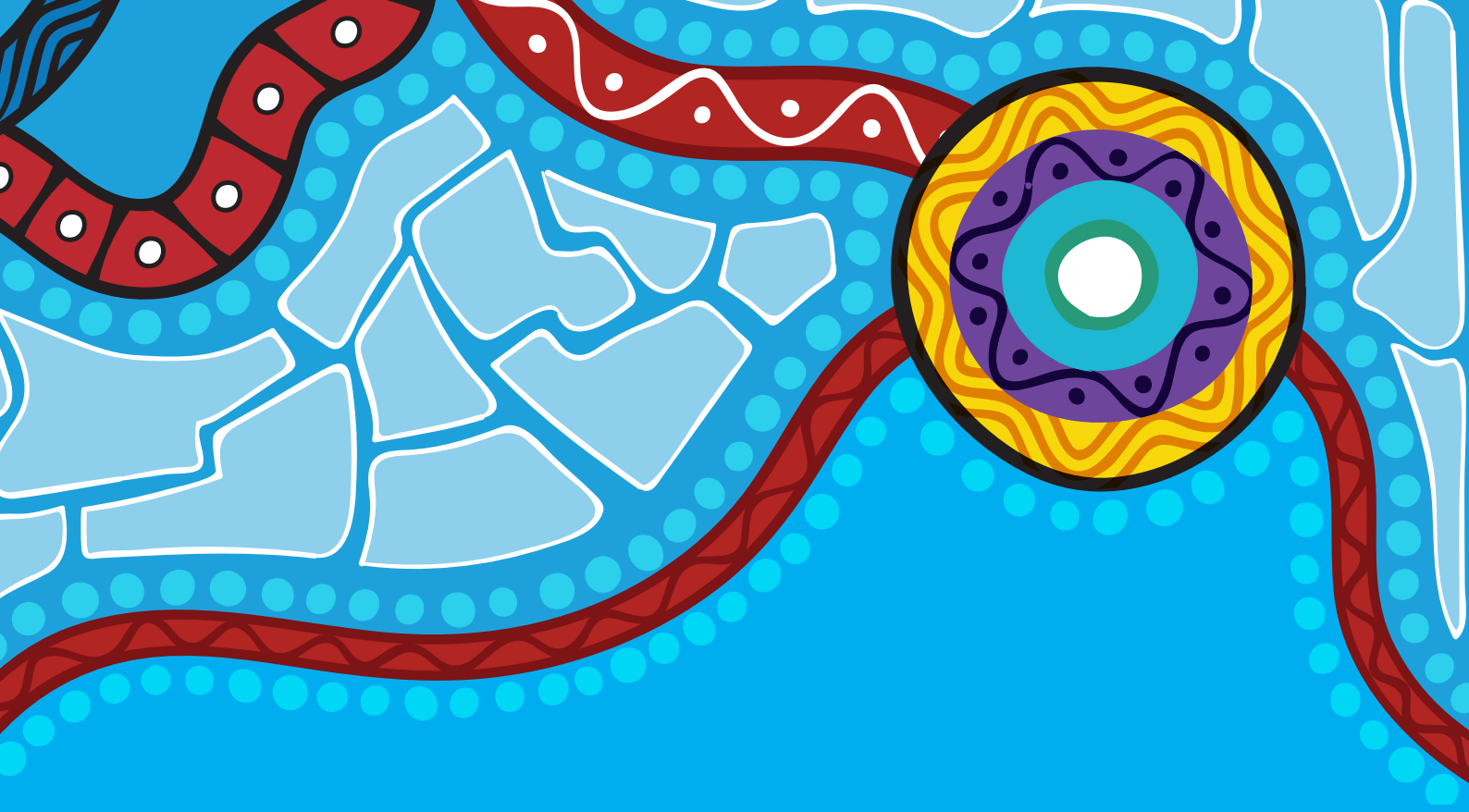

SA ABORIGINAL
CHRONIC DISEASE
CONSORTIUM

South Australian Aboriginal Diabetes Plan

2022 - 2027

SAHMRI
South Australian Health & Medical Research Institute

WARDLIPARINGGA
Aboriginal Research

The South Australian Health and Medical Research Institute acknowledges, that the revised South Australian Aboriginal Diabetes Plan 2022-2027 has been funded and supported by the Government of South Australia through the Department for Health and Wellbeing.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the Government of South Australia.

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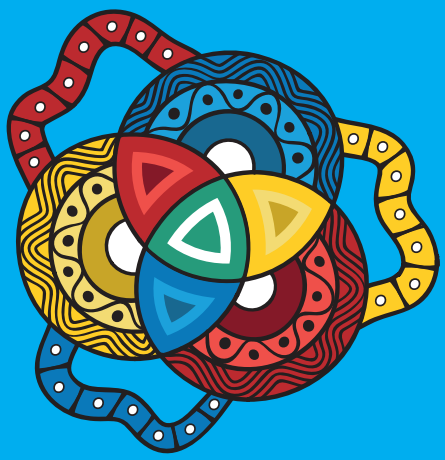
Produced by the SA Aboriginal Chronic Disease Consortium

SA ABORIGINAL CHRONIC DISEASE CONSORTIUM



ACKNOWLEDGMENT OF COUNTRY

The South Australian Aboriginal Chronic Disease Consortium acknowledges and celebrates that Aboriginal and Torres Strait Islander people are the Traditional Custodians of the land, known as Australia.

We recognise that Aboriginal and Torres Strait Islander people are the First Peoples of Australia and that within these two distinct cultural groups, there is great cultural diversity.

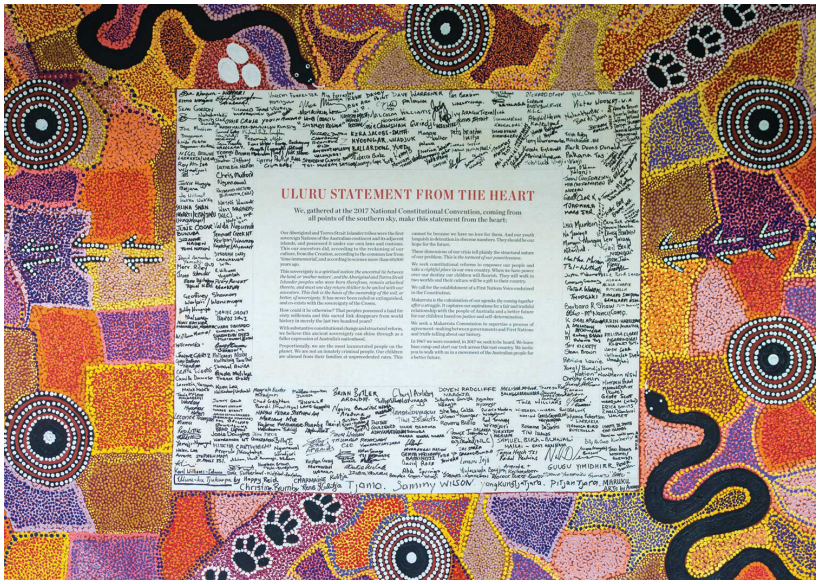
We acknowledge and pay our respects to the Aboriginal people across South Australia, Elders, past and present, their continuing connection to this land and thriving cultural practices and knowledge.

Preface

The First People of Australia, the Aboriginal and Torres Strait Islander people, were living strong and well within what is now called South Australia. In large part, this was a consequence of maintaining strong connections to lore, Country, culture, health, family, kinship, ceremony, and spirit prior to the dispossession and dispersal of the First Peoples of Australia. The policies that led to the active disempowerment and disenfranchisement of Aboriginal people are directly linked to the types of differential outcomes that can be seen in Aboriginal health, housing, employment and education outcomes now. It is worth noting that poor health and wellbeing also leads to a reduced economic base for Aboriginal families and communities in South Australia, and that the strength of a community's economic base is itself a determinant of health. These dynamics are important considerations for a strategic, statewide approach to diabetes care in South Australia.

The Uluru Statement From the Heart

Over 250 Aboriginal and Torres Strait Islander delegates from across Australia, gathered at the First Nations National Constitutional Convention held in Mutitjulu, located at the base of Uluru, in May 2017. The Uluru Statement from the Heart (Uluru Statement) was released by delegates of this Convention. The Uluru Statement was an invitation for all Australian people to walk with Aboriginal and Torres Strait Islander people, to create a better future for all Australians. This future can only be achieved once the effects of colonisation are acknowledged and Aboriginal and Torres Strait Islander people can share their truths, their history.



The SA Aboriginal Chronic Disease Consortium recognises the generous invitation from Aboriginal and Torres Strait Islander people through the Uluru Statement and remains supportive of the call for greater self-determination and truth telling. The path towards rightful recognition of Aboriginal and Torres Strait Islander people in Australia's history needs to be re-forged now that the referendum on constitutional recognition was unsuccessful. Regardless of this, and now more than ever, the Consortium remains committed to listening to the voices of Aboriginal and Torres Strait Islander people, and we are pleased to see the South Australian Voice to Parliament progress. The Consortium also recognises the importance of Aboriginal and Torres Strait Islander people's self-determination, which is inevitably linked with health outcomes. An improvement is seen in health outcomes when Aboriginal and Torres Strait Islander people take control of their health.

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Acknowledgements

The Revised Plan

The SA Aboriginal Chronic Disease Consortium would like to acknowledge and pay respect to the traditional custodians of the area now called South Australia. We recognise the first peoples of Australia and the longest continuous living culture in the world. We recognise the injustices of the past and that Aboriginal people do not experience the same equality of rights and life expectancy as other Australians. We respect the resilience of Aboriginal people in the face of adversity.

We would like to acknowledge the South Australian Aboriginal Chronic Disease Consortium Diabetes Leadership Group and other key stakeholders (see Appendix A) for their oversight and expert advice that has informed the revision of the SA Aboriginal Diabetes Plan.

We acknowledge our funder SA Health.

Use of the Term 'Aboriginal'

The plan uses the term 'Aboriginal' to describe the people and communities, for whose benefit this plan is written, in recognition of the traditional owners of the lands now called South Australia.

The authors of the plan acknowledge the diversity of the people, families and communities, who live in South Australia, which includes people from various Aboriginal and / or Torres Strait Islander backgrounds. The impacts of colonisation and past policies, still felt by many Aboriginal and Torres Strait Islander people today, have resulted in some complexities associated with traditional ownership, country and a sense of home and belonging. The authors would like to iterate that this plan is for the benefit of all, and the choice of terminology intends to respectfully acknowledge custodianship in accordance with Aboriginal traditions and customs.

The term Torres Strait Islander is specifically used where reference is made to Aboriginal and/or Torres Strait Islander people at a national level or where it is used in position titles and titles of publications and programs.

Background and Methodology

The South Australian Aboriginal Chronic Disease Consortium (the Consortium) was developed in 2017 to implement the original SA Diabetes Strategy 2017-20211 in conjunction with the SA Aboriginal Cancer Control Plan 2017-2021 and SA Aboriginal Heart and Stroke Plan 2017-2021. The Consortium is a collaboration between Aboriginal communities, services, providers, organisations and system managers to reduce the impact of chronic disease experienced by Aboriginal people through delivery of coordinated, evidence-based, culturally responsive care.

The SA Aboriginal Diabetes Strategy 2017-20211 was developed to reduce the health, social and economic burden of diabetes experienced by Aboriginal people, their families, and communities. It aimed to outline South Australia's (SA) response to diabetes among the Aboriginal population and inform how existing limited healthcare resources can be better coordinated and targeted across all levels of government. It was developed by Aboriginal people in partnership with all key service providers, policy makers and funding bodies, to ensure these parties had the opportunity to influence the future direction and development of the South Australian's health system response to this epidemic.

As the SA Aboriginal Diabetes Strategy 2017-2021 was designed to be a living document, it would be updated to reflect the latest evidence, policy, and practice changes at the end of its implementation date. Although the Strategy (now Plan) has been revised, it builds on the work from the SA Aboriginal Diabetes Strategy 2017-2021, whereby it brought together stakeholders who had a shared vision of improving diabetes care and reducing diabetes-related complications for Aboriginal peoples in SA.

For the revision of this plan, the Consortium Coordinating Centre (CCC) identified and invited a broad range of stakeholders into the review process. These included the Aboriginal Community Controlled Health Sector, the SA Aboriginal Consortium's Diabetes Leadership

Group and Consortium Executive Group, the Department for Health and Wellbeing Senior Officers Group on Aboriginal Health (SOGAH) and other stakeholders, including Aboriginal health professionals with expertise in diabetes care, stakeholders who were either program leads or involved in diabetes programs or initiatives and representatives from metropolitan, rural and remote SA. Stakeholders were invited to provide feedback to the CCC through written response or verbally via a face-to-face or online meeting.

Updates and amendments have been made to actions under most priority areas and new evidence has been included where available. A dedicated section with key enablers has been developed and structured to align with the revised SA Aboriginal Heart and Stroke Plan 2022-2027 and the SA Aboriginal Cancer Plan 2022-2027, to enable implementation of priorities, that span across the 3 plans, through collaborative partnerships, and to facilitate across-plan monitoring and evaluation. The purpose, vision and goal remained unchanged from the original plan.

The newly updated Plan has also been aligned to the seven goals of the recently released Australian National Diabetes Strategy 2021-2030 (hereafter referred to as the National Strategy). The seven goals are;

1. Prevent people developing type 2 diabetes.
2. Promote awareness and earlier detection of type 1 and type 2 diabetes.
3. Reduce the burden of diabetes and its complications and improve quality of life.
4. Reduce the impact of pre-existing diabetes and gestational diabetes in pregnancy.
5. Reduce the impact of diabetes among Aboriginal and Torres Strait Islander peoples.
6. Reduce the impact of diabetes among other priority groups.
7. Strengthen prevention and care through research, evidence and data.

The fifth goal of the National Strategy is to reduce the impact of diabetes among Aboriginal and Torres Strait Islander peoples. Nationally and globally, one of the highest type 2 diabetes rates and diabetes-related complications are observed in Aboriginal and Torres Strait Islander peoples. Furthermore, there are rising rates of diabetes in pregnancy, children, adolescents and young adults. The reviewed SA Aboriginal Diabetes Plan has a greater emphasis on children and adolescents and diabetes in pregnancy.

Abbreviations

ACCHO	Aboriginal Community Controlled Health Organisation
AFBP	Aboriginal Family Birthing Program
AHCSA	Aboriginal Health Council of SA
AHS	Aboriginal Health Service
AHW/P	Aboriginal Health Worker/Practitioner
AMIC	Aboriginal Maternal Infant Care
CARPA	Central Australian Rural Practitioners Association
CCC	Consortium Coordinating Centre
CDE	Credentialled Diabetes Educator
CKD	Chronic Kidney Disease
CPD	Continuing Professional Development
CQI	Continuous Quality Improvement
CTG	Closing the Gap
CV	Cardiovascular
CVD	Cardiovascular Disease
DR	Diabetic Retinopathy
GDM	Gestational Diabetes Mellitus
GP	General Practitioner
GPMPs	General Practitioner Management Plans
Health Check	Aboriginal and Torres Strait Islander Peoples Health Check (MBS 715 or similar)
HbA1c	Haemoglobin A1c
IAHA	Indigenous Allied Health Australia
IHI	Indigenous Health Incentive
LHN	Local Health Network
MBS	Medicare Benefits Schedule
NAATSIHWP	National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners
NACCHO	National Aboriginal Community Controlled Health Organisation
NDSS	National Diabetes Services Scheme
NHMRC	National Health and Medical Research Council
NHSD	National Health Services Directory
PATS	Patient Assistance Transport Scheme
PBS	Pharmaceutical Benefits Scheme
PHC	Primary Health Care
PHN	Primary Health Network
PIP	Practice Incentives Program
POCT	Point of Care Testing
QAAMS	Quality Assurance for Aboriginal & Torres Strait Islander Medical Services
RACGP	Royal Australian College of General Practitioners
SA	South Australia
SAAEHWG	South Australian Aboriginal Eye Health Working Group
TCA	Team Care Arrangement

Executive Summary

The South Australian Aboriginal Diabetes Plan 2022-2027 (hereafter referred to as the Plan) has **6 priority areas** with **17 actions** and **8 enablers**.

The actions in this Plan prioritise a statewide response to diabetes and guide potential health care reforms for diabetes and related conditions. This Plan recommends enhanced use of existing infrastructure, systems and initiatives, complete implementation of evidence-based guidelines, and strengthening the enablers. Whilst many of these actions are becoming established or are established and need improvement, there are actions that will require new investment including the mechanisms to implement this Plan.

This Plan has been aligned to the recently released Australian National Diabetes Strategy 2021-2030[1].

To ensure that the implementation of this plan is successful, it will require a responsible governance structure and stakeholders who are committed to and demonstrate the will to make a positive difference in the lives of Aboriginal peoples in SA. Although it is a Plan that responds to the needs of Aboriginal communities, partnerships need to be established not only with Aboriginal organisations but with mainstream services and other non-Aboriginal organisations. This is to ensure that the health system is responsive and accountable to meet the diverse and everchanging needs of community.

To do this will require a coordinated approach across all services and care level types. This means that the system will need to work together and communicate effectively with each other if real change is to be achieved.

Priority Areas and Actions

Prevention

1. Implement a statewide approach to diabetes prevention that has application across the lifespan, is consistent and culturally appropriate.
2. Develop systems and programs to increase the consumption of healthful diets and physical activity.
3. Develop a standard intervention program for pre-diabetes.
4. Encourage Aboriginal people to use primary health care (PHC) services.

Early Detection

5. Increase the number of Aboriginal people receiving an annual Health Check (MBS 715 or similar)
6. Integrate Point of Care Testing (POCT) within the health system.

Management

7. Develop and implement a statewide type 2 diabetes model of care for Aboriginal people.
8. Improve type 2 diabetes management.
9. Detect complications early and manage them according to best practice. See 9A to 9E.

   9A: Identify and reduce foot complications

   9B: Identify and reduce eye complications

   9C: Identify and reduce cardiovascular (CV) events

   9D: Identify and reduce chronic kidney disease (CKD)

   9E: Improve mental health for people with diabetes
10. Improve oral health and access to dental care.
11. Enhance secondary prevention through empowering clients and families.

12. Provide better support for carers.
13. Ensure access to medicines and other supports.
14. Reduce hospital self-discharge and improve continuity of care between the community and the hospital.

Diabetes in Pregnancy

15. Implement system changes that can support the elements of best practice diabetes care in pregnancy (pre-existing diabetes and gestational diabetes).

Priority Groups

16. Improve our understanding of the health needs of priority groups, establish targeted prevention campaigns and increase access to early detection and management of diabetes.

Research

17. Continue to build a statewide research agenda that informs policy and practice and that is translational.

Enablers

1. Governance: Aboriginal Leadership and Partnerships

Establish and maintain robust governance structures, led by Aboriginal professionals and organisations, equipped to foster partnerships and collaboration between the wide range of organisations and stakeholders responsible for implementing this Plan.

2. Sustainable Funding

Appropriate levels of funding to be available for implementation of projects and services within appropriate timeframes.

3. A Strong Diabetes Workforce

Increase the capacity and capability of the Aboriginal and non-Aboriginal workforce to provide high quality, culturally responsive, collaborative diabetes care.

4. Transport and Accommodation Support

Improve access to health care through transportation (ensuring Aboriginal people have safe and appropriate home-to-care-to-home journeys) and culturally appropriate accommodation options for Aboriginal people.

5. Information and Communications Technology (ICT) Solutions

Invest in resources, coordination and systems for telehealth and virtual care. Also improve the utilisation and communication of information across patient information management systems.

6. Community Engagement

Meaningful engagement of Aboriginal people, families and communities must underpin the design and implementation of projects and services associated with this Plan.

7. Integrated and Coordinated Services

Achieve continuity of care for Aboriginal people with diabetes through culturally responsive, integrated and coordinated services.

8. Monitoring and Evaluation

Monitor and evaluate the implementation of the Plan and health system changes that result in better health care of Aboriginal people.

Introduction

Diabetes mellitus is a chronic disease that affects a growing number of people daily across the world. There are currently several recognised forms of diabetes.[2]

- Type 1 diabetes – an autoimmune condition that usually occurs during childhood but can occur at any age. There is no cure and people require insulin replacement therapy for survival.
- Type 2 diabetes – the most common form of diabetes, characterised by insulin resistance and progressive insulin insufficiency, strong genetic and family related risk factors and potentially modifiable lifestyle risk factors.
- Diabetes in pregnancy – includes gestational diabetes (hyperglycaemia first detected in pregnancy) and diabetes in pregnancy (pre-existing type 1 or type 2).
- Other specific forms of diabetes – less common forms of diabetes which may result from a range of different health conditions or circumstances.

People may also have prediabetes (impaired fasting glucose and/or impaired glucose tolerance). In prediabetes, people will have blood glucose levels that are higher than normal but are not high enough to be diagnosed with type 2 diabetes.[3]

There are close to 1.3 million (1 in 20) Australians who are known to have diabetes. Of this number, it is estimated that just under 70,000 (7.9%) of Aboriginal and Torres Strait Islander peoples have diabetes.[4] Aboriginal people are nearly four times more likely than non-Aboriginal people to have pre-diabetes or diabetes.[5] Therefore, it is important that priority areas and actions are identified to improve the lives and outcomes for Aboriginal people with diabetes.

To continue to address and improve upon diabetes outcomes for Aboriginal peoples in SA, the Diabetes Plan was revised to reflect changes in evidence, policy, and practice.

Purpose

This plan supersedes the South Australian Aboriginal Diabetes Strategy 2017-20211, and it aims to prioritise SA's response to diabetes and identify approaches to reducing the impact of diabetes in the Aboriginal community.

Vision

To reduce the health, social and economic burden of diabetes experienced by Aboriginal people, their families, and communities by strengthening all sectors in developing, implementing and evaluating an integrated and coordinated approach to diabetes prevention and management in SA.

Audience

The Diabetes Plan has been developed for policy makers, government and non-government organisations, health care professionals and researchers who are involved in the prevention, treatment, self-management education management, and monitoring of diabetes of Aboriginal people.

Time Frame

The time frame for the Diabetes Plan is five-years (2022-2027). At the time of writing this plan, it reflected the current health system and its structure. The authors acknowledge that during the five-years of implementation, there are likely to be changes to the health system and its structure. Therefore, the Diabetes Plan will need to adapt to these changes as they occur. It is expected that at the end of each year (commencing from 2023), an annual review will be conducted to map what activities have been completed against each of the actions and priority areas and whether any adaptations to the Diabetes Plan are required. This work will be conducted by the member organisations of the SA Aboriginal Chronic Disease Consortium in partnership with the CCC.

Measuring progress

The Diabetes Plan contains a monitoring progress table that is located on pages 59-60. At the end of each implementation year, the progress made against each action will be mapped using a traffic light system approach. This work will be conducted by the CCC in partnership with member organisations of the SA Aboriginal Chronic Disease Consortium.

The monitoring and evaluation framework developed for the three chronic disease plans (2016-2021), will be reviewed by the CCC in partnership with the Aboriginal Community Reference Group, Executive Group and the Diabetes Leadership Group. The aim of this review is to identify key indicators that can be used by stakeholders to measure progress against the SA Aboriginal Diabetes Plan 2022-2027.

A snapshot of diabetes in the Aboriginal population

Nationally

- Endocrine disorders account for 3.3% of the total disease burden among Aboriginal and Torres Strait Islander peoples. Of this amount, 87% was attributed to type 2 diabetes, 7.5% to type 1 and 3.1% due to other diabetes types[5];
- Aboriginal and Torres Strait Islander youth experience 20 times higher rates of type 2 diabetes and 10-20 times higher hospitalisation rates[6];
- Hospitalisations for type 2 diabetes were 3.3 times as high among Aboriginal and Torres Strait Islander people living in remote and very remote areas as those living in major cities (30,800 compared with 9,200 per 100,000 population)[7];
- Estimates from the 2018-19 National Aboriginal Torres Strait Islander Health Survey and 2017-18 National Health Survey show that Aboriginal and Torres Strait Islander adults were 2.9 times as likely to have type 2 diabetes as non-Aboriginal adults (13.5% compared with 4.7%)[7];
- In 2015-2019, 7.3% of deaths of Aboriginal and Torres Strait Islander peoples was a result of diabetes. This is an age-standardised rate of 4.7 times that of non-Aboriginal people in 2015-2019[5];
- Aboriginal and Torres Strait Islander babies and women are more likely to experience adverse effects during pregnancy, labour and delivery than non-Aboriginal babies and mothers[8]; and
- The impact of diabetes increases with increasing remoteness and socioeconomic disadvantage.[4]

Foundations for a healthy life

The National Aboriginal and Torres Strait Islander Health Plan 2021-2031[10], identifies four foundations that are key for a healthy life. These include;

1. **Holistic health and wellbeing**

   'Supporting Aboriginal and Torres Strait Islander people's close connections and interactions with the mental, physical, cultural, environmental and spiritual health of their communities, and with society more broadly.'[9]

2. **Cultural determinants of health**

   Protective factors that support good health and wellbeing, strengthen, identity and enhance resilience (see protective factors page 13). It has also referred to as 'the ways of knowing, being and doing that encompass a holistic Aboriginal and Torres Strait Islander understanding of health and wellbeing.'[9]

3. **Social determinants of health**

   To achieve health equity of Aboriginal and Torres Strait Islander people, the social determinants of health (SDH) need to be addressed. The SDH 'are the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.'[10] It contributes to the health gap (34%) between Aboriginal and Torres Strait Islander people and non-Aboriginal people.[9]

4. **A life course approach**

   Aboriginal and Torres Strait Islander people view health and wellbeing as involving the whole community throughout the entire life course.' This perspective places the emphasis on wellbeing and health factors that occur at particular transition points at different stages of life.[9]

Risk factors contributing to the onset of type 2 diabetes

People who are at high risk of developing type 2 diabetes are those with prediabetes, a family history of diabetes, certain ethnic backgrounds, gestational diabetes, those who are overweight/obese or undertake insufficient physical activity[2]. It is also important to keep in mind that diabetes usually happens in parallel to (and has associated risk factors with) other chronic conditions such as cardiovascular disease[11].

There are known risk factors for developing type 2 diabetes and having more than one risk factor increases the risk. We know that Aboriginal people experience a disproportionate share of the burden of diabetes. However, there are known ***protective factors*** that can support good health of Aboriginal people. The Mayi Kuwayu National Study of Aboriginal and Torres Strait Islander Wellbeing[9], identified a series of cultural determinants that act as protective factors. In addition to supporting good health, these factors support social and emotional wellbeing, strengthen identity, and enhance resilience.

Below is a brief list of protective, modifiable and non-modifiable risk factors.

Protective factors

- Connection to Country
- Language
- Family, kinship and community
- Leadership
- Beliefs and knowledge
- Self-determination
- Cultural expression and continuity.

Modifiable risk factors

Factors that can usually be controlled by lifestyle modification and or medication. Examples are:

- Nutrition
- Physical activity
- Smoking status
- Stress and well-being
- Consumption of alcohol and drugs
- Pre-diabetes
- Weight
- Blood pressure
- Cholesterol

Non-modifiable risk factors

Factors that cannot be controlled. Examples are:

- Age
- Family History of diabetes
- Gestational diabetes
- Race or ethnicity

Priority groups

In this Plan, special attention has been given to population groups that are at higher risk of developing diabetes:

- Older people
- Children and adolescents
- People experiencing homelessness
- People who are incarcerated
- People living with disability
- People living with mental health conditions
- Frequent unplanned users of the hospital system
- People living in rural and remote areas.

The SA Aboriginal Diabetes Plan 2022–2027

As in the previous plan, there are **6 priority areas**, **17 actions** with suggested pathways to achieve them and **8 enablers** to achieve success. The pathways to achieve these goals have been informed by scientific, cultural evidence and knowledge, the SA Aboriginal community and service providers.

The goals of the 6 priority areas are:

1. **Prevent Aboriginal people developing type 2 diabetes**

   It is essential that a diabetes plan for Aboriginal people includes prevention. To achieve this, population-based diabetes prevention campaigns, specifically developed with and for the Aboriginal population, will need to be implemented. Prevention efforts must have a particular focus on reducing early life exposure to diabetes in utero as a major intervention for preventing the 'vicious' intergenerational cycle of this condition. Improving pre-conception health and care during and after pregnancy will contribute to achieving this. Prevention efforts must also focus on all age groups, increase the consumption of fruits, vegetables and water, rather than sugary drinks, increase physical activity, increase the health knowledge base of the Aboriginal population, and increase the use of primary health care (PHC) health services for health maintenance. Tailored initiatives for groups within the Aboriginal population, that are at higher risk of developing type 2 diabetes and associated complications must be considered.

2. **Promote awareness and early detection of type 1 and type 2 diabetes**

   Failure to detect the symptoms of type 1 diabetes early, can be life-threatening and result in hospitalisation. Earlier detection of type 2 diabetes results in earlier management of the condition, which can prevent or slow progression of diabetes-related complications. Increasing the number of Aboriginal people receiving annual health checks with necessary referrals and/or follow-ups will help achieve this goal. Having available Point of Care Testing (POCT) for intermediate health outcomes including HbA1c will allow for immediate diagnosis and referrals for the appropriate management of type 2 diabetes. To successfully achieve this goal, the workforce and the Aboriginal community must have a shared understanding of signs and symptoms of diabetes, the importance of early detection and how it is performed. Innovative approaches to increasing access to primary care services will need to be implemented, there will need to be an increase in the use of, and optimising, existing care arrangements and incentives, and services must be equipped to implement the Diabetes Plan.

3. **Improve diabetes care and reduce complications to improve quality of life**

   Optimal management of diabetes can significantly improve quality of life for individuals and their families and increase life expectancy. It requires an interdisciplinary approach and involves health care professionals working in partnership with the community, primary health and specialist services. A statewide diabetes model of care, that is flexible to account for diversity across the population and geographical areas, will facilitate the implementation of this goal. There is an urgent need to improve and strengthen the way diabetes and its

associated complications are managed. Clients must be invited to become more involved in their care, and including families is key to successful management. The primary care system must continually improve and innovate, and technology must support the workforce to achieve evidence-based diabetes care and continuity of care between primary care providers, and hospitals. Increasing access to culturally safe health and social services for Aboriginal people, and a strong interdisciplinary workforce is a priority.

4. **Reduce the impact of pre-existing diabetes and gestational diabetes in pregnancy**

   Everyone in SA must have an opportunity for the best start in life. Evidence shows that babies born to mothers with diabetes in pregnancy are at an increased risk of developing type 2 diabetes later in life compared to those born to mothers without diabetes in pregnancy. Gestational diabetes also increases the likelihood of mothers developing type 2 diabetes. Therefore, there needs to be a focus on healthy lifestyle and health practices to ward off the risk of diabetes. This goal focuses on both women who have diabetes and become pregnant and those who develop diabetes in pregnancy. A comprehensive, evidence-based approach to preventing and managing lifestyle risk factors and diabetes in both parents pre conception and in pregnancy is necessary. A focus is also required on protective factors such as breastfeeding, which is known to reduce the risk of diabetes. Aboriginal women who are pregnant must be supported to self-monitor their blood glucose at home. Service providers and mothers must together identify and have a clear understanding of the care pathway during pregnancy. Continuing care post pregnancy for both the mother and the baby must be offered and the uptake of this increased. It will be important to build on the success of the Aboriginal Family Birthing Program.

5. **Reduce the impact of diabetes among other priority groups**

   Aboriginal children and adolescents, older people, people living with a disability, people living with mental health conditions, people who are incarcerated, people experiencing homelessness, people living in rural and remote areas and frequent unplanned users of the hospital system, have been identified as priority groups within the Aboriginal community. To achieve this goal, it will be important to gain a better understanding of the diabetes prevention and management needs of these priority groups. This will help tailor programs that reduce incidence, increase early detection and improve on-going management among these groups. It will be necessary to work with multiple organisations, including for example, the SA Department for Education, disability services, correctional services, and with Aboriginal organisations and leaders. Different health care responses will need to be considered for people living in remote areas and the diversity of the Aboriginal population will require innovative and flexible approaches to reducing diabetes incidence in this population.

6. **Strengthen research**

   South Australia is well positioned to become a world leader in research. To implement evidence-based practices and make informed health policy decisions, SA needs to progress diabetes research with the Aboriginal community for a better understanding of the drivers of the diabetes epidemic and why the outcomes of diabetes in the Aboriginal community in terms of premature ill-health and mortality are much worse than those in the non-Aboriginal community. Enhancing data capacity and usability, particularly within the PHC sector and connectivity between primary care and the hospital will be essential to improving the continuum of care, using existing knowledge to inform practice, and to monitor and evaluate efforts at a statewide population level.

Guiding principles for the SA Aboriginal Diabetes Plan

The following 8 principles underpin the priority areas. These principles are expected to guide the policies and programs considered for the implementation of this Plan.

1. **Aboriginal health is everybody's responsibility**

   Create a health system that is responsive to the health needs of the Aboriginal population in a culturally safe way.

2. **Equity in access**

   Access to and the provision of care should be on the basis of need.

3. **Health care based on cultural and scientific knowledge and evidence**

   Health care practitioners should seek to learn from and respect Aboriginal peoples' cultural knowledge and ensure the delivery of population prevention initiatives and care, are delivered according to the best available evidence.

4. **Person and family-centred approach to health care and education**

   Person and family centred care refers to healthcare that is both respectful and responsive to the preferences, needs and values of the person, their families and communities. Diabetes prevention and management should acknowledge the importance of Aboriginal peoples' families and carers. Where-ever possible, family members and carers should be involved, and health practitioners should seek to work collaboratively with Aboriginal clients, families, interpreters, cultural mentors, traditional healers and health practitioners.

5. **Holistic health care**

   Improvement of Aboriginal peoples' health must include attention to physical, social, emotional, psychological, cultural and spiritual needs.

6. **Building relationships with Aboriginal people**

   Invest in building relationships with Aboriginal people and include clients and the Aboriginal community in the planning, delivery, and evaluation of healthcare.

7. **Zero tolerance of racism**

   Individuals and health service staff must actively work to reduce racism within health services. Leaders in health care must actively work to reduce institutional racism.

8. **Growing and investing in local Aboriginal leaders in health and health care**

   Aboriginal people must be given opportunities to lead health care design and delivery with the support of non-Aboriginal colleagues. Aboriginal people should be given opportunities to be viewed by all South Australians as leaders in health care and advocates, role models and champions for living a healthy lifestyle and managing their health and wellbeing.

Cultural Context

It is understood that there is no single Australian Aboriginal or Torres Strait Islander culture or group and that there are many diverse communities, language groups and kinships throughout Australia. It is also recognised that Aboriginal and Torres Strait Islander peoples currently live in, metropolitan, rural and remote settings, practice westernised, traditional or other lifestyles, and may frequently move between these ways of living. The strong connection to culture is important to Aboriginal and Torres Strait Islander peoples and should be both acknowledged and respected for each individual and their diabetes story/pathway, especially the link between culture, land and diabetes.

What is Aboriginal Health?

In the National Aboriginal and Torres Strait Islander Health Plan, Aboriginal health is defined in the following way;

'Aboriginal health means not just the physical wellbeing of an individual but refers to the social, emotional, spiritual and cultural wellbeing of the whole community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total wellbeing of their community. It is a whole-of-life view and includes the cyclical concept of life-death-life[9].'

What is culturally appropriate care?

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

Diagram 1 shows the relationship between services that are: available, accessible, acceptable and affordable (outermost circle) and also highlights four main features that are vital to delivering culturally appropriate care: culturally safe services; holistic care; clinically and culturally competent workforce; and best practice care (adapted from Davy et al 2016; see diagram 1)[12]. The needs of individuals and communities should be considered in relation to each feature.

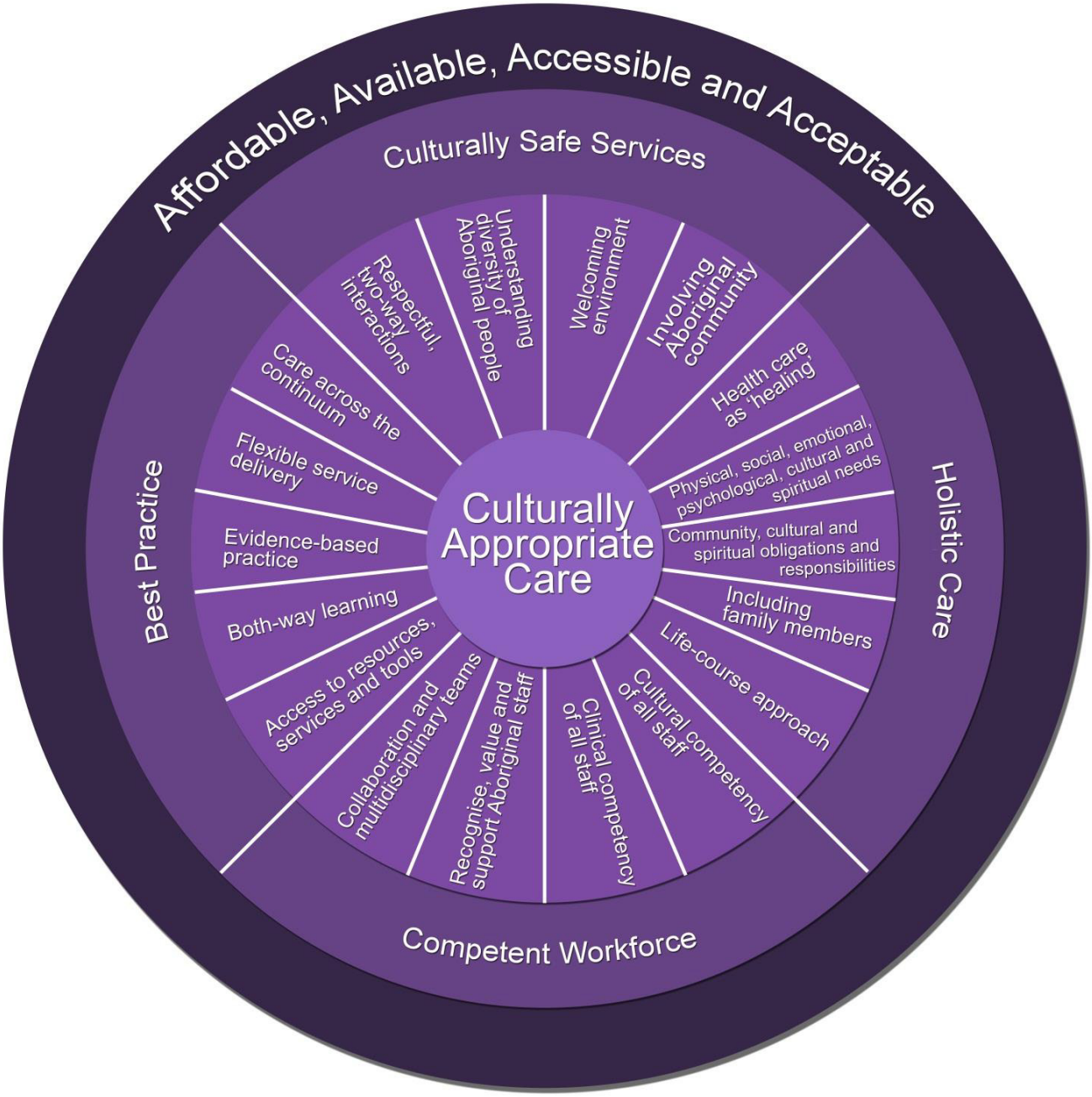

Diagram 2: Adapted from "A Wellbeing Framework for Aboriginal and Torres Strait Islander Peoples Living with Chronic Disease"[12]

Defining the features of culturally appropriate services

Four features are described below.

1. **Culturally safe services**

   Culturally safe services refer to services that expect and perform zero tolerance for racism at any level. Cultural safety is not defined by health providers, instead it is defined by those who are experiencing the care[13]. Culturally safe care should be embedded within the health system, including private general practice.

   Cultural safety is supported by services that:

   - Develop and maintain respectful, both-way interactions between staff and clients (and their families and broader communities);
   - Recognise and appropriately respond to the diversity of Aboriginal individuals and communities;
   - Provide a welcoming environment, both physically and relationally; and
   - Actively involve Aboriginal community members or representative groups in priority setting, governance and accountability.

2. **Holistic care**

   Holistic care is supported by services that:

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

3. **What is best-practice care?**

   Best practice care is supported by services that:

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

4. **Culturally and clinically capable workforce**

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

   - Recognise the importance of physical as well as social, emotional and cultural wellbeing and place equal importance to cultural and clinical care;
   - Foster collaboration within and between multi-skilled or interdisciplinary teams;
   - Recognise, value and support the unique contributions of Aboriginal staff members, as well as respect and provide support for the unique challenges they may encounter;
   - Ensure clinical capability of all staff, including providing training and support, as required; and
   - Ensure cultural capability of all staff, including providing training and support, as required.

Features of person and family-centred care for Aboriginal peoples

Five features are described below.

1. **Aboriginal people have a holistic view of health and wellbeing**
    - Health and wellbeing encompass all aspects of physical, emotional, social, spiritual and cultural wellbeing and a specific kinship with family; and
    - There is a belief that wellbeing is determined socially, rather than biologically or pathologically.
2. **Structured and busy specialist clinical services may not cater well for the cultural needs of Aboriginal peoples**
    - When cultural needs are not met, this can contribute to a broader sense of disillusionment, indifference and apathy;
    - Adherence to unfamiliar treatments that have unpleasant side effects may be poor, especially when there are competing pressures to meet community responsibilities; and
    - Clients in unfamiliar environments where cultural and allied support is not provided and their needs are not met, can become lost to follow-up.
3. **Many Aboriginal people experience discomfort with health professionals of the opposite gender**
    - Traditionally, there are divisions in the roles of 'men's and women's business', including differences from western values in relation to reproduction and sexuality; and
    - It's important where possible to consider gender balance and gender appropriate service when working with Aboriginal clients.
4. **Family and community involvement in health decision making is of paramount importance in Aboriginal cultures**
    - Aboriginal cultures place a high importance on kin, with holistic, family-based care being valued over segregated care; and
    - Aboriginal health is more of a collective consideration about family and community, therefore individualistic decision-making rarely occurs within Aboriginal society.
5. **Support Aboriginal people to have a strong connection to Country (traditional homelands), and value being on Country or close by, particularly when ill**
    - This is important for Aboriginal people's physical, social, emotional, psychological, cultural and spiritual needs;
    - Aboriginal peoples have strong links to Country and this connection can be strong regardless of whether or not they are living a culturally traditional lifestyle or live in metropolitan, regional or remote areas; and
    - Some clients may be reluctant to leave their community for treatment, even though this care may only be available in a metropolitan setting.

Priority Area 1: Prevention

GOAL 1: Prevent Aboriginal people developing type 2 diabetes.

ACTION 1: Implement a statewide approach to diabetes prevention that has application across the lifespan, consistent messages and is culturally appropriate.

Rationale

- From community consultations, diabetes prevention was identified as a priority for Aboriginal people;
- There has been a concerning increase in the incidence and prevalence of type 2 diabetes in children, adolescents (<18 years) and young adults (<25 years). Type 2 diabetes in the younger age group is a more aggressive disease as compared with later onset type 2 diabetes and is associated with earlier onset and more rapid progression of complications both macrovascular and microvascular.[14]
- Health literacy around the contributing factors (causes), signs and symptoms and the potential complications is limited; and
- There is a lack of Aboriginal-specific education resources to increase people's understanding of prevention, risk factors and long-term impacts.

Pathways to action

A statewide prevention strategy must:

- Deliver a consistent message across the lifespan including pre-pregnancy, early childhood, school, adolescents, young adults, working age and the elderly;
- Launch a population health campaign that specifically focuses on preventing chronic disease and type 2 diabetes among Aboriginal people;
- Include targeted approaches for people at high risk of developing type 2 diabetes;
- Employ a family-centred approach in the delivery of education and awareness programs;
- Actively involve Aboriginal people in the design, production and delivery of materials produced to support prevention campaigns (i.e. appropriate messaging on sugar intake, smoking and exercise);
- Adopt a holistic health approach with particular emphasis on social and emotional wellbeing;
- Partner with pregnancy and early childhood services to promote maternal, family and child health, particularly the first 2,000 days of an infant's life[2]; and
- Review interstate programs, such as, Menzies Northern Territory youth diabetes program to develop and implement community-wide, culturally relevant awareness programs and resources for young people about diabetes, that encourages engagement with services and emphasises that diabetes can also affect young people.[2]

Implementation of a statewide prevention strategy should consider:

- Using Aboriginal ambassadors, such as sporting heroes, community members with lived experience, Aboriginal doctors and Aboriginal health workers/practitioners (AHW/P), to champion and promote healthy lifestyle messages. They could be widely known personalities or local community people. This may also help to reduce any stigma or shame;
- Using wide-ranging delivery channels including Aboriginal community and sporting events, innovative technology, and social media, to reach young people (particularly males) as well as the broader Aboriginal population;
- Capturing Aboriginal people's experiences through their stories about making healthy choices and making these available to the Aboriginal population; and
- Partner with the SA Department for Education to build a holistic and culturally appropriate healthy lifestyle component into the education curriculum.

Enablers for Action 1

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Community engagement
- Monitoring and evaluation

ACTION 2: Develop systems and programs to increase the consumption of healthful diets and physical activity.

Rationale

- Affordability of fresh food varies greatly within and between the metropolitan area, regional cities, smaller rural towns and remote communities;
- There are consistent concerns about access to fresh food in rural and remote communities. Supply does not always meet demand and there can be days, in between deliveries, where fresh food is simply not available;
- In some locations, the drinking water is safe but poor tasting and unappealing due to its pipe-warmed temperature in summer.

Pathways to action

- Increase education at all ages (i.e. from early childhood to adulthood) regarding food, nutrition and the importance of being physically active;
- Ensure that different approaches are taken for metropolitan, rural and remote areas;
- Encourage councils to work in collaboration with local retailers and the local Aboriginal community and Aboriginal retailers to provide a greater supply of affordable fresh food and cool, palatable drinking water and traditional/ native food and plants;
- Ensure a particular focus on food purchasing and preparation with those in the family who purchase and prepare food;
- Encourage a whole of community approach to food education that promotes healthy food choices and acknowledges the food insecurity and limited range of affordable healthy choices for Aboriginal people living across SA, particularly in remote communities;
- Improve food security through promoting access to community service food parcels where needed;
- Encourage the consumption of water rather than energy-dense soft drinks;
- Make fresh food in regional and rural areas more affordable and improve its availability;
- Incorporate traditional foods and food practices in promotions and programs around healthy eating, using equivalent products for urban settings where traditional game, roots, berries, etc. are less available; and
- Include measuring outcomes relating to food security in any monitoring and evaluation activities.

Enablers for Action 2

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Community engagement
- Monitoring and evaluation

ACTION 3: Develop a standard intervention program for pre-diabetes.

Rationale

- Contrary to many Aboriginal people's expectations, it is not inevitable that they will develop type 2 diabetes. However, there needs to be a clear intervention pathway to assist clients to reduce identified risks factors and avoid the transition from pre-diabetes to type 2 diabetes;
- People who have been diagnosed with pre-diabetes (impaired fasting glucose and/or impaired glucose tolerance) should be routinely screened for diabetes and this should be done as part of the annual Aboriginal health check or opportunistically. Guidelines for screening include the RACGP Management of type 2 diabetes: A handbook for general practice[15] and the National guide to a Preventative health assessment for Aboriginal and Torres Strait Islander people. Screening on its own is insufficient to aid people to change their lifestyle and address their individual risk factors[15];
- With the withdrawal of state resources for health promotion in recent years and no corresponding federal funding to replace this, interventions that could assist people with pre-diabetes are no longer provided; and
- Diabetes SA is trialling a mainstream program for type 2 diabetes prevention (designed for individuals with prediabetes or at high risk). To address current gaps there is a need to co-design a similar program with Aboriginal community and stakeholders.

Pathways to action

- Work with other state and federal government agencies, Diabetes SA, Aboriginal Health Council South Australia (AHCSA) and other key organisations to adopt a standardised, national program, pathway or guidelines for people who have pre-diabetes;
- Actively involve Aboriginal people (including Aboriginal workforce and community reference groups) in the development of a standard intervention program for pre-diabetes;
- Embed a standard intervention for pre-diabetes within the healthcare pathway, including referral pathways for those diagnosed with pre-diabetes or at risk of type 2 diabetes e.g., history of gestational diabetes;
- Create a common understanding of the risk factors, emphasising those that are modifiable, so Aboriginal people recognise type 2 diabetes is not inevitable.
- Provide workforce education and support to ensure that:
  - » eligible health practitioners are aware of the diabetes screening requirements for people with pre-diabetes and that this is incorporated into the annual Health Check (MBS 715 or similar)
  - » eligible health providers are identifying and referring clients with prediabetes to the appropriate allied health services as part of their health check follow up. Refer to 'Completing an Aboriginal and Torres Strait Islander health assessment flowchart' for information.

Enablers for Action 3

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Community engagement
- Monitoring and evaluation

ACTION 4: Encourage Aboriginal people to use primary healthcare (PHC) services.

Rationale

- Using primary healthcare services is important in helping to prevent the transition from pre-diabetes to type 2 diabetes, identify diabetes early and minimise the consequent impacts on people's lives and costs to the health system.

Pathways to action

- Develop evidence-based programs to encourage Aboriginal people to utilise primary care to its fullest extent, taking into account the language barriers that exist in some areas;
- Encourage Aboriginal people to self-identify their ethnicity to their medical practice(s), so their clinicians are aware of potential risk factors and can provide the full range of primary care initiatives available to Aboriginal people; and
- Encourage General Practitioners (GP) and other eligible practitioners to actively ask all clients, and accurately record, whether they are of Aboriginal and/or Torres Strait Islander origin.

Enablers for Action 4

- A strong diabetes workforce
- Transport and accommodation support
- Community engagement
- Monitoring and evaluation

Priority Area 2: Early Detection

GOAL 2: Promote awareness and earlier detection of type 1 and type 2 diabetes.

ACTION 5: Increase the number of Aboriginal people receiving an annual Health Check (MBS 715 or similar).

Rationale

- To avoid preventable morbidity and mortality, it is critical that there is diabetes awareness in the community and that there are early detection programs aimed at timely diagnosis that ensures optimal treatment and management thus reducing diabetes-related complications[2];
- It is important that health professionals and community members can recognise the early symptoms of type 1 diabetes. Early recognition and treatment can prevent diabetic ketoacidosis. This acute complication of type 1 diabetes can be life threatening;
- In type 2 diabetes, people may be unaware of their condition and may already have complications from their diabetes;
- Having regular health checks of all ages increases the chances of earlier detection and prevention of complications;
- The MBS allows for people who identify as Aboriginal or Torres Strait Islander to receive annual health checks at all ages;
- Annual risk assessment is the optimal population approach to diagnosing type 2 diabetes early;
- HbA1c point of care testing (POCT) can now be used to diagnose type 2 diabetes, which could positively impact early detection, not just the ongoing management of diabetes;
- It is advisable that Aboriginal people diagnosed with other chronic conditions but not type 2 diabetes, should be monitored regularly to enable early detection of type 2 diabetes, to prevent or slow development; and
- There is a link between type 2 diabetes and cardiovascular disease. Therefore, those at risk of developing type 2 diabetes should be assessed for cardiovascular disease.

Pathways to action

- Increase awareness, education and recognition of the symptoms of type 1 diabetes within the Aboriginal community and primary care settings[2];
- Conduct diabetes screening based on risk;
- Develop systems and processes that support and enable GPs and other eligible practitioners to conduct more health checks under MBS 715, annually and whenever opportunities present;
- Educate and support GPs and other eligible practitioners working in private practice, NGOs and SA Health to appropriately utilise Aboriginal Medicare items to prevent, identify and manage pre-diabetes and diabetes;
- Encourage GPs and other eligible practitioners to start type 2 diabetes screening early for Aboriginal children and adolescents. Latest guidelines recommend screening from 10 years old (or at onset of puberty, whichever occurs earlier) with one or more risk factors.[14] Screening can occur using POCT, for guidance refer to the Australasian Paediatric Endocrine Group Guidelines 2020.
- Implement innovative approaches to screen those who are not currently having annual health checks, including after-hours opening times and taking services into communities;
- Encourage Aboriginal people to self-identify their ethnicity to medical practice(s) so they become eligible for the additional health checks and services available to them;

- Encourage Aboriginal people to request an annual health check;
- Educate people with type 2 diabetes that their family members have an increased risk of developing it too and should participate in annual health checks from childhood;
- Promote the fact that comprehensive annual health checks are available to and recommended for Aboriginal people of all ages;
- Embed use of Absolute Cardiovascular Risk Assessment in all primary care settings in SA;
- Identify and implement opportunities for opportunistic screening across health care settings and community gatherings. This may include targeting people presenting to emergency departments or being admitted to hospital for reasons other than diabetes-related health issues[2];
- Ensure that Aboriginal people who use state primary healthcare services have full access to team care arrangements and to primary healthcare initiatives available to federally funded primary care services; and
- Advocate for policy and system change to enhance diabetes screening of Aboriginal children aged 0-14 years to align with current evidence for earlier screening in children.

Enablers for Action 5

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation support
- Community engagement
- Integrated and coordinated services

ACTION 6: Integrate Point of Care Testing (POCT) within the health system.

Rationale

- POCT allows clients to provide blood and urine samples at the health service and receive their test results during the same visit, thereby increasing opportunities for follow-up discussion and intervention;
- Medicare rebates for POCT are available to ACCHOs or state-run Aboriginal medical services (must operate POCT under the Quality Assurance for Aboriginal & Torres Strait Islander Medical Services (QAAMS program); and
- Medicare rebates are also available to registered GPs accredited for POCT under the National General Practice Accreditation Scheme guidelines; and
- Not all Aboriginal people attend the services supported by the QAAMS program; many attend mainstream general practices and/or other state-run community health centres.

Pathways to action

- Investigate the inclusion of training for POCT in the Certificate 3 and/or Certificate 4 training for Aboriginal health practitioners and Credentialled Diabetes Educators (CDE);
- Investigate the potential opportunities, barriers, advantages and disadvantages of extending supported POCT to other state-run healthcare organisations and rural GPs, including extending the Medicare rebate to mainstream services;
- Investigate the potential to expand POCT to include testing for lipids.

Enablers for Action 6

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce

Priority Area 3: Management

GOAL 3: Improve diabetes care and reduce complications to improve quality of life.

ACTION 7: Develop and implement a statewide type 2 diabetes model of care for Aboriginal people.

Rationale

- High quality diabetes care is most likely to be achieved when health professionals work collaboratively and in partnership across primary, secondary and tertiary government and non-government services. In addition, health professionals need to partner with community and ensure that care is person and family centred;
- Diabetes may cause a number of health complications including heart disease, stroke, eye disease, kidney disease, peripheral vascular disease, nerve damage, foot complications and gum disease. Furthermore, diabetes is associated with significant mental health issues including treatment related diabetes distress, anxiety and depression. The risk of these complications can be reduced through evidence-based care and diabetes self-management[2]; and
- There remains no agreed, statewide Model of Care for type 2 diabetes, let alone one specifically designed to be culturally safe for Aboriginal people and flexible enough to accommodate the geographic and cultural diversity within this population.

Pathways to action

Develop a statewide Type 2 Diabetes Model of Care in partnership with Aboriginal people. It must:

- Allow for implementation across a variety of local settings;
- Adopt a wellness approach, particularly with regard to achieving and maintaining healthy lifestyles;
- Incorporate complementary care provided by traditional healers;
- Allow for a family approach to care, with health being considered and managed holistically; for example, a proportion of individuals will need support and linking with housing and welfare prior to their healthcare needs being addressed clinically;
- Facilitate the alignment of diabetes self-management education, medical management and people's contexts;
- Advocate for timely access to endocrinologists (i.e. public government clinics and ACCHOs in rural and remote);
- Address the provision of diabetes healthcare in a variety of service settings, including ACCHOs and Aboriginal health services, general practices, private allied health providers, specialists and hospitals;
- Explore existing peer support including client navigators (e.g., Aboriginal Kidney Care Together – Improving Outcomes Now (AKction);
- Develop norms and standards for diabetes diagnosis and care; and
- Wherever possible, mandate the use of evidence-based guidelines in all treatment.

Enablers for Action 7

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation support
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 8: Improve type 2 diabetes management.

Rationale

- There is considerable evidence that effectively managing the health outcomes and risk factors associated with type 2 diabetes (such as weight, diet, blood pressure, lipids) can reduce the incidence of diabetes-related complications; and
- Primary Health Care is well placed to have a significant impact on slowing or preventing the progression of complications by providing ongoing, systematic and evidence-based diabetes care including immunisation.

Pathways to action

- Advocate for continued human resources that actively encourage all GPs to register with and utilise Practice Incentives Program (PIP)- Indigenous Health Incentive (IHI), paying special attention to those services in areas where there is no ACCHO;
- Refer clients with complex needs requiring support to the Primary Health Network (PHN) programs such as Closing The Gap (CTG) and Integrated Team Care Program (available through Sonder);
- Make available access to traditional healers to complement western management of diabetes;
- Increase the proportion of people with diabetes who receive annual eye checks, kidney checks, feet checks, an absolute cardiovascular risk assessment and influenza and pneumococcal vaccinations;
- Ensure health care services commit to chronic disease being reflected in strategic plans, and chronic disease-specific roles and responsibilities being clearly defined;
- Encourage Aboriginal health services and ACCHOs to consider a dedicated diabetes or chronic disease worker, team or program in PHC settings that coordinate local diabetes clinics and visiting allied health and specialist services;
- Design staffing for chronic disease care on the use of interdisciplinary teams, rather than siloed service delivery;
- Improve community coverage of diabetes care plans as appropriate;
- Actively work to improve the proportion of people with diabetes who achieve target blood pressure, target glucose levels and lipids and normal kidney function;
- Increase the number of people who receive follow-up care when results are not within target;
- Implement innovative ways that allow for families to be involved in diabetes care planning;
- Implement a clear, consistent system for following up and acting on abnormal results;
- Ensure systems that support systematic, evidence-based care for type 2 diabetes are available, effective and user-friendly. These systems must allow for:
  - » Routine use of evidence-based guidelines;
  - » Consistent and accurate document of care provided;
  - » Up-to-date client lists that can be regularly reviewed and used to inform recall of clients for routine follow-up.
  - » Timely e-communication of discharge summaries and letters back to primary care
  - » Access to telehealth appointments

Enablers for Action 8

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- ICT solutions
- Transport and accommodation support
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 9: Detect complications early and manage them according to best-practice.

Rationale

- Improving the capacity of PHC services to effectively manage type 2 diabetes is likely to improve the services' capacity to manage other chronic diseases too; and
- Type 2 diabetes shares health risk factors and intermediate health outcomes, including metabolic syndrome, with other chronic diseases such as cardiovascular (CV) events and chronic kidney disease (CKD).

The principal complications that occur in people with diabetes that are covered in this Plan are:

- Foot complications;
- Eye complications;
- CV events
- CKD;
- Mental health; and
- Oral health.

Pathways to action

- Ensure clinics have the infrastructure and resource capacity to streamline and optimise visiting allied health and specialist services;
- Ensure visiting services are able to coordinate with local primary healthcare services to optimise client time and increase service efficiency;
- Ensure primary care services are able to become more involved in monitoring and coordinating shared care arrangements for Aboriginal people with diabetes who have multiple complications;
- Ensure all who need follow-up care receive it;
- Improve Aboriginal people's understandings of how to navigate the health system; and
- Ensure sufficient local and visiting health workforce to meet population-based needs;
- Ensure the diabetes workforce within the PHC system have access to evidence-based protocols and the skills and specialist support to manage insulin adjustment;
- Ensure clients receive adequate education from a skilled diabetes educator or equivalent in the use of insulin and home measurement of blood glucose levels and initial self-management of hypoglycaemia; and
- Investigate the need for, and feasibility of, more state-run, outreach, diabetes specialist services.

Enablers for Action 9

- Implement the enablers listed for each complication (action 9A-9E).

ACTION 9A: IIdentify and reduce foot complications.

Rationale

- The AIHW Diabetes Indicators for the Australian National Diabetes Strategy 2016-2020 showed that in 2015 and 2016 Indigenous Australians experienced far higher rates of hospitalisation for lower limb amputation. These rates were eleven times higher among Indigenous females and five times higher among Indigenous males, when compared to their non-Indigenous counterparts[13];
- A systematic review by West et al. in 2017 concluded that, to prevent a widening of the gap in diabetes related foot complications between Aboriginal and Torres Strait Islander and other Australians, evidence-based, culturally appropriate screening and intervention programs, as well as improved access to effective health care services is required[16]; and
- Implementation of regular foot assessment and foot protection programs that include prevention, community education, interdisciplinary care and close monitoring and treatment of foot ulcers including access to interdisciplinary high risk foot services can substantially reduce amputation rates.[15]

Pathways to action

- Work collaboratively across all partners to implement the South Australian Aboriginal Diabetes-related Foot Disease Strategic Plan which focuses on 4 key areas[17]:
  - » Prevention, screening and assessment (seven strategies)
  - » Managing the at-risk foot (nine strategies)
  - » Management of active foot disease (seven strategies)
  - » Amputation (seven strategies)

Enablers for Action 9A

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation support
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 9B: Identify and reduce eye complications.

Rationale

- Diabetic retinopathy (DR) is one of Australia's most common causes of blindness or vision loss;
- One in three Aboriginal people with diabetes have DR;
- 98% of blindness from diabetes is preventable with early detection and timely treatment;
- In the 2016 National Eye Health Survey[18], 53% of Aboriginal and Torres Strait Islander peoples met the annual recommendation for a retinal examination compared to 78% of non-Aboriginal peoples;
- There is a retinal photography MBS Item number(12325)[19] that allows the testing of DR with a non-mydriatic retinal camera for people with diabetes at a primary healthcare setting;
- Through the Provision of Eye Health Equipment and Training (PEHET) program, there were 166 sites (Aboriginal health services) across Australia where retinal cameras were distributed with training provided; and
- There is an established SA Aboriginal Eye Health Working Group (SAAEHWG) that advocates for improved eye health outcomes for Aboriginal peoples.

Pathways to action

Continue to develop, implement and monitor the SA Indigenous Eye Health Strategic Framework as auspiced by SAAEHWG and also continue to develop regional collaborations and planning to improve the pathway to eye care.

The statewide eye health plan must:

- Wherever possible, link existing primary care and specialist services to achieve better coordination of eye health care with other specialist services and NGOs;
- Support initiatives, reforms and advocacy that continue to improve the links between existing primary and specialist services;
- Consider utilising other existing systems such as KeepSight;
- Identify areas across SA where there are no or insufficient eye services and provide services through an Aboriginal health service;
- Identify key priorities and strategies based on improving and supporting the pathway for care and services for all Aboriginal communities in SA;
- Identify Aboriginal clients on eye surgery waiting lists and fast track their care. Support and advocate to government and peak bodies for Aboriginal fast tracked, no cost pathways to eye care, particularly in cataract and DR treatment;
- Develop a mechanism to link, share and aggregate data across agencies. Continue to share and aggregate data across agencies to monitor the success of priorities for action under SAAEHWG;
- Include a state-based eye health indicator, such as the number of Aboriginal clients with diabetes having an annual retinal examination;
- Utilise the agreed eye health data set and indicators supported through the SAAEHWG and through the Research and Data sub-group to monitor statewide progress and access to services;

- Ensure that eye care providers receive cultural safety training;
- Coordinate eye health service planning to sit within existing SA Aboriginal health governance structures;
- Increase the number of Aboriginal people with diabetes receiving annual eye checks including retinal examinations; and
- Integrate retinal cameras within clinical practice and establish clear referral pathways from screening to treatment.

Enablers for Action 9B

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation support
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 9C: Identify and reduce cardiovascular (CV) events.

Rationale

- Diabetes is well recognised as an independent risk factor for all forms of cardiovascular disease (CVD) with almost two in three developing CVD in their lifetime[20];
- CVD remains the leading cause of death in people who have type 2 diabetes[20];
- CVD is a leading cause of preventable morbidity and mortality in Aboriginal and Torres Strait Islander peoples.[22] Despite improvements in CVD mortality over the past few decades, CVD events and CVD related mortality in Aboriginal and Torres Strait Islander peoples is, on average, 10-20 years earlier than in non-Indigenous Australians[21];
- Appropriate and timely assessment, prevention and management of CVD risk is a vital part of diabetes care[15];
- CVD encompasses a broad spectrum of complications including ischaemic heart diseases, cerebrovascular diseases, heart failure, arrhythmia, and diseases of the peripheral arteries;
- There is inequity of access to health services and diabetes therapies that can prevent and reduce the risk of CVD such as GLP1 receptor agonists and SGLT2 inhibitors;
- All people with diabetes who are not already known to be at high risk should be assessed for absolute CVD risk and treated accordingly, i.e. there should be a low threshold for investigating Aboriginal people for heart disease given their heightened risk compared with the non-Aboriginal population;
- Proactive and aggressive management of cardiovascular risk factors, such as, blood pressure, smoking, lipids, diet, exercise and glycaemic control is important;
- Accessing emergency transport in the event of a heart attack can improve outcomes and even prevent death; and
- There were consistent reports by Aboriginal people of reluctance to call on ambulance transport due to lack of understanding about costs and benefits.

Pathways to action

- Increase the uptake of Absolute CV Risk Assessments within PHC settings, particularly among clients with pre-diabetes and diagnosed type 2 diabetes;
- Increase the number of Aboriginal people who have ambulance cover;
- Improve knowledge regarding heart disease and strategies for prevention amongst clinical staff working in Aboriginal health;
- Increase access to diabetes therapies that have additional benefits such as cardiovascular protection; and
- Collaborate on the implementation of common actions in the SA Aboriginal Heart and Stroke Plan 2022-2027.

Enablers for Action 9C

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 9D: Identify and reduce chronic kidney disease (CKD).

Rationale

- Chronic kidney disease (CKD) disproportionately affects Aboriginal and Torres Strait Islander peoples with rates of kidney failure 8-fold higher than non-Indigenous Australians.[22] Diabetes is an important driver of this.
- The inequalities seen in CKD largely result from social disadvantage with those experiencing the highest disadvantage having the highest incidence, prevalence, and disease impacts[22];
- CKD is largely symptom free in the early stages with many people having no idea they have the disease. Among people with CKD kidney failure, a quarter present to a nephrologist so late they require dialysis within 90 days, missing the chance to slow disease progression[23];
- Whilst some forms of CKD cannot be prevented, diabetes related kidney disease can be slowed or even halted if it is detected early and managed well. Improved detection and management have the capacity to improve the lives and reduce the enormous burden of CKD in Aboriginal and Torres Strait Islander peoples[23];
- For people who need kidney failure treatment, there are major issues associated with differential access to / uptake of treatment options including kidney transplantation; and
- CKD shares common social and environmental determinants, behavioural and biomedical risk factors with diabetes and cardiovascular diseases. It is important that we consider actions and initiatives that move beyond disease silos.[23]

Pathways to action

- Develop and implement screening and early detection programs for CKD that are community-controlled, co-designed with the community and utilise an integrated interdisciplinary approach wherever possible[22];
- Embed screening for chronic kidney disease (urine albumin) as an essential part of undertaking the annual health check (MBS item 715 or similar), opportunistically and as part of the Diabetes Annual Cycle of Care[22];
- Work in partnership with ACCHOs to implement strategies that will improve access to early medical interventions for CKD e.g., RAAS blockade (ACE inhibitors / angiotensin receptor blockers) and/or SGLT2 inhibitors;
- Improve pathways of care and access to kidney specialist care by incorporating prevention, early detection, education and management of CKD into the Aboriginal Model of Care for Type 2 Diabetes (Goal 3 Action 7 of this plan) ensuring that it aligns with and supports the implementation of;
    - The CARI guidelines 'Culturally safe kidney care for First Nations Australians'[22]
    - Community priorities
    - National Strategic Action Plan for Kidney Disease[23]
    - RACGP Guidelines: Management of type 2 diabetes[15]

- Identify shared opportunities to collaborate with clinicians, researchers, peak bodies and community reference groups who focus on CKD and CVD;
- Collaborate with CKD partners to identify and implement actions that focus on improving diabetes care among people receiving dialysis or kidney transplants e.g., Aboriginal Kidney Care Together Improving Outcomes Now (AKction) is a community reference group that is working alongside health professionals and researchers to improve the way kidney care is provided in SA;
- Raise community and healthcare professional awareness and understanding of CKD and diabetes, to support, prevention, early detection and optimal management; and
- Develop education resources with community that promote early detection and management of kidney disease.

Enablers for Action 9D

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 9E: Improve mental health for people with diabetes.

Rationale

- Diabetes is associated with significant mental health challenges, such as diabetes related distress, anxiety and depression[2];
- There is a considerable self-care burden associated with diabetes and it is common for people with diabetes to sometimes feel frustrated or guilty. They may worry about their current or future diabetes management and the risks associated with complications. They may face stigma or feel shame. Diabetes distress is a clinically recognised emotional response to living with diabetes[15];
- Diabetes also has a bi-directional relationship with some psychological conditions, particularly major depression[15];
- Anxiety disorders and disordered eating are more common in people with diabetes;
- There are existing Aboriginal frameworks and strategies that can be utilised to help support the mental health of people with diabetes
  - » The National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing (2017-2023)[24] acknowledges that mental health and social and emotional wellbeing affects everyone. The framework is a key document that can guide service provision and program development and includes a Model of Social and Emotional Wellbeing.[24]
  - » SA has an Aboriginal Mental Health Strategy 2017-2022[25] that has a priority on improving Aboriginal and Torres Strait Islander mental health and suicide prevention priority.[25]

Pathways to action

- Increase awareness among Aboriginal people and health practitioners about the link between diabetes and mental health and the need for ongoing monitoring for mental health issues;
- Increase opportunities to develop team care arrangements (TCAs) for people with diagnosed diabetes and mental health conditions and promote mental health practitioners being part of TCAs for GP Management Plans (GPMPs) for diabetes;
- Increase community-based, culturally safe mental health and drug and alcohol support for Aboriginal people that can be coordinated across SA in association with their diabetes care plans; and
- Work with organisations that develop diabetes care guidelines, such as RACGP and CARPA, and with Medicare Australia, to have mental health assessments included in the diabetes annual cycle of care.

Enablers for Action 9E

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

ACTION 10: Improve oral health and access to dental care.

Rationale

- People with chronic health conditions, including type 2 diabetes, are more susceptible to oral disease and may have additional needs compared to those without a chronic condition.[26]

Pathways to action

- Promote the availability of concessional access to dental services for all ages;
- Give priority for oral health care to Aboriginal people with chronic health conditions, particularly diabetes;
- Increase access to cool, fluoridated drinking water, affordable fresh fruit and vegetables, cold storage of food, toothbrushes and fluoride toothpaste; and
- Increase the availability of dental programs specifically for Aboriginal people.

Enablers for Action 10

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- Monitoring and evaluation

ACTION 11: Enhance secondary prevention by empowering clients and their families.

Rationale

- There is a clear need to improve health literacy about managing diabetes and its associated complications, not just with Aboriginal clients but their families too. There is international evidence that both approaches are factors of success for chronic disease interventions in Indigenous populations[27];
- To empower Aboriginal clients and families, health care providers must develop good relationships and break down communication barriers; and
- Incorporating cultural and traditional knowledge into health care, acknowledging and building on Aboriginal people's insights from their own health care experiences and imparting knowledge, with ongoing support, to clients and their families can significantly enhance life-long diabetes self-management.

Pathways to action

- Develop education programs with culturally appropriate materials to emphasise the risks of developing CVD, CKD, eye, foot, dental and mental health complications among Aboriginal people with diabetes and their families. Materials need to meet the health literacy needs of community members and should include:
  - » A focus on healthy eating and how to choose nutritious foods and avoid those that are energy-dense and nutrition-poor; and
  - » Access for dietitians, podiatrists and CDEs to support local staff to run clinics and/or group sessions to educate Aboriginal community members, not just those diagnosed with type 2 diabetes, about the benefits of reducing risks associated with diabetes.
- Provide client and family education on the use and storage of diabetes medication;
- Support and skill clients to effectively self-manage diabetes on a daily basis within their own environments;
- Ensure that individuals and their families are more involved in the development of their diabetes care plans. Apart from this being simply good practice, messages about complications may become more meaningful; and
- Consider peer support groups and support groups that involve health professionals.

Enablers for Action 11

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- Community engagement

ACTION 12: Provide better support for carers.

Rationale

- Raw data show the proportion of Aboriginal and Torres Strait Islander peoples needing assistance with core activities is 8.2% which is an increase from the 2016 Census (6.7%)28;
- Aboriginal people who are voluntary carers are younger than non-Aboriginal carers, less likely to be employed, more likely to have a lower income and more likely to need care themselves;
- Currently, carers have no access to the health information of the person they care for, unless that person is present during a consultation or has given written permission.

Pathways to action

- Develop and resource evidence-based support programs for those caring for Aboriginal people, with flexibility for use in different regions;
- Investigate and implement strategies to fast-track health care for Aboriginal clients with carers; and
- Encourage health services in SA to be proactive and prompt their Aboriginal clients who have carers to provide written permission for the carers to have access to their health information, including scheduled appointments and medications.

Enablers for Action 12

- Sustainable funding
- Community engagement

ACTION 13: Ensure access to medicines and other supports.

Rationale

- The cost of medication is a significant barrier to improving access to medicines for Aboriginal people;
- To alleviate or remove the cost of medicines for Aboriginal people, the Australian Government introduced the CTG PBS Co-Payment Program in July 2010[29];
- However, there remains the challenge of finding a general practice that is registered for the PIP-IHI, when there is no Aboriginal Health Service in a region;
- Under Section 100 (S100) of the National Health Act 1953, clients living in remote areas can receive free PBS medicines from their local AHS without a prescription, and may also access free device consumables, e.g., test strips, syringes and needles;
- The National Diabetes Services Scheme (NDSS) is an initiative of the Australian Government. The NDSS aims to enhance the capacity of people with diabetes to understand and self-manage their life with diabetes, access services, support and subsidised diabetes products. To support self-management of diabetes access to a range of subsidised products is available. These products include: blood glucose monitoring strips, urine monitoring strips, insulin syringes and pen needles (for insulin or approved non-insulin injectable medications), insulin pump consumables (for people with type 1 diabetes who meet certain eligibility criteria), continuous and flash glucose monitoring products (for people with type 1 diabetes and specific 'other' conditions who meet certain eligibility criteria). Insulin syringes and pen needles are free, whilst the other products have a co-payment applied (concession rates apply);
- Given that many Aboriginal people move between regions regularly, it is important that they be able to readily replenish their test strips and other devices, with no additional requirement to see a local practitioner.

Pathways to action

- Encourage general practices to become PIP-IHI registered so clients can benefit from low cost or no cost scripts and allied health services as outlined within the relevant MBS items;
- Ensure general practices are welcoming places where Aboriginal people are comfortable to identify as Aboriginal, so they can receive the additional services, CTG medication and NDSS product subsidies for which they may be eligible;
- Encourage private general practices to promote their 'CTG' status in their local areas, to enable Aboriginal people to find an appropriate service more easily;
- Develop a central register of SA general practices registered for PIP-IHI, and thereby able to provide CTG-authorised prescriptions and other benefits and make it available to the general public. Promote this register to Aboriginal communities;

- Increase the registration of Aboriginal people on NDSS by embedding the registration process in PHC practice through:
    - » Implementing a protocol that all staff working with clients with diabetes are able to facilitate the NDSS registration;
    - » Nominating staff within PHC and hospital services to be responsible for ensuring clients with diabetes have access to NDSS registration; and
    - » Health professionals who are authorised to certify NDSS forms can now complete forms online through the NDSS Health Professional Portal.

Enablers for Action 13

- Sustainable funding
- Transport & accommodation support
- Integrated and coordinated services

ACTION 14: Reduce hospital self-discharge and improve continuity of care between the community and the hospital.

Rationale

- The rates of potentially avoidable deaths and potentially preventable hospitalisations for Aboriginal and Torres Strait Islander people are more than three times higher than that for non-Aboriginal peoples30;
- When Aboriginal people with diabetes are hospitalised, for any reason and regardless of whether the admission is planned or unplanned, they should expect to receive high quality care from culturally competent hospital staff;
- There is still much work to be done for mainstream primary health and hospital services to consistently provide culturally safe care; and
- Hospital discharge/transfer of care continues to be an issue for some service providers. Issues with communication between hospitals and PHC service providers continue to negatively impact on continuity of care.

Pathways to action

- Reduce waiting times for specialist appointments and planned hospitalisations;
- Given the considerable lag that can occur between referral and receiving an out-patient appointment, ensure that appointment letters clearly state the purpose of the visit and the original date and source of referral;
- Encourage PHC services to collaborate with the Adelaide and Country SA PHNs and, potentially, local councils to reduce the financial burden of up-front transport and accommodation for clients requiring planned hospital or specialist visits;
- Develop a system for client discharge/transfer of care that facilitates an integrated, consistent, approach to prevent people falling through the gaps between hospital and primary care; this should include:
  - » Financial support for rural and remote residents who have been admitted by emergency transport and are not eligible for assisted travel to return home;
  - » Clients, their GPs and specialists receiving hospital discharge reports;
  - » Better liaison between hospital and PHC services and consistent follow-up after discharge;
- Encourage general and allied health practices to adopt and train staff in culturally safe practices;
- Embed culturally safe care within hospitals including staff access to ongoing cultural safety training;
- Appropriately resource Aboriginal Health Units in hospitals so that liaison and Aboriginal health practitioner roles can adequately support clients with diabetes;
- Hospitals that service many Aboriginal peoples, should be required to set and aim for targets of Aboriginal employment, within specific areas of medical, clinical, management, administration and hospital services, which are to be reported on annually;

- Aboriginal staff who move from working in an Aboriginal Medical Service or ACCHO to a hospital or acute setting should be provided with a mentor to assist with the transition;
- Provide culturally safe and appropriate facilities and resourcing in all state-run sites;
- Encourage the development of joint appointments of clinical pharmacists between State Government hospitals and Aboriginal community primary healthcare services; and
- Strengthen the continuity of care on discharge through increased education of clinicians in acute care regarding CTG and how best to support the transition of CTG eligible and Aboriginal clients back to primary care and home.

Enablers for Action 14

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

Priority Area 4: Diabetes in Pregnancy

GOAL 4: Reduce the impact of pre-existing diabetes and gestational diabetes in pregnancy.

ACTION 15: Implement system changes that can support the elements of best practice diabetes care in pregnancy (pre-existing diabetes and gestational diabetes).

Rationale

- Aboriginal women are 2-3 times more likely to experience adverse maternal and perinatal outcomes than non-Aboriginal women in Australia[31];
- It is also important to highlight the findings from the SA Aboriginal Family Study which has shown unacceptably high rates of social health issues affecting Aboriginal women and families during and post pregnancy[32];
- Diabetes in pregnancy adds additional complexity, risk and burden for women and requires a culturally responsive, integrated and collaborative team approach;
- Cohort studies have found an independent relationship between hyperglycaemia during pregnancy and adverse outcomes for mother and baby.[33] There is a continuum of adverse risk across maternal glucose levels including, pre-eclampsia, caesarean section, birth trauma, high birth weight and premature birth[33];
- Children of women who have had diabetes in pregnancy are at an increased risk of developing obesity and type 2 diabetes[2];
- Women with a history of gestational diabetes have a high risk of future diabetes and CVD and require ongoing support and care after pregnancy to help prevent or delay the development of type 2 diabetes[2] (see Goal 1 and 2 of this plan);
- In terms of prevention, Aboriginal maternal age is generally younger than non-Aboriginal mothers (only 8.2 % are 35 years or older) and so it is important to increase community awareness of the risks of diabetes in pregnancy with a whole of community response[34];
- Data highlights that Aboriginal women are presenting late and/or have inadequate access to antenatal care, and that this is a contributor to ongoing health inequities[31];
- Diabetes identification and normalisation of maternal glucose in pregnancy reduces the risks to the child both in the short term and in the long term;
- The SA Health Aboriginal Family Birthing Program (AFBP) is a unique model of maternity care for Aboriginal women and their families. The program uses a partnership approach between Aboriginal Maternal Infant Care (AMIC) workers/practitioners, midwives, and doctors. The women's needs are considered holistically, with emphasis on early intervention, culturally appropriate clinical services, and care continuity through the antenatal, birth and postnatal journey;
- The Aboriginal Family Study data has demonstrated that the model has both improved engagement (attendance in first trimester and attendance at 5 or more visits) and women's experiences of care compared with standard public models of care[31,35];
- Aboriginal women not known to have pre-existing hyperglycaemia (type 1 or type 2) require early testing in pregnancy (i.e., in the first trimester so as to identify pre-existing diabetes as early as possible) as per the SA Perinatal Practice Guidelines[36];
- It is important that women who are unable to access the AFBP or who have chosen to access care through mainstream maternity services receive family centred services that are culturally safe, and trauma informed. Where available and as appropriate, AHW/P involvement should be sought as they are an integral part of the interdisciplinary care team;

- All Aboriginal women with hyperglycaemia in pregnancy require equitable access to the appropriate diabetes specialist care health professionals, including endocrinologist/ obstetric physician, accredited dietitian and diabetes specialist nurse (CDE). The diabetes team needs to be well integrated with the pregnancy care team including, the Aboriginal health workers/practitioners/ AMIC workers, who can provide additional diabetes education and self-management support for women;
- It is important that women understand the need for post-natal follow up in primary care. South Australian data reported that one in seven (16%) of women with gestational diabetes had not had primary care follow-up post pregnancy.[37] Ensuring access to ongoing care and support after pregnancy will assist in preventing or delaying the development of type 2 diabetes in women with gestational diabetes;
- Importantly, there is evidence that breastfeeding reduces the risk of diabetes for both the mother and her baby[2]; and
- It is also important that women with pre-existing diabetes, who are post-natal, receive primary and specialist team follow up. Essential to safe postnatal experience, the support for medication adjustment will be required when breast feeding and with body weight changes. Follow-up for those at risk of hypoglycaemia due to certain medications and/or insulin will support review of hypoglycaemia action plan and sick day/ hyperglycaemia action plan.

Pathways to action

To achieve Action 15, the following elements of best practice diabetes care in pregnancy have been identified across the phases of prenatal, antenatal and postnatal care.

Prenatal (pre-pregnancy care)

- Implement targeted programs or initiatives for Aboriginal women at risk of having gestational diabetes and those who have previously had gestational diabetes;
- Develop systems and processes to improve access to pre-conception counselling and support for Aboriginal women who have pre-existing type 1 or type 2 diabetes or previous gestational diabetes; and
- Develop pathways of care that enable women with diabetes to have access to pre-pregnancy care from the interdisciplinary diabetes team.

Antenatal (pregnancy care)

- Women have options regarding their care, including shared-care arrangements, AFBP, GP care and other care pathways. There may be opportunities to collaborate with partners to advocate for an increase in the capacity of culturally safe birthing options, such as AFBP, which has demonstrated improvements in engagement and maternal wellbeing. Strengthening other care pathways within ACCHOs should also be explored;
- Enhance systems and processes to ensure access to early testing of glucose for all pregnant women not already known to have diabetes;
- Ensure access and referral to a diabetes management team, that includes endocrinologists, obstetric physicians, diabetes specialist nurses (CDE), dietitians and/or exercise physiologists. Women should receive education and support on diet and physical activity, glucose monitoring, responding to hyperglycaemia and hypoglycaemia (if at risk) and all aspects of diabetes management during the pregnancy[2];

- Enhance capability of diabetes health care professionals to deliver culturally safe care that:
  - » Is realistic, achievable, and tailored to the individual circumstances of each woman
  - » Is non-judgemental and optimises flexibility
  - » Acknowledges the social stressors and potential trauma in women's lives during pregnancy, and the impact that this has on their mental health
  - » Utilises the expertise of the AMIC worker and/or AHP if available.
- Enhance systems and processes to increase the number of Aboriginal women who are registered with the National Gestational Diabetes Register;
  - » Identify and address any barriers for obtaining blood glucose meters and blood glucose strips or other diabetes supplies needed during pregnancy;
  - » Work collaboratively across primary, secondary, and tertiary care to promote continuity of care and care coordination for women ensuring that the diabetes care team is well integrated with the pregnancy and Aboriginal health team; and
  - » Increase workforce opportunities and training for diabetes in pregnancy in Aboriginal infant and maternal care (refer to workforce enabler).

Postnatal (post pregnancy care)

- Promote the benefits of breastfeeding and improve access to lactation consultants;
- Enhance current systems and processes to increase the number of women receiving primary care follow-up of mothers and babies after birth, particularly the 6-week post-partum oral glucose tolerance test for women with gestational diabetes; and
- Enhance current systems and processes to increase the number of women with pre-existing diabetes in pregnancy receiving primary and secondary care follow-up for review of medications and review of self-care action plans such as hypoglycaemia action plan and sick day / hyperglycaemia action plan.

Enablers for Action 15

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation support
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

Priority Area 5: Priority Groups

GOAL 5: Reduce the impact of diabetes among Aboriginal priority groups.

In the National Diabetes Strategy[2], Aboriginal and Torres Strait Islander people have been identified as a priority group. Within this Aboriginal specific Plan, there are several priority groups within the Aboriginal population, whose health needs generally, and diabetes needs, should be given special attention and potentially additional resourcing.

The following actions go some way towards addressing the current lack of understanding about diabetes within these potentially more vulnerable groups of the community. It should also be noted that these are not the only actions in this document that should be applied to these priority groups, which are interwoven throughout Aboriginal communities in SA. This must be kept in mind when reviewing or implementing all the actions.

Priority groups are;

- Older people
- Children and adolescents
- People experiencing homelessness
- People who are incarcerated
- People with disability
- People living with mental health conditions
- Frequent unplanned users of the hospital system
- People living in rural and remote areas.

ACTION 16: Improve our understanding of the health needs of priority groups, establish targeted prevention campaigns and increase access to early detection and management of diabetes.

Older People

Rationale

- More than 1 in 3 (47,400, 35%) older Aboriginal and Torres Strait Islander people (50 years and over) self-reported that they were told by a doctor or nurse that they have high sugar levels or diabetes[38];
- The prevalence of diabetes is higher among older people[39];
- Of the 1,900 older Aboriginal and Torres Strait Islander peoples residing in aged care, 25% had type 2 diabetes[38];
- Stolen Generation survivors experience higher levels of disadvantage, vulnerability and chronic disease[39];
- In 2018-19, 37% of Stolen Generation survivors aged 50 or over had diabetes[39]; and
- There may be differences in the way that diabetes presents in older people and the goals of treatment. Treatment should be individualised based on a person's function, cognition, ability to self-care and quality of life. This is particularly relevant for residents in aged care, and it is important that health care staff have the appropriate diabetes knowledge and skills.[15]

Pathways to action

- Ensure that staff in aged care settings undertake culturally safe training to provide culturally appropriate diabetes care; and
- Establish and promote the implementation of culturally appropriate guidelines on managing diabetes in older Aboriginal people that informs clinical decision-making and best practice care.

Children and Adolescents

Rationale

- There is a growing concern regarding the increasing prevalence of type 2 diabetes amongst Aboriginal and Torres Strait Islander children, adolescents and youth;
- Young Aboriginal and Torres Strait Islander Australians have an earlier age of onset than the non-Indigenous population, with type 2 diabetes being reported in children as young as 5 years old[6];
- In contrast, the incidence of type 1 diabetes in Aboriginal and Torres Strait Islander and non-Indigenous children and adolescents is similar[8];
- Children and adolescents with type 1 and type 2 diabetes have specific needs and require care from a paediatric interdisciplinary diabetes team;
- Children and adolescents need equitable access to this care as well as to diabetes treatments and the supporting technology;
- Children and adolescents also have needs related to managing diabetes at school and support to transition from paediatric to adult services;
- Complications occur earlier and rates are higher in paediatric type 2 diabetes compared with type 1 diabetes[6]; and
- Parents and carers are instrumental in the care of children and adolescents with type 1 or type 2 diabetes, and a family centred approach to care and support for carers is therefore essential.

Pathways to action

- Develop an Aboriginal paediatric diabetes model of care that is integrated, equitable, accessible, culturally responsive, family centred and holistic;
- Maximise the administration of comprehensive health checks for children or adolescents. The Australasian Paediatric Endocrine Group guidelines (2021) recommend screening from 10 years old (or at onset of puberty, whichever occurs earlier) when one or more risk factors are present. Screening can occur using POCT for guidance refer to the Australasian Paediatric Endocrine Group Guidelines 2020[14];
- Take opportunities to weigh children and adolescents whenever they present to a clinic, to enable early intervention;
- Develop Aboriginal paediatric referral pathways for early identification and improved management of children and adolescents with diabetes[2];
- Explore options for improving access to interdisciplinary paediatric diabetes specialist care and technology[2];
- Establish mechanisms that increase and support the involvement of Aboriginal health practitioners and Aboriginal liaison officers in the paediatric interdisciplinary diabetes care team;
- Increase access to mental health support for clients and their families including social work, psychologist;
- Develop and resource evidence-based support programs for parents / caregivers of children and adolescents with diabetes; and
- Upskill Aboriginal health professionals about diabetes in children, adolescents and youth.[2]

People Experiencing Homelessness

Rationale

- There is a growing concern regarding the increasing prevalence of type 2 diabetes amongst Aboriginal and Torres Strait Islander children, adolescents and youth;
- Young Aboriginal and Torres Strait Islander Australians have an earlier age of onset than the non-Indigenous population, with type 2 diabetes being reported in children as young as 5 years old[6];
- In contrast, the incidence of type 1 diabetes in Aboriginal and Torres Strait Islander and non-Indigenous children and adolescents is similar[8];
- Children and adolescents with type 1 and type 2 diabetes have specific needs and require care from a paediatric interdisciplinary diabetes team;
- Children and adolescents need equitable access to this care as well as to diabetes treatments and the supporting technology;
- Children and adolescents also have needs related to managing diabetes at school and support to transition from paediatric to adult services;
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- Parents and carers are instrumental in the care of children and adolescents with type 1 or type 2 diabetes, and a family centred approach to care and support for carers is therefore essential.

Pathways to action

- Develop an Aboriginal paediatric diabetes model of care that is integrated, equitable, accessible, culturally responsive, family centred and holistic;
- Maximise the administration of comprehensive health checks for children or adolescents. The Australasian Paediatric Endocrine Group guidelines (2021) recommend screening from 10 years old (or at onset of puberty, whichever occurs earlier) when one or more risk factors are present. Screening can occur using POCT for guidance refer to the Australasian Paediatric Endocrine Group Guidelines 2020[14];
- Take opportunities to weigh children and adolescents whenever they present to a clinic, to enable early intervention;
- Develop Aboriginal paediatric referral pathways for early identification and improved management of children and adolescents with diabetes[2];
- Explore options for improving access to interdisciplinary paediatric diabetes specialist care and technology[2];
- Establish mechanisms that increase and support the involvement of Aboriginal health practitioners and Aboriginal liaison officers in the paediatric interdisciplinary diabetes care team;
- Increase access to mental health support for clients and their families including social work, psychologist;
- Develop and resource evidence-based support programs for parents / caregivers of children and adolescents with diabetes; and
- Upskill Aboriginal health professionals about diabetes in children, adolescents and youth.[2]

People Who Are Incarcerated

Rationale

- More than 1 in 3 people who are incarcerated are Aboriginal or Torres Strait Islander peoples[41];
- People who are incarcerated have significant and complex health needs, many of which are chronic. They have higher rates of chronic conditions, such as, diabetes; and
- Improving the health and wellbeing of people who are incarcerated and maintaining these improvements after prison will have benefits for the whole community.

Pathways to action

- Ensure prisoners are receiving health checks on arrival and yearly, to initiate intervention and early detection;
- Ensure prisoners with diabetes have access to ongoing clinical management (action plans) and lifestyle support (e.g., recommended nutritional and physical activity);
- Ensure prisoners diagnosed with chronic disease are evaluated regularly for mental health issues and mental health care is provided when needed; and
- On release, facilitate the transfer of health information to the individual's GP or PHC clinic.

People with an Intellectual and/or Physical Disability

Rationale

- Adults with intellectual disabilities are 2 to 3 times more likely to develop diabetes[42]; and
- People with diabetes have a higher prevalence of disability than people without diabetes.[43]

Pathways to action

- Prevent diabetes-related disability in people with diabetes through effective management of their diabetes (i.e. avoid amputations, visual impairment/blindness)[2];
- Work with disability services to ensure that people with disabilities have effective access to culturally safe diabetes prevention and management services[2]; and
- Explore access to NDIS-funded supports by NDIS participants with diabetes, including a focus on prevention of diabetes-related disability.[2]

People Living with Mental Health Conditions

Rationale

- Type 2 diabetes is a common comorbidity in people who are living with a psychiatric disorder[44]; and
- People with psychotic disorders (e.g. schizophrenia) have significantly increased rates of type 2 diabetes.[12]

Pathways to action

- Support and encourage service providers to complete annual diabetes screening for those people on mental health care plans; and
- Develop clear referral pathways and shared care options for people on a mental health care plan to receive ongoing diabetes management.

People Living with Mental Health Conditions

Rationale

- Hospital readmission and emergency department visits for people with diabetes are common and costly[45]; and
- Readmission may be preventable through initiatives that support continuity of care and care coordination.

Pathways to action

- Identify individuals who have a high number of potentially preventable hospitalisations for diabetes and related conditions and work with them, their families and their primary care practice or practitioner to better manage their diabetes within the community setting to reduce their need for hospitalisation; and
- Link clients with CTG programs delivered by the PHNs, so they can access complex case management support if needed. For example, the model implemented by the Institute for Urban Indigenous Health (IUIH), QLD.

People Living in Rural and Remote Areas

Rationale

- Aboriginal people living in rural and remote locations experience higher rates of diabetes and a higher burden of disease, particularly those living in remote and very remote parts of Australia[46]; and
- People with diabetes who reside in rural and remote areas experience geographical barriers when accessing services.[1]

Pathways to action

- Coordinate regional services across primary, secondary and tertiary care to facilitate access to care and the necessary support services;
- In addition to face-to-face services, ensure the availability of telehealth;
- Ensure equitable access to other technologies and services as appropriate, including for the care and management of diabetes in children and young people; and
- Develop and promote partnerships, flexible models of care and linkages between local clinicians and health professionals and major specialist diabetes centres (i.e. to reduce the burden on clients and carers consider consolidating separate appointments into one metropolitan hospital trip).

Enablers for Action 16

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Transport and accommodation
- Community engagement
- ICT solutions
- Integrated and coordinated services
- Monitoring and evaluation

Priority Area 6: Research

GOAL 6: Strengthen prevention and care through research and evidence.

ACTION 17: Continue to build a statewide research agenda that informs policy and practice and that is translational.

Rationale

- A stronger evidence base will assist in better identifying areas of need and gaps in service provision, support and treatment;
- While research ethics in Aboriginal Health are improving - including researching in partnership with, as opposed to being researched, and in culturally respectful and safe ways - Aboriginal people are yet to experience the full health and wellbeing benefits of research;
- It is recognised that there are many communities, each with their own language, traditions, beliefs and practices, which influence health requirements. For programs to be successful, they will need to be tailored to the specific needs;
- Aboriginal people need to be given every opportunity to be leaders and partners in research; and
- Any research program must be translational.

Pathways to action

- Ensure that findings are used to inform practice and policy development in a timely manner by:
  - » Having a strong and successful knowledge translation capability built into the research process;
  - » Strengthening relationships between researchers, policy makers and service providers.
  - » Increase the number of Aboriginal people with research Honours, Masters and PhD qualifications including level by:
  - » Developing chronic disease researcher career pathways;
  - » Making available scholarships;
- Develop the capacity of non-Aboriginal researchers in Aboriginal health research;
- Promote all research to be done in partnership with Aboriginal people and abide by the SA Aboriginal Health Research ACCORD and National Health and Medical Research Council (NHMRC) Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research[47,48]; and
- Where beneficial to Aboriginal people in SA, partner with state, national and international research initiatives.

Enablers for Action 16

- Governance: Aboriginal leadership and partnerships
- Sustainable funding
- A strong diabetes workforce
- Community engagement
- Monitoring and evaluation

Enablers

ENABLER 1: Governance: Aboriginal Leadership and Partnerships

GOAL: Establish and maintain robust governance structures, led by Aboriginal professionals and organisations, equipped to foster partnerships and collaboration between the wide range of organisations and stakeholders responsible for implementing this Plan.

Rationale

- Responsible governance based on shared visions and values will be essential to the successful implementation of this Plan;
- Aboriginal leaders need to be involved on every level to fully embed core values such as Aboriginal self-determination and Aboriginal community governance;
- The structures and processes required to ensure the appropriate accountability, transparency and responsiveness of the decisions and actions associated with Aboriginal people with diabetes, require the leadership of Aboriginal stakeholders from relevant professional and community backgrounds;
- Governance groups need to be actively engaged and respond flexibly and adaptively to complex and changing environments;
- Involvement of Aboriginal leadership in decisions associated with planning, delivering and evaluating the implementation of actions outlined in this Plan is critical to ensuring cultural safety and effectiveness of health systems and services to improve diabetes; and
- Health system organisations such as funding bodies, policy makers and service providers need to commit to genuine, collaborative partnerships with Aboriginal communities and organisations to build on the strengths of each part of the system and the strengths of the community to create positive change and improvements in diabetes outcomes.

Pathways to action

The governance structure must continue to:

- Recognise the diversity of health services which have a role to play in improving diabetes outcomes for Aboriginal people and commit to building genuine partnerships and appropriate governance structures involving Aboriginal leadership;
- Involve representation from all key parties in the continuum of care for Aboriginal people, including representation of the Aboriginal community leaders, organisations and professional stakeholders;
- Identify existing partnerships and governance structures such as statewide clinical networks, regional health services networks as well as existing community groups and forums to lever support for the implementation of this Plan;
- Include Aboriginal and Torres Strait Islander people who have a lived experience of diabetes or have cared for someone with these conditions and demonstrate a commitment to listening to their voices;
- Integrate monitoring and reporting against Plan targets to quantify impact; and
- Maintain the SA Aboriginal Chronic Disease Consortium's Community Reference Group, with both metropolitan and country representation through ongoing engagement and involvement mechanisms to enable the Community Reference Group to oversee, guide and influence the implementation of this Plan.

ENABLER 2: Sustainable Funding

GOAL: Appropriate levels of funding to be available for implementation of projects and services within appropriate timeframes.

Rationale

- Aboriginal health funding needs to be allocated to projects and services which adhere to the principles of Aboriginal leadership and governance and preference the employment of Aboriginal professionals;
- There are multiple funding sources for Aboriginal health care across all sectors, from federal and state government agencies, which are often fragmented, insufficient and short-term;
- Accessing funding incurs significant operational costs, including identifying appropriate sources of funding, understanding eligibility criteria, and developing funding proposals;
- A further barrier to accessing funding are specific requirements such as financial co-contributions or short turnover times for submissions that prevent appropriate community and stakeholder consultation;
- Compliance with reporting requirements for multiple grant agreements, once secured, can also be a barrier, especially where funding levels are low.
- The short-term nature of many funding agreements allows for limited flexibility to undertake project or service planning and manage operational challenges such as recruitment of staff or staff turnover, engagement of community and other stakeholders, establishment of formal partnerships with partner organisations and meeting delivery milestones. Negotiating extensions or variations to funding agreements can also come at a significant operational cost;
- Workforce sustainability and appropriate training, professional development and career opportunities are difficult to maintain when funding is limited. The costs associated with the development and maintenance of professional networks to sustain high quality models of care and improve health outcomes is also significant;
- Community engagement also requires appropriate resourcing over the lifetime of services and projects. Similarly, sufficient budgets are required to evaluate projects and services; and
- Out-of-pocket costs for the individual, such as gap payments for medicines, general practice or specialist care, as well as costs associated with transport and accommodation for Aboriginal people from rural or remote communities, can be prohibitive for accessing health services, and reimbursements or subsidy schemes are often difficult to navigate.

Pathways to action

- Advocate for adequate levels of funding and resources and adequate timeframes to support the implementation of this Plan;
- Advocate for the inclusion of Aboriginal leadership, governance, and workforce as part of funding eligibility criteria. Aboriginal community engagement should also be a prerequisite to developing proposals, to ensure cultural appropriateness and safety and that the proposed project or service associated with the implementation of this Plan meet community priorities and expectations;
- Funding bodies to provide easily accessible information and support for service providers to submit successful funding proposals;

- Funding bodies to streamline reporting requirements and the processes to meet other accountability requirements wherever possible to reduce the administrative burden of managing funding agreements. Embedding flexibility in the management of these agreements is also critical, for example to allow for revision of timeframes, milestones, and ability to carry over or re-allocate funding as priorities shift or newly emerge;
- Increase knowledge amongst service providers of funding sources and increase their capacity to access funding and manage funding agreements;
- Identify and promote the uptake of existing funding sources, including through the MBS, hospital loading for Aboriginal clients, and CTG;
- Provide Aboriginal people with relevant information about reimbursements and supplementary schemes to reduce out-of-pocket expenses; and
- Work with funding bodies to acknowledge the need for sufficient planning, community engagement, workforce development and evaluation and the flexibility required in deliverables and funding across the life of the project.

ENABLER 3: A Strong Diabetes Workforce

GOAL: Increase the capacity and capability of the Aboriginal and non-Aboriginal workforce to provide high quality, culturally responsive, collaborative diabetes care.

Rationale

- There is agreement from government and Aboriginal community controlled peak bodies that an appropriately skilled, available and responsive Aboriginal and Torres Strait Islander health workforce is critical. Aboriginal healthcare providers connect community members to health care and bring a combination of clinical, cultural and community development skills. Their understanding of holistic care and ability to work as cultural brokers and health system navigators while providing culturally safe care, facilitates access in a disparate health system[49];
- It is important to recognise that the Aboriginal workforce is diverse and includes many roles such as AHW/P, Aboriginal maternal infant care workers, Aboriginal liaison officers, Aboriginal cultural consultants, care navigator roles etc;
- Aboriginal health practitioners have a particularly high level of clinical skills and are trained to work autonomously. In recognition of this they must meet practice standards and be registered under the Australian Health Practitioner Regulation Agency (AHPRA)[49];
- Diabetes is everybody's business, and it is important that all staff working with Aboriginal communities have a foundation understanding of diabetes in the context of Aboriginal people's unique history and the impact of colonisation. Furthermore, diabetes management should consider factors such as earlier onset of diabetes and the additional social, emotional, and cultural requirements of Aboriginal people with diabetes;
- To improve outcomes for Aboriginal people it is critical that AHWs and AHPs and other Aboriginal workforce are integrated into interdisciplinary diabetes care teams as this will lead to improved access and uptake of services, more effective diagnoses and treatments and earlier intervention and prevention.[49] For this to occur we need to educate non-Aboriginal clinicians about their clinical and cultural roles within the interdisciplinary care team and build the capacity of the Aboriginal workforce to fulfill these roles;
- There is a gap in the knowledge and skills in the current workforce in delivering health/diabetes education and health promotion initiatives to community;
- There is variable access to training sources that are timely, proximal, appropriate and cost effective. It is important that Aboriginal staff can access disease specific education within their Certificate IV and through ongoing professional development. As part of this there need to be clear career pathways, recognition and remuneration according to skill level, and access to clinical support for Aboriginal staff who have an interest in specialising in diabetes education and management; and
- Equip the workforce to deal with social and emotional wellbeing in the context of diabetes.

Pathways to action

- Support the Aboriginal and non-Aboriginal workforce to develop the skills, knowledge and competencies required to provide culturally responsive diabetes care and education;
- Grow and sustain the roles that support and optimise diabetes care coordination for Aboriginal people;
- Establish strong clinical leadership with primary healthcare services to drive positive and evidence-based changes in prevention, early detection and management;
- Ensure that non-Aboriginal staff complete cultural safety training;
- Train the non-Aboriginal workforce to know what Aboriginal specific information they need to be aware of when an Aboriginal client presents to clinic and how to work collaboratively with the Aboriginal health care team to meet the client's needs;
- Establish clear transition pathways for Aboriginal students into the workforce;
- Ensure Aboriginal staff can access clear career pathways to specialise in diabetes education and management;
- Actively aim for relevant staff to have specifically allocated time to attend training sessions and manage chronic disease;
- Build awareness and capacity of AHW/Ps to deliver client and community education across the diabetes care continuum, including support AHW/Ps to undertake relevant diabetes related training;
- Advocate for culturally appropriate RTO capacity / options for the state especially for Certificate IV including capacity for optional units such as diabetes and diabetes-related complications;
- Take a conscious approach to embedding the Aboriginal workforce as core members of the collaborative diabetes care team;

Building a strong diabetes workforce and achieving effective workforce buy-in would require the following:

- A workforce modelling exercise that considers roles and responsibilities, career progression and specialisation should be undertaken and resultant recommendations for action implemented. Modelling could consider positions that have a chronic disease focus or diabetes focus. In addition, diabetes specialisation either as a CDE, or as a diabetes educator, ensuring these roles are appropriately recognised and remunerated;
- Support Aboriginal staff to complete the NDSS Aboriginal and Torres Strait Islander Health Diabetes eLearning
- (CPD points through NAATSIHWP) or other diabetes CPD and consider enrolling in the ADEA NDSS Aboriginal and Torres Strait Islander Health Worker and Health Practitioner Mentoring program;
- Explore opportunities to partner with Flinders University to further Encourage and support Aboriginal health professionals who have at a minimum a Certificate IV to complete a Post Graduate Certificate in Diabetes Education and Management as this is the requirement in the pathway to becoming a CDE (scholarships are available through ADEA/NDSS as well as Indigenous Allied Health Australia – IAHA);
- Provide opportunities and support for Aboriginal staff who have completed a graduate certificate in diabetes education qualification to become a CDE as per the ADEA guidelines for credentialling of Aboriginal and Torres Strait Islander Health Practitioners 2022; and
- Continue the newly established SA peer network for Aboriginal health workers/ practitioners/clinicians working in diabetes management to communicate regularly, as a means of professional education and support (MRFF PHCRI APP1200314).

ENABLER 4: Transport and Accommodation Support

GOAL: Improve access to health care through transportation (ensuring Aboriginal people have safe and appropriate home-to-care-to-home journeys) and culturally appropriate accommodation options for Aboriginal people.

Rationale

- Many community members, both in metropolitan Adelaide and rural and remote communities refer to transport and accommodation as a barrier to accessing primary health, allied health and specialist services;
- SA Health and the Rural Support Service provides a transport and accommodation subsidy through the Patient Assistance Transport Scheme (PATS).[50] Subsidies are provided to assist clients, who are required to travel more than 100 kilometres each way, to access necessary and approved medical specialist services (the specialist must be registered in a speciality under the medical board of Australia) that are not available locally;
- The PATS Aboriginal Engagement Strategy has been established an ongoing Aboriginal Liaison Officer position to help support Aboriginal clients in accessing PATS subsidies.[50] Changes for Aboriginal clients include:
  - » Providing subsidies in advance
  - » Removal of the concession card requirement for the first night of accommodation subsidy
  - » Automatic approval for travel partner subsidies (escorts)
  - » Grant payment for advocacy agencies who support clients to complete online claims
- SA Health has a list of short-term accommodation options for Aboriginal rural and remote clients who are visiting metropolitan hospitals for care.[51,52] However, service providers are often unaware of what accommodation options are available.

Pathways to action

- Develop a transport process to ensure that Aboriginal clients have safe home-to-care-to-home journeys. The model must:
  - » Minimise out-of-pocket expenses to clients with health care needs;
  - » Provide transportation subsidies for clients attending appointments where PATS are unable to cover (i.e., visiting a non-medical specialist);
  - » Ensure that all clients have access to safe, culturally appropriate transportation that suits their medical condition;
  - » Coordinate transport with the health service;
  - » Ensure that all regional and remote clients who are transferred as an in-patient are transferred back to the closest hospital to their home, as an inpatient;
- Identify existing Aboriginal specific accommodation options and work with housing providers to determine how to share directory with service providers; and
- Advocate for increased culturally safe, appropriate, affordable and more Aboriginal accommodation options (including weekend accommodation options for families) to ensure that clients and family members can access health services as required.

ENABLER 5: Information and Communications Technology Solutions

GOAL: Invest in resources, coordination and systems for telehealth and virtual care. Also improve the utilisation and communication of information across patient information management systems.

Rationale

- Innovative technologies can help address specific challenges faced by health care including reducing cost and utilisation, delivering better outcomes in a lower cost environment, and improving access and the client experience;
- Innovative technologies, such as telehealth and home monitoring devices have shown to be effective. However, ICT relies on Wi-Fi bandwidth, workforce to be trained in use and the appropriate hardware and software to meet the needs of clinical staff and service users;
- As the efficacy and efficiency of ICT solutions are demonstrated, there should be core funding made available to enable these solutions to be common practice. Where core funding has been temporarily introduced during the COVID-19 pandemic, this should be maintained and expanded where it has been effective and cost-effective;
- There remains limited integration of ICT solutions in a systematic manner into models of care in SA;
- Some ACCHOs across SA, including AHCSA have the infrastructure for telehealth use. However, due to a lack of resources and funding, these facilities are not being utilised extensively; and
- The uptake of My Health Record at ACCHOs is limited and its use is dependent on receiving hospital discharge summary data.

Pathways to action

- Invest in resources, coordination and systems for telehealth with the aim of embedding it into routine models of care;
- Ensure all health care services statewide have access to functional telehealth;
- Identify funding mechanisms to support innovative technologies so that these services become sustainable;
- Identify what supports are required to embed My Health Record in general practice, allied health, specialists, ACCOs, all community health centres and hospitals. A clear role out strategy should include;
  - » All health services can clearly explain personal control of and potential benefits from My Health Record, to overcome clients' fears;
  - » Targeted and culturally appropriate promotion of My Health Record;
- Ensure hospitals provide discharge summary data to ACCHOs in a timely manner; and
- Provide ongoing support for staff on the use of patient practice software systems, including new and visiting staff.

ENABLER 6: Community Engagement

GOAL: Meaningful engagement of Aboriginal people, families and communities must underpin the design and implementation of projects and services associated with this Plan.

Rationale

- The engagement of Aboriginal people, families and communities is essential to ensure that projects and services to address CVD are relevant for Aboriginal people and meet community standards and expectations[53];
- Genuine engagement demonstrates integrity through deep listening, and respect for cultural knowledge and community decisions, which is key to the principle of Aboriginal self-determination[53];
- Cultural values need to be embedded in the process of engagement. The process of yarning enables collective decision-making and needs to be included in the engagement approach, alongside individual consultations. Considerations of gender and age specific consultations and community members' cultural responsibilities (e.g., caring for Country, kinship bonds, caring for others and cultural belief systems) are also critical to ensure cultural safety[54];
- Reciprocity and long-term relationships are key to successful and meaningful engagement. Community needs to be kept informed about the impact of their engagement on the design and delivery of projects and services and be given an opportunity to provide oversight on a long-term basis[53,54];
- A well planned engagement plan must target appropriate stakeholders, taking into consideration Aboriginal language groups and traditional custodianship of Country, key Aboriginal Elders and community leaders and the dynamics and relationships that make up the social and cultural fabric of the community; and
- Community engagement enables health system planners, policy makers and health service providers to action the priorities outlined in this Plan in a way that ensures respect for community values and mindful of community dynamics and cultural norms.

Pathways to action

- The purpose of the engagement must be well defined, and the engagement approach tailored to meet the objectives of the engagement and the requirements of community stakeholders[55];
- Involving the appropriate stakeholders and ensuring that the target communities are adequately represented and included in the engagement is also critical. The community may be a Traditional Owner group, or it may be regional or national. Other factors such as gender or age might determine, who the community is, or a particular professional background.[54] For the purposes of this Plan, members of the community, who are affected by CVD or have a lived experience, including carers and family members, need to be considered;
- The level of engagement needs to be determined based on the purpose, and the means of engagement chosen accordingly. "Levels of engagement" are well described in the International Association for Public Participation (IAP2) Spectrum of Public Participation (see diagram 2)[55];

- The means of engagement need to be negotiated with community representatives, to ensure that the "right" approach is chosen to allow for Aboriginal people's voices to be heard. Opportunities for collective engagement through yarning circles should be considered as well as individual engagement. Involvement of Aboriginal leaders in undertaking the engagement also needs to be carefully considered and community dynamics and sensitivities taken into account[53,54,55]; and
- A commitment to reciprocity needs to be actioned through a long-term commitment to maintain the community engagement and ensure that the community maintains a level of oversight and ability to continuously influence the implementation of projects and services. Community reference groups or similar mechanisms should be maintained for the duration of projects and services, so the community can oversee the work, ensure their voices are heard, their feedback is incorporated, and integrity maintained. Wherever possible, the community should be empowered to understand the health system and policy context as well as the financial implications associated with the work (e.g., financial limitations, expenditure, any costs and savings associated with the work).[53,54]

IAP2 Spectrum of Public Participation

IAP2's Spectrum of Public Participation was designed to assist with the selection of the level of participation that defines the public's role in any public participation process. The Spectrum is used internationally, and it is found in public participation plans around the world.

INCREASING IMPACT ON THE DECISION

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Diagram 2: IAP2 Spectrum of Public Participation[55]

ENABLER 7: Integrated and Coordinated Services

GOAL: Achieve continuity of care for Aboriginal people with diabetes through culturally responsive, integrated and coordinated services

Rationale

- Continuity of Care is defined by the World Health Organization (WHO) as the degree to which people experience a series of discrete healthcare events as coherent and interconnected over time and consistent with their health needs and preferences.[56] A health system, characterised by integrated and coordinated services, focussing on diabetes and working collaboratively and harmoniously across multiple providers within interdisciplinary teams and across care settings and sectors, is essential to effectively and holistically address the needs of Aboriginal people affected by diabetes, their families and communities[56];
- Continuity of Care needs to occur on a number of levels to achieve better quality and address the disparities in health outcomes related to diabetes[56]:
  - **Interpersonal**[56] – which refers to the relationship between health service providers, clients and their families or carers, provides a key contact person to assist clients navigating their care, and a commitment by all service providers to meet the clients' and their families' physical, social, emotional and cultural needs;
  - **Longitudinal**[56] – or continuity over a period of time, which is enabled by discharge and care planning, integrated referral and follow-up systems and by the support from a navigator role to support the clients' journey;
  - **Cardiovascular disease management**[56] – integrated and coordinated case management across services and sectors (i.e., primary, secondary, tertiary), interdisciplinary team care approaches to enable a collaborative focus on the clients' need over the duration of their care, joint care planning and monitoring of progress;
  - **Informational**[56] – focussing on communication between health service providers and the clients' and families as well as between services, sectors and within interdisciplinary team, which includes effective patient information management and shared records as well as standardised assessments and models of care for diabetes management.
- Access to culturally responsive integrated and coordinated services enables support for chronic disease self-management, early intervention and prevention of complications and improved outcomes;
- Fragmentation of a health system with a large number of service providers across primary, secondary and tertiary care and from government and non-government, including Aboriginal community-controlled, sectors is a common occurrence, as are siloed approaches by health care providers from different professional and specialist background. Opportunities for integration and coordination need to be sought and maximised to achieve better quality and continuity of care, improved health outcomes and also efficient use of resources;

- The SA Government is committed to integrated care through its Wellbeing SA Integrated Care Strategy which includes three priority areas[57];
  - » putting people at the centre of their care;
  - » delivering connected care and
  - » working together as a system.
- Within the PHNs, integrated and coordinated care is supported through a number of initiatives including the Integrated Team Care Program that supports Aboriginal and Torres Strait Islander people who live with complex chronic conditions; and
- The SA Aboriginal Chronic Disease Consortium, through its governance structures and implementation of projects to implement this Plan, provides an opportunity for coordination and collaboration with a wide range of stakeholder organisations and community stakeholders.

Pathways to action

The following should be considered to achieve better service integration, coordination, and partnerships:

- Engage with the SA Aboriginal Chronic Disease Consortium, Wellbeing SA, Aboriginal community and other key partners to co-design standardised assessments and shared models of care, that enhance the delivery of integrated and coordinated chronic disease care;
- Improve discharge planning and establish agreed referral pathways, communication between professionals and across organisations, including through integrated case management and patient information management to better integrate within and between services and sector;
- Focus on interdisciplinary (rather than multidisciplinary) team care approaches, to integrate separate professional discipline approaches into a single consultation, including a team approach to assessment, diagnosis, intervention, setting short- and long-term management goals together with clients and families and jointly monitor progress[58];
- Explore opportunities to enhance care coordination through dedicated Aboriginal coordinator/navigator roles and aim to allocate the care providers to clients, to establish long-term relationships;
- Work towards integration and alignment of patient information management systems, to enable better flow of information and follow-up of clients-in-common;
- Implement multi-agency service agreements, Memoranda of Understanding, Memoranda of Administrative Agreements and other formal partnerships between services and organisations, to facilitate collaboration on operational matters such as project planning, contract management and reporting; and
- Explore opportunities for collaboration to improve integration and care coordination across chronic disease areas.

ENABLER 8: Monitoring and Evaluation

GOAL: Monitor and evaluate the implementation of the Plan and health system changes that result in better health care of Aboriginal people.

Rationale

- Monitoring and evaluation of this Plan is currently occurring through the SA Aboriginal Chronic Disease Consortium;
- The existing monitoring and evaluation framework needs to be revised to include indicators and areas that are not currently in the framework;
- An improvement is needed in the timely release of data to enable effective monitoring and evaluation;
- It will be important to have in place good systems to monitor the impact of collective efforts at a population level;
- Aboriginal people should be involved in determining what is important to them and must be involved in monitoring and evaluating the impact of policy initiatives on health and wellbeing;
- The continuous quality improvement (CQI) process aims to improve the quality of Primary Health Care (PHC), using evidence-based frameworks. Ideally, it is inclusive of all staff and allows for the objective analysis of clinical health results and a staff review of systems, which are used to inform positive improvements in healthcare; and
- CQI results do show that there are varying degrees of quality across PHC services. Those PHC services in most need should be supported to improve the quality of care they provide.

Pathways to action

- Review and modify the existing monitoring and evaluation framework to measure and report on the impact of the SA Aboriginal Diabetes Plan. The following should be monitored and evaluated:
  - » Implementation of actions;
  - » The CCC partner projects that address priority areas and actions of the Plan;
  - » Community involvement and intersectoral partnerships;
  - » A process to adapt to the new needs of community; and
  - » Maintain an up-to-date evidence based.
- Develop a system to evaluate the provision of culturally safe care on an ongoing basis in all areas of the health system, including private general practice and its impact on service use by Aboriginal people (use the cultural safety in healthcare for Indigenous Australians: monitoring framework as a guide[59]);
- Improve processes to accurately identify Aboriginal status across pathways of care (i.e., primary, secondary and tertiary levels of care);
- Ensure reliability of data on participation rates in screening;
- Monitor and respond to changes in geographical distribution of the Aboriginal community for future planning and include forced migration to metropolitan areas for health service reasons;
- Support ongoing engagement and implementation of CQI processes and systems in all PHC services in SA;
- Integrate CQI into all health services;
- Investigate with the PHNs establishing a CQI program within the private general practice sector that includes performance-based payments and annual reporting against the national key performance indicators;

- All SA Health services to complete an Aboriginal Health Impact Statement for all Aboriginal diabetes services, projects and programs;
- Establish a diabetes and associated complications register for SA that includes women who have had diabetes in pregnancy and children born to mothers who have diabetes in pregnancy; and
- Link in with National data sources to identify appropriate indicators for measuring progress of the SA Aboriginal Diabetes Plan (e.g., AIHW Indicators for the Australian National Diabetes Strategy 2016-2020[1]).

Monitoring Progress of the SA Aboriginal Diabetes Plan 2022-2027

The table below list the **6 priority areas** with **17 actions** and **8 enablers** of this Plan. To map the progress made against action, a traffic light system approach will be used. Red indicates that there is no work that has commenced against this action, yellow shows that the action has commenced but is not completed and green highlights that the action is completed.

STAGE	ACTION	OUTCOME
Prevention	1.Implement a statewide approach to diabetes prevention that has application across the lifespan, consistent messages and is culturally appropriate.	Prevent Aboriginal people developing type 2 diabetes.
	2.Develop systems and programs to increase the consumption of healthful diets and physical activity.	
	3.Develop a standard intervention program for pre-diabetes.	
	4.Encourage Aboriginal people to use primary health care (PHC) services.	
Early Detection	5. Increase the number of Aboriginal people receiving an annual Health Check (MBS 715 or similar).	Promote awareness and earlier detection of type 1 and type 2 diabetes.
	6. Integrate Point of Care Testing (POCT) within the health system.	
Management	7. Develop and implement a statewide type 2 diabetes model of care for Aboriginal people.	Timely diagnosis of heart disease and stroke associated risk factors and access to specialist services and support by specialists as close to the individual's home as possible.
	8. Improve type 2 diabetes management.	
	9. Detect complications early and manage them according to best-practice. See 9A to 9E.	
	9A. Identify and reduce foot complications.	
	9B. Identify and reduce eye complications.	
	9C. Identify and reduce cardiovascular events.	
	9D. Identify and reduce chronic kidney disease (CKD).	
	9E. Improve mental health for people with diabetes.	
	10. Improve oral health and access to dental care.	
	11. Enhance secondary prevention through empowering clients and families.	
	12. Provide better support for carers.	
	13. Ensure access to medicines and other supports.	
	14. Reduce hospital self-discharge and improve continuity of care between the community and the hospital.	

Diabetes in Pregnancy	15. Implement system changes that can support the elements of best practice diabetes care in pregnancy (pre-existing diabetes and gestational diabetes).	Reduce the impact of pre-existing and gestational diabetes in pregnancy.
Priority groups	16. Improve our understanding of the health needs of priority groups, establish targeted prevention campaigns and increase access to early detection and management diabetes.	Reduce the impact of diabetes among priority groups.
Research	17. Continue to build a statewide research agenda that informs policy and practice and that is translational.	Strengthen research.

ENABLERS	ACTIONS	OUTCOME
Governance: Aboriginal Leadership and Partnerships	Refer to 'Governance' section for a full list of actions.	Establish and maintain robust governance structures, led by Aboriginal professionals and organisations, equipped to foster partnerships and collaboration between the wide range of organisations and stakeholders responsible for implementing this Plan.
Sustainable Funding	Refer to 'Sustainable Funding' section for a full list of actions.	Appropriate levels of funding to be available for implementation of projects and services within appropriate timeframes.
A Strong Diabetes Workforce	Refer to 'A Strong Diabetes Workforce' section for a full list of actions.	Increase the capacity and capability of the Aboriginal and non-Aboriginal workforce to provide high quality, culturally responsive, collaborative diabetes care.
Transport and Accommodation Support	Refer to 'Transport and Accommodation Support' section for a full list of actions.	Improve access to health care through transportation (ensuring Aboriginal people have safe and appropriate home-to-care-to-home journeys) and culturally appropriate accommodation options for Aboriginal people.
Information and Communication Technology (ICT) Solutions	Refer to 'ICT Solutions' section for a full list of actions.	Invest in resources, coordination and systems for telehealth and virtual care. Also improve the utilisation and communication of information across patient information management systems.
Community Engagement	Refer to 'Community Engagement' section for a full list of actions.	Meaningful engagement of Aboriginal people, families and communities must underpin the design and implementation of projects and services associated with this Plan.
Integrated and Coordinated Services	Refer to 'Integrated and Coordinated Services' section for a full list of actions.	Achieve continuity of care for Aboriginal people with diabetes through culturally responsive, integrated and coordinated services.
Monitoring and Evaluation	Refer to 'Monitoring and Evaluation' section for a full list of actions.	Monitor and evaluate the implementation of the Plan and health system changes that result in better health care of Aboriginal people.

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Appendix A

We would like to thank the following groups and organisations for their contribution to the revision of the SA Aboriginal Diabetes Plan 2022-2027. We thank you all for taking the time to share your insights.

- Aboriginal Executive Directors
- Aboriginal Health Council of South Australia (AHCSA)
- Adelaide Primary Health Network
- Australian Diabetes Educators Association (ADEA)
- Chair of Community Reference Group (SA Aboriginal Chronic Disease Consortium)
- Child and Family Health Service
- Commission on Excellence and Innovation in Health
- Country SA Primary Health Network
- Diabetes Leadership Group
- Diabetes SA
- Eyre Far North Local Health Network
- Flinders and Upper North Local Health Network
- Flinders University
- Health Translation SA
- Indigenous Eye Health Unit, Melbourne School of Population and Global Health, The University of Melbourne
- Murdoch Children's Research Institute
- Northern Adelaide Local Health Network (NALHN)
- QAAMS
- Queen Elizabeth Hospital
- Royal Adelaide Hospital (RAH)
- Rural Support Service
- SA Health
- SAHMRI – Aboriginal Health Equity, Lifelong Health and Women and Kids
- SA Pharmacy
- Telethon Kids Institute
- University of Adelaide
- Women's and Children's Hospital

SA ABORIGINAL
CHRONIC DISEASE
CONSORTIUM