvement of the decision-making process on how diagnostic and therapeutic procedures among Aboriginal patients in Australia and in WA particularly are delivered and regulated (Fisher & Weeramanthri, 2002).

Furthermore, cardiac conditions and bowel cancer are the most common causes of mortality amongst Aboriginal people. The obvious inequities of access to hospital diagnostic and treatment procedures for these conditions highlight the troubling patterns of disparities in hospital care between Aboriginal and non-Aboriginal patients that the health system needs to recognise and act upon.

#### 4.4. To what extent has the access to hospital procedures performance measure been monitored and reported across national and State/territory levels?

Since 2006 the differentials in access to hospital procedures performance measure has been extensively analysed, monitored and reported as one of the key performance measures under the biennial *Aboriginal and Torres Strait Islander Health Performance Framework Report* (HPF) and the annual *Australian Hospital Statistics* report series (Australian Health Ministers' Advisory Council, 2017; Australian Institute of Health Welfare, 2019b). This performance measure reports on key hospital procedure differentials between Aboriginal and non-Aboriginal admitted patients, whether they received a key hospital procedure when diagnosed with the same principal diagnosis.

In 2006, the first HPF was developed and publicised by the Australian Department of Health and Ageing under the auspice Australian Health Ministers' Advisory Health Council (AHMAC) to provide a basis for measuring the progress and impact on the *National Strategic Framework for Aboriginal and Torres Strait Islander Health* (NSFATSIH) which was implemented between 2003 and 2013.

The NSFATSIH recognised that: "Resolving the issues underpinning Aboriginal and Torres Strait Islander health problems is a shared responsibility requiring partnerships between Aboriginal and Torres Strait Islander organisations, individuals and communities, and a number of government agencies across all levels of government. It requires concerted action both across and beyond the health sector to address the complex and inter-related factors that contribute to the causes and persistence of health problems amongst Aboriginal and Torres Strait Islander peoples" (Australian Department of Health and Ageing, 2007).

As required under the NSFATSIH, the Australian Government produced and made available the HPF in 2006 and 2008 and approximately every two years thereafter. The HPF reports present extensive policy analysis and quantitative measures to inform planning, implementation and achievement of the key result areas of the NSFATSIH. The publication of HPF represents an important step forward in system-wide monitoring, performance and reporting of progress in Aboriginal health at state and national levels (Australian Department of Health and Ageing, 2007).

The HPF reports have also been used to monitor and inform the review of existing commitments and guide further initiatives and efforts to close the gap in Aboriginal disadvantage. These include the *National Aboriginal and Torres Strait Islander Health Plan 2013-2023*, the "Closing the Gap" initiatives and the *Cultural Respect Framework 2016-2026 for Aboriginal and Torres Strait Islander health* (Australian Department of Health and Ageing, 2013; Australian Health Ministers' Advisory Council's National and Aboriginal and Torres Strait Islander Health Standing Committee, 2016).

The HPF reports provide policy analysis and measurement of 68 performance measures that are organised in three tiers:

- *Tier 1 – Health Status and Outcomes* which reports on performance measures relevant to the prevalence of diseases, health conditions, human functions, wellbeing and life expectancy
- *Tier 2 – Determinants of Health* which reports on performance measures related to the determinants of health including the socioeconomic status, environmental factors and behaviours of health
- *Tier 3 – Health System Performance* reports on performance measures of health system performance including effectiveness, efficiency, appropriateness, responsiveness, accessibility, capacity and sustainability of the health system.

Accessing to hospital procedures by Aboriginal and non-Aboriginal patients is being analysed, monitored and reported under the HPF report's Tier3 - *Health System Performance* via the domain of effective, appropriate and efficient health system. The performance measure '3.06- *access to hospital procedures*' measures the key hospital procedure differentials between Aboriginal and non-Aboriginal patients.

Data analysis includes standardised rates, rate ratios and rate differences in hospital separations with the same principal diagnosis, hospital sector (private vs public hospitals), age, sex, jurisdiction (state of usual residence), geographical areas (remoteness) and trends over time.

Additionally, the '*Differential access to hospital procedures*' has also been reported in the annual '*Admitted patient care: Australian Hospital statistics*' report series, by the AIHW, as a national hospital performance indicator related to the accessibility of hospital services, and the appropriateness of hospital care (Australian Institute of Health Welfare, 2019a).

Data for the access to hospital procedures performance measure are sourced from the AIHW National Hospital Morbidity Database (NHMD). The NHMD is a compilation of a compilation of episode-level records from admitted patient morbidity data collection systems from both private and public hospitals across Australia. The NHMD data is annually provided to the AIHW by state and territory health departments (Australian Health Ministers' Advisory Council, 2017).

#### 4.5. Why the inclusion of access to hospital procedures performance indicator in the HSPR will assist the health system manage performance and support service improvement for Aboriginal people?

##### **Implicit bias and adherence to clinical best practice**

Naomi Williams, a strong, respected and hardworking Wiradjuri woman was six months pregnant when she presented at the emergency department (ED) of Tumut District Hospital in the first few hours of 2016 New Year. Nurses gave her paracetamol and allowed her to go home after 34 minutes. Her condition then worsened and 15 hours later she died from a bacterial infection (sepsis).

Experts told the coronial inquest into her death that Naomi should have received proper investigation or specialist intervention of underlying causes. She had previously visited the same hospital 18 times in seven months and her pregnancy had been identified as high-risk. Instead of being referred to a specialist Naomi was referred to drug and alcohol services.

An expert in race relations and public health testified that “hospitals generally suffered from implicit racial bias that meant Indigenous patients received worse levels of care”. Studies have shown a clear link between implicit bias and clinical decision making which reduces adherence to clinical best practice. He stated “the best data we have in Australia is there are 30 percent fewer procedures for Aboriginal patients across the country compared to non-Indigenous patients”

He advised that “cultural competency of health care services can directly increase Aboriginal peoples’ access to health care and improve the disparities in health outcomes”. He further articulated that “he agreed that aspect of cultural competency that would be important include respect and trust, flexibility, time, support, outreach and working together”. He added “it’s about looking at many aspects of an organisation through the lens of cultural competency”.

The coroner recommended the Tumut District Hospital to improve care provided to Aboriginal patient. These included:

- Review levels of implicit bias by monitoring data on Aboriginal and non-Aboriginal patients’ ED triages, discharge against medical advice and referrals for drug and alcohol services
- Identify, make available and commit in applying implicit bias assessment tools in the provision of health care across the hospital
- Employ more and adopt targets to increase employment and retention of Aboriginal health care professionals
- Strengthen the Aboriginal Health Liaison Worker Program
- Establish targets and recruit Aboriginal people to proportionately represent in the Local Health Advisory Committee
- Increase consultation with, and representation of Aboriginal community in the Health District Board
- Develop and implement a strong local Aboriginal culturally appropriated model of care to improve care provide to Aboriginal people.

Source: (Magistrate Grahame, 2019).

The capacity to access and use health care is vital to good and equitable health (CSDH, 2008). 'Health equity outcomes' is one of SHR's 12 recommended outward-facing health system reporting domains. Reporting measures (metrics) suggested by the SHR includes equity metrics for prevention, early detection and treatment outcomes by Aboriginal patient cohorts (Department of Health, 2019).

Aboriginal people are the most vulnerable population and with complex health needs, often falling between the gaps and unable to access care according to their health care needs. Australians should have equitable access to hospital-based and surgical procedures that effectively treat ill-health (Department of Health, 2015).

While Aboriginal people are more likely to be admitted to hospitals, Aboriginal patients are less likely to be considered for specialist treatments and/or receive recommended evidence-based diagnostic and treatment procedures, compared to those for the non-Aboriginal patients (Australian Health Ministers' Advisory Council, 2017; Cunningham, 2002; Dwyer et al., 2016). To address this disparity and improve outcomes, the access to hospital procedures by Aboriginal patients need to be fully understood, measured, monitored and reported within the WA health system.

Evidence suggests that an effective performance measure should be defined in reference to explicit objectives and goals reflecting values of various stakeholders including patients, clinicians and health service providers (World Health Organization, 2003).

Monitoring and reporting the performance of access to hospital procedures in the HSPR will bring all relevant stakeholders together to focus and prioritise the issue. It will provide timely and targeted data and information for health service providers to manage performance and effectively implement continuous quality improvement activities that will lead to real and sustainable changes for Aboriginal people.

#### **4.5.1. Examples of what can be done and what work**

There are sizable number of practical strategies recommended in literature that health service providers can consider in addressing the disparities in access to hospital procedure between Aboriginal and non-Aboriginal patients.

A recent study in South Australia demonstrates that equality in hospital treatment and access to hospital procedures, particularly concerning to the coronary heart disease and angiography can be achieved through implementing initiatives that prioritise improving the hospital experience of Aboriginal patients. These include increasing engagement with family members and employing more Aboriginal hospital liaison officers in provision of hospital care (Tavella et al., 2016).

The Australian Commission on Safety and Quality in Health Care's Atlas of Healthcare Variation Series (the Atlases) explore how the use of healthcare in Australia varies. The Atlases thoroughly investigate how the use of a treatment and procedure varies between Aboriginal and non-Aboriginal people as well as between different areas where people live. The Atlases provide specific recommendations that health service providers and health facilities can implement to achieve improved outcomes for Aboriginal patients (Australian Commission on Safety and Quality in Health Care, 2018b).

For example, the *Third Australian Atlas of Healthcare Variation 2018* identified varied “disturbing pattern of inequity” in accessing to hospital procedures of Aboriginal patients. The Atlas found that some population groups had excessively overused colonoscopy compared to other population groups. Despite having higher rate of bowel cancer mortality, the rate of hospitalisation for inpatient colonoscopy for Aboriginal people in WA was 61 per cent lower than non-Aboriginal people (Australian Commission on Safety and Quality in Health Care, 2018b). These suggest that Aboriginal Western Australians are missing out on appropriate care and indeed need improved access to colonoscopy.

Specific recommendations provided in the Atlas include:

- Establish triaging systems to prioritise colonoscopy for the most at-risk group of bowel cancer
- Specialist and clinical training programs to incorporate the *Colonoscopy Clinical Care Standard* that meets the needs of Aboriginal people
- Monitor adherence to Colonoscopy Clinical Care Standard at both Health Service Providers and facilities to ensure that patients with the greatest need for colonoscopy are prioritised (Australian Commission on Safety and Quality in Health Care, 2018b).

In addition, the Australian Commission on Safety and Quality in Health Care also introduce the *National Safety and Quality Health Service (NSQHS) Standards User Guide for Aboriginal and Torres Strait Islander Health*. The Guide identified six specific actions within the NSQHS Standards and provides practical strategies that health service provider required to implement to meet the healthcare needs and improve quality of care for Aboriginal people (Australian Commission on Safety and Quality in Health Care, 2017b) (Table 1).

**Table 1: The six actions in the National Safety and Quality Health Service Standards that focus specifically on meeting the needs of Aboriginal and Torres Strait Islander people**

<b>Standard</b>	<b>Action</b>
<b>Partnering with Consumers Standard</b>	2.13 The health service organisation works in <b>partnership with Aboriginal and Torres Strait Islander communities</b> to meet their healthcare needs
<b>Clinical Governance Standard</b>	1.2 The governing body ensures that the organisation's <b>safety and quality priorities</b> address the specific health needs of Aboriginal and Torres Strait Islander people
	1.4 The health service organisation <b>implements and monitors strategies</b> to meet the organisation's safety and quality priorities for Aboriginal and Torres Strait Islander people
	1.21 The health service organisation has strategies to improve the <b>cultural awareness and cultural competency</b> of the workforce to meet the needs of its Aboriginal and Torres Strait Islander patients
	1.33 The health service organisation demonstrates a welcoming environment that recognises the importance of cultural beliefs and practices of Aboriginal and Torres Strait Islander people
<b>Comprehensive Care Standard</b>	5.8 The health service organisation has processes to routinely ask patients if they identify as being of <b>Aboriginal and/or Torres Strait Islander origin</b> , and to record this information in administrative and clinical information systems

Source: (Australian Commission on Safety and Quality in Health Care, 2017b).

The key to the application of best practice care for Aboriginal people is cultural competence.(National Heart Foundation of Australia, 2016a). *The Lighthouse Hospital Project* identified examples of exemplary care that delivered improvement in hospital care and patient outcomes for Aboriginal patients which include:

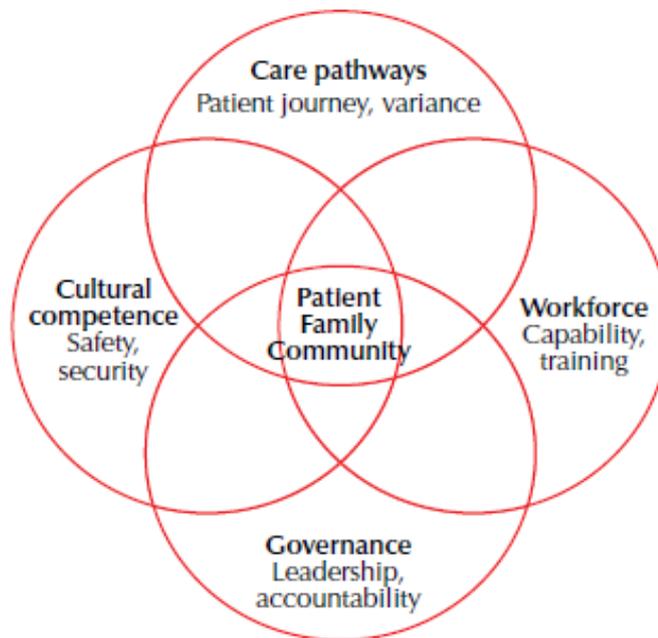
- Expansion and optimisation of the Aboriginal hospital workforce
- Improve identification of Aboriginal patients' status
- Partnership with local Aboriginal communities
- Foster champions on clinical staff
- Patient centred care approach
- Utilise technologies to improve communication with patients.

The *Lighthouse Project* recommended the implementation of hospital continuous quality improvement (CQI) activities based on the *Lighthouse Toolkit*. The Toolkit provides strategies which health service providers and hospitals can adopt in delivery culturally appropriate and clinical competent care for Aboriginal people. The

toolkit contains four domains and their respective objectives that are critical in the provision of a holistic care. They are:

- Governance - to ensure executive leadership and accountability across all staff for quality improvement activities in the organisation
- Cultural Competence - to achieve cultural proficiency across hospital
- Workforce - to develop culturally and clinically competent workforce
- Care Pathways - to improve access to evidence based ACS care (National Heart Foundation of Australia, 2016a) (Figure 10).

**Figure 10: Interrelationship of the patient with the four domains**



Source: (National Heart Foundation of Australia, 2016a)

*The Lighthouse Project* demonstrated that better hospital care outcomes for Aboriginal patients can be achieved through implementing the CQI process. Hospitals are required to review and identify their own CQI initiatives that are aligned to the four domains which include key performance measures. To maximise the application of best practice, it is crucial that hospitals implement the CQI activities that achieve the objectives of all four domains.

Existing evidence revealed that the following protective factors are crucial for improving access to hospital procedures and evidence-based therapies for Aboriginal patients:

- adequate and coordinated care
- culturally competent health care providers
- two ways communication and engagement
- shared decision making and
- employing more Aboriginal staff and support systems for a companion during hospital admission (Brown, 2010; Tavella et al., 2016; Taylor, Thompson, Wood, Ali, & Dimer, 2009).

The *Cultural Respect Framework 2016-2026 for Aboriginal and Torres Strait Islander Health* identified that one of fundamental steps towards improving health outcomes for Aboriginal people is to address barriers Aboriginal people face in accessing and receiving health care. These included aligning the mainstream health system with Aboriginal people and cultures. The framework recommended six domains of focus and actionable areas underpinning culturally respectful health service delivery that health service providers can implement to increase access to health care for Aboriginal people. These are:

- Whole-of-organisation approach and commitment
- Communication
- Workforce development and training
- Consumer participation and engagement
- Stakeholder partnerships and collaboration
- Data, planning, research and evaluation (Australian Health Ministers' Advisory Council's National and Aboriginal and Torres Strait Islander Health Standing Committee, 2016).

The *WA Aboriginal Health and Wellbeing Framework 2015-2030* (the Framework) provides a cultural lens and strategic directions that aim at ensuring Aboriginal people receiving safe care of the highest quality and in a timely manner to meet healthcare needs. Suggested key focus area of actions include:

- Implement clinical governance processes that support improvements in health system performance for Aboriginal people through:
  - Engagement of the Aboriginal workforce in development and implementation of Continuous Quality Improvement (CQI) process
  - Community participation in the implementation of local health CQI
  - Systemic performance review in meeting Aboriginal patient's needs and satisfactory
  - Effective coordination and collaboration through rigorous monitoring, reporting and evaluation against agreed performance standards and outcomes
  - Inform and embed accountability arrangements with Aboriginal health partnerships, local circumstances and cultural context.
- Implementing safety and quality for Aboriginal people to receive culturally secure, safe and quality care across health care settings through:
  - Develop understanding of the safety and quality issues commonly associated with health care for Aboriginal people
  - Embed Aboriginal health within clinical governance and patient safety frameworks
  - Use the National Safety and Quality Standards to improve Aboriginal health outcomes
  - Develop criteria for assessing the cultural responsiveness of health services as part of accreditation processes (Department of Health, 2015).

The Framework identifies a culturally respectful and non-discriminatory health system as a key strategic enabler of improving the hospital care and overall health and wellbeing outcomes for Aboriginal people. As a result, a mandatory policy is

introduced for all staff in the WA health system to complete the *Aboriginal Cultural eLearning (ACeL)* within six months of their employment commencement date. The ACeL is regarded as one step towards improving the cultural effectiveness of the WA health system. It assists the WA health system build the cultural knowledge and strengthen workforce capacity to provide health care that is culturally respectful and non-discriminatory (Department of Health, 2017).

## 5. Conclusion

The WA health system cannot improve what it does not measure or fully understand. One of the key strategic areas of the SHR is “to guide the direction of the WA health system to deliver patient-first, innovative and financially sustainable care” and “to put people at the centre of care and ensuring people have access to care when they need it”. The SHR recommends reducing inequity in health outcomes and access to care for Aboriginal people and families in line with the *WA Aboriginal Health and Wellbeing Framework 2015-2030* (Department of Health, 2019).

Hospital-based medical and surgical procedures are known as effective diagnostic and treatment measures. Data and information relating to access to hospital procedures have been extensively analysed, monitored and reported as key performance measure under the HPF and the Australian hospital statistics report series. Such performance measure has shown significant disparities and inequities in access across diagnostic groups between Aboriginal and non-Aboriginal patients.

Aboriginal people are more likely to be admitted to hospitals than non-Aboriginal people. However, they are less likely to be considered for specialist treatment and/or receive hospital procedures according to their needs compared to non-Aboriginal patients. The clear pattern of variations and inequities underline the need for the WA health system to thoroughly investigate and monitor this performance measure to improve understanding on the issues.

Monitoring and reporting access to hospital procedure performance measure will generate targeted, timely data and information that is essential for performance management and service improvement activities. It will drive the WA health system to take appropriate actions in achieving equitable and timely access to the best quality and safe hospital care that will contribute to overall health and wellbeing outcomes of Aboriginal Western Australians.

## 6. References

- Australian Bureau of Statistics. (2018a). Estimates of Aboriginal and Torres Strait Islander Australians, June 2016. cat.no.3238.0.55.001. Retrieved from <https://www.abs.gov.au/ausstats/abs@.nsf/mf/3238.0.55.001>
- Australian Bureau of Statistics. (2018b). Life Tables for Aboriginal and Torres Strait Islander Australians, 2015-2017. cat. no. 3302.0. cat. no. 3302.0. Retrieved from <https://www.abs.gov.au/ausstats/abs@.nsf/mf/3302.0.55.001>
- Australian Commission on Safety and Quality in Health Care. (2017a). *National Model Clinical Governance Framework*. Retrieved from <https://www.safetyandquality.gov.au/publications-and-resources/resource-library/national-model-clinical-governance-framework>
- Australian Commission on Safety and Quality in Health Care. (2017b). *National Safety and Quality Health Service Standards user guide for Aboriginal and Torres Strait Islander health*. Retrieved from <https://www.safetyandquality.gov.au/sites/default/files/migrated/National-Safety-and-Quality-Health-Service-Standards-User-Guide-for-Aboriginal-and-Torres-Strait-Islander-Health.pdf>
- Australian Commission on Safety and Quality in Health Care. (2018a). Australian Atlas of Healthcare Variation Series. Retrieved from <https://www.safetyandquality.gov.au/publications-and-resources/australian-atlas-healthcare-variation-series>
- Australian Commission on Safety and Quality in Health Care. (2018b). *The Third Australian Atlas of Healthcare Variation* Retrieved from <https://www.safetyandquality.gov.au/publications-and-resources/australian-atlas-healthcare-variation-series>
- Australian Commission on Safety and Quality in Health Care and Australian Institute of Health and Welfare. (2014). Exploring Healthcare Variation in Australia: Analyses Resulting from an OECD Study. Retrieved from <https://www.safetyandquality.gov.au/sites/default/files/migrated/Exploring-Healthcare-Variation-in-Australia-Analyses-Resulting-from-an-OECD-Study.pdf>
- Australian Department of Health and Ageing. (2007). *National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013*. Retrieved from [https://www1.health.gov.au/internet/main/publishing.nsf/content/73172343A73117DFCA257BF0001D7AA6/\\$File/National-Strategic-Framework-Aboriginal-Torres-Strait-Islander-Health\\_Implementation-plan.pdf](https://www1.health.gov.au/internet/main/publishing.nsf/content/73172343A73117DFCA257BF0001D7AA6/$File/National-Strategic-Framework-Aboriginal-Torres-Strait-Islander-Health_Implementation-plan.pdf)
- Australian Department of Health and Ageing. (2013). National Aboriginal and Torres Strait Islander Health Plan 2013-2023. Retrieved from <https://www1.health.gov.au/internet/main/publishing.nsf/Content/natsih-plan>
- Australian Health Ministers' Advisory Council. (2017). *Aboriginal and Torres Strait Islander Health Performance Framework (HPF) report 2017*. Retrieved from Canberra: <https://www.aihw.gov.au/reports/indigenous-health-welfare/health-performance-framework>
- Australian Health Ministers' Advisory Council's National and Aboriginal and Torres Strait Islander Health Standing Committee. (2016). *Cultural Respect Framework 2016-2026 for Aboriginal and Torres Strait Islander health*. Canberra: Australian Health Ministers' Advisory Council Retrieved from [https://nacchocommunique.files.wordpress.com/2016/12/cultural\\_respect\\_framework\\_1december2016\\_1.pdf](https://nacchocommunique.files.wordpress.com/2016/12/cultural_respect_framework_1december2016_1.pdf)
- Australian Institute of Health and Welfare. (2016). *Access to Hospital KPI Definition* Australian Institute of Health and Welfare

- Australian Institute of Health Welfare. (2015). *Aboriginal and Torres Strait Islander health performance framework 2014 report: detailed analyses*. Retrieved from Canberra: <https://www.aihw.gov.au/reports/indigenous-health-welfare/indigenous-health-performance-framework-2014>
- Australian Institute of Health Welfare. (2018). *Better Cardiac Care measures for Aboriginal and Torres Strait Islander people: third national report 2017*. Retrieved from Canberra: <https://www.aihw.gov.au/reports/indigenous-australians/better-cardiac-care-measures-2017>
- Australian Institute of Health Welfare. (2019a). *Admitted patient care 2017–18: Australian hospital statistics*. Retrieved from Canberra: <https://www.aihw.gov.au/getmedia/df0abd15-5dd8-4a56-94fa-c9ab68690e18/aihw-hse-225.pdf.aspx?inline=true>
- Australian Institute of Health Welfare. (2019b). *Admitted patient care 2017–18: Australian hospital statistics*. Retrieved from Canberra: <https://www.aihw.gov.au/reports/hospitals/admitted-patient-care-2017-18>
- Australian Institute of Health Welfare. (2019c). *Procedures data cubes*. Retrieved from Canberra: <https://www.aihw.gov.au/reports/hospitals/procedures-data-cubes>
- Brown, A. (2010). Acute Coronary Syndromes in Indigenous Australians: Opportunities for Improving Outcomes Across the Continuum of Care. *Heart, Lung and Circulation*, 19(5), 325-336. doi:10.1016/j.hlc.2010.02.011
- CSDH. (2008). *Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health*. Retrieved from Geneva: [https://www.who.int/social\\_determinants/final\\_report/csdh\\_finalreport\\_2008.pdf](https://www.who.int/social_determinants/final_report/csdh_finalreport_2008.pdf)
- Cunningham, J. (2002). Diagnostic and therapeutic procedures among Australian hospital patients identified as Indigenous. *Medical Journal of Australia*, 176(2), 59-62. Retrieved from <https://www.mja.com.au/journal/2002/176/2/diagnostic-and-therapeutic-procedures-among-australian-hospital-patients>
- Department of Health. (2015). *WA Aboriginal Health and Wellbeing Framework 2015–2030*. Retrieved from Western Australia: [https://ww2.health.wa.gov.au/~/\\_/media/Files/Corporate/general%20documents/A%20aboriginal%20health/PDF/12853\\_WA\\_Aboriginal\\_Health\\_and\\_Wellbeing\\_Framework.pdf](https://ww2.health.wa.gov.au/~/_/media/Files/Corporate/general%20documents/A%20aboriginal%20health/PDF/12853_WA_Aboriginal_Health_and_Wellbeing_Framework.pdf)
- Department of Health. (2017). *Aboriginal Cultural eLearning Policy*. Retrieved from [https://ww2.health.wa.gov.au/~/\\_/media/Files/Corporate/Policy%20Frameworks/Employment/Policy/Aboriginal%20Cultural%20eLearning%20Policy/MP65-Aboriginal-Cultural-eLearning-Policy.pdf](https://ww2.health.wa.gov.au/~/_/media/Files/Corporate/Policy%20Frameworks/Employment/Policy/Aboriginal%20Cultural%20eLearning%20Policy/MP65-Aboriginal-Cultural-eLearning-Policy.pdf)
- Department of Health. (2018). *Clinical Governance, Safety and Quality Policy Framework*. Retrieved from <https://ww2.health.wa.gov.au/About-us/Policy-frameworks/Clinical-Governance-Safety-and-Quality>
- Department of Health. (2019). *Sustainable Health Review Final Report to Western Australian Government* Retrieved from <https://ww2.health.wa.gov.au/Improving-WA-Health/Sustainable-health-review>
- Durey, A., & Thompson, S. C. (2012). Reducing the health disparities of Indigenous Australians: time to change focus. *BMC health services research*, 12(1), 151. Retrieved from <https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-12-151>
- Dwyer, J., O'Donnell, K., Willis, E., & Kelly, J. (2016). Equitable Care for Indigenous People: every health service can do it. *Asia-Pacific Journal of Health Management*, 11, 11-17. doi:10.24083/apjhm.v11i3.143

- Fisher, D., & Weeramanthri, T. (2002). Hospital care for Aboriginals and Torres Strait Islanders: Appropriateness and decision making. *The Medical journal of Australia*, 176, 49-50. doi:10.5694/j.1326-5377.2002.tb04281.x
- Ilton, M. K., Walsh, W. F., Brown, A. D., Tideman, P. A., Zeitz, C. J., & Wilson, J. (2014). A framework for overcoming disparities in management of acute coronary syndromes in the Australian Aboriginal and Torres Strait Islander population. A consensus statement from the National Heart Foundation of Australia. *Med J Aust*, 200(11), 639-643. doi:10.5694/mja12.11175
- Magistrate Grahame. (2019). *Inquest into the death of Naomi Williams (File No. 2016/2569)*. Retrieved from NSW  
<http://www.coroners.justice.nsw.gov.au/Documents/Naomi%20Williams%20findings.pdf>
- National Heart Foundation of Australia. (2016a). *Improving health outcomes for Aboriginal and Torres Strait Islander peoples with acute coronary syndrome: a practical toolkit for quality improvement: National Heart Foundation of Australia*. Retrieved from  
[https://www.heartfoundation.org.au/images/uploads/main/Lighthouse\\_Toolkit\\_How\\_to\\_use\\_this\\_toolkit.pdf](https://www.heartfoundation.org.au/images/uploads/main/Lighthouse_Toolkit_How_to_use_this_toolkit.pdf)
- National Heart Foundation of Australia. (2016b). National Heart Foundation of Australia & Cardiac Society of Australia and New Zealand: Australian clinical guidelines for the management of acute coronary syndromes 2016. *Heart, Lung and Circulation* 25:895–951. Retrieved from  
[https://www.heartfoundation.org.au/images/uploads/publications/Clinical\\_Guidelines\\_for\\_the\\_Management\\_of\\_Acute\\_Coronary\\_Syndromes\\_2016.pdf](https://www.heartfoundation.org.au/images/uploads/publications/Clinical_Guidelines_for_the_Management_of_Acute_Coronary_Syndromes_2016.pdf)
- Ong, M. A., & Weeramanthri, T. S. (2000). Delay times and management of acute myocardial infarction in Indigenous and non-Indigenous people in the Northern Territory. *Medical Journal of Australia*, 173(4), 201-204. doi:10.5694/j.1326-5377.2000.tb125601.x
- Spadaccio, C., & Benedetto, U. (2018). Coronary artery bypass grafting (CABG) vs. percutaneous coronary intervention (PCI) in the treatment of multivessel coronary disease: quo vadis? -a review of the evidences on coronary artery disease. *Annals of cardiothoracic surgery*, 7(4), 506-515. doi:10.21037/acs.2018.05.17
- Steen, B. (1990). The importance of diagnostic procedures to ensure quality of health care in geriatric medicine. Examples from recent studies. *Quality assurance in health care: the official journal of the International Society for Quality Assurance in Health Care*, 2(3-4), 387-392. Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/1983260>
- Tavella, R., McBride, K., Keech, W., Kelly, J., Rischbieth, A., Zeitz, C., . . . Brown, A. (2016). Disparities in acute in-hospital cardiovascular care for Aboriginal and non-Aboriginal South Australians. *Medical Journal of Australia*, 205(5), 222-227. Retrieved from  
[https://www.mja.com.au/system/files/issues/205\\_05/10.5694mja16.00445.pdf](https://www.mja.com.au/system/files/issues/205_05/10.5694mja16.00445.pdf)
- Taylor, K. P., Thompson, S. C., Wood, M. M., Ali, M., & Dimer, L. (2009). Exploring the impact of an Aboriginal Health Worker on hospitalised Aboriginal experiences: lessons from cardiology. *Australian Health Review*, 33(4), 549-557. doi:<https://doi.org/10.1071/AH090549>
- Walsh, W. F., & Kangaharan, N. (2017). Cardiac care for Indigenous Australians: practical considerations from a clinical perspective. *Medical Journal of Australia*, 207(1), 40-45. doi:10.5694/mja17.00250

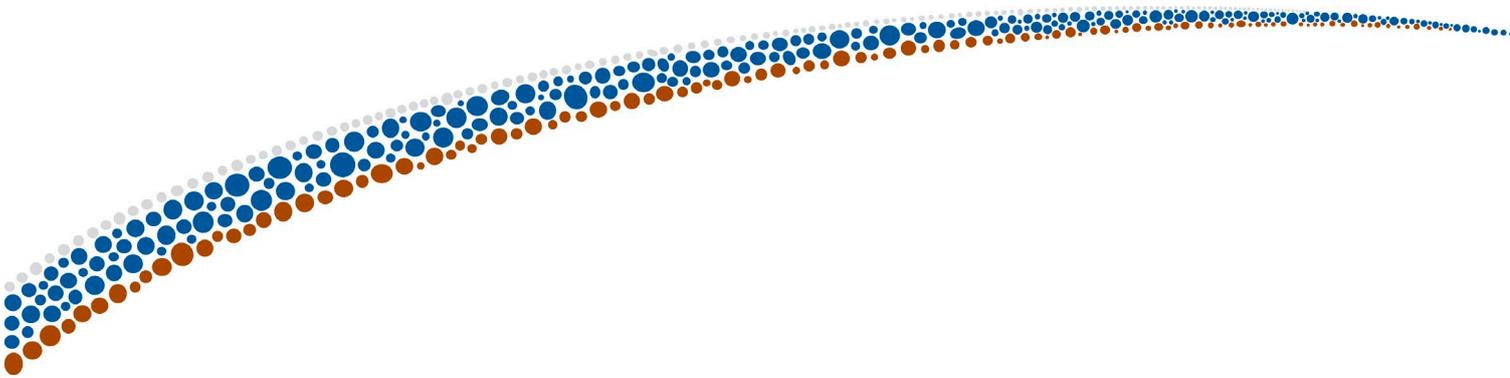
- Woolf, S. H., Grol, R., Hutchinson, A., Eccles, M., & Grimshaw, J. (1999). Clinical guidelines: potential benefits, limitations, and harms of clinical guidelines. *Bmj*, 318(7182), 527-530. doi:10.1136/bmj.318.7182.527
- World Health Organization. (2003). *How can hospital performance be measured and monitored?* Retrieved from [http://www.euro.who.int/data/assets/pdf\\_file/0009/74718/E82975.pdf](http://www.euro.who.int/data/assets/pdf_file/0009/74718/E82975.pdf)

## 7. List of tables

Table 1 The six actions in the National Safety and Quality Health Service Standards that focus specifically on meeting the needs of Aboriginal and Torres Strait Islander people .....	20
--	----

## 8. List of figures

Figure 1 Proportion of hospitalisation with a procedure performed, by patient status, WA and Australia (excluding care involving dialysis), 2013-15.....	6
Figure 2 Proportion of hospitalisations with a procedure reported, by principal diagnosis and patient status, Western Australia, July 2013 to June 2015 .....	7
Figure 3 Proportion of hospitalisations with a procedure recorded, by Aboriginal status and remoteness, Australia, July 2013 to June 2015.....	8
Figure 4 Proportion of hospitalisations with a procedure recorded, by hospital sector, Australia, July 2013 to June 2015 .....	9
Figure 5 Proportion of hospitalisations with a procedure recorded, by patient age group, Australia, July 2013 to June 2015.....	10
Figure 6 Trend over time of age-standardised proportions of hospitalisations with a procedure reported, Australia, 2004-05 to 2014-15 .....	11
Figure 7 Age-standardised hospitalisation rate for cardiac conditions, by patient status, Australia 2004-05 to 2015-16 .....	12
Figure 8 Age-standardised proportion of hospitalisations for STEMI that were treated by PCI, by patient status, 2013–14 to 2015-16 .....	13
Figure 9 Age-sex standardised hospitalisations for colonoscopy per 100,000 population, by state/territory, 2016–17 .....	14
Figure 10 Interrelationship of the patient with the four domains.....	21



**This document can be made available in alternative formats on request for a person with a disability.**

© Department of Health 2020

Copyright to this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the *Copyright Act 1968*, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.