



South Western Sydney

Diabetes Framework

to 2026

A Snapshot of South Western Sydney's Population

The population is growing

from 962,877 in 2016 to over **1.3 million by 2031** an increase of **37%**

The highest population growth is Camden and Liverpool LGAs



The number of children

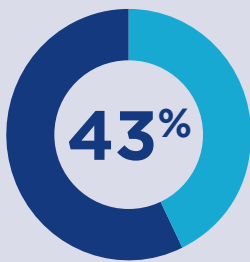
of aged **0 - 14 years** will increase by **32% by 2031**

The number of young people aged **15 - 24 years** will increase by **22% by 2031**

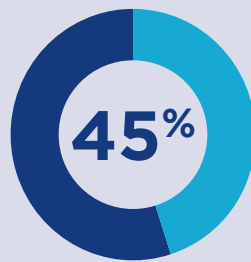


The number of people

aged 65+ years will increase by **80% by 2031**



43% of the population are **born overseas**



45% of the population **speak a language other than English at home**



10% of the population **don't speak English well or not at all**

2% of the population or **20,000** people **identify as Aboriginal.**

More than half of the region's Aboriginal population live in Macarthur area



More than **2,500 refugees** settle in SWS every year, mostly from the Middle East, Asia and Africa

The largest proportion of refugees settles in Fairfield and Liverpool LGAs



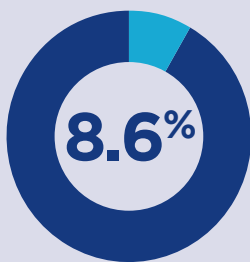
61,000

people are living with disability



85,000

people describe themselves as carers of people with disability



of adults experience food insecurity

A high proportion of children and young people reported for 'risk of significant harm' - **the second highest** in NSW

A number of suburbs in Fairfield, Canterbury-Bankstown, Liverpool and Campbelltown LGAs are among the

most disadvantaged in NSW



5,700

people are homeless or living in insecure housing across the region



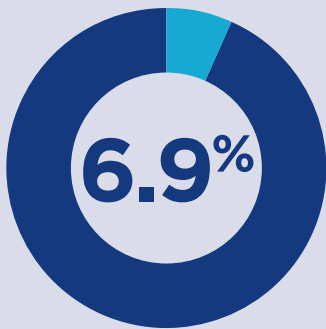
Approximately

9%

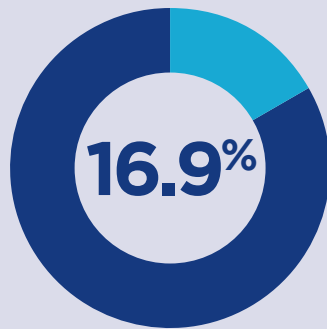
of residents live in metropolitan fringes of Wingecarribee and Wollondilly Shire in smaller towns and on rural properties

A Snapshot of Diabetes In South Western Sydney

Diabetes incidence in South Western Sydney



66,740 people living in SWS are known to have diabetes (**6.9% of the population**)

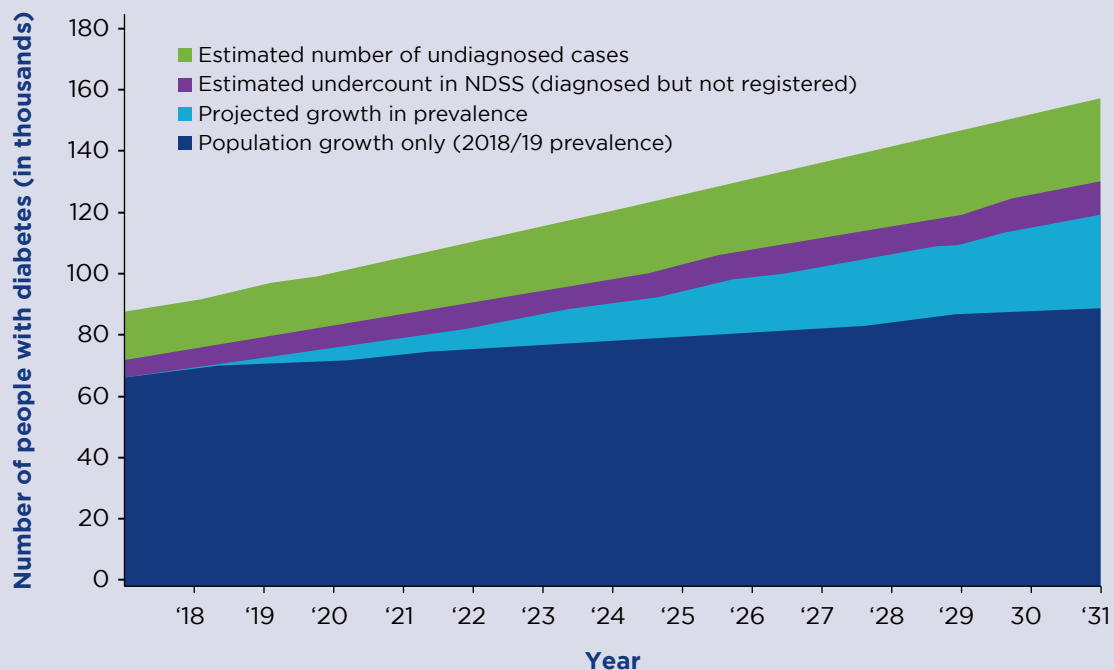


16.9% of all women have pre-existing diabetes or gestational diabetes during their pregnancy¹



By 2025, there will be up to **122,000 people** in SWS living with diabetes and by 2031, up to 151,000

Projected number of South Western Sydney residents with diabetes: 2017/18 to 2030/31

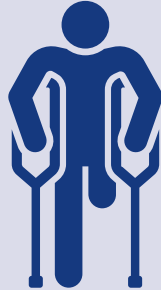


Source: NDSS and Department of Planning and Environment Population Projections, SWS

Diabetes Complications



Diabetic nephropathy is identified as the primary cause for requiring **dialysis in 33% of cases**

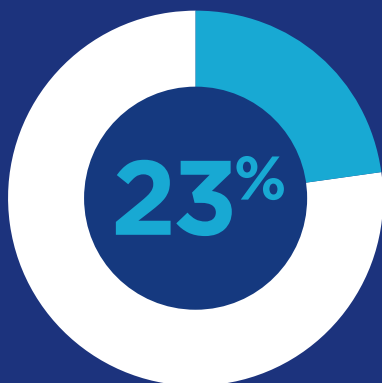


Lower limb amputations for people with diabetes occur at an average rate of **169 per year**



Women with pre-existing diabetes in the Macarthur area (**12.4%**) and Liverpool (**7%**) were more likely to have a baby with a congenital malformation than women without diabetes (**1.7%**)²

Diabetes Hospitalisations



23% of inpatients are identified as having a diagnosis of diabetes³



People with diabetes stay in hospital an average of **2.62 days longer** than people without diabetes

Diabetes Framework at a glance

OUR VISION: Leading care, healthier communities

OUR VALUES:

Collaboration

Openness

Respect

Empowerment

OUR INTENT:

People living with diabetes in South Western Sydney will have access to a comprehensive range of services to meet their changing needs, delivered as close to home as possible. Care will be delivered collaboratively with consumers, with a focus on self-management and prevention of complications.

OUR PRIORITY AREAS:

Prevention and early detection of type 2 diabetes	Self management and patient education	Integrated diabetes care
Prevention and management of complications	Emergency, acute and inpatient care	Technology and virtual care
Workforce development	Data collection, data sharing and research	Clinical networks and governance

OUR PERFORMANCE MEASURES:

By 2026 we will have achieved an increase in the number of:

- » referrals to Get Healthy NSW, including the High Risk For Diabetes service
- » GPs participating in the SWS Diabetes Case Conferencing Service
- » patients discussed in the SWS Diabetes Case Conferencing Service
- » practices enrolled in the Quality in Primary Care Program
- » annual improvement cycles completed through the Quality in Primary Care Program
- » GPs, primary care providers and SWSLHD staff who have successfully completed at least one AUS-CDEP topic

We are working towards reducing:

- » potentially preventable hospitalisations for diabetes
- » average length of stay in hospital for people with diabetes
- » long term complications including lower limb amputations and renal failure
- » rate of poor birth outcomes for women who have diabetes in pregnancy

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1. Introduction

In 2019, between 66,000 and 80,000 South Western Sydney (SWS) residents are living with diabetes and this number is steadily growing. If current trends continue, over 150,000 of our residents may be living with diabetes by 2031.

People with type 2 diabetes make up the greatest proportion of these numbers. Type 2 diabetes is strongly associated with overweight and obesity and is therefore, largely preventable. A person living in SWS is more likely to develop type 2 diabetes than a person living in the eastern part of Sydney, due to a range of environmental and socioeconomic factors, known as the social determinants of health.

Diabetes is a leading cause of blindness, chronic kidney disease and dialysis, lower limb amputations, heart disease, stroke, complications in pregnancy and poor pregnancy outcomes. These complications have significant impacts on individuals, communities and the health system as a whole.

There is an urgent need for change to the way in which services are provided to people with diabetes. Traditional service delivery models are already experiencing pressure. Continuing to provide these models alone is not sustainable if growth in diabetes prevalence continues as predicted.

1.1 Developing this plan

The South Western Sydney Diabetes Framework to 2026 has been developed as a collaborative partnership between South Western Sydney

Local Health District (SWSLHD) and the South Western Sydney Primary Health Network (SWSPHN) with the input of clinicians across all settings, consumers and the broader community, along with peak bodies and other government and non-government services (Appendix 1). It has been developed to be consistent with key NSW and local policies and initiatives (Appendix 2).

The Framework outlines the approach to the delivery of integrated diabetes care across SWS and describes how diabetes services in SWS will be developed and expanded over the next six years.

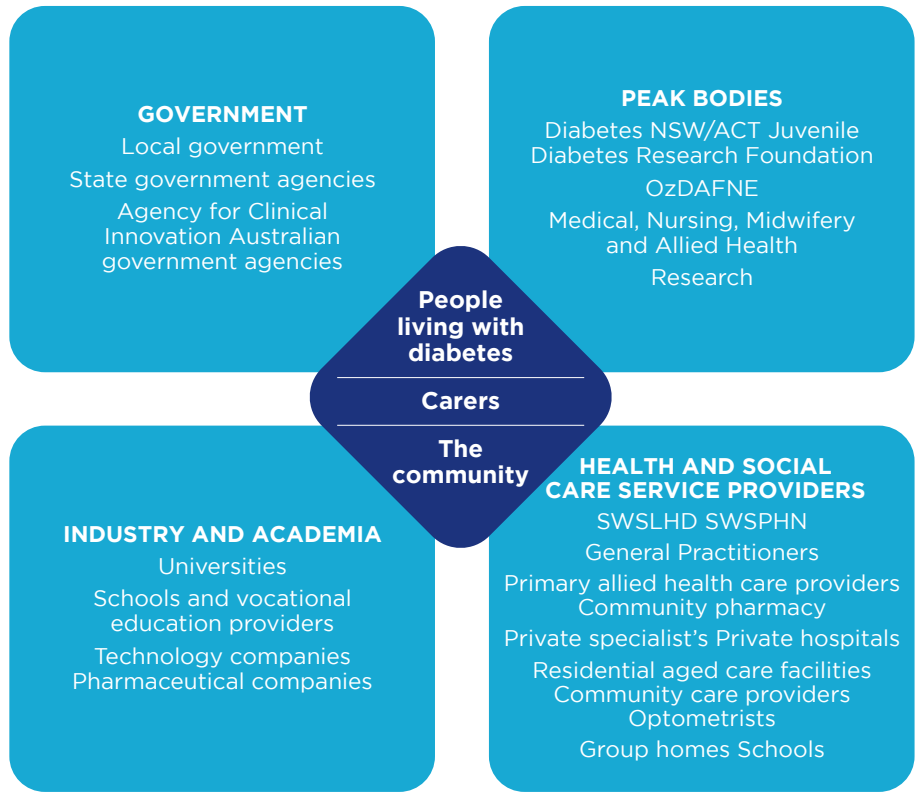
It recognises that, to address the diabetes epidemic requires a sustained and integrated response across communities, health systems and health services and acknowledges that results across the population may not be seen in the short term. Further, the Framework recognises that there is no one-size-fits all approach to diabetes care across a diverse community but rather that for people across the lifespan and at all stages of their disease, the appropriate supports need to be available – **the right care, in the right place, at the right time.**

It should be noted that while our Framework identifies the fundamental role of diabetes prevention in tackling the diabetes epidemic locally and globally, the proposed approach does not address this in detail. Diabetes prevention in SWS will be addressed in conjunction with the broader issues of improving population health and preventing overweight, obesity and chronic disease.

1.2 Key Strategic Partners

A partnership approach across the whole community is required to tackle the diabetes epidemic. SWSLHD and the SWSPHN will continue to provide a proactive leadership and coordination and service role, working together with our partnership network locally and more broadly.

We will strengthen our existing partnerships and seek to develop new partnerships to help us tackle this issue.



1.3 Key Principles

People living in south western Sydney will have access to diabetes prevention services and those living with diabetes will have access to a comprehensive range of services to meet their changing needs, delivered as close to home as possible. Care will be delivered collaboratively with consumers, focusing on self-management and the prevention of complications

People with a diagnosis of T2DM will be supported by the primary health care sector until such time that they require specialist support due to disease progression and/or complications

Interdisciplinary care will be provided for people with diabetes across all settings

People with diabetes will be able to access interdisciplinary and multidisciplinary specialist care through SWSLHD

People with diabetes will be supported to self-manage through access to a range of programs to suit individual needs and circumstances

Care will be integrated across services and settings

Access to services will be equitable across SWS, with additional services provided for areas or communities of high need

People with a diagnosis of diabetes should be supported to access all available subsidies to reduce the cost burden of living with diabetes

People with diabetes will be encouraged and supported to complete an Annual Cycle of Care to facilitate early identification and treatment of diabetes related complications

SWSLHD and SWSPHN will build the capacity of health professionals across sectors and settings to manage diabetes

Services will provide care in a supportive manner which addresses the health and psychosocial needs of the individual and their families/carers

Services will be delivered in a culturally appropriate and safe manner by staff who are trained in delivering culturally appropriate care working with interpreters, bilingual clinicians and community educators and translated material

Services will facilitate seamless transition from paediatric to adult services

Services will collect, analyse and share data to support continuous quality improvement and research

Care will be evidence-based ensuring the highest quality of service for our community

1.3 Priority Areas

In order to address the challenges outlined in this document, nine priorities areas have been identified for action:

OUR PRIORITY AREAS				
Prevention and early detection of type 2 diabetes	Self Management and Patient Education	Integrated diabetes care	Prevention and management of complications	Emergency, acute and inpatient care
OUR FOCUS				
Facilitating early detection Addressing the needs of high risk populations Primary and secondary prevention activities	Providing accessible information, education and support Delivering targeted education programs Developing peer support	Strengthening primary care capacity to meet the needs of adults with T2DM Delivering coordinated multidisciplinary care which addresses physical and psychosocial care needs	Routinely undertaking complications screening Ensuring delivery of coordinated care	Identifying patients with diabetes in ED Enhancing the care of people with diabetes in the inpatient setting Facilitating appropriate transfer of care

OUR PRIORITY AREAS			
Technology and virtual care	Workforce development	Data collection, data sharing and research	Clinical networks and governance
OUR FOCUS			
Using technology to monitor and manage diabetes Providing agile and responsive systems Sharing information to improve care	Improving diabetes knowledge across primary and secondary care Developing the specialist diabetes workforce Supporting care providers in the community	Collecting and reporting accurate data Sharing data across partner organisations Monitoring the impacts of system and service changes Building on research excellence	Strengthening cross organisational partnerships Enhancing clinical governance Providing a network of services

1.4 Service Developments and Enhancements proposed within the Plan

Service Development actions are identified throughout the Framework under the heading **'We will improve existing services and service integration by'** and are numbered consecutively from S1-S45. Proposed enhancements are identified under the heading **'We will enhance access to local diabetes care by'** and are numbered consecutively from E1 to E23'.

2. Diabetes

Diabetes is one of the most significant health problems in South Western Sydney. In 2019, the total cost of providing care and government subsidies for people aged over 30 with diabetes in SWS is estimated at \$872 million⁴.

The following sections provide a brief outline of the scope of the problem locally and the various impacts diabetes can have on individuals, communities and the health care system.

2.1 What is diabetes?

Diabetes mellitus (herein referred to as diabetes) is a group of closely related conditions defined by high blood glucose. The main forms of diabetes are described below.

Type 1 diabetes (T1DM)

T1DM is estimated to be present in 10-15% of people with diabetes and is caused by a combination of genetic and environmental factors. There are no known modifiable risk factors for this form of diabetes, nor is there a cure. People with T1DM require treatment for the remainder of their life, incorporating multiple daily checks and the administration of appropriate doses of insulin to keep blood glucose levels within safe ranges to avoid hypoglycaemia, hyperglycaemia, and diabetic ketoacidosis (DKA). Approximately half of all T1DM diagnosis occur before the age of 18^{5,6}.

Type 2 diabetes (T2DM)

T2DM is the most common form of diabetes, accounting for 85-90% of cases. Several risk factors play a role in the onset of T2DM, including obesity, physical inactivity, poor nutrition and

prior gestational diabetes, as do other factors such as genetic predisposition, ageing and ethnicity. Unlike T1DM, T2DM may be prevented and may initially be treated through lifestyle modifications only. If more aggressive treatment is required, people with T2DM may be prescribed oral therapies, non-insulin injectable therapies and/or insulin. Emerging research demonstrates that for some people T2DM may go into remission, at least in the short term.

Gestational diabetes mellitus (GDM)

According to Diabetes Australia, GDM is the fastest growing cause of diabetes. GDM is diagnosed during pregnancy in about 13% of females not previously known to have diabetes and generally lasts only for the duration of the pregnancy. Women with GDM require intensive management and support whilst pregnant, with the treatment requirements varying according to glycaemic control.

GDM is a significant concern as it increases short and long term risks to both mother and baby and also places the woman at greater risk of developing T2DM in the future.

Rare forms of diabetes

Rare forms of diabetes affect around 3% of the overall population of people with diabetes. There are numerous rare forms of diabetes which may be related to genetic disorders, diseases of the pancreas, other endocrine disorders, medication, infections or immune related issues. Treatment regimens for rare forms of diabetes are as diverse as the causes. The needs of people with rare forms of diabetes are equally varied but generally require specialist care.

2.2 Diabetes Management

People with all forms of diabetes report significant difficulties with long term diabetes management. Difficulties include adherence to lifestyle change recommendations, consistency in taking medication, management of comorbidities, the cost of equipment, consumables and health care services and fatigue associated with long term management. When combined with other personal and environmental factors, it can be seen that long term diabetes management is highly challenging both for individuals and the health service.

2.2.1 THE DIABETES MANAGEMENT TEAM

The people involved in diabetes care are listed in the following table. Further information on the role in supporting diabetes care and ways to access are included in Appendix 3.

Person with diabetes	Family & Friends
Family doctor/ GP	Credentialed Diabetes Educator (CDE)
Dietitian	Endocrinologist
Pharmacist	Podiatrist
Counsellor, psychologist, psychiatrist or a social worker	Exercise physiologist/ physiotherapist
Optometrist	Dentist

2.2.2 LIFESTYLE MODIFICATION

Lifestyle modification is a key component of managing all types of diabetes and involves healthy food choices, regular physical activity and the maintenance of a healthy weight. Lifestyle modification can also assist diabetes prevention.

Diet

Nutritious food choices are of benefit to all people, including those with diabetes. An understanding of foods and their impact on blood glucose levels assists people with diabetes to obtain good glycaemic control.

Exercise

Exercise also benefits all people, including those with diabetes. Exercise can assist in the management of blood glucose levels and protect against the development of long term complications.

Maintaining a healthy weight

Maintaining a healthy weight can assist the management of blood glucose levels in T2DM and protects against the development of long term complications.

2.2.3 MEDICATION

Type 2 Diabetes

People with T2DM are often given medications including insulin to help manage their blood glucose levels. Some medications are in the form of tablets while others are given by injection. Both types of medication are intended to be used in conjunction with healthy eating and regular physical activity.

GDM

GDM management is generally managed by diet and lifestyle but may also require tablets or insulin.

Type 1 Diabetes

All people with T1DM require insulin which may be given by injection or by an insulin pump. Insulin pump therapy has been shown to reduce the frequency of severe hypoglycaemia and to improve quality of life⁷. Whilst insulin pump therapy is well established internationally, Australia has had a comparatively slow uptake of this technology. However, it is estimated that 10% of people with T1DM are currently using an insulin pump. Insulin pumps and continuous glucose monitoring devices are increasingly being used to improve diabetes management. For those who would benefit from this technology, access is costly. However, free access for people with T1DM who meet select criteria has recently been announced by Diabetes Australia. Some private health insurance policies cover the cost of pumps and various other government subsidies are in place for eligible people.

The NDSS also subsidises consumables. Rapid change is occurring in relation to the availability and accessibility of these forms of technology.

As the numbers of people using these innovations increases, clinics will need to respond to changing service user demands and have access to electronic systems which support these technologies (See Section 10.1). Continuous glucose monitoring (CGM) is a means of measuring glucose levels continuously in order to view the patterns and trends in glucose levels in real time. CGM has been

designed to support people with T1DM to improve their daily and long-term glycaemic control thus reducing their experience of severe events requiring hospitalisation. CGM may be used independently or in combination with an insulin pump. Subsidised CGM devices are available through the **NDSS**. For eligible consumers, whilst for others private health insurance enables subsidised access. Consumers report the cost of accessing CGM is prohibitive, but that they are interested in understanding more about the technology and potential benefits for people with T2DM who require insulin. Other new technologies that support blood glucose monitoring also have potential benefits but are not currently subsidised by either the NDSS or private health insurance.

2.2.4 THE CONSUMER EXPERIENCE OF CARE

The consumer experience of living with type 2 diabetes varies at different stages of the diabetes continuum. There are many psychosocial and emotional aspects of being diagnosed with, and managing, diabetes. One common view across the different stages is that the GP is a key point for care. They are important for identifying diabetes, expressing urgency and seriousness, and acting as a source of information and as a coordinator of care.

Diabetes NSW & ACT have recently conducted consumer research data. The key messages from the research and understanding of the Continuum of Care for Diabetes are as follows:

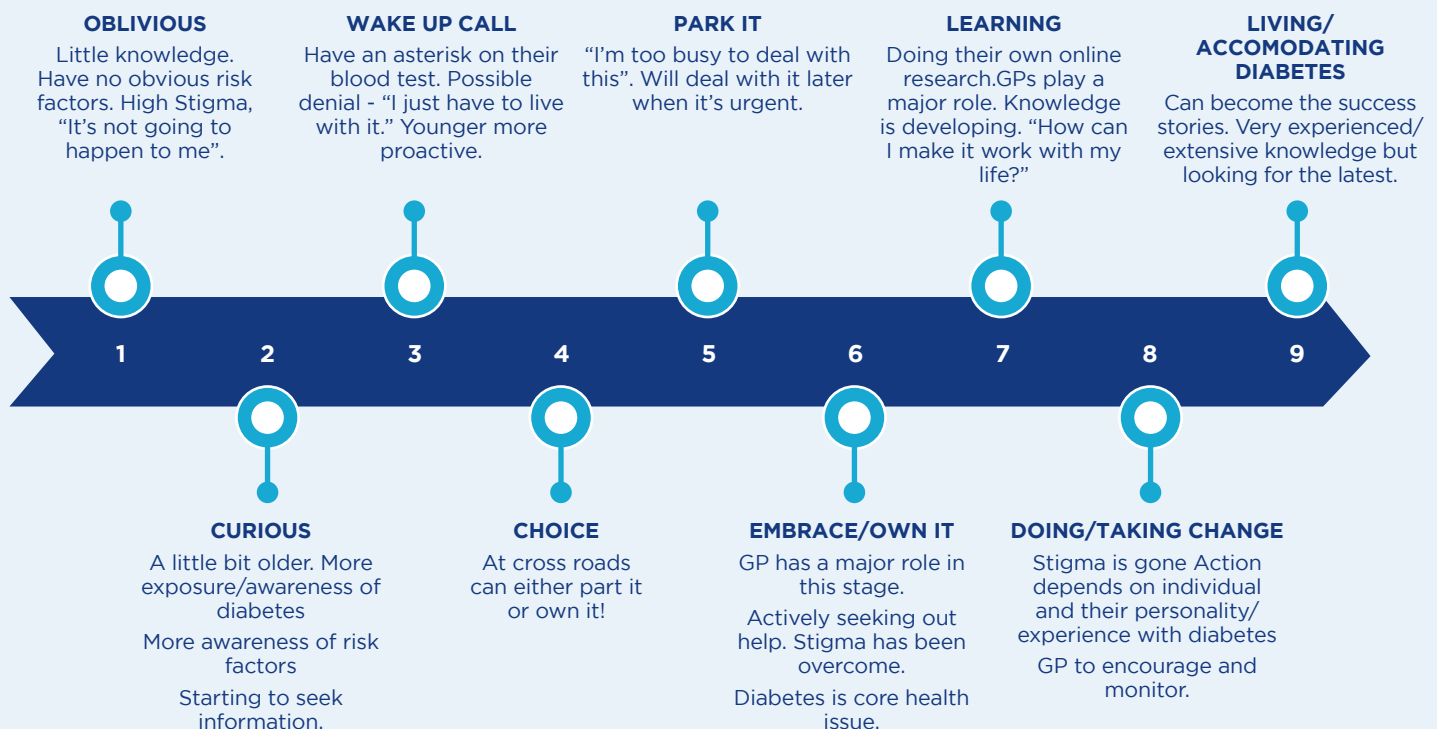
Across the stages of change, the general practitioner (GP) is crucial for people living with diabetes. The GP is seen as the key link in terms of the consumer and their family gaining knowledge, using the services provided and enabling discussion about living with and managing diabetes.

A common view is that there is plenty of time to deal with diabetes. People applied urgency and seriousness to a diagnosis of diabetes; knowledge of progression; onset of complications; and barriers to action.

Everyone (almost) will go to their GP. GPs need assistance to ensure that personal engagement with diabetes occurs efficiently and effectively.

The inability to take effective action is a barrier - consumers commonly question what they can really do except eat well, exercise and lose weight.

Continuum of Care for Diabetes



Source Diabetes NSW and ACT

3. Diabetes in South Western Sydney

Our service delivery model demonstrates a collaborative effort between all care providers. This model is described in detail in the following sections.

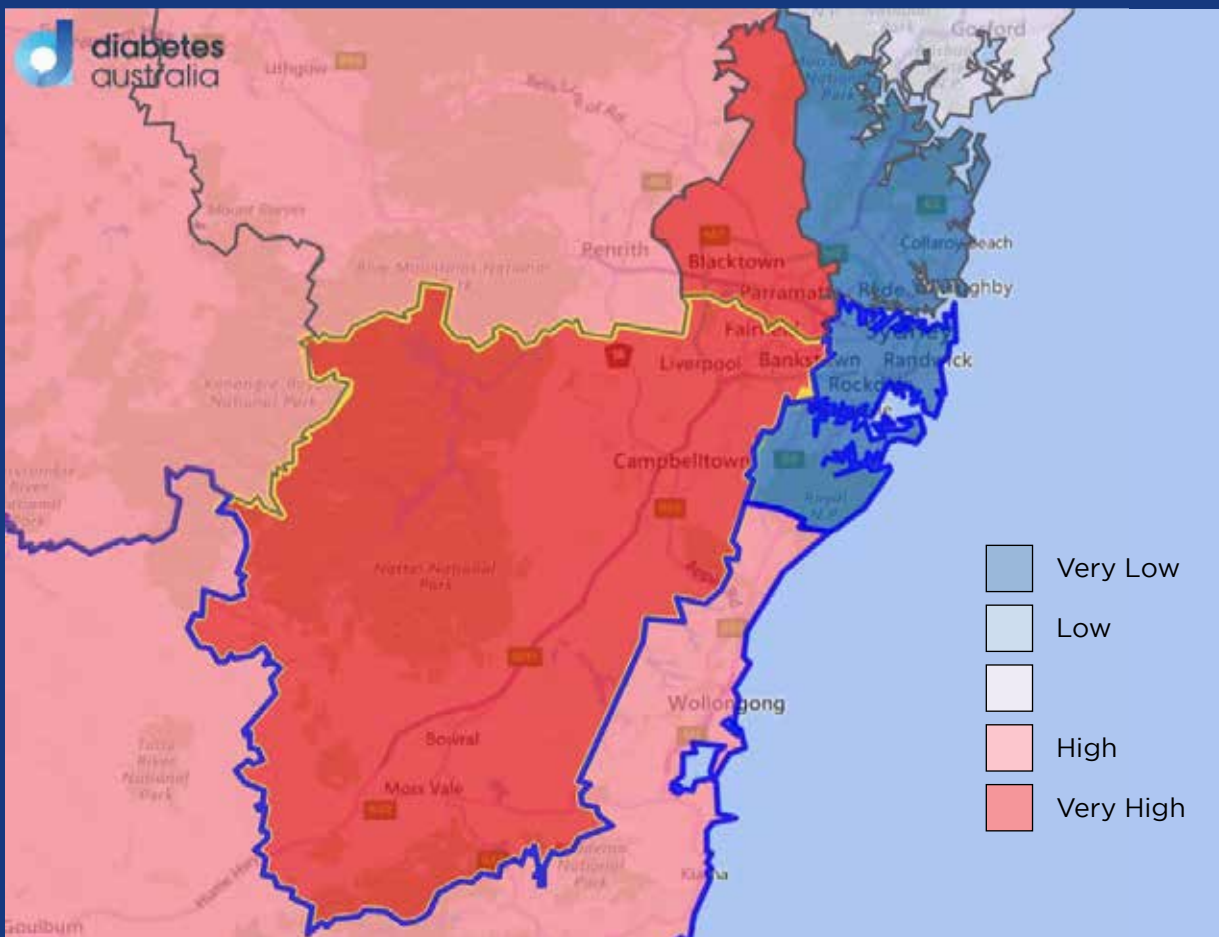
3.1 THE SCOPE OF THE PROBLEM

Although the incidence of T1DM is rising at three to five percent per year⁸, the diabetes epidemic

which is being seen globally is most associated with T2DM and GDM.

Reflecting environmental and socioeconomic factors in SWS, and the number of people from countries where diabetes has a high prevalence, people living across Greater Western Sydney are more likely to have diabetes than people living in the eastern part of the city (see Figure 1).

Figure 1: Prevalence of diabetes in Sydney, NDSS, and April



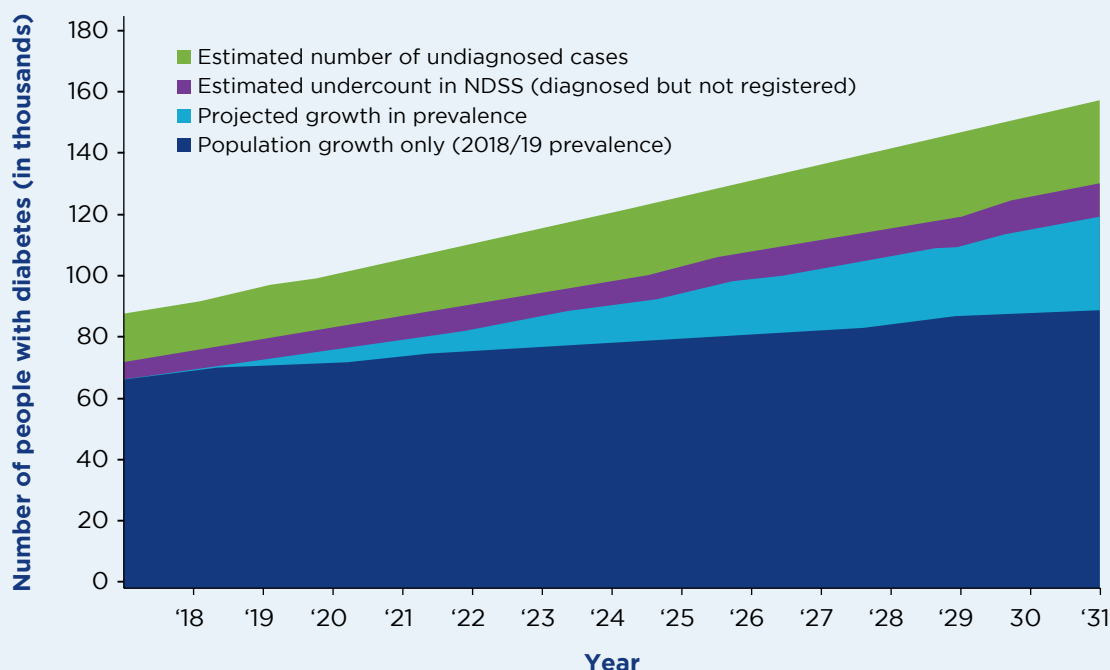
In April 2019, there were 66,740 people living in SWS who were known to have diabetes (6.9% of the population) according to the **National Diabetes Services Scheme** (NDSS) data¹. If the number of people who have diabetes but are not registered are taken into account, the number could be as high as 90,000. As shown in Table 1, the majority of people with diabetes in SWS have T2DM. If current trends continue, projections indicate that by 2025, there will be up to 122,000 people in SWS living with diabetes and by 2031, up to 151,000.

Table 1: Number and prevalence of NDSS registrations for SWS population by type of diabetes and LGA, April 2019

LGAs	Prevalence	Type 2	Type 1	GDM	Other	Service catchment
Bankstown*	13,830 (6.6%)	12,110	1,040	610	70	Bankstown Diabetes Service
Camden	3,570 (5.4%)	2,920	390	220	30	Macarthur Diabetes Service
Campbelltown	12,380 (7.3%)	10,750	980	550	100	
Fairfield	17,020 (7.8%)	15,350	1,010	550	100	Liverpool/ Fairfield Diabetes Service
Liverpool	14,760 (7.1%)	12,750	1,070	830	100	
Wingecarribee	2,150 (4.9%)	2,140	250	90	30	Macarthur Diabetes Service (outreach)
Wollondilly	2,670 (5.8%)	2,210	290	130	30	Macarthur Diabetes Service
SWS	66,740 (6.9%)	58,250 (87.3%)	5,040 (7.6%)	2,920 (4.5%)	470 (0.7%)	
NSW	424,280 (5.3%)	366,210 (86.3%)	41,000 (9.7%)	14,010 (3.3%)	3,070 (0.7%)	
Australia	1,302,300 (5.1%)	1,132,320 (86.9%)	119,750 (9.2%)	41,510 (3.2%)	8,730 (0.7%)	

Source: Diabetes Map www.diabetesmap.com.au. Accessed on 07/08/2019. * Excluding the area which was the former Canterbury LGA

Figure 2: Projected number of South Western Sydney residents with diabetes: 2017/18 to 2030/31



1 NDSS data captures only those people currently registered with the NDSS and is therefore a known undercount. Source: NDSS and Department of Planning and Environment Population Projections, SWS

As the majority of population growth will occur in Camden, Liverpool and Wollondilly, it might be expected that the prevalence of diabetes will also be greatest in these LGAs in the future.

3.2 Factors contributing to the rise in diabetes

Some forms of diabetes such as T2DM and GDM have increased significantly in line with changes to diet and lifestyle, which are also associated with the global obesity epidemic. **South West Sydney: Our Health in 2019**, an in-depth needs assessment developed by SWSLHD, provides detailed information relating to lifestyle factors and their impact on health, with key highlights shown in Figure 3.

The environment plays an enormous role in promoting health and reducing the prevalence of diabetes. Environmental issues which impact on the ability of people to keep active and make healthy food choices include:

- The urban design of local areas – availability of open space and shade and a sense of safety

- Food environments – ease of access to healthy and unhealthy foods

- The availability of active transport options – public transport, cycle and walking paths

- Local employment options – commuting distances impacting on available leisure time

Socioeconomic and cultural factors are also significant contributors to overweight and obesity, with key factors including:

- Education levels, English skills and health literacy – ability to understand health messages

- Income levels – ability to afford healthy food and access preventive health care

- Stress – ability to prioritise physical health in the face of other pressures

Figure 3: Key Health Indicators, SWS and NSW 2017 - 2018

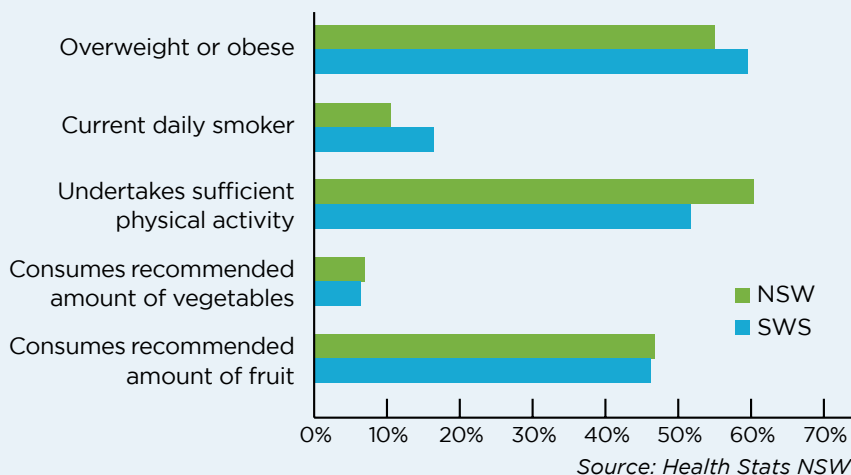
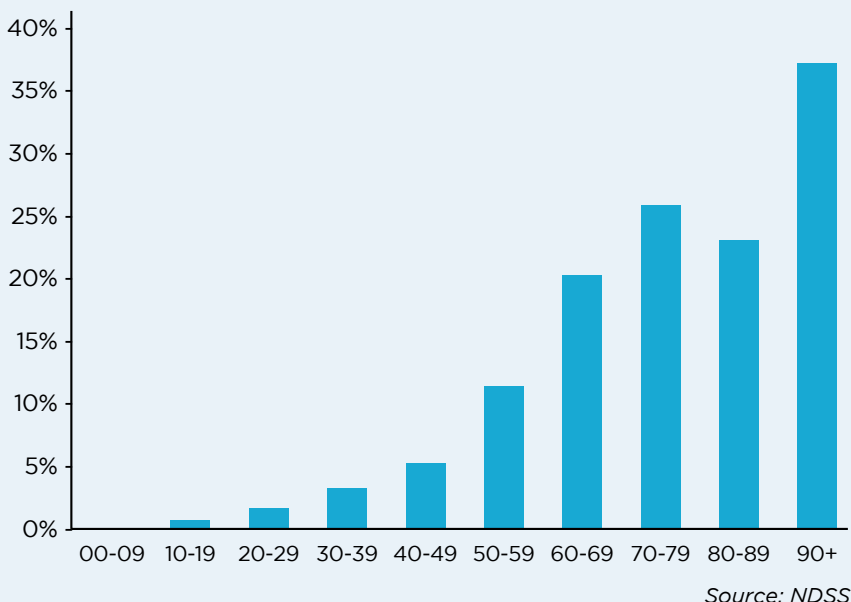


Figure 4: Proportion of SWS residents registered with the NDSS by age

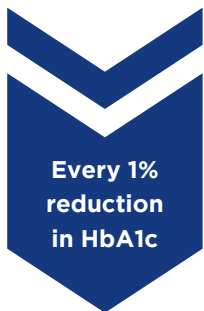


Age is also one of the most significant risk factors for the development of T2DM. In SWS, the prevalence of diabetes as a proportion of people within each age group increases dramatically from the age of 30 (Figure 4). The ageing of the population in SWS will directly impact of the prevalence of diabetes, with the rate of diabetes increasing as the population ages.

3.3 Health Consequences of Diabetes

The health consequences of diabetes are significant for individuals, their families and communities and for the overall health system. Diabetes can have significant long-term effects on an individual's physical and mental health and socioeconomic circumstances.

Early diagnosis is fundamental to diabetes management, as is achieving and maintaining optimum glycaemic control (measured as HbA1c) over the life course. The better a person's HbA1c over time, the less likely they are to develop micro and macrovascular complications of diabetes.



REDUCES RISKS BY:

- » Diabetes related deaths **21%**
- » Myocardial infarctions **14%**
- » Microvascular complications **37%**
- » Amputations or deaths **43%**

3.3.1 HOSPITAL UTILISATION

The high prevalence of diabetes in the community is reflected in the inpatient population, where the prevalence of diabetes in inpatients is also high^{9 10}. A recent audit at Campbelltown Hospital identified 23% of inpatients as having a recorded diagnosis of diabetes, whilst the UK has reported at least 16%

of inpatients having diabetes in 2017¹¹. People with diabetes have been shown to have a longer average length of stay (ALOS) than people without diabetes. In SWSLHD in 2018/19 a person aged over 16 with diabetes stayed in hospital an average 2.62 days longer than a person without diabetes.

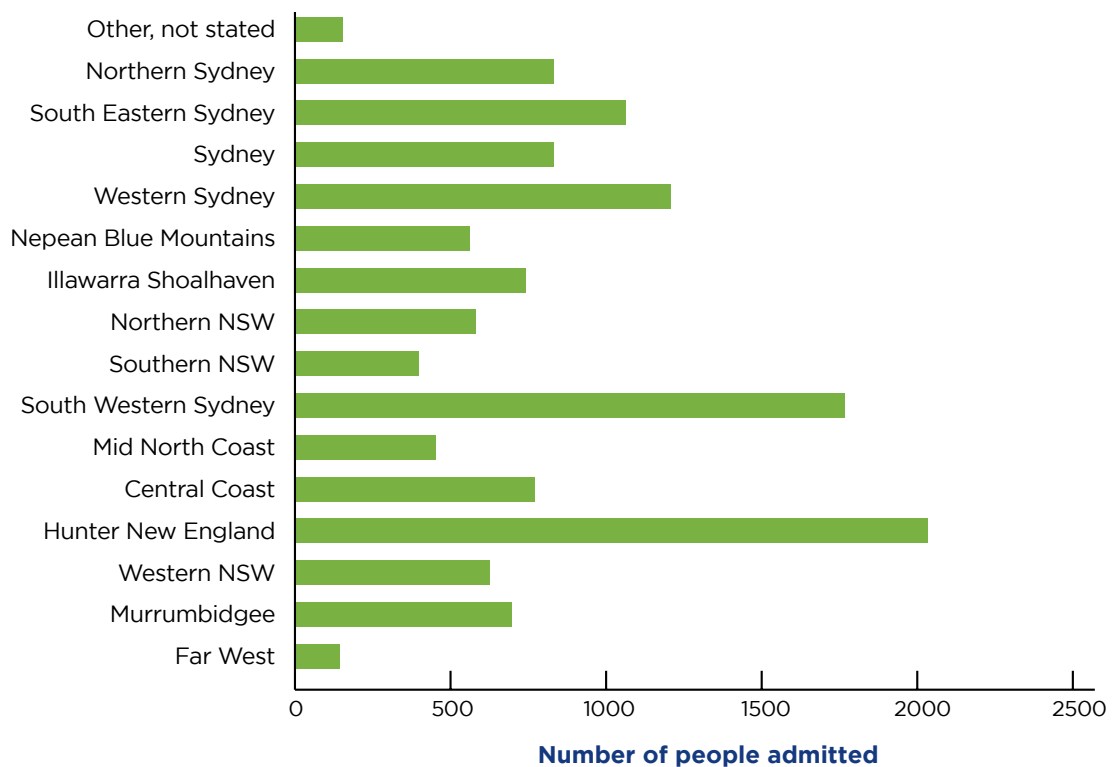
These hospitalisations have an enormous impact on the hospital system. In addition to a longer ALOS, people with diabetes who are admitted for other medical or surgical reasons have been shown to be more susceptible to infections and slow wound healing and have higher rates of in hospital mortality^{12 13 14}.

Hospitalisations where diabetes is the primary cause

People newly diagnosed with diabetes (particularly T1DM) and those experiencing acute complications of diabetes may require hospitalisation as a direct result of their diabetes.

Figure 5 shows that in 2017-18 there were 1,757 hospitalisations in SWSLHD with a primary diagnosis of diabetes (a rate of 173 per 100,000 people, compared to 149 per 100,000 for NSW)¹⁵.

Figure 5: Hospitalisations with diabetes as principal diagnosis by Local Health District within NSW, 2017-18



Source: Health Stats NSW

Most people in SWSLHD who were hospitalised with diabetes as the primary cause had T2DM (60%), with 29% having T1DM, with the exception of those aged 0-24, where 90% of hospitalisations were for T1DM¹⁶.

People admitted to hospital with diabetes as the primary cause are generally experiencing either extremely high glucose levels, resulting in DKA and/or Hyperosmolar Hyperglycaemic State or extremely low glucose levels, resulting in severe hypoglycaemia. These are life-threatening conditions which require emergency treatment¹⁷ and which are potentially preventable.

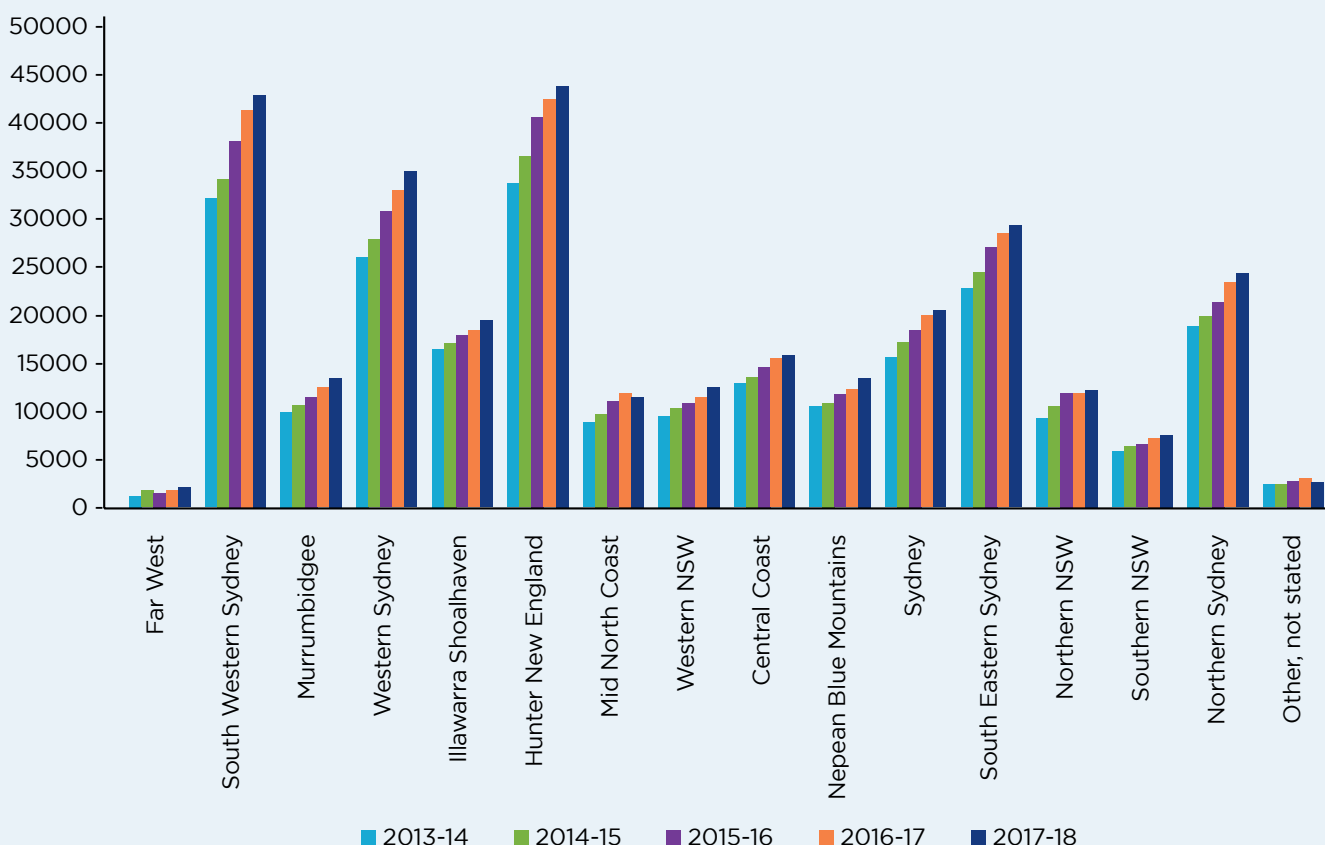
Of the people hospitalised in SWSLHD in 2017/18 where diabetes was the primary cause, 1,432 were considered to be potentially preventable. These hospitalisations resulted in 9,001 bed days over the year¹⁸.

The number of people hospitalised with diabetes as a primary cause may reflect a combination of new cases of T1DM, the prevalence of diabetes in SWS and issues with the treatment and management of diabetes in the community which results in a higher than expected rate of hospitalisation for acute management.

Hospitalisations where diabetes is not the primary cause

In 2017/18, there were 42,745 hospitalisations of SWS residents where diabetes was a comorbidity, rather than the primary cause; 10,485 more than in 2013/14 (see Figure 6).

Figure 6: Hospitalisations where diabetes is a co-morbidity by LHD (2013/14 - 2017/18)



Source: Health Stats NSW

3.3.2 COMPLICATIONS

Deaths from diabetes

A person living in SWS is more likely to die from diabetes than a person living in many other parts of the state.

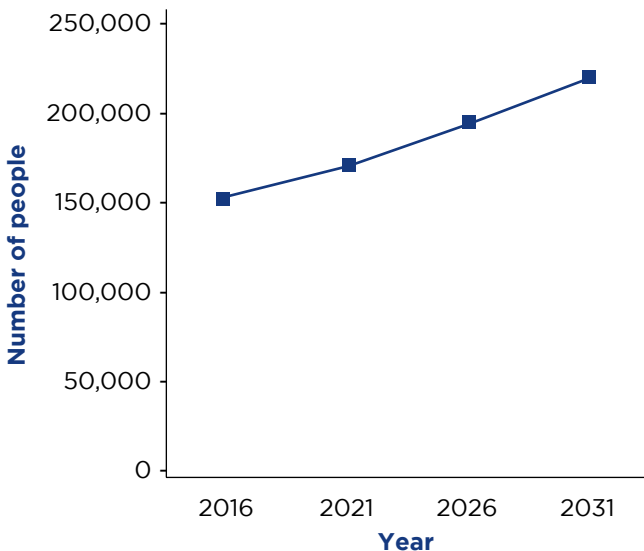
In 2016, 368 SWS residents died with diabetes identified as the underlying or associated cause, a rate of 37.3 per 100,000 people (compared to 30.3 per 100,000 for NSW). Within SWS, people living in Campbelltown, Fairfield and Liverpool have the highest rates of death from these causes¹⁹.

Cardiovascular Disease

Diabetes is a significant risk factor for the development of cardiovascular disease (CVD), with heart attacks and strokes up to four times more likely in people with diabetes²⁰. Hypertension (high blood pressure) is strongly associated with diabetes and heart disease.

In line with the increasing prevalence of T2DM, projections indicate that the number of people with CVD living in SWS will rise from 151,025 in 2016 to 215,689 people by 2031 (Figure 7).

Figure 7: Projected number of people with cardiovascular disease in SWS 2016 - 2031



Source: Estimated prevalence rate and projections of CVD in SWS were obtained from the Australian Institute of Health Welfare (AIHW) analysis of ABS National Health Survey (NHS), 2014-15. Age- and gender-specific prevalence rates for a wide range of cardiovascular diseases (including angina, heart attack, other ischaemic heart diseases, stroke and other cerebrovascular diseases, oedema, heart failure, diseases of the arteries, arterioles and capillaries) were used to estimate total prevalence in 2021, 2026 and 2031. Translational Health Research Institute UWS.

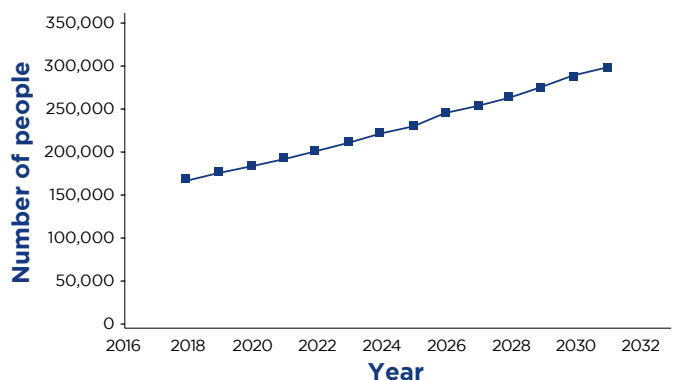
People with diabetes may reduce their risk of developing CVD and stroke by stopping smoking, increasing physical activity, improving nutrition, reducing cholesterol and blood pressure, by managing their glycaemia and by taking medication as prescribed. Several of these actions also improve glycaemic management.

Eye Disease

Diabetic eye disease includes retinopathy, cataracts, glaucoma and macular oedema²¹. These forms of eye disease may all progress to partial or total vision loss.

Retinopathy affects about a quarter of people diagnosed with diabetes²² (equating to over 16,000 SWS residents in 2019). If 25% of people with diabetes go on to develop diabetic retinopathy, it is estimated that by 2031, 29,750 SWS residents will experience this complication (Figure 8).

Figure 8: Projected number of people with diabetic retinopathy in SWS 2018 - 2031



Source: SWS population projections from NSW Department of Planning and Environment; prevalence of diabetes in SWS for 2018 and 2019 from NDSS with a projected increase of 0.2% per year; and proportion of people with diabetes who develop retinopathy (25%) from Diabetes Australia.

Vision loss may be prevented through early diagnosis, improved glycaemic control, regular eye screening and early treatment.

Kidney Disease

Kidney disease (diabetic nephropathy) is a chronic loss of kidney function. The longer a person has diabetes the more likely they are to develop chronic kidney disease. Research indicates between 30 and 40% of people with diabetes will develop chronic kidney disease within 20 years of their diagnosis^{23 24}

²⁵

Diabetic nephropathy may progress to end stage kidney disease, requiring dialysis to prevent or delay death.

In SWS, of the 696 patients who commenced dialysis in the period 2012 – 2017, 230 (33%) had diabetic nephropathy recorded as the primary cause for requiring dialysis. Of these people, 552 (79%) were aged between 25 and 74. Asian people and people from the Pacific Islands were overrepresented in the proportion of people undergoing dialysis. People with T2DM were around ten times more likely to require dialysis than those with T1DM ²⁶.

Projections indicate that by 2030/31, 380 SWS residents will require dialysis, an increase from 215 in 2017/18 (Figure 9). This dialysis may take place in hospital or at home. Demand for hospital services is projected to increase from 18,800 episodes in 2017/18 to 33,200 in 2030/31 if current trends continue.

Chronic kidney disease may be prevented through annual screening to ensure early diagnosis and improved glycaemic control.

Lower limb amputations

Up to half of all people with diabetes are at an increased risk of developing neuropathy²⁷ which may result in significant foot and lower limb problems such as ulcers, which are exacerbated by poor wound healing. People with diabetes are around 23 times as likely to have a leg, foot or toe amputation as those without diabetes²⁸ and around 85% of diabetes related amputations are preventable if identified and treated early²⁹.

Over the three years 2014/15 to 2016/17, residents of SWS had 507 diabetes-related lower limb

Figure 9: Projected number of people requiring dialysis in SWS 2017 - 2031

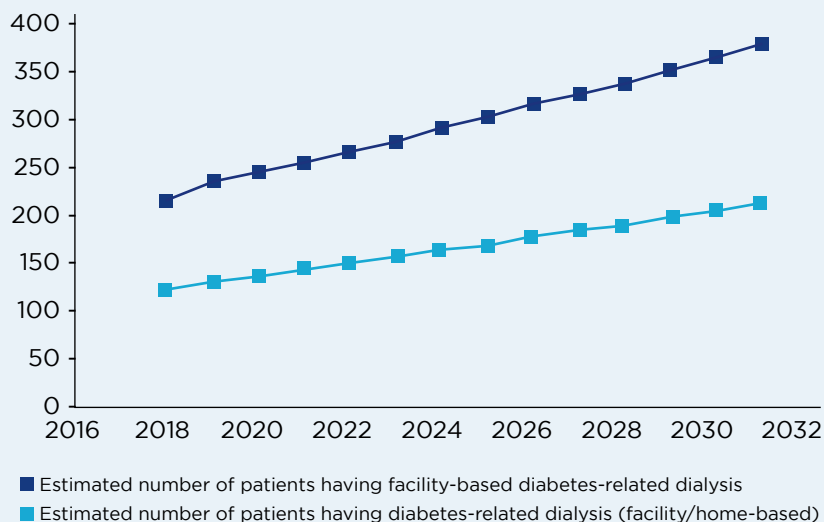
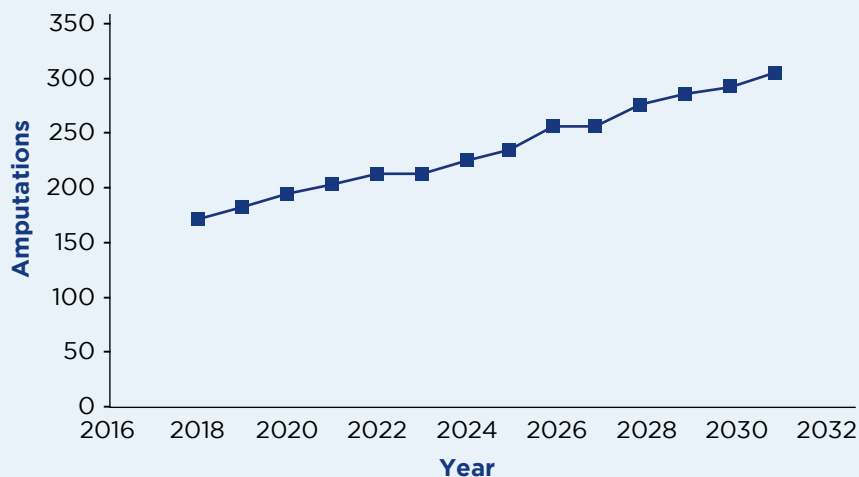


Figure 10: Projected number of lower limb amputations per year in SWS 2018-2031



Source: Number of diabetes-related lower limb amputations based on a projected increase in the rate of amputations per 100,000 population of 0.46 per year applied to projected population of SWS. Amputation rate from HealthStats NSW. Population projection from NSW Department of Planning and Environment.

amputations of some form (an average of 169 per year). Of the lower limb amputations, more than three quarters were toe, foot or ankle amputations³⁰. Across NSW, Aboriginal people are more likely than other Australians to have a lower limb amputation³¹. If the current trend continues, projections indicate that by

2031 the number of lower limb amputations per year will reach 300 (Figure 10).

Lower limb amputations and ulceration may be prevented through annual screening and improved glycaemic control.

Pregnancy complications and congenital malformations

Rates of GDM are rising rapidly, in part due to the adoption in 2016 of the *Australasian Diabetes in Pregnancy Society Consensus Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus*, and in part due to factors such as the rising prevalence of T2DM, increasing maternal body weight and increasing maternal age³².

Women who develop GDM are also at risk of developing pregnancy complications or adverse pregnancy outcomes, including excessive birth weight, pre-term birth and neonatal hypoglycaemia, along with a greater risk to both mother and baby of developing T2DM in the future. Across NSW, the number of women who were diagnosed with GDM has increased from 6,710 in 2013 (7% of pregnancies) to 12,375 in 2017 (13.1% of pregnancies)³³.

The data in Table 2 shows the percentage of pregnant women in SWSLHD diagnosed with GDM.

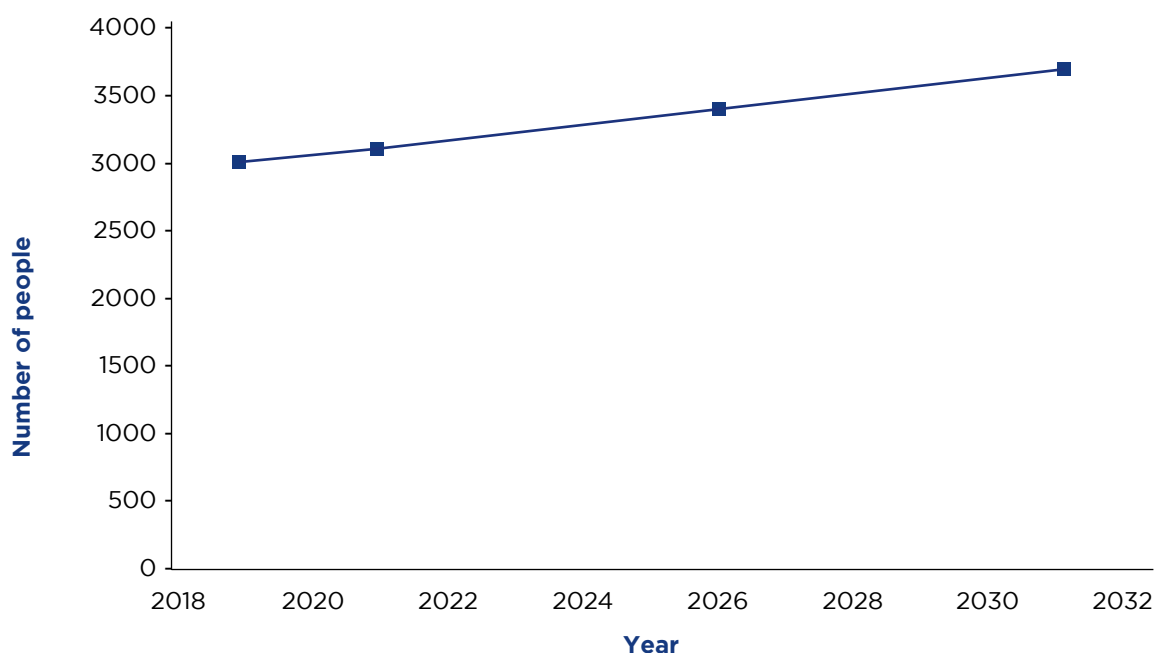
Table 2: Number and prevalence of NDSS registrations for SWS population for GDM

Jan to Nov 2019	Bankstown	Bowral	Campbelltown	Fairfield	Liverpool	Grand Total
GDM - diet and/or insulin	22.62%	12.84%	20.09%	19.40%	20.47%	20.24%

Source: SWSLHD Birthing Report.

The projections shown in Figure 11 represent a constant rate of GDM in the SWS community, applied to the projected birth rate. If the rate of GDM continues to rise as predicted, these projections will be an underestimate.

Figure 11: Diabetes in pregnancy: projected number of women with gestational diabetes in SWS 2019-2031



Source: Projected number of women based on GDM prevalence of 14 women per thousand aged 15-44 years. Number of SWS women registered with GDM in 2019 from NDSS. Projected female population aged 15-44 years from NSW Department of Planning and Environment.

Women who have diabetes prior to becoming pregnant have a higher risk of miscarriage, other pregnancy complications and having a baby with congenital malformations, than other women. Women with T1DM are also at significant risk of severe, life threatening hypoglycaemia during pregnancy (especially early pregnancy) due to the changes in insulin sensitivity that occur³⁴.

The major factor related to increased congenital malformation rates is poor glycaemic control as measured by HbA1c and glucose monitoring. Other causes include the use of potentially fetotoxic medication and not using high dose folic acid, as recommended. Potential malformations include spina bifida, oral clefts and defects of the gastrointestinal tract, heart, kidney or limbs³⁵, each of which is associated with significant ongoing health needs for the child.

Women with pre-existing diabetes in the Macarthur area (12.4%) and Liverpool (7%) were more likely to have a baby with a congenital malformation than women without diabetes (1.7%)³⁶. Diabetes specific pre-pregnancy counselling and management has been shown to reduce both the congenital malformation rate and perinatal mortality by 50-75% in women with both T1DM and T2DM.

In 2016, 2,323 women in SWS had either pre-existing or GDM during their pregnancy, representing 16.9% of all women (higher than the state rate of 13.5%), this represents an increase of 1,671 pregnancies from 2007³⁷.

For women with pre-existing diabetes, understanding the risks of unplanned pregnancies, undertaking pre-pregnancy planning to achieve optimal glycaemic control and maintaining this throughout the pregnancy has been shown to significantly increase the likelihood of having a healthy baby. For all women with diabetes, close monitoring and management of diabetes throughout the pregnancy is required to achieve the best possible health outcomes for mother and baby.

Oral Health

People with diabetes have an increased risk of periodontal disease and tooth decay. Similarly, periodontal disease may impact on blood glucose levels, leading to further complications³⁸. Oral health complications are avoidable through regular preventive treatment.

Access to preventive dentistry for most adults in NSW relies on ability to pay in the private sector as generally dental services are not covered under Medicare. Within the public sector there is limited capacity to provide preventive dentistry to adults.

Hypoglycaemia

Sulphonylurea and insulin therapies may induce low blood glucose levels or hypoglycaemia.

Consequences of hypoglycaemia range from mild to catastrophic, for example, multiple deaths arising from a hypoglycaemia-induced motor vehicle accident. Ambulance services receive multiple call-outs for hypoglycaemia, some of which may result in hospitalisation.

The risk of hypoglycaemia can be reduced with appropriate intake of carbohydrate foods. Referral to a dietitian at the commencement of hypoglycaemia-risk medications is essential for the development of individually tailored hypoglycaemia prevention strategies.

3.3.3 PRIORITY POPULATION GROUPS

Some population groups within South Western Sydney have a higher than expected prevalence rate of diabetes and/or experience greater complications as a result of their diabetes than those in other groups.

Aboriginal People

According to the Bureau of Statistics (ABS) 2014-15 National Health Survey, Aboriginal Australians are four times more likely to have diabetes than other Australians and nationally one in eight Aboriginal Australians had diabetes. In SWS in 2018, 540 Aboriginal Australians aged over nine years old were registered with the NDSS (2.9% of the Aboriginal population). The number of Aboriginal residents of SWS registered with the NDSS is likely to be a significant underrepresentation. If one in eight Aboriginal people living in SWS has diabetes, this figure is more likely to be around 2,000 - 2,500. If even 6.9% of the Aboriginal population in SWS have diabetes (equivalent to the total population) this represents 1,360 people.

Aboriginal people are also more likely to experience comorbidities and complications arising from their diabetes. The **2016 SWS Closing the Gap Report Card** identified that Aboriginal residents were more likely to have dialysis, or be hospitalised for endocrine disease than other Australians. Aboriginal people were also more likely to die of cardiovascular disease (strongly associated with diabetes) than other Australians.

Low rates of fruit and vegetable consumption and physical activity are also seen in the Aboriginal community, reflected in a high rate of overweight and obesity.

People from the Pacific Islands

People from the Pacific Islands are defined as those from one of the 26 countries within Melanesia, Polynesia and Micronesia.

SWS is home to one of the largest Pacific Islander communities in NSW. At the 2016 census, there were 19,346 Pacific born people living in SWS. The largest community groups are those from Fiji, Samoa and Tonga.

People from the Pacific Islands have a significantly higher risk of developing T2DM and GDM and of experiencing complications of diabetes when compared with people of other backgrounds. Key highlights from the SWS Pacific Islander Health Needs Assessment include:

Dialysis was the most common cause of hospitalisation for both men and women. Whilst comprising only 2% of the SWS population, people from the Pacific Islands made up 10% of the people receiving dialysis in the District

Men from the Pacific Islands were more likely than other men to be hospitalised for a heart attack

Women from the Pacific Islands had a significantly higher rate of GDM than Australian born pregnant women

Endocrine diseases were the most frequent causes of death for both men and women

People from other culturally and linguistically diverse backgrounds

People from other culturally and linguistically diverse backgrounds make up a significant proportion of the overall SWS population (43.3% of residents in 2016 were born overseas and 45.3% spoke a language other than English at home). This diversity is most noticeable in Fairfield, where 59% of people were born in another country. More than 92,000 people (10% of the population) do not speak English well, or do not speak it at all. For those aged over 65, the proportion is 25%.

Arabic is the most commonly spoken language in SWS other than English, with over 85,000 residents from 25 different countries, speaking Arabic. Vietnamese and Mandarin/Cantonese are spoken by 71,000 people and 39,500 people respectively³⁹.

People born in Middle Eastern, North African, Southern Asian and South-East Asian countries have a significantly higher prevalence of diabetes than

people born in Australia. Ethnicity is a particular risk factor for GDM, with women from India, the Pacific Islands, Asia and the Middle East being at high risk⁴⁰.

The prevalence of diabetes in people from certain ethnic backgrounds is reflected in local demand for interpreter services to support diabetes clinics and clinics with a high proportion of patients with diabetes. In 2017/18 there were 6,006 interpreter bookings in key clinics across the District providing care to people with diabetes. This represented a 4% increase on the previous year, with a 19% increase in bookings across GDM clinics. The highest demand is people speaking Arabic, Vietnamese, Cantonese, Mandarin and Assyrian.

People living in rural areas

The majority of SWS is classified as metropolitan by the Accessibility and Remoteness Index of Australia (ARIA+2011), meaning they are highly accessible to a range of goods and services. Some parts of the Wingecarribee LGA are categorised as an Inner Regional Centre. Of the small towns and villages within Wingecarribee and Wollondilly LGAs, only Paddy's River is an Outer Regional Area. However, unlike the rest of SWS, there is no hospital facility within the Wollondilly LGA and people living in the Wollondilly and Wingecarribee LGA are known to experience a range of barriers to accessing specialist services.

People experiencing socioeconomic disadvantage

Some areas within SWS have particularly high rates of socioeconomic disadvantage. According to the Index of Relative Socioeconomic Disadvantage (ISRD), 56% of SWS residents experience disadvantage, compared to 42% for NSW. The local government areas with the highest rates of disadvantage were Fairfield, Campbelltown, Canterbury-Bankstown and Liverpool⁴¹.

Diabetes is more prevalent in communities which experience high rates of socioeconomic disadvantage⁴². This higher prevalence is most associated with T2DM and may be attributable to higher rates of overweight and obesity within these groups.

People experiencing socioeconomic disadvantage are further impacted by difficulties in meeting the costs associated with chronic disease management, including the cost of equipment and consumables, access to private allied health providers and medical services. In 2014-15, only 44% of SWS residents had

private health insurance cover, compared with 52% for NSW. Private health insurance rates were significantly lower in Fairfield (26%) and Campbelltown (35%)⁴³.

People with a Mental Health Issue

The relationship between mental health and diabetes is multifactorial.

Depression is two to three times more likely in a person with diabetes than in those without diabetes and is more likely in people with T1DM^{44 45}. Depression in people with diabetes is often under-diagnosed⁴⁶ and there are limited publicly available services designed to provide psychological support within the context of multidisciplinary diabetes care.

Depression and anxiety also impact on the ability of a person to manage their diabetes, in part due to a lack of motivation to comply with a management plan or to undertake behaviour change. People with diabetes, particularly T1DM, are also at an increased risk of developing fear of hypoglycaemia and eating disorders^{47 48 49}. The presence of eating disorders increases the early onset of diabetic complications due to poor glycaemic control. The immediately life-threatening nature of T1DM makes these people at particularly high risk.

In addition, people with an existing mental illness requiring treatment with antipsychotic medication are at an increased risk of developing diabetes. People with a severe mental illness are likely to experience significant challenges in reducing diabetes risk and in self-managing diabetes^{51 52}.

Children and their families

Children with diabetes and their families require significant support to deal with a diagnosis of diabetes and to learn to manage the condition. Often diagnosis is associated with a period of critical illness requiring hospitalisation, including intensive care. Post diagnosis, there is a need to deliver a period of intensive support and in the longer term to provide services which can respond quickly to provide family based self-management advice, with escalation points as required. The financial impacts of having a child with diabetes can be significant and families should be supported to access all available supports and services. Extended families, teachers and other carers also require education in the management of diabetes to enable these children to participate fully in age appropriate activities. Children and families should be actively supported to reduce the risk of medical neglect. Given the long term nature of

diabetes, it is important to support children and their families by providing as many services as possible close to home, reducing the need to travel to tertiary services to receive routine care.

Adolescents and young adults

Adolescents and young adults are at a high risk of poor glycaemic control (demonstrated by HbA1c) and of being hospitalised with diabetes as the primary cause⁵³. This period of life is associated with significant change and developing independence. Adolescents and young people are experiencing a range of opportunities and challenges associated with study and transition from school, commencing employment, moving away from home and developing relationships. Young adults may also engage in risk taking behaviours such as alcohol and drug use and unsafe sex which have potential immediate and long-term health consequences. Young people are also at high risk of developing or exacerbating mental health conditions such as depression, anxiety and eating disorders that are often under-diagnosed or under-reported.

Young adults may lose contact with their specialist diabetes team as they move between paediatric and adult services and as they are required to manage their own health care needs. Young people may also physically move from near their paediatric support team and require the establishment of a new service support system.

Frail aged people and people with disability

Frail aged people with diabetes and people with a profound or severe disability are also likely to experience other comorbidities and to require assistance with activities of daily living, including the management of their diabetes. This assistance may come from paid and unpaid caregivers.

Consistent with an increased prevalence of diabetes in older people, the prevalence rate of diabetes in the residential aged care setting is also significantly higher than in the general community⁵⁴. People with diabetes living in residential care are also more likely to experience comorbidities associated with their ageing such as dementia, incontinence, physical frailty, malnutrition, susceptibility to falls and infections and macrovascular complications^{55 56}.

People with a disability, be it physical, intellectual or psychiatric may experience additional challenges to diabetes management, dependent on their individual abilities.

4. Diabetes Care

Reflecting the prevalence of diabetes in the community, there are a multitude of services and supports available for people with diabetes living in SWS. These services are provided by the public and private sector, including hospitals, community health services, private endocrinologists, General Practitioners (GP), private pharmacies, private allied health services and a broad range of community-based organisations, including Diabetes Australia. Some key providers and programs are described below.

Our service delivery model demonstrates a collaborative effort between all care providers. This model is described in detail in the following sections.

Persons within the community (not diagnosed with Diabetes)	Screened by GP using AUSDRISK to determine risk	Pregnant women screened for diabetes by GP or antenatal clinic	Opportunistic community based screening	Diagnosis as part of hospital admission
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Person with T2DM	General Practitioner and Primary Care Team Supported by - SWSPHN Health pathways, case conferencing, rapid access support and SWSLHD Multidisciplinary Diabetes Service if required		
All children and adults with T1DM, rare forms of diabetes or T2DM complex care needs	SWSLHD Multidisciplinary Diabetes Service: <ul style="list-style-type: none"> • Endocrinologist or paediatric endocrinologist • Diabetes nurse educator • Dietitian • Clinical psychologist • Social worker • Podiatrist • Transition nurse • Self-management education • Phone support • MDT Clinics 		General Practitioner and Primary Care Team support
Woman with Diabetes in pregnancy (T1DM, T2DM, GDM)	SWSLHD Diabetes in Pregnancy Multidisciplinary team: <ul style="list-style-type: none"> • Endocrinologist and/or Obstetrician • Diabetes nurse educator • Dietitian • Midwife • Self management education 		General Practitioner

National Diabetes Services Scheme / Diabetes Australia	Self management and education programs	SWSLHD specialist health services as required e.g. mental health, ophthalmology, cardiology, youth health, Aboriginal Health	Private Health Services e.g. Endocrinology, dentistry, dietetics, podiatry, exercise physiology, optometry
--	--	--	--

4.1 Primary care

Primary care services include those provided by GPs, private allied health providers and community pharmacy.

General Practice

GPs have a crucial role in the detection of diabetes and are the central point of care coordination for all people diagnosed with diabetes. GPs retain responsibility for the overall health and wellbeing of their patients regardless of the specialist support required.

In 2019 there are 1,209 GPs in SWS. The distribution of GPs across the SWS population is variable by LGA as shown in Table 4. In 2016/17 82% of SWS residents had seen a GP in the previous 12 months and 19% of people saw a GP more than 12 times, with 7.7 GP visits being the average⁵⁷.

42% of practices in SWS incorporate a Practice Nurse (PN) to provide support to GPs and deliver specialised nursing care⁵⁸.

LGAs	Number of GPs	Population per GP	Number of Practice Nurses
Bankstown	246	826	45
Camden	129	560	44
Campbelltown	216	736	85
Fairfield	238	859	45
Liverpool	231	886	76
Wollondilly	44	1,091	17
Wingecarribee	95	506	29

Source: SWSPHN GP Workforce Update May 2019

Long term management of T2DM is generally undertaken by GPs, with the support of other primary care providers (see below). PNs in particular play a significant role in the delivery of diabetes care and in supporting diabetes self-management. Whilst across all SWS diabetes is ranked third in the top five reported areas of special interest, this is not reflected in the top five areas of GP special training. There are variable referral patterns to specialist services based on historical relationships, past and current specialist service availability across the public and private sector and capacity and capability within primary care.

GP management of T2DM should be consistent with the **RACGP Guidelines for General Practice Management of Type 2 Diabetes**. These Guidelines recommend the completion of an Annual Cycle of Care for all patients with diabetes. Data on the completion of Annual Cycles of Care is captured variably by primary care providers as these services may be billed under multiple item numbers. As such, it is not possible to determine the number of Annual Cycles of Care completed.

Other primary care providers

People with diabetes who require additional support can access subsidised private allied health services through a **Chronic Disease Management Plan** and/or a **GP Mental Health Treatment Plan**. These plans enable people to access to a range of privately provided services such as diabetes education, podiatry, dietetics, exercise physiology and psychology at a reduced rate. Limitations within these programs can be a barrier to accessing a comprehensive service, depending on individual needs. Medicare also funds private allied health providers to delivery group diabetes education programs.

Private dentistry and optometry services are also available in the community, supported by varying levels of Medicare and other subsidies, depending on individual circumstances.

The availability of these services is variable across SWS, as are the costs of services.

South Western Sydney PHN

SWSPHN is funded by the Australian Government to enhance and connect primary health care, so residents and patients achieve better health outcomes. The SWSPHN supports and shapes primary care services so all residents in our region can access the right care, at the right time, by the right people, at the right location. SWSPHN achieves this through three core functions – commissioning of services based on population need, capacity building of primary care providers and integration of primary, secondary and social services.

Diabetes has been identified as a key local priority by the SWSPHN and the organisation is working collaboratively with all health care providers to improve the way services are provided to people with diabetes. This is being done through a range of initiatives including:

the provision of health information to the local community, for example the online diabetes support tool www.swsphn.com.au/diabetessupporttool

the development of HealthPathways to support better patient care across settings and providers (Box 1)

the development of patient resources to be used at the point of care, in translated and audio versions, which are suitable for people with low health literacy

support to general practices

quality improvement programs to improve patient outcomes

the provision of primary care education and training and work to better integrate care between settings through the use of technology

development of key partnerships, including with Diabetes NSW

the joint development of a Medical Neighbourhood approach to support people with complex chronic conditions

4.2 Secondary and tertiary care

Secondary and tertiary care refers to specialist services available to support people with complex health needs.

4.3 South Western Sydney Local Health District

SWSLHD is the largest provider of secondary and tertiary care services for people with diabetes in the area. Services provided include specialist diabetes services and general acute, sub-acute and community-based care for people who have diabetes as a comorbidity.

Specialist services available are summarised in Table 5 and described briefly below.

Specialist Outpatient Diabetes Services

Secondary diabetes services provide specialist care for people with diabetes who require a more complex level of support than can be provided in primary care. Specialist diabetes services are currently provided at Bankstown-Lidcombe, Fairfield, Liverpool and Campbelltown Hospitals. Services available at each site vary according to local capacity and demand.

SWSLHD diabetes services provide outreach clinics through the Aboriginal Chronic Care Program at the Budyari Community Health Centre and in collaboration with the Tharawal Aboriginal Medical Service. A new Aboriginal Community Health Centre opened in Bankstown in 2019 and will be developed to provide a range of chronic disease services, including diabetes services. An outreach program is also provided in Wollondilly, in collaboration with Western Sydney University and the Wollondilly Health Alliance.

SWSLHD also provides a tertiary High-Risk Foot Clinic at Liverpool Hospital and secondary High-Risk Foot Clinics at Campbelltown and Bankstown Hospitals, primarily focused on multidisciplinary management of diabetic foot disease. These services are supported by step up and step down podiatry clinics across the District.

Screening and detection of diabetes

Prediabetes

Type 1 diabetes – adults

Type 2 diabetes – adults

Diabetes in pregnancy

Diabetes general management

Glycaemic control and medication

Diabetes requests

Diabetes diagnosis in children

Box 1: Diabetes Health Pathways in SWS

Table 5: 2019 SWSLHD Diabetes Service Profile

Service	Bankstown Diabetes Service	Liverpool/Fairfield Diabetes Service		Macarthur Diabetes Service		
	Bankstown-Lidcombe	Fairfield	Liverpool	Campbelltown & Camden	Wollondilly	Bowral & District
Paediatric endocrinology service (outpatient)			Developing	Existing		
Paediatric endocrinology service (inpatient)						
Adolescent/Young Adult Transition service						
Adult T1DM/rare forms of diabetes clinics						
Hospital based T1DM group education (Oz DAFNE)						
Adult T2DM clinics						
Hospital based T2DM Group education						
Gestational diabetes clinics						
Gestational diabetes group education						
Post GDM services						
Rapid Access Clinics						
High risk foot service						
Low risk foot service						
Outreach GP Case conferencing						
Telehealth clinics						
Outreach Community based T2DM Group education						
Outreach clinics			Budyari Community Health Centre	Tharawal Aboriginal Medical Service		
Endocrine Clinical Genetics clinics						

*strict referral criteria apply

Specialist Inpatient Diabetes Services

Specialist inpatient diabetes services are available at Bankstown-Lidcombe, Fairfield, Liverpool, Campbelltown and Bowral and District Hospitals through a consultation and liaison service across various inpatient units and the Emergency Departments (ED). Inpatient Diabetes Care Teams (IDCT) previously known as Glucose Management Teams, are in development to provide a more proactive response to the needs of inpatients with diabetes.

Weight Management Services

The SWSLHD adult metabolic service at Camden Hospital provides treatment to people over the age of 18 who have a BMI of at least 40kg/m² and have a diagnosis of diabetes, fatty liver or other significant obesity induced comorbidity.

Clients are streamed according to their clinical presentation and need, with pathways to publicly funded bariatric surgery and intensive lifestyle programs provided as appropriate following transdisciplinary team assessment. The transdisciplinary service incorporates endocrinology, gastroenterology, sleep medicine, psychiatry, clinical psychology, physiotherapy, dietetics and nursing (diabetes educator), as well as on-site supervised group exercise classes.

The SWSLHD Growing Healthy Kids Service has been established to support children and young people (aged two to eighteen) who are well above a healthy weight to achieve and maintain a healthy weight. Along with addressing the growing prevalence of obesity in children and young people, this multidisciplinary service is also providing treatment and support to people who are exhibiting signs of insulin resistance (a precursor to T2DM) or who have developed T2DM.

Chronic disease services

Eligible people living in SWS who have a chronic disease (such as diabetes) which results in frequent hospitalisations receive additional support through a range of community care services delivered in partnership between secondary and primary care providers.

4.4 Private diabetes specialist services

Private endocrinologists provide specialist diabetes care on referral from a GP. Residents may choose to access locally based providers or travel outside of the District for their care. There is variable availability of private endocrinology services across the District and referral patterns are often dependent on relationships between GPs and these private providers.

The models of care used by private specialists are varied, including the delivery of multidisciplinary team care.

4.5 Other diabetes services

Community based services and supports for people with diabetes range from those provided at a national level to local, grassroots support services. Key programs provided in the community include:

The National Diabetes Services Scheme

The **National Diabetes Services Scheme** (NDSS) is an initiative of the Australian Government administered through Diabetes Australia. The NDSS aims to enhance the capacity of people with diabetes to self-manage through the provision of timely, reliable and affordable access to the NDSS support services and products. Registration with the NDSS is free and open to all Australians who are diagnosed with diabetes, with subsidised products provided through a network of access points. NDSS registrants can participate in individual and group education, access the NDSS helpline, become involved in peer support programs and access a variety of written material. The NDSS also provides health and other professional education to support people with diabetes.

NDSS registration benefits the wider health system through improving the accuracy of data in relation to people with diabetes which is used for planning.

Health coaching, self-management and peer support programs

A range of health coaching, self-management and peer support programs are provided through the government, non-government sector and private sector. These programs may be delivered face to face or using a range of technologies. Some current programs and resources include:

- **The Get Healthy NSW Information and Coaching Service**
- Diabetes education programs delivered in hospitals, community health centres and general practice
- Information and resources provided by **Diabetes Australia** and **Diabetes Australia NSW/ACT**
- Peer support programs delivered through Western Sydney University and the SWSLHD Aboriginal Chronic Disease Program, included those tailored to the unique needs of particular communities and/or diabetes types
- Social media networks

5. Prevention and Early Detection of Type 2 Diabetes

A whole of community response is required to curtail and reverse the rise in lifestyle related chronic diseases, including diabetes. The implementation of evidence-based primary prevention initiatives forms a significant component of any diabetes plan, as if current trends continue, health services will be unable to meet demand. As noted earlier, the future of primary prevention initiatives is not the focus of this document but rather will be addressed through the development of an integrated

strategy for chronic disease prevention, focused on overweight and obesity.

Early detection of diabetes can reduce morbidity and mortality and improve quality of life. Evidence indicates that there is a large proportion of the population who have undiagnosed T2DM or are at high risk of developing T2DM. Community based programs and services, especially those provided by General Practitioners are key to the early detection of T2DM.

PRIORITIES

- Focusing on primary prevention
- Facilitating early detection
- Addressing the needs of high risk populations

By 2026 our range of prevention and early detection initiatives will involve:

5.1 Primary Prevention Programs

Primary prevention programs across SWS will be tailored to address key lifestyle factors which are associated with a broad range of chronic diseases, as well as overweight and obesity. Whilst these programs are broader than diabetes, they provide a framework for reducing the prevalence of diabetes within the local and broader Greater Western Sydney community.

Programs to address these lifestyle factors will be tailored specifically to both children (see Box 2) and adults (see Box 3).

Box 2: Growing Healthy Kids: SWSLHD Childhood Overweight and Obesity Prevention and Management Action Plan 2017-2025

Stream 1: Children's community settings - Schools, childcare, sports	Stream 2: Families and Communities, including Multicultural and Aboriginal communities	Stream 3: Food and physical environments	Stream 4: Health services and professionals
Early childhood settings	Community education	Food environment	Health advice and coaching
School settings	Aboriginal families	Physical activity	Clinical services
Sport	Multicultural communities	Transport and other infrastructure	Food services policy

Box 3: Western Sydney City Deal Health Alliance Thematic Framework

Getting People Active	Health and wellbeing services	Liveability and Connections	Access to Healthy Food
Walkable neighbourhoods Planning Recreation facilities Access to existing facilities Cycling improvements	Service access Joint approaches Advocacy Digital e-health Transport	Environment/ green spaces Transport Cultural events & facilities Local planning Housing Joint planning & advocacy Social infrastructure	Legislation and advocacy Community food initiatives Education Community programs Advertising

5.2 Targeted diabetes risk education

Targeted diabetes risk and healthy lifestyle education will be delivered to identify priority groups within the community using evidence-based health programs delivered in partnership between health service providers, community groups and the broader government and non-government sector.

A variety of models will be used to best meet the needs of identified communities or community groups. These will include specific place-based interventions (such as those trialled in Mount Druitt and Wollondilly) and target group interventions such as the **Le Taea Afua Samoan Diabetes Prevention Project** and Diabetes Australia NSW/ACT endorsed diabetes prevention programs delivered by bi-lingual educators⁵⁹.

CASE STUDY: LE TAEAO AFUA SAMOAN DIABETES PREVENTION PROGRAM

This project is a lifestyle diabetes prevention and management program for Samoan communities delivered through churches in South Western Sydney. The project is funded by SWSLHD and South Western Sydney, Western Sydney and Nepean Blue Mountains Primary Health Networks. It combines complimentary strategies to ensure whole community engagement including:

- Motivational interviewing, person-centred
 - o Peer support facilitation
 - o Community coach facilitation
- 12 healthy lifestyle messages (7 diet and 5 physical activity) to encourage sustainable healthy lifestyle change
- Educational and behaviour change support strategies
- 10 diabetes management messages

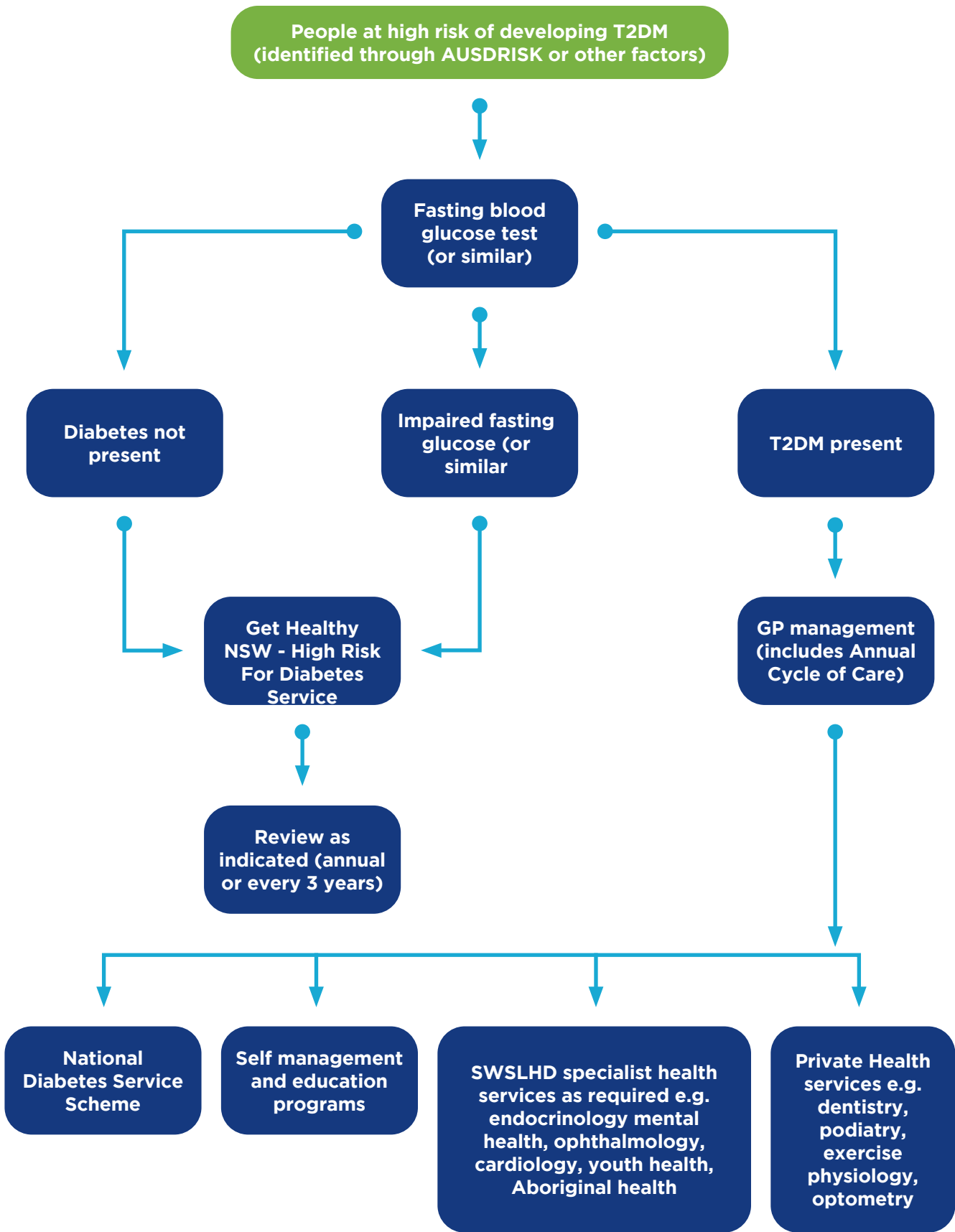
By combining these strategies together in a sustainable community-based approach, Samoan people living in SWS have increased support in tackling diabetes in their community.

5.3 GP led risk assessment and early detection

The Royal Australian College of General Practitioners (RACGP) **Guidelines for the Management of Type 2 Diabetes in General Practice** recommend three yearly screening of all people over the age of 40 (over 18 for Aboriginal people) using the **AUSDRISK** diabetes risk assessment tool.

People who are identified as being at a high risk of developing T2DM will have laboratory tests done to enable a diagnosis. People who do not have diabetes will be provided with dietary and lifestyle advice and referred to intervention programs such as Get Healthy NSW. Where T2DM is present, GPs will commence management and provide referral to a range of community-based support services as required. Section 6 provides additional information on lifestyle and self-management programs.

GP led risk assessment and early detection



5.4 Opportunistic screening

Opportunistic diabetes screening will be undertaken to complement GP based services and will be targeted at hard to reach communities with poor access to services, low health literacy, high rates of diabetes or other priority health issues. Opportunistic screening may be incorporated into community-based diabetes awareness raising programs.

Care pathways will facilitate the linkage of people screened to appropriate service providers, including GPs.

Community pharmacies may also play a role in undertaking opportunistic screening.

PREVENTION AND EARLY DETECTION OF DIABETES ACTIONS

We will improve existing services and service integration by:

- S1** Building collaborations with Western Sydney Diabetes to address shared priorities
- S2** Promoting and delivering targeted diabetes risk education programs within local high-risk communities, incorporating health literacy, education and peer support
- S3** Promoting referral to Get Healthy NSW across all care settings
- S4** Undertaking opportunistic diabetes risk assessment and/or screening at identified community events and in association with National Diabetes Week incorporating pathways for ongoing support
- S5** Investigating opportunities to support risk assessment and/or programs in collaboration with community pharmacies

6. Self Management and Patient Education

Self-management and patient education support people with diabetes to adhere to a healthy lifestyle and make any adjustments which are necessary to best manage their disease and to reduce the likelihood of developing life-threatening complications. People with diabetes will require different methods of support depending on factors such as the type of diabetes they have, the level of disease progression at diagnosis, presence of modifiable behaviours, health literacy, understanding of written and spoken English, disease progression

and psychosocial, cultural and environmental factors. The great diversity of people with diabetes means there is no one size fits all solution to the provision of self-management and patient education. A range of programs are required, delivered through a multitude of mediums to facilitate access. These programs may be directly provided by health services or other organisations in the community. Information on the programs available should be readily available, including processes for referral.

PRIORITIES

Providing accessible information, education and support

Delivering targeted education programs

Developing peer support

By 2026, our range of self-management and patient education services, programs and resources will incorporate:

6.1 Referral to a Dietitian and Exercise Physiologist via the Medicare Chronic Disease Management program

Private Practice Dietitians and Exercise Physiologists have become increasingly accessible in recent years due to the Medicare Chronic Disease Management (CDM) program. All people with pre-diabetes and diabetes are eligible for a CDM Plan, which is completed in collaboration with their GP, entitling them to a substantial Medicare rebate for up to 5 allied health consultations per calendar year.

6.2 NSW Get Healthy Information and Coaching Service

The [NSW Get Healthy Information and Coaching Service](#) (referred to as Get Healthy NSW) is a free, confidential telephone-based health coaching service offering an individually tailored program. People with diabetes will be proactively referred to this service to support them to make the lifestyle changes recommended by their treating clinician(s). Clinician referral to Get Healthy NSW is preferred as evidence indicates that uptake and results are improved through health care practitioner referral.

6.3 National Diabetes Helpline

The [Diabetes Australia National Diabetes Helpline](#) offers people with diabetes and their carers access to support and advice on self-management. This free service is available during business hours and from 9 – 12 on Saturdays and public holidays.

6.4 Education resources and programs for people with type 2 diabetes

Diverse group education for people with T2DM will be available in a range of settings and at a range of times to improve accessibility. People with diabetes will be regularly informed about the wide range of local programs available and are supported to choose those which best suit their needs at the time.

Programs available will include:

- » Practice-based group education delivered in associated with GPs and practice nurses, enabling the development of local peer support networks
- » Highly specialised programs to cater for people with advanced complications and/or other significant comorbidities
- » Culturally specific education groups delivered by community based bi-lingual educators
- » Community based information, education and exercise sessions delivered by **Diabetes Australia NSW/ACT** in community settings across SWS at no cost to people registered with the **National Diabetes Service Scheme**
- » Privately provided programs, including Medicare funded **Group Allied Health** programs on referral from a GP, through a **GP Management Plan**
- » Education and monitoring programs through community pharmacy
- » Education material within the **SWSPHN Health Resource Directory**
- » Community based exercise and healthy lifestyle programs provided by government and non-government agencies and private providers

Resources and programs will be further developed to address the unique needs of people at varying stages in their diabetes journey. To proactively support and empower people with T2DM and complex care needs to access the range of services and supports available to them and to transition to community-based care and self-management, supported pathways will be developed with the assistance of the multidisciplinary diabetes care team.

6.5 Education resources and programs for people with type 1 diabetes

OzDAFNE is an evidence-based group education program suitable for many adults with T1DM provided at Bankstown-Lidcombe, Liverpool and Campbelltown Hospitals. Completion of the OzDAFNE program has been shown to result in improved quality of life as a result of improved personal control in relation to eating and insulin dosing as well as improved HbA1c results^{60 61}. All eligible patients within SWSLHD services will be offered this program by their endocrinologist. Opportunities exist to expand the number of programs delivered annually subject to demand.

People with T1DM will also be supported to access resources and education through peak bodies and other service providers.

6.6 Education resources and programs for women with gestational diabetes

SWSLHD will continue to deliver group GDM education sessions in English and targeted community languages at Bankstown-Lidcombe, Liverpool, Fairfield, Campbelltown and Bowral and District Hospitals, with the support of the SWSLHD Health Language Service.

To meet the needs of women who are working and/or have childcare responsibilities, new models of GDM education will be trialled, including weekend and/or after-hours classes.

SWSLHD will provide individual education programs for women with limited English proficiency or other special needs where group programs are not suitable.

Women with GDM will also be supported to access resources and education through the NDSS, Diabetes Australia and the Get Healthy in Pregnancy tailored coaching program.

6.7 Peer Support

Peer support programs allow people with diabetes to learn from and support each other by sharing their lived experience. These programs have been shown to be effective in supporting self-management, enhancing emotional wellbeing, facilitating connection to services and reducing social isolation through building community connections^{62 63}.

People with diabetes across SWS will be able to access peer support groups led by a trained facilitator. These groups will be tailored to the needs of specific cultural and language groups, geographic areas and diabetes types.

People with diabetes may also access peer support programs offered by peak bodies and other local organisations, such as the **JDRF** T1DM national peer support program.

Online peer support offers people with diabetes a flexible method of engagement which meets their immediate needs. Organisations such as JDRF operate moderated, closed Facebook groups to support people with diabetes. Other opportunities to leverage off existing professionally-based peer support services using social media should be considered.

6.8 Shared Medical Appointments

Shared Medical Appointments (SMA) provide an innovative opportunity to offer a comprehensive GP medical visit attended by a small group with a similar medical history. SMA provide opportunities for group education and facilitated peer support to encourage improved self-management and an understanding of potential complications of diabetes⁶⁴. Early evidence indicates that SMA are effective in improving health indicators of people with diabetes, whilst also offering patient satisfaction and value for money^{65 66}.

6.9 Diabetes Service Website

Information regarding service availability, patient education resources and information regarding self-management programs will be maintained on a SWSLHD Diabetes Service website, which is regularly updated. The site will include a range of translated materials and materials designed to target priority community groups. The website will include links to resources provided across the community, including those provided by other sectors and organisations, notably the **SWSPHN Health Resource Directory** and **Diabetes Australia**.

SELF-MANAGEMENT AND PATIENT EDUCATION ACTIONS

We will improve existing services and service integration by:

- S6** Providing and/or promoting a tiered and tailored suite of T2DM group education programs through:
 - a.** Trialling and evaluating practice-based programs collaboratively between diabetes services and primary care providers
 - b.** Referring to programs delivered by private allied health, community pharmacy and Diabetes Australia NSW/ACT
 - c.** Developing and implementing tailored programs to meet the needs of particular cultural, language groups or other community groups
 - d.** Providing highly specialised education for people with complex care needs
- S7** Providing a regular program of OzDAFNE education through:
 - a.** Encouraging referrals from private endocrinologists and General Practitioners
 - b.** Offering a fee for service model to facilitate access for people with T1DM outside of SWS
- S8** Developing, maintaining and promoting a SWS Diabetes website as a consolidated patient and service provider resource via the Health Resource Directory
- S9** Trialling the use of Shared Medical Appointments for people with T2DM who have similar backgrounds and needs

We will enhance access to local diabetes care by:

- E1** Reviewing group education programs for women with GDM to improve accessibility of programs, including those delivered in community languages and trialling after hours and/or weekend programs
- E2** Expanding peer support models through:
 - a.** Recruiting and training additional facilitators, with an initial focus on priority language and cultural groups
 - b.** Promoting the availability of peer support programs through primary and secondary care services
 - c.** Ensuring ongoing professional support for facilitators

7. Integrated Diabetes Care

Diabetes is a progressive illness which at present has no definitive cure. The longer a person has diabetes, the more likely they are to develop significant complications. However, when optimal glycaemic control is achieved, the likelihood and severity of these complications can be reduced.

All people with diabetes require integrated care which meets their needs at any given point in time.

However, the varying types of diabetes and the stage of life of a person with diabetes are significant factors in the way services should be provided. As such, we have identified the following groups who require a tailored service system to meet their needs:

- adults with type 2 diabetes
- adults with type 1 and rare forms of diabetes
- children with diabetes

- adolescents and young people with diabetes
- women with diabetes before, during and after pregnancy
- people with diabetes and mental health conditions

Responding to the anticipated demand for diabetes services over the coming years will require an integrated approach to care between individuals, communities, primary care providers and the specialist care setting, supported by a strong research and policy environment. Ensuring people with diabetes are supported and empowered to self-manage and can access a person-centred, integrated system of care where they can step-up and step-down according to their needs is fundamental to meeting the current and future demands for service.

PRIORITIES

Strengthening primary care capacity to meet the needs of adults with T2DM
Delivering coordinated multidisciplinary care which addresses physical and psychosocial care needs
Enhancing the availability of specialist services to meet demand

By 2026, our integrated diabetes care services will include:

7.1 Adults with type 2 diabetes

People with T2DM are as diverse as the community in which they live. As with other chronic diseases, T2DM affects different individuals in different ways over time, with the progression of the disease dependent on the stage at diagnosis, long term glycaemic control and the presence of other physical and psychosocial factors which impact on management. The quality and timeliness of care

is also a significant factor in reducing the risk of short and long term complications and the need for acute care. People with T2DM require a tailored program of care which is relevant to their individual needs and is reviewed regularly to respond to changing circumstances.

Our model of care is built around GPs as the central provider of care for people with T2DM. GPs will continue to support and empower people with T2DM to self-manage their condition, making full use of the range of services and supports available in the community. In complex situations, GPs will be able refer to a range of hospital and community-based specialist services for advice and guidance.

By 2026, our range of initiatives to provide integrated care for people with T2DM will incorporate:

7.1.1 GENERAL PRACTICE AND PRIMARY CARE TEAM DIABETES MANAGEMENT

GPs will continue to be the core provider of T2DM care in SWS. Patients and GPs will work collaboratively to develop and implement an individual Diabetes Management Plan, which incorporates the **Diabetes Annual Cycle of Care**. This cycle of care includes testing of HbA1c, lipids, microalbuminuria, estimated Glomerular Filtration Rate, foot examination, height and weight assessment (including body mass index calculation), review of smoking status, physical activity, nutrition and medication and monitoring of eye screening.

Practices who participate in the SWSPHN Quality in Primary Care Program (QIPC) will be enabled and supported to utilise practice data to improve the quality and efficiency of patient care within their practice. One aspect of the QIPC includes the ability to generate specific Diabetes Clinical Reports that provide information on the number of registered patients with diabetes, the number of patients who have completed an annual cycle of care and the number of patients who have completed preventive health checks. Opportunities to improve billing are also identified, along with links to specialist support and training services. Practices participating in the QIPC Program will be eligible to receive **Practice Incentive Payments** through the Quality Improvements Incentive scheme in collaboration with Medicare. These payments support general practices to improve their monitoring of chronic disease and chronic disease risk factors, including diabetes and its associated risks.

7.1.2 NDSS REGISTRATION

All health care providers will support people with T2DM to register with the NDSS. Processes to support people to register and maintain their registration will be embedded within routine care delivery along with widespread program promotion, particularly for Aboriginal people where the registration rate has historically been low.

7.1.3 HEALTH PATHWAYS

HealthPathways will continue to provide a centralised point of care information source for clinicians on best practice diabetes management. *HealthPathways* will be regularly reviewed to ensure the currency

of content responsiveness to changes in the care environment across SWS. *HealthPathways* will be widely promoted to improve access.

7.1.4 CASE CONFERENCING

Case conferencing is an emerging model of care which has been developed to improve access to specialist diabetes services within general practice⁶⁷. It provides GPs (and their patients) with free access to diabetes specialist services through providing outreach support to the practice, with the support of Medicare funding. Through this model, hospital-based endocrinologists visit practices and work with GPs and other relevant primary health care providers to review patients identified by the practice as requiring specialist input. Patients may or may not participate in the case conference but are required to consent to the discussion. The Case Conferencing service enables collaborative development of a patient management plan, patient monitoring and triaging of patients who require a referral to hospital-based specialist services. Case conferencing also offers the benefits of improving relationships between primary and secondary care providers and in building the skills and confidence of GPs and Practice Nurses.

Case conferencing will be progressively expanded across SWS to improve accessibility for both GPs and patients. The service will be promoted through *HealthPathways*, Clinician Reference Groups and referral arrangements between services.

7.1.5 GP SUPPORT LINE

GPs have identified the need for an easily accessible diabetes specialist support service to complement the case conferencing model. Such a service would facilitate real-time access to individualised, specialist diabetes advice to support primary care practitioners.

The telephone service will be available Monday to Friday 9.00am – 4.30pm. GPs will call through a central phone number which will be then diverted to specific facility/ on call Endocrinologist or Endocrinology advanced trainee (AT). The allocated district telephone will be held by an Endocrinologist or Endocrinology Advanced Trainee (AT) at each of the 3 facilities across SWSLHD according to the locally developed and published roster.

The telephone advisory line will be to give clinical advice, it is not a referral pathway. Advice might include a referral to a specific clinic through the usual means, to send to the Emergency Department (ED) or to send to the facility Rapid Access

Clinic. In addition the GP may be directed to SWS HealthPathways for supplementary information.

7.1.6 SPECIALIST T2DM DIABETES SERVICES

Some people with T2DM will require a period of intensive support from the multidisciplinary specialist diabetes service, after referral from a GP or other specialist service. Generally, patients will be offered a single visit or a series of visits over a short term to ensure stabilisation and management of complications.

SWSLHD specialist T2DM services will be available to support highly complex patients. Patients who will be supported by these services will generally be:

- People who cannot initially benefit from case conferencing services, or referred by the case conferencing endocrinologist
- People who have complex comorbidities or psychosocial needs requiring multidisciplinary support
- People who have advanced complications associated with their diabetes
- People discharged from hospital requiring immediate stabilisation
- Women who are seeking to become pregnant

After consultation and stabilisation, ongoing care of the patient will generally be transferred to the GP, with support available through Case Conferencing and the GP support line offered as required.

Specialist diabetes services will continue to provide outreach clinics at Tharawal AMS and Budyari CHC and will be developed at the Bankstown Aboriginal Community Health Centre. Additional outreach clinics will also be developed in rural areas (Wollondilly and Wingecarribee) and for consumers of Mental Health Services (see Section 7.6).

7.1.7 MY CARE PARTNERS

Many people with chronic conditions, including diabetes, have complex care needs. These needs may increase as people age or experience episodes of acute illness requiring presentation or admission to hospital.

People with diabetes who frequently present to or are admitted to hospital will be assessed to determine their eligibility for support through the My Care Partners program. My Care Partners is an integrated medical neighbourhood model which encompasses GP-led coordination of care between the medical

home (general practice), primary and community health services and acute care. My Care Partners firstly emphasises commitment from participating general practices to enrol patients at risk of frequent hospital presentations or admissions, including those with diabetes. Participating general practices also commit to work collaboratively with a Care Enabler who will assist in facilitating care delivered within general practice as well as other members of the patient's multidisciplinary team. This may include existing SWSLHD Primary and Community Health services such as Care Navigation or Care Coordination, which is delivered through the Integrated Care for People with Chronic Conditions (ICPCC) program. It may also include specialist services, and community based services such as those provided through the National Disability Insurance Scheme (NDIS) and My Aged Care.

7.2 Adults with Type 1 and rare forms of diabetes

Adults with T1DM and rare forms of diabetes require specialist care from a multidisciplinary team (MDT) to achieve and maintain optimum glycaemic control, to reduce the risk of developing complications over the life course and to avoid acute events.

For people with T1DM and rare forms of diabetes, our model of care supports the delivery of public multidisciplinary specialist diabetes services bringing together endocrinologists, other medical specialists, nursing and allied health providers. Our services are built around strong relationships and mutual trust and recognise the long-term nature of T1DM and rare forms of diabetes require support with both physical and emotional health.

By 2026, our range of initiatives to provide integrated care for people with T1DM and rare forms of diabetes will incorporate:

7.2.1 ADULT OUTPATIENT SERVICES

Multidisciplinary adult outpatient clinics for T1DM and rare forms of diabetes will be provided at Bankstown-Lidcombe, Fairfield, Liverpool and Campbelltown Hospitals. Opportunities to develop outreach clinics will be considered subject to demand. Adult T1DM clinics will incorporate access to endocrinologists, diabetes educators, dietitians, podiatrists, clinical psychologists and social workers. Where appropriate, consumers will be encouraged to access OzDAFNE group education programs (see Section 7.4).

People with T1DM who regularly present to hospital may benefit from access to a targeted outreach program, delivered in collaboration with other relevant health services, including the My Care Partners program.

Opportunities to deliver shared clinics to address common complications of diabetes should be considered and are addressed further in Section 8. Such shared clinics might include services such as ophthalmology, renal services and mental health.

Specialist Diabetes Services will routinely provide updates on treatment and care plans to GPs to enable the comprehensive care of the consumer and to facilitate a planned approach to maximising available services through a **Chronic Disease Management Plan** and/or a **GP Mental Health Treatment Plan**.

7.2.2 T1DM TELEPHONE ADVICE SERVICES

Telephone advice services to support paediatric endocrinology are well established as a means of avoiding hospital presentations. Adults with T1DM and other rare forms of diabetes may also benefit from such a model which provides a more timely and accessible form of service than traditional clinic consultations⁶⁸. General telephone advice services may be integrated with remote monitoring technology over time to provide individualised care and advice (see Section 10.2).

7.2.3 CLINICAL GENETICS SERVICES

Monogenic forms of diabetes are relatively rare, accounting for between one and four percent of all diabetes cases⁶⁹. Due to their rarity, these forms of diabetes are difficult to diagnose. Clinical genetics services can assist endocrinologists to correctly diagnose and treat monogenic forms of diabetes, ensuring the most appropriate treatment and management regimens are in place. Genetic testing is also important for people planning a pregnancy to understand the risks of passing on monogenic forms of diabetes. Access to specialised diabetes clinical genetics services will be offered based on strict referral criteria.

7.3 Children with diabetes

Children with T1DM and rare forms of diabetes and their families also require specialist care from an MDT. Multidisciplinary specialist diabetes care will primarily be provided in the hospital outpatient setting, with a view to supporting long term management and

the avoidance of acute events. Similarly to adult services, our model of care supports patients having outpatient access to a multidisciplinary diabetes team comprising a specialist paediatric endocrinologist, credentialled diabetes educator, dietitian, clinical psychologist and social worker, working in partnership with general paediatric services, particularly in the inpatient setting. Supporting and educating whole families, schools and childcare centres on the care of a child with diabetes is an essential component of our model.

By 2026, our range of initiatives to provide integrated care for children with diabetes will incorporate:

7.3.1 PAEDIATRIC DIABETES OUTPATIENT SERVICES

Children living in SWS will have access to a District-wide multidisciplinary paediatric endocrinology outpatient service, initially providing clinics at Campbelltown and Liverpool Hospitals. These services will be provided with the support of the Sydney Children's Hospital Network (SCHN) for clinical governance, after hours support and emergency care.

New medical referrals to the SWSLHD Paediatric Endocrinology Service will be accepted for children up to the age of 16. The Paediatric Endocrinology service will provide regular multidisciplinary clinics supported by paediatric endocrinologists, dietitians and credentialled diabetes educators. Families will also be able to access social work and clinical psychology services for support, particularly in relation to dealing with a new diagnosis.

Children and families will also be provided with and/or referred to community-based support services to meet their needs (as described in Section 6). Regular reports will be provided to GPs to support the delivery of holistic health care and access to subsidised allied health services.

In SWS, approximately 45% of children with T1DM utilise insulin pump therapy to support their diabetes management. Further information in relation to insulin pumps is provided in Section 10.1.

7.3.2 PAEDIATRIC DIABETES INPATIENT SERVICES

Children with diabetes who require inpatient care often do so as a result of an acute diabetes related event. Where tertiary care facilities are required, critically unwell children will be transferred to a

facility within the SCHN until such time as they are stabilised. Inpatient paediatric endocrinology services will be concentrated at Campbelltown Hospital providing step-down services from the SCHN and general acute inpatient care for the whole of SWS. The general paediatrics services at Liverpool Hospital will provide inpatient care for some children with lower acuity needs, supported by a paediatric endocrinology consultation service when available.

Paediatric inpatients will have access to a paediatric endocrinologist, paediatric diabetes educator and dietitian throughout their inpatient stay.

As children with T1DM form an overall small component of the inpatient paediatric service, general paediatrics staff will receive further education and support in diabetes management (see also Section 11.3).

7.4 Adolescents and young adults with diabetes

Adolescents and young adults are most likely to have T1DM but there are increasing numbers of young people being diagnosed with T2DM, often associated with a family history and/or as a result of being above a healthy weight. Regardless of the reason for their diagnosis, adolescents and young adults may experience significant challenges in managing their diabetes through this period of growth and development.

Adolescents and young adults with diabetes also require specialist care from an MDT, including clinicians skilled in working between paediatric and adult settings. Our model of care supports patients having outpatient access to an MDT comprising a specialist paediatric endocrinologist and/or adult endocrinologist, credentialed diabetes educator, podiatrist, dietitian, clinical psychologist and social worker. These clinicians will work in partnership with the young person and their network to deliver care in a flexible manner which best meets the unique needs of this group.

By 2026, our range of initiatives to provide integrated care for adolescents and young adults with diabetes will incorporate:

7.4.1 ADOLESCENT AND YOUNG ADULT OUTPATIENT CLINICS

Young people, generally those aged 17 to 25, who are newly diagnosed will be able to access

multidisciplinary adolescent and young adult clinics at Bankstown-Lidcombe, Liverpool and Campbelltown Hospitals, offering a more tailored and flexible service to meet their unique needs. These multidisciplinary clinics will provide access to endocrinologists (paediatric and adult), transition coordinators, dietitians and credentialed diabetes educators. Access to social work and clinical psychology services for support will also be available. Where possible, joint clinics with other specialist services such as ophthalmology will be provided.

7.4.2 DIABETES TRANSITION SERVICES

For young people with existing diabetes who are accessing paediatric services, a Diabetes Transition Coordinator will provide intensive support to facilitate their transition from paediatric to adult services and to independent self-management, supported by transition clinics involving paediatric and adult clinicians.

Adolescent and young adult services, including specialised transition clinics, will offer a comprehensive, multidisciplinary approach which recognises the complexity of diabetes management during this life stage. Services will ensure physical health care and psychosocial support through access to specialist advice on key youth health issues, including contraception, understanding the impacts of alcohol and other drugs and mental wellbeing.

Young adults with diabetes will also be supported to access the broad range of community-based health and social support services available for young people with chronic disease, such as the SWSLHD Youth Health Service. Access to telephone support and other forms of virtual care will be developed to improve service responsiveness to the needs of this group (see Sections 7.2.2 and 10.5).

7.4.3 SWSLHD GROWING HEALTHY KIDS SERVICE

Children and young people with T2DM will receive support from the Growing Healthy Kids Service in collaboration with the SWSLHD Paediatric Endocrinology service. These services will provide support to manage weight and to make appropriate lifestyle changes to improve T2DM prevention and management.

7.5 Women with diabetes before, during and after pregnancy

Women with poorly controlled diabetes who become pregnant are at increased risk of pregnancy related complications and poor birth outcomes. Supporting women with diabetes to proactively plan and manage their pregnancies has been shown to result in a reduction in complications for both mother and baby. Similarly, for the many women who develop GDM when pregnant, there is an increased risk associated with the pregnancy and delivery, with babies more likely to also experience complications.

All women who have diabetes during pregnancy will be provided with a flexible and responsive multidisciplinary service delivering diabetes care and antenatal care to protect the health of both mother and baby. Other specialist services will also be provided as required. Women with GDM will also be linked with a range of service providers in the community setting to reduce the risk of developing T2DM in the future.

By 2026, our range of initiatives for women with diabetes during pregnancy will incorporate:

7.5.1 CONTRACEPTION, PRE-PREGNANCY AND ANTENATAL CARE SERVICES FOR WOMEN WITH PRE-EXISTING DIABETES

Promotion of the need for contraception and pre-pregnancy planning for women with pre-existing diabetes will be conducted through the Diabetes Contraception and Pre-pregnancy Program (DCAPP) across primary care, community pharmacies and specialist diabetes services. Existing specialist diabetes services will provide best practice pre-pregnancy care for women who have decided to become pregnant. Continuity of care will be maintained throughout pregnancy, through the provision of joint diabetes and antenatal clinics, with access to other specialist services as required.

7.5.2 GESTATIONAL DIABETES SERVICES

Women who are diagnosed with GDM will be referred to specialist diabetes services for review and/or ongoing management for the duration of their pregnancy. GDM clinics will be available at Bankstown-Lidcombe, Fairfield, Liverpool, Campbelltown, and Bowral and District Hospitals

CASE STUDY - REMOTE MONITORING OF DIABETES IN PREGNANCY

Remote monitoring of blood glucose in pregnancy for women with GDM has been shown to be a safe and effective method of care delivery. This model of care relies on the availability of affordable blue-tooth enabled blood glucose meters that are paired to the patients' smart phone enabling information on blood glucose levels to be uploaded to a secure website. This allows the Credentialed Diabetes Educator to remotely monitor blood glucose levels and advise any changing medication or food requirements via telehealth. Potential advantages of this model of care include a reduction in the number of clinic visits required (thereby reducing costs) and increased patient satisfaction. This model has been piloted with English-speaking patients and will be further developed in community languages.

through an integrated model delivered by specialist diabetes and antenatal care services.

Continued increases in demand for GDM clinics across the District will require new models of care to be developed. Opportunities to utilise remote monitoring technology in the management of GDM are available and are discussed further in Section 10.2. Other opportunities to be considered include the expansion of GP Shared Care models and midwifery led care, using either step up or step down approaches.

As women with GDM are at a high risk of developing T2DM, a risk stratification process will be implemented to ensure all women receive appropriate follow up and support to prevent or delay the onset of T2DM. Follow up may involve education, monitoring and/or treatment through their GP and community-based services, such as Get Healthy NSW and Diabetes Australia NSW/ACT, as well as identified SWSLHD services, such as Multicultural Health and Aboriginal Health.

7.6 People with diabetes and mental health conditions

Mental health conditions include a range of conditions, many of which increase a person's risk of developing T2DM. In the case of young people with a Schizophrenia spectrum disorder, there is accumulating evidence that insulin resistance is already present at first psychosis and potentially predates the first presentation. This is in a cohort of young people who die 15 to 20 years before their peers.

When people with a mental health condition are diagnosed with T2DM they may experience difficulties in self managing their diabetes and therefore require enhanced support from paid and unpaid carers as well as the health system. The extent to which additional support is required varies significantly depending on the nature of the mental health condition. In some cases, such as a person with a severe mental health condition who requires insulin, daily support is required to ensure survival. An additional concern is that people with diabetes and mental health conditions are at high risk of developing complications of diabetes which will further impact on their physical and mental health in the short and long term, as well as their life expectancy.

For people with all types of diabetes and mental health conditions, a multidisciplinary approach is suggested. This involves bringing together endocrinologists, psychiatrists, nursing and allied health providers and working in collaboration with key service providers in the primary care setting. Services are built around strong relationships and mutual trust and recognise the complexity of health needs experienced by people with mental health issues and diabetes.

By 2026, our range of initiatives to provide integrated care for people with diabetes and mental health conditions will incorporate:

7.6.1 CARE IN THE COMMUNITY

Mental health care will continue to be provided in the community where possible, in collaboration between clients and their families, GPs, specialist mental health services and the non-government sector.

Where possible, existing clients of Mental Health Services will be supported to achieve and maintain healthy lifestyles to help them reduce their diabetes risk and to reduce the impact of diabetes on long term health. Programs such as the Connector Hub will

continue to support people living with severe mental illness to achieve their goals and improve wellbeing, through supported access to a range of community-based activities.

New programs to support the improvement of physical health in people living with mental health conditions will be developed.

7.6.2 MULTIDISCIPLINARY SPECIALIST SERVICES

People with comorbid diabetes and mental health conditions will be supported through the delivery of multidisciplinary interventions. Clinical psychology services will be embedded within the multidisciplinary teams caring for people with T1DM and rare forms of diabetes, in recognition of the high rates of associated depression and anxiety.

For people with moderate to severe mental illness which is being treated by antipsychotic medication, a similar multidisciplinary model with ongoing support is required to facilitate early screening for diabetes and ongoing management. These services will be delivered collaboratively by specialist mental health and diabetes services.

7.6.3 INPATIENT CARE FOR PEOPLE WITH DIABETES IN A MENTAL HEALTH UNIT

Addressing acute mental health needs is the highest priority within SWSLHD Inpatient Mental Health Units. However, it is imperative that the physical health needs of patients are assessed, documented and planned for within the admission in order to maximise the overall health of the patient in both the short and long term.

People requiring specialist diabetes care whilst in the mental health inpatient setting will be supported through service models described in Section 9.

INTEGRATED DIABETES CARE ACTIONS

We will improve existing services and service integration by:

-
- S10** Strengthening primary care capacity to meet the needs of adults with T2DM
- a.** Delivering coordinated multidisciplinary care which addresses physical and psychosocial care needs
 - b.** Encouraging GPs to participate in the SWSPHN QIPC Program and the Practice Incentives Program to monitor practice-wide compliance with the diabetes cycle of care and improve identification and management of chronic disease
-
- S11** Encouraging and supporting all people with diabetes to register with the NDSS and developing specific programs to enhance the number of Aboriginal people registering
-
- S12** Reviewing, refining and promoting use of the diabetes related HealthPathways for SWS
-
- S13** Raising awareness of the South Western Sydney Diabetes Case Conferencing service through a broad range of communication mediums to increase uptake
-
- S14** Supporting people with complex care needs through the My Care Partners model by:
- a.** providing access to care navigation and care coordination
 - b.** developing relationships between these teams and SWSLHD Diabetes Services
 - c.** building systems to ensure integration with specialist diabetes services for people with T1DM and rare forms of diabetes
-
- S15** Developing the capacity of the SWSLHD Aboriginal Chronic Care Program to respond to the needs of Aboriginal people with T2DM and formalise governance arrangements between diabetes services and the Aboriginal Chronic Care Program
-
- S16** Supporting people with diabetes to access appropriate services through the NDIS and My Aged Care (by providing program information, completing reports, assisting access to a support coordinator as needed).
-
- S17** Reviewing the current South Western Sydney Diabetes Case Conferencing model of care to improve accessibility and availability
-
- S18** Reviewing paediatric endocrinology out of hours staffing and support arrangements in collaboration with the SCHN
-
- S19** Developing linkages between SWSLHD Youth Health Services, SWSLHD Diabetes Services and other community-based services supporting young people
-
- S20** Reviewing and refining models of care for adolescents and young adults with T2DM and/or insulin resistance
-
- S21** Coordinating and promoting DCAPP across primary health care providers, specialist and community-based services
-
- S22** Reviewing and refining models of care for women with GDM, considering:
- a.** The benefits of moving women between high risk and low risk clinics
 - b.** Opportunities for GP Shared Care, particularly for women with GDM who are diet controlled, with rapid access to specialist services as required
 - c.** Remote monitoring
 - d.** Addressing the needs of women from cultural backgrounds with a high prevalence of GDM and/or limited English
 - e.** Post-partum review, risk stratification and referral to T2DM prevention services
-

S23	<p>Improving the care of people who are at risk of diabetes or who have diabetes and a mental health condition by</p> <ul style="list-style-type: none"> a. developing partnerships between specialist diabetes services, mental health services and primary care providers to identify people with mental health conditions who are at high risk of developing diabetes and providing early referral to support and monitoring b. developing models of care to enhance physical health of people with diabetes and mental health issues
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We will enhance access to local diabetes care by:

E3	Developing a telephone-based GP Support Line to provide real time access to specialist diabetes advice
E4	Expanding the capacity of public podiatry services across the District
E5	Providing a dedicated Credentialed Diabetes Educator within the SWSLHD Aboriginal Chronic Care Program
E6	Develop a regular multidisciplinary diabetes outreach clinic at the Bankstown Aboriginal Community Health Centre
E7	Establishing a regular multidisciplinary diabetes clinic in Wollondilly LGA and at Bowral and District Hospital
E8	<p>Building dedicated clinical psychology and social work services into diabetes multidisciplinary teams</p> <ul style="list-style-type: none"> a. offering appointments at both Campbelltown and Liverpool Hospitals for paediatric and young adult services.
E9	<p>Expanding the availability of outpatient clinical services for people with T1DM and rare forms of diabetes across SWS consistent with demand</p> <ul style="list-style-type: none"> a. Consider establishing a clinic for T1DM and rare forms of diabetes at Fairfield Hospital
E10	Establishing a business hours adult T1DM Telephone Advice Service, available to both inpatients and outpatients and exploring demand for an extended hour and/or weekend service
E11	Providing a SWSLHD diabetes genetics service to support the identification and treatment of rare forms of diabetes
E12	Establishing multidisciplinary paediatric endocrinology clinics at Liverpool Hospital
E13	Establishing a diabetes in pregnancy service at Bowral and District Hospital
E14	Expanding the availability of diabetes in pregnancy services across SWS consistent with demand and introduction of new models of care
E15	Establishing joint clinics between diabetes services and mental health services to improve the care of mental health consumers with diabetes

8. Prevention and Management of Complications

The impact diabetes has directly and indirectly on individual health and the health system is enormous. Across Australia, diabetes has been shown to be the leading cause of blindness in adults, kidney failure, dialysis and preventable limb amputations. It is also associated with a significantly increased risk of heart attack and stroke⁷⁰.

The prevention of complications is a shared responsibility between people with diabetes,

their primary care providers and the secondary care setting, where opportunistic screening and associated education and referral can occur. The management of complications is primarily undertaken by specialist services across a range of specialty areas. Our model of care supports integration between diabetes services and other specialist care services to ensure the provision of a comprehensive service which meets both short and long term health care needs.

PRIORITIES

Routinely undertaking complications screening
Providing access to specialist services as required
Ensuring delivery of coordinated care

By 2026 our system to prevent and manage complications of diabetes will incorporate:

8.1 Screening for complications

For people with T2DM, complications screening will generally occur in General Practice in accordance with the Annual Cycle of Care (see Section 7.1). For people with other forms of diabetes this screening will be undertaken by specialist diabetes services.

Vision screening for all people with diabetes will continue to be undertaken by private optometrists with the support of Medicare. Health service providers will support consumers to register with [Keepsight Australia](#) in order to receive eye screening reminders.

Opportunistic screening for complications will be undertaken in hospitals, providing a safety net for people at high risk or with poor screening completion. This may be undertaken in either

the ward or in ED and may be undertaken and documented by medical, nursing and/or allied health staff. Where complications and/or a high HbA1c is identified, patients will be referred to the IDCT and/or other specialist services, as necessary.

Across primary and secondary care, systems to enable follow up of patients are required.

8.2 Cardiovascular and renal services

As the prevalence of diabetes in the community continues to grow, demand for cardiovascular and renal services, including cardiology, interventional cardiology, neurology and dialysis will also increase. Opportunities exist to further develop relationships between these specialties through joint clinics and multidisciplinary team meetings to improve outcomes for people with diabetes who have had or are at high risk of a cardiovascular event and/or renal disease.

8.3 Eye health services

Opportunities exist to enhance referral pathways between GPs, specialist diabetes services, optometrists and ophthalmologists in the public and private sector to provide a comprehensive eye health service with reduced waiting times. New models of care will need to be developed.

SWSLHD will continue to provide tertiary ophthalmology services to the SWS community.

8.4 Foot health services

Self-management of diabetes requires consumers to have a good understanding of foot health and to undertake regular foot health checks. Consumers will be supported to undertake their own foot health checks where possible in order to assist in the early identification and treatment of damage. New programs through Diabetes Australia's Foot Forward program will be progressively developed and should be promoted locally, supported by GPs and diabetes services educating consumers on foot health and hygiene. Consumers who identify a concern with their foot health should initially seek advice from their GP who can refer to either a hospital-based podiatry service or private podiatry service (potentially making use of a Chronic Disease Management Plan), subject to the severity of the problem.

SWSLHD will continue to provide High Risk Foot Services (HRFS) in Bankstown, Liverpool, Campbelltown, including combined endocrinology and podiatry clinics, supported by both step up and step down clinics across the District.

As noted in Section 9.4, brief foot assessments will be performed on inpatients with diabetes through routine care on the ward⁷¹, with referral to the IDCT and/or podiatry service as required.

8.5 Oral health services

Primary and secondary care services will briefly assess the oral health of all patients at least annually, provide brief advice and encourage all patients with diabetes to access preventive oral health care treatment⁷²⁻⁷³. Further training and resources are required to support the delivery of such a model.

People eligible to receive free oral health care through the **SWSLHD Oral Health Service** can access information on how to access services through the use of either *HealthPathways* or the SWSLHD Oral Health Service.

8.6 End of Life Care

People with diabetes at the end of their life, including those accessing palliative care services, require ongoing management of their diabetes (and associated complications) in a manner which meets their individual needs. **Advance Care Plans** provide an opportunity for consumers to articulate their wishes regarding the treatment they receive at the end of life. People with diabetes will continue to be supported to articulate their wishes and to have their health care delivered as they request.

PREVENTION AND MANAGEMENT OF COMPLICATIONS ACTIONS

We will improve existing services and service integration by:

- S24** Promote consumer registration to Keepsight Australia re-call system among GPs and encourage GPs and community optometrists across SWS to register as Keepsight Healthcare Providers
- S25** Developing integrated models of care to support the detection and treatment of diabetic eye disease
- S26** Supporting the professional development of private podiatry services in the delivery of complex diabetic foot care
- S27** Establishing early referral pathways between private podiatry services and HRFS
- S28** Developing oral health screening program and tools for patients and health care providers

We will enhance access to local diabetes care by:

- E16** Trialling and evaluating a joint cardiology and/or renal and diabetes clinic for high risk patients
- E17** Developing a preventive oral health service targeted to patients at high risk in collaboration with key stakeholders

9. Emergency, Acute and Inpatient Care

Diabetes may be the primary or secondary cause of hospitalisation, or it may be unrelated to the hospitalisation yet still needing to be managed. Most inpatients with diabetes have diabetes as a comorbidity and as such they are cared for by teams who have varying levels of knowledge and experience in diabetes management⁷⁴. These patients are at increased risk of adverse events in hospital associated with their acute

illness; susceptibility to infections, slow wound healing and the development of pressure ulcers; difficulties in managing access to food and medication as a result of procedures⁷⁵.

Hospital presentations and admissions also provide an opportunity to proactively identify people at high risk of complications as a result of poor glycaemic control and to offer them an intensive review and referral to ongoing services.

PRIORITIES

Identifying patients with diabetes in ED

Enhancing the care of people with diabetes in the inpatient setting

Facilitating appropriate transfer of care

By 2026, our emergency, acute and inpatient care system will incorporate:

9.1 Identification and screening

People with diabetes may present to the emergency department (ED) as a direct or indirect result of their diabetes or for another cause. All people presenting to SWSLHD EDs will be asked at triage if they have diabetes and what type. Those with self-reported diabetes will have a point of care blood glucose level (BGL) test, as well as laboratory BGL and HbA1c testing⁷⁶. Where clinical staff identify that a person has a high risk of T2DM or a person presents with macrovascular complications, the same testing regimen will be applied.

Information regarding the presence of diabetes and test results will be recorded in the Electronic Medical Record (eMR).

Where diabetes is diagnosed during routine ED investigations, or where poor glycaemic control is identified, a referral will be made to either the Inpatient Diabetes Care Team (IDCT), the

Diabetes Rapid Access Clinic (DRAC) or the patient's regular GP for follow up (see Section 9.7).

Resources to support patients with diabetes self-management will be available across all SWSLHD ED.

9.2 Critical care

People with newly diagnosed or poorly controlled diabetes may require emergency treatment for hypoglycaemia, hyperglycaemia or DKA and/or rapid access to a diabetes specialist service to facilitate stabilisation.

Some patients will require emergency treatment, including immediate access to a life-saving insulin infusion. Depending on the role delineations and capabilities at each hospital, transfer to an intensive care or high dependency unit may be required. Children may be transferred to a facility within the Sydney Children's Hospital Network to access intensive care services, with step-down to a close observation unit or low acuity unit within SWSLHD.

Processes and systems will be standardised across SWSLHD to reduce clinical variation.

9.3 Diabetes Rapid Access Clinics

Hospital avoidance Diabetes Rapid Access Clinics (DRAC) will be available at all SWSLHD facilities, providing a one-off, next business day consultation incorporating a medication review, the delivery of self-management education and care planning. Access to the DRAC will be via referral from either the ED or the patients GP, subject to strict referral criteria. Opportunities to expand the availability of the DRAC to provide seven day per week access should be considered.

Transfer of care for people with T2DM will be facilitated through the GP Case Conferencing program (see Section 7.1.4) and for people with other forms of diabetes, referral to the appropriate specialist service will be provided.

9.4 Inpatient Diabetes Care Teams

Adult inpatients will have timely and appropriate access to specialist care if required, preferably early in the admission^{77 78}, through a multidisciplinary Inpatient Diabetes Care Teams (IDCT)⁷⁹. IDCT will comprise Credentialed Diabetes Educators, endocrinologists, dietitians and podiatrists skilled in diabetes management.

The IDCT will proactively identify and triage inpatients with diabetes according to clinical criteria to determine the level and nature of diabetes intervention they require. Services provided may include assessment, medication review, provision of advice on lifestyle and self-management and screening for diabetes complications. IDCT practitioners will refer to outpatient and community-based services for follow up care with information regarding hospital-based treatment included in the Transfer of Care documentation. Evidence suggests that such a proactive intervention can decrease hyperglycaemia and reduce infection whilst in hospital, resulting in improved patient outcomes⁸⁰. Length of stay may also be reduced.

Adults with T1DM in hospital will have access to a business hours telephone support and advice line to assist them to manage their diabetes during their admission (see Section 7.2.2).

9.5 Insulin Management

Accurate insulin management is essential to ensure the safety of patients in hospital and to avoid episodes of hyper or hypoglycaemia and DKA⁸¹.

SWSLHD clinicians will utilise either the eMeds tool within the eMR (Glucose Management View) or the paper-based NSW Subcutaneous Insulin and Blood Glucose Chart for Adults to prescribe and report on insulin dosing. Use of these tools will be supported through health practitioner education and promotion of the Thinksulin App (see Section 11.3).

People requiring insulin who are admitted to hospital for planned procedures will receive peri-operative advice regarding their admission consistent with the **Key Principles for Perioperative Fasting in NSW Hospitals**.

To further improve the safety of insulin administration to inpatients, facility-based Diabetes and Insulin Safety Boards will monitor and improve the safety of diabetes inpatient and outpatient care, with special emphasis on safe insulin use.

Patient self-administration of insulin has been introduced in some hospitals internationally to improve the delivery of insulin in response to individual patient needs⁸². Opportunities exist to implement this model across all SWSLHD hospital facilities.

9.6 General inpatient care for people with diabetes

Inpatients with diabetes will have their BGL tested at point of care at least four times a day and on request. All nurse-initiated BGL results will be recorded in the eMR to support the IDCT to identify patients who may benefit from consultation.

Inpatients with diabetes are provided meals and snacks in accordance with the **ACI Nutrition Standards and Diet Specifications – Diets for Diabetes**. And the **NSW Ministry of Health Nutrition Care Policy**. IDCT will support patients to make optimal food choices both in hospital and after discharge as required.

Whilst in hospital a patients' meal time routines may be disrupted due to investigations and procedures, as well as changes in appetite associated with illness. Ensuring appropriate diabetes management around periods of fasting and/or low dietary intake is essential to reduce episodes of hypoglycaemia. All inpatient units and EDs will have the capacity and

capability to manage episodes of hypoglycaemia, using a defined SWSLHD protocol. Staff capability will be enhanced through ongoing access to education and training (see Section 11). Inpatient units will have available access to appropriate food/drinks and medications to enable immediate treatment of hypoglycaemic events.

Inpatient pressure management is an integral component of the delivery of high quality care for patients with diabetes and will be undertaken in accordance with the **NSW Ministry of Health Policy for Pressure Injury Prevention and Management**.

The Paediatric Inpatient units caring for children with diabetes have been shown to benefit from having access a paediatric diabetes champion, or Diabetes Resource Nurse.

9.7 Optimising health through ongoing care

Diabetes management plans will be developed by the IDCT and provided to GPs as part of the Discharge Summary to facilitate transfer of care. This may incorporate a request for the GP to provide a **Chronic Disease Management Plan** for a patient to support them to access Medicare subsidised allied health support and/or referral for ongoing specialist support through the Diabetes Service or High Risk Foot Service.

Some people with diabetes may benefit from access to a post-discharge clinic to ensure stabilisation. Post-discharge clinics should be provided across the District using a similar multidisciplinary model to the DRAC, again ensuring an interface with primary care services to facilitate seamless transfer of care.

People with T2DM and complex care needs who require a more intensive support program, particularly those with multiple recent presentations and/or admissions, will be assessed for eligibility to receive services through the My Care Partners model (see Section 7).

People newly diagnosed with T1DM will be referred for ongoing specialist care through the SWSLHD Diabetes Service (see Section 7.2.1) and for post-discharge consultation with their GP.

EMERGENCY, ACUTE AND INPATIENT ACTIONS

We will improve existing services and service integration by:

- S29** Ensuring people with identified diabetes presenting to ED have their blood glucose levels and HbA1c levels checked and their status recorded in the ED
- S30** Improving the documentation of diabetes in the eMR, including the daily recording of blood glucose levels
- S31** Establishing Diabetes and Insulin Safety Boards at all facilities across SWSLHD
- S32** Developing and implementing District wide policies in relation to:
 - a.** administration of insulin infusions, tailored to the role delineation and capabilities of each facility
 - b.** insulin self-administration in hospital, including the use of insulin pumps and the storage of medication
 - c.** management of hypoglycaemia, including access to the full range of hypoglycaemic treatment options
 - d.** nutrition in hospitals and fasting
- S33** Facilitating timely inpatient assessment to access the My Care Partners program and Integrated Care for People with Chronic Conditions programs

We will enhance access to local diabetes care by:

- E18** Improving access to specialist diabetes services in the hospital setting through:
 - a.** Expanding the existing IDCT at Bankstown-Lidcombe, Liverpool, Fairfield and Campbelltown Hospitals and ultimately providing a seven day per week service
 - b.** Establishing an IDCT at Bowral and District Hospital supported by the Macarthur Diabetes Service
 - c.** Incorporating access to podiatry services within IDCT at all hospital facilities
- E19** Establishing a Credentialed Diabetes Educator led Diabetes Rapid Access service at Bowral and District Hospital, in collaboration with the Macarthur Diabetes Service

10. Technology and Virtual Care

Advances in technology offer new opportunities in the delivery of diabetes care and in providing self-management support within a virtual care setting. Mobile Health (MHealth) solutions are rapidly being developed in response to consumer demand for greater knowledge about their own health and control over their individual management. New, integrated technology platforms are being developed which incorporate biomonitoring and behaviour analysis, to provide tailored information and advice to consumers and carers. Demand for smart MHealth solutions and emerging technologies are resulting in changes to traditional methods of health service delivery,

with virtual care solutions becoming increasingly viable. Other virtual care technologies, such as telehealth and virtual care consultations offer ways of delivering services which are potentially more accessible to consumers and provide efficiencies across the health system by reducing travel times and failure to attend rates. The health system must be agile to respond to increasing consumer use of technology and to changes in available technology to ensure that diabetes teams are able to support consumers appropriately. Our future health infrastructure must also be designed with a focus on virtual care.

PRIORITIES

Using technology to monitor and manage diabetes
Providing agile and responsive systems
Sharing information to improve care

By 2026 our range of technology and virtual care support services will incorporate:

10.1 Insulin pumps and continuous glucose monitoring

As the technology behind pump therapy and CGM continues to develop, an increasing number of people are likely to seek this option for their long-term management. These changes in management options will require changes to the way clinic services are provided. Additional clinic time is required to educate patients in the use of these devices and to download and review associated data. Computer hardware and software upgrades are also required periodically to support the use of new device technology. Over the longer term, CGM and other similar technology may result in greater HbA1c control and thereby a reduction in the incidence of diabetes complications.

10.2 Remote monitoring

New technologies are providing opportunities to move away from traditional clinic models to the provision of virtual care through remote monitoring.

Remote monitoring of blood glucose in pregnancy for women with GDM has been shown to be a safe and effective method of care delivery⁸³. This model of care relies on the availability of affordable blue-tooth enabled blood glucose monitors for women with GDM and access to a smart phone and supported by access to a remote diabetes educator to monitor and advise on changing glucose levels via telehealth. Potential advantages of this model of care include a reduction in the number of clinic visits required (thereby reducing costs) and increased patient satisfaction. At present this model is only effective for English-speaking patients.

10.3 Inpatient glucose monitoring

The safety of inpatients with diabetes will be improved through an integrated inpatient glucose monitoring program based on point of care testing (PoCT). Integrated PoCT for both glucose and ketones will be administered at the bedside and automatically link to the eMR. Benefits of this new model include ensuring positive patient identification through barcode scanning, real-time electronic capture and recording of results to reduce transcription errors and instant alerting of clinical staff to the detection of hypoglycaemia or hyperglycaemia. Out of range recordings will be automatically flagged for review by the Inpatient Diabetes Care Team, providing a comprehensive response.

10.4 Digital health interventions

Self-management and patient education apps and other digital resources offer patients easily accessible methods of recording and monitoring information about their diabetes, with links to education and support, including recall systems such as **Keepsight Australia**. Opportunities to develop and utilise digital health interventions in partnership with other health care providers and industry will be reviewed and evaluated to ensure the availability of agile and responsive systems.

10.5 Telehealth and virtual clinics

Telehealth and virtual clinics offer alternative ways of delivering easily accessible specialist medical services to people who experience barriers which prevent them from attending clinics. Such barriers include distance to travel, lack of transport and/or carer support, time available and costs associated with travel. Specialist services delivered using telehealth enable the provision of supported consultations to patients in GP practice, supported by their GP and/or PN, with their local health care provider able to perform basic examinations and report clinical findings. These models are being delivered in Wollondilly and have the potential to be expanded across the District. Priority areas for expansion include Wingecarribee LGA and potentially to support GPs delivering care in residential aged care facilities. Telehealth also provides an opportunity to undertake clinician to clinician services such as case conferencing.

10.6 Information sharing between hospitals and primary care

The SWSLHD has partnered with the SWSPHN with investment in the development of an interoperability solution that will enable real time sharing of data between care providers such as between GPs, specialists and the hospital system. The SWSPHN have undertaken the initial work with the implementation of the iRAD (Integrated Real-time Active Data initiative), connecting GPs across the Macarthur region. The next step is to expand the iRAD solution to enable care, via a sharing of key elements of patient data that will reduce duplication of tests and clinician time spent on following up and collating information about a patient.

TECHNOLOGY AND VIRTUAL CARE ACTIONS

We will improve existing services and service integration by:

S34 Improve uptake of new technologies which assist the management of diabetes

a. Developing partnerships to improve access to subsidised technological solutions for residents of SWS

b. Ensuring capacity and capability of clinics to respond to the use of new technologies by an increasing number of people with diabetes

S35 Expanding the use telehealth services and virtual clinics to improve service accessibility

We will enhance access to local diabetes care by:

E20 Providing an integrated glucose point of care testing model within the inpatient setting

11. Workforce Development

The prevalence of diabetes in the community and in hospitals requires the health care workforce to be upskilled in the identification and management of diabetes and its complications. Our approach to the delivery of health practitioner education and training will be multifaceted, recognising

the diversity of practitioners in the District, approaches to adult learning, the benefits of education and training linked to networking and the need for education and training programs which are broadly accessible and cost effective.

PRIORITIES

Improving diabetes knowledge across primary and secondary care
Developing the specialist diabetes workforce
Supporting care providers in the community

By 2026 our range of workforce development programs and resources will incorporate:

11.1 Education and training programs for all health care practitioners

A suite of programs is available delivering diabetes education to a variety of health care practitioners.

SWSPHN Diabetes Education Events

The SWSPHN will continue to offer periodic diabetes education events for GPs and Practice Nurses. These events will cover topics of professional interest, including those identified by GPs and the LHD. Attendance at these events attracts CPD points.

Practice Nurse Education

The **SWSPHN Practice Nurse New Gen Program** will support newly graduated Registered Nurses transition to work in general practice through the provision of self-directed online access to education resources, including chronic disease management, underpinned by in-house support and mentoring by the SWSPHN. Access to AUS-CDEP embedded within this program.

Practice Nurse education workshops will also be held across SWS each year. These workshops will address the essentials of diabetes care and encourage enrolment in the AUS-CDEP program.

Injectables Masterclass

A range of injectable therapies, including insulin are used to manage diabetes. The therapies available are changing regularly and each have specific recommendations for use. To support primary care providers to commence injectable therapies, regular Injectables Masterclass targeted at GPs and Practice Nurses will be held.

Clinician Reference Groups

Clinician Reference Groups (CRG) offer a locally based opportunity to build relationships between primary and secondary care providers, across medicine, nursing and allied health. CRG's will be held bi-monthly in each LGA and provide opportunities for formal education, case discussions and networking.

Opportunities exist to expand this concept in partnership with culturally based Medical Associations such as the Australian Lebanese Medical Association and Australian Chinese Medical Association to share learning and to increase understanding of the key issues in diabetes management for particular cultural and/or ethnic groups.

11.3 Education, training and resources for SWSLHD health care practitioners

In addition to the general education and training programs available for all health care practitioners, SWSLHD staff will be offered access to a range of targeted education and training programs, described below.

Diabetes Resource Nurses (Champions)

A Diabetes Resource Nurse (DRN) acts as a ward-based diabetes champion. The DRN is the central point of contact, diabetes education and clinical support on the ward for staff providing care to patients with diabetes. The role requires some advanced training and skills in diabetes care and close working relationships with the Diabetes Service. Having at least one DRN per ward who works across shifts provides opportunities to support all ward staff to further develop their skills.

AUS-CDEP is available to GPs and Practice Nurses through the SWSPHN and to SWSLHD staff. There is evidence that offering a blended program of AUS-CDEP and face to face diabetes education may be more effective for nursing staff within the hospital setting⁸⁵.

Insulin Management Training and Resources

The increasing number of inpatients with insulin dependent diabetes requires clinical staff with a sound understanding of insulin administration and monitoring to ensure the safety of patients. All nursing and junior medical officers will complete Insulin Management Training encompassing three topics: Blood glucose levels and insulin the basics; Preventing and managing hypoglycaemia and Safely prescribing and administering insulin.

Thinksulin was developed by the Agency for Clinical Innovation (ACI) in consultation with the NSW Diabetes Taskforce primarily to enhance the capacity and/or capability of junior medical officers and nursing staff responsible for prescribing and administering of insulin to patients in hospital with diabetes.

Thinksulin is a point of care app that provides information and decision support on blood glucose level targets, hypoglycaemia management, blood glucose monitoring, basal-bolus calculations, and charting and reviewing doses.

Managing Diabetes for Primary and Community Health Staff

The NSW Health Education and Training Institute provides an online diabetes learning module for staff within the NSW Health system working in Primary and Community Health. The module provides a basic introduction to the principles of diabetes management and the use of effective communication to enable decision making and support safe transfer of care. CPD points are available on completion.

11.4 Education and training for other professionals

To ensure the provision of high-quality care of vulnerable people with diabetes in community settings, SWSLHD provides education and training for other professional groups, particularly in relation to insulin administration.

Residential aged care facility staff, group home staff and teachers

People working in residential aged care, group homes and educational settings (particularly preschools and schools) will have access to training on diabetes, including the management of hyperglycaemia, hypoglycaemia and insulin administration to support vulnerable people in their care with the daily management of diabetes.

Credentialed Diabetic Educators across the District provide group education to these professionals on an ad-hoc basis, with the support of their employers. Further work is required to formalise education pathways for these service providers.

11.5 The SWSLHD Specialist Diabetes Workforce

The SWSLHD Specialist Diabetes Workforce describes those health care practitioners working primarily in the care of people with diabetes. The growth in demand for diabetes services will require enhancement of the specialist diabetes workforce across all disciplines. Training opportunities for endocrinology and diabetes education are a high priority.

OzDAFNE Facilitators

A small number of diabetic educators and dietitians across the District have been trained as OzDAFNE facilitators. To maintain accreditation to deliver the program requires facilitators to conduct a minimum number of sessions annually. However, to ensure program sustainability requires additional facilitators to be trained to deliver the program.

Nurse Practitioners, Credentialed Diabetes Educators and Allied Health Professionals

Diabetes Nurse Practitioners (DNP) have advanced skills in diabetes care and can provide basic medical care as an adjunct to, or in the absence of medical staff. The DNP has the additional skills of a CDE, so is expert in administering treatments, teaching self-management to people with diabetes, isolating the relationship between other complications and their diabetes control, and maintaining close contact between visits as necessary. The DNP is also skilled in motivational interviewing, problem-solving and family negotiation, building relationships and providing people with realistic expectations about complexities of diabetes. Development of these DNP across SWS provides the opportunity to deliver an innovative and responsive diabetes service with greater flexibility to meet consumer needs.

CDE services across the District are currently only available during business hours. Enhancing CDE services after hours and/or on weekends has the potential to improve patient flow and reduce length of stay as glycaemic control issues can be identified and addressed earlier within an admission. The DNP model may also assist with the delivery of responsive out of hours care.

Further developing the diabetes expertise within the Allied Health workforce, particularly dietetics and podiatry will enhance the capacity of all staff to deliver high quality diabetes care and will facilitate workforce sustainability.

WORKFORCE DEVELOPMENT ACTIONS

We will improve services by:

- S36** Facilitating access to and encouraging completion of the AUS-CDEP education program for primary care providers through the SWSPHN, SWSLHD Diabetes website and regular communication with GPs
- S37** Promoting the AUS-CDEP and Insulin Management Training programs to SWSLHD staff through the SWSLHD Centre for Education and Workforce Development and providing quarantined time to undertake this training
- S38** Encouraging the use of the Thinksulin app across inpatient settings
- S39** Progressively establishing Diabetes Resource Nurses across all adult inpatient settings
- S40** Facilitating access to structured diabetes education for care professionals outside of the health setting
- S41** Supporting nursing and allied health staff and Aboriginal Health Workers to complete post graduate qualifications in Diabetes Education through partnerships with the tertiary sector
- S42** Developing relationships with key culturally based Medical Associations to provide education and support to members

We will enhance access to local diabetes care by:

- E21** Increasing the number of SWSLHD staff trained as OzDAFNE facilitators
- E22** Enhancing the specialist diabetes workforce through establishing additional endocrinology training places, clinical fellowships, Diabetes Nurse Practitioners and Credentialed Diabetes Educator positions to deliver additional services identified for the future

12. Data Collection, Data Sharing and Research

Robust data collection and management systems support informed decision making at an individual and systems level. These tools are essential to build an understanding of the scale of the diabetes epidemic, the impact of

diabetes on individuals and the health system and individual outcomes. Data from health care information systems may be used to support the allocation or re-allocation of resources and also to contribute to research.

PRIORITIES

Collecting and reporting accurate data
Sharing data across partner organisations
Monitoring the impacts of system and service changes
Building on research excellence

By 2026 our data collection, data sharing and research capabilities will include:

12.1 BioGrid

SWSLHD diabetes services will utilise the BioGrid Australia Diabetes Clinical and Research Database for the collection and management of patients' diabetes information to support clinical care, audit and research projects. BioGrid will also enable benchmarking between sites and nationally.

12.2 Diabetes Dashboard

Dashboard technology is particularly effective in health care settings to assist in the identification of areas of excellence and areas for improvement in care. This technology is already in use across SWSLHD for a number of priority health areas and has proven to be an effective planning and decision-making tool.

A South Western Sydney Diabetes Dashboard will be available to inform clinical and management decision making. The Dashboard will enable tracking of individual patients and aggregated reporting on key issues in diabetes service provision such as the number of inpatients with diabetes, reason for admission (diabetes as a primary or secondary cause), HbA1c status and blood glucose readings, readmissions for patients with diabetes, length of stay for inpatients with diabetes, ED presentations, discharge destinations and the presence of complications.

12.3 Coding and the Electronic Medical Record

Ensuring the accurate recording and coding of diabetes for inpatients ensures the complexity of patient management is documented and enables the District to monitor activity, the delivery of a quality health care service and attract the correct amount of activity-based funding for the admission.

12.4 Data, Audit and Research

Capturing, sharing and reporting data will be central to the development of integrated diabetes services in SWS. Data sharing enables the tracking of patients across settings to monitor patient outcomes and clinical variations. High quality data helps to inform both clinical and management decision making. Across the NSW health system, the Lumos data sharing initiative is being developed with the aim of linking general practice data to a number of health system data collections, creating a unique data asset that spans health care services across NSW. Lumos sheds light on the patient journey through the NSW health system by “Linking Up and Mapping of Systems”, providing an essential platform for the design, delivery and evaluation of integrated value-based care pathways. Patient information is securely extracted from general practices and linked with other data collections to generate new insights while safeguarding patient confidentiality.

Auditing of health systems and data will continue to be a fundamental building block in the delivery of high quality clinical services in both primary care and the public health setting. Data audits in primary care will be supported by the SWSPHN and QIPIP. Specialist services will utilise Biogrid and other clinical information tools to reflect on and improve practice and to inform research.

The SWSLHD Diabetes Obesity and Metabolic Translational Research Unit (DOMTRU), in partnership with Western Sydney University and the University of NSW, is responsible for the coordination and delivery of research into diabetes in SWS. The focus of DOMTRU is to design and undertake translational research to support improved outcomes for people living with diabetes and to improve the effectiveness and efficiency of the health system, across primary, community and specialist services. This is done through testing and evaluating new methods of service delivery and through building a broad range of partnerships across the local area. Translational research is a core component of service delivery in SWS, reflecting the importance of embedding research into practice to improve health outcomes and to build a highly skilled workforce.

The diabetes research effort will seek to deliver translational research which aligns the South Western Sydney priorities identified within this document with the diabetes research priorities identified by our research partners. Key diabetes research priorities locally include liveability and diabetes prevention, traditional clinical care delivery, treatments and cures, digital health platforms and the use of technology.

SWSLHD also leads the Diabetes, Obesity and Metabolic Disorders Clinical Academic Group within the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) or ‘Maridulu Budyari Gumal’. The goal of this group is to harness research, educational and clinical expertise across the participating organisations, to develop, trial and where appropriate, implement, new health interventions for diabetes, obesity and related metabolic disorders.

There are opportunities to expand linkages between DOMTRU, SPHERE and a range of specialty services within the District and to broaden research participation across nursing, midwifery and allied health disciplines. Building research partnerships nationally and internationally will also strengthen our research credibility and impact.

DATA COLLECTION, DATA SHARING AND RESEARCH ACTIONS

We will improve existing services and service integration by:

- S43** Maintaining the BioGrid database across SWSLHD diabetes services
- S44** Progressively developing a Diabetes Dashboard across develop across hospital and community settings in SWS to support decision making

13. Clinical Networks

Delivering an integrated model of diabetes care across service providers, sites and disciplines will require a coordinated approach to clinical networks and governance. There is a need to develop partnerships across the community and to share resources if significant impacts are to be made.

Strengthening cross organisational partnerships will be achieved through an integrated implementation approach by SWSPHN and SWSLHD as outlined in section 14.

PRIORITIES

Strengthening cross organisational partnerships
Enhancing clinical governance
Providing a network of services

By 2026, our clinical network and governance capabilities will include:

13.1 Clinical service structures in SWSLHD

Diabetes Services will continue to be delivered through multidisciplinary teams bringing together specialist medical, nursing and allied health staff. All hospitals will provide support for adult inpatients with diabetes, complemented by a range of outpatient and outreach services and paediatric inpatients services, as described below.

By 2026, outpatient services will be provided across SWSLHD as follows:

<p>Bankstown Diabetes Service</p>	<p>Bankstown Diabetes Centre</p> <p>The Bankstown Diabetes Service will continue to provide multidisciplinary, specialist led diabetes services to adults living in the former Bankstown LGA from the Bankstown-Lidcombe Hospital Diabetes Centre.</p> <p>Outreach</p> <p>Bankstown-Lidcombe Diabetes Centre clinicians will support the delivery of outreach services including GP Case Conferencing and telephone-based support for GPs and identified patients as well as delivery of outreach programs to the new Bankstown Aboriginal Community Health Centre in collaboration with the ACCP.</p>
<p>Liverpool/Fairfield Diabetes Service</p>	<p>Liverpool Diabetes Centre</p> <p>The Liverpool Diabetes Centre will continue to provide multidisciplinary, specialist led diabetes services to adults living in the Liverpool LGA from the Liverpool Hospital Diabetes Centre, located adjacent to Liverpool Hospital. Relocation of this service to a more suitable site for the delivery of integrated, multidisciplinary care should be considered in future planning for the Liverpool Hospital precinct.</p> <p>Liverpool Hospital Paediatric Clinics</p> <p>Outpatient paediatric endocrinology services at Liverpool Hospital will be provided within the paediatric outpatients department to ensure an appropriate environment for consumers and their families.</p>

Fairfield Diabetes Centre

The Fairfield Diabetes Centre will continue to provide multidisciplinary, specialist led diabetes services to adults living in the Fairfield LGA. Relocation of this service to a more suitable site for the delivery of integrated, multidisciplinary care should be considered in future planning for the Fairfield Hospital precinct.

Budyari Community Health Centre

The Liverpool/Fairfield Diabetes Service provides outreach clinics at Budyari Community Health Centre supporting the Aboriginal Chronic Care Program. Clinical governance arrangements should be further developed to ensure support to ACCP practitioners.

Campbelltown Hospital Adult Outpatient Clinics

Multidisciplinary adult Diabetes Services at Campbelltown Hospital are collocated where possible within the adult outpatient department. Planning is underway to develop a Macarthur Diabetes Centre on the Campbelltown Hospital campus within the research precinct being co-designed with Western Sydney University.

Campbelltown Hospital Paediatric Outpatient Clinics

Outpatient paediatric endocrinology services at Campbelltown Hospital will be provided within the paediatric outpatients department to ensure an appropriate environment for consumers and their families.

Tharawal Aboriginal Medical Service

The Macarthur Diabetes Service will continue to provide outreach clinics for Aboriginal adults in collaboration with the Tharawal Aboriginal Medical Service and the ACCP. Clinical governance arrangements should be further developed to ensure support to ACCP practitioners.

Wollondilly Diabetes Clinic

The Macarthur Diabetes Service will provide regular outreach clinics for adults with diabetes in Wollondilly to improve access for consumers and to support ongoing integration of services between primary and secondary care.

Bowral and District Hospital Clinics

The Macarthur Diabetes Service will provide clinical governance for diabetes services within the Wingecarribee LGA. Regular outreach clinics for adults at Bowral and District Hospital will be provided, initially focussing on the delivery of GDM clinics in collaboration with antenatal services. These services may be delivered through traditional outreach models, as CDE led, through telehealth or a combination of these.

The following table highlights the key diabetes services to be provided by SWSLHD by 2026.

Service	Bankstown Diabetes Service	Liverpool/Fairfield Diabetes Service		Macarthur Diabetes Service		
	Bankstown-Lidcombe	Fairfield	Liverpool	Campbelltown & Camden	Wollondilly	Bowral & District
Paediatric endocrinology service (outpatient)						
Paediatric endocrinology service (inpatient)						
Adolescent/Young Adult Transition service						
Adult T1DM/rare forms of diabetes clinics						
T1DM group education (Oz DAFNE)						
Adult T2DM clinics						
Gestational diabetes clinics						
Gestational diabetes group education						
Rapid Access Clinics						
High risk foot service						
Low risk foot service						
Outreach GP Case conferencing						
GP Telephone Advice Line						
Telehealth clinics						
Hospital based T2DM group education						
Outreach Community based T2DM Group education						
Outreach to Aboriginal Chronic Care Program	Bankstown Aboriginal CHC		Budyari Community Health Centre	Tharawal Aboriginal Medical Service		
Endocrine Clinical Genetics clinics						

2019
2026

14. Governance, Implementation and Monitoring

14.1 Governance

SWSLHD and SWSPHN will maintain responsibility for overall implementation, monitoring and reporting of this Regional Plan.

Within SWSLHD, clinical governance for diabetes and endocrinology services is provided through the Complex Care and Internal Medicine stream.

A Diabetes Medical Advisor position has been established to support improved governance and coordination of services across the District. The SWS Diabetes Program Manager will also support service development and the implementation of the SWS Diabetes Framework.

14.2 Implementation

Implementation of this Regional Plan is a shared responsibility across partner organisations, led by the SWSLHD and SWSPHN. Implementation of the SWSLHD Diabetes Service Framework will be monitored by the South Western Sydney Integrated Care Collaborative (SWSICC) and the SWSLHD Diabetes Framework Implementation Committee. The committee will be guided by the Terms of Reference in Appendix 4.

This Framework is a six-year framework and there is potential for significant policy and/or service delivery changes during this time period. In the case of significant changes, the Implementation Committee will update and refresh the Framework as required to ensure continuing relevance.

14.3 Monitoring

Performance Indicators for diabetes will be progressively developed and reported utilising information obtained from the SWS Diabetes Dashboard (once developed).

It should be noted that these indicators include those which are relevant in the short term and those which will be useful in the longer term to identify the impact of the new diabetes service framework.

Short term indicators:

- Referrals to Get Healthy NSW, including the High Risk For Diabetes service
- GPs participating in the SWS Diabetes Case Conferencing Service
- Patients discussed in the SWS Diabetes Case Conferencing Service
- Practices enrolled in the Quality in Primary Care Program
- Annual improvement cycles completed through the Quality in Primary Care Program
- GPs, primary care providers and SWSLHD staff who have successfully completed at least one AUS-CDEP topic

Long term indicators:

- Potentially preventable hospitalisations for diabetes
- Average length of stay for people with diabetes
- Rate of long term complications including lower limb amputations and renal failure
- Rate of poor birth outcomes for women who have diabetes in pregnancy

GOVERNANCE, IMPLEMENTATION AND MONITORING ACTIONS

We will improve services by:

-
- S45** Formalise clinical governance arrangements between the Macarthur Diabetes Service and Bowral and District Hospital
-

We will enhance access to local diabetes care by:

-
- S23** Engaging a Diabetes Program Manager to monitor and report on implementation of the Diabetes Framework and to implement partnership initiatives, with appropriate administrative support
-

Appendix 1 - Consultation

SWS REGIONAL DIABETES FRAMEWORK CONSULTATION LIST

1. Ms Amanda Larkin, Chief Executive, SWSLHD
2. Dr Alan McDougall, Clinical Director, Complex Care and Internal Medicine, SWSLHD^
3. Prof David Simmons, Director Diabetes Service, Campbelltown Hospital, SWSLHD^
4. Prof Jeff Flack, Director Diabetes Service, Bankstown-Lidcombe Hospital, SWSLHD^
5. A/Prof Vincent Wong, Director Diabetes Service, Liverpool Hospital, SWSLHD^
6. Dr Hamish Russell, Endocrinologist, Liverpool Hospital, SWSLHD
7. Dr Milan Piya, Endocrinologist, Campbelltown Hospital, SWSLHD
8. Dr Sarah Abdo, Endocrinologist, Bankstown-Lidcombe Hospital, SWSLHD
9. A/Prof Rohan Rajaratnam, Clinical Director Cardiovascular, SWSLHD
10. Dr Stephen Conaty, Director Population Health, SWSLHD^
11. Ms Mandy Williams, Director Health Promotion, Population Health, SWSLHD
12. Dr Raymond Chin, Clinical Director, Paediatrics and Neonatology, SWSLHD
13. Dr Anne Lee, Ophthalmology, Liverpool Hospital, SWSLHD
14. Ms Daisy Yogendran, Clinical Nurse Consultant, Macarthur Diabetes Service, SWSLHD^
15. Ms Jenny Wright, Diabetes CNC, Fairfield Hospital, SWSLHD^
16. Dr Jane Estrella, Endocrinologist and Clinical Geneticist, SWSLHD
17. Ms Cecilia Astorga, Diabetes CNC, Liverpool Hospital, SWSLHD^
18. Ms Cathy Wilson, Transition Coordinator, Macarthur Diabetes Service, SWSLHD
19. Ms Sue Colley, Director Allied Health and Community, SWSLHD^
20. Dr Keith McDonald, CEO, South Western Sydney PHN
21. Ms Amy Prince, Director Planning and Performance, South Western Sydney PHN^
22. Ms Michelle Roberts, Integrated Health Manager, South Western Sydney PHN
23. Prof Brad Frankum, Chair South Western Sydney PHN Clinical Council
24. Ms Lesley Miller, Director Nutrition, SWSLHD
25. Mr Luke Taylor, Director Podiatry, SWSLHD
26. Ms Faye Southcombe, Dietitian, Primary & Community Health
27. Ms Kylie Smythe, A/ Head of Department, Dietetics, Liverpool Hospital, SWSLHD^
28. Mr Johnny Tsang, CNC for Physical Health, Mental Health Services, SWSLHD
29. Ms Dallas Rae, Director Allied Health, Mental Health Services, SWSLHD
30. Dr Claire Jones, Director Mental Health Services, SWSLHD
31. Dr Lisa Amato, Paediatric Endocrinologist, Campbelltown Hospital, SWSLHD
32. Dr Ravi Srinivas, Director Oral Health Service, SWSLHD
33. A/Prof Ajesh George, School of Nursing and Midwifery and Research Director Centre for Oral Health Research Translation, Western Sydney University
34. Mr Nathan Jones, Director Aboriginal Health, SWSLHD
35. Mr Shannon Thorne, Manager Aboriginal Chronic Care Program, SWSLHD (resigned)
36. Ms Julie Cherry, Manager Aboriginal Chronic Care Program, SWSLHD
37. Dr Simon Grant, Bowral and District Hospital, SWSLHD
38. Ms Jill Snow, Diabetes Educator, Wingecarribee and Aboriginal Chronic Care Program, SWSLHD
39. Mr Bradley Warner, Clinical Manager Chronic and Complex Care, SWSLHD^
40. Mr Grant Isedale, Clinical Manager Critical Care and Surgical Services, SWSLHD
41. Ms Jodie Ekholm, Clinical Manager Cardiovascular and Imaging Services, SWSLHD
42. Ms Karen Sorensen, Clinical Manager Women's Health, SWSLHD
43. Ms Michelle Chaloub, Clinical Midwifery Educator, Liverpool Hospital, SWSLHD
44. Ms Maria Li Donni, Renal Nurse Manager, SWSLHD
45. Dr Tim Spicer, Staff Specialist Nephrology, SWSLHD
46. Mr Geoff Berry, Consumer Representative, South Western Sydney PHN Clinical Council
47. Ms Penny Jones, Director Integration and Partnerships, Primary & Community Health, SWSLHD
48. Mr Ken Hampson, A/General Manager, Fairfield Hospital, SWSLHD

49. Mr Ken Barnett, General Manager, Bowral and District Hospital, SWSLHD
50. Mr Justin Duggan, General Manager, Primary & Community Health, SWSLHD
51. Ms Natalie Wilson, Director Transforming Your Experience, SWSLHD
52. Ms Sharda Jogia, Senior Women's Health Promotion Program Manager & BCE Program Manager, Population Health, SWSLHD
53. Ms Balwinder Sidhu, Multicultural Health Promotion Manager, Population Health, SWSLHD
54. Ms Katina Varelis, Director Health Language Services, SWSLHD
55. Ms Lynda Johnston, Manager Consumer and Community Participation, SWSLHD
56. Ms Simone Bennetts, Project Officer, Diabetes, Obesity and Metabolism Translational Research Unit (DOMTRU), SWSLHD
57. Ms Therese Fletcher, Diabetes Research Nurse, DOMTRU
58. Mr Jean-Jacques Dath, Director Occupational Therapy, SWSLHD
59. Prof Josephine Chow, Director Strategy and Partnerships, SWSLHD
60. Mr Simon Radmore, Project Manager Strategic Projects, Clinical Innovation and Business Unit, SWSLHD
61. Ms Simone Proft, Manager, Planning Unit, SWSLHD
62. Mr Stephen Johnson, Director Performance, SWSLHD
63. Ms Diana Markovski, District Clinical Information Manager, SWSLHD
64. Ms Daniela Markovski, District Clinical Information, SWSLHD
65. Ms Jenny Ly, Project Manager Integrated Care, Primary and Community Health, SWSLHD
66. Ms Diana Milosevic, Senior Planner, SWSLHD
67. Mr Stuart Purdie, Planning Analyst, SWSLHD
68. Ms Sarah Koh, Senior Project Officer- Get Healthy NSW Service, NSW Office of Preventive Health, MoH
69. Ms Marina Davis, Network Manager Diabetes and Endocrine, Agency for Clinical Innovation
70. Ms Mirella Donaldson, Community Programs Manager, JDRF Australia – 90206109
71. Ms Fiona Gardner, Planning and Development Manager, Diabetes Australia NSW & ACT
72. Dr Vinh Binh Lieu, GP, Bankstown
73. Dr Joe Nicholas, GP, Fairfield
74. Dr Mahmed, GP, Fairfield and Wingecarribee
75. Dr Vincent Roche, GP, Wingecarribee
76. Dr Nadia Khan, GP, Fairfield
77. Dr Chee Khoo, GP, Campbelltown
78. Dr Aloffivae – Doorbina, GP, Bankstown
79. Dr Sandra Wellington, GP, Campbelltown
80. Dr Vani Arjunamani, GP, Bankstown
81. Dr Michael Tam, Academic Integrated Primary Care Unit
82. Ms Martha Parsons, Diabetes Service, Hunter New England

^ Diabetes Planning Executive / Steering Committee

COMPLETED GROUP CONSULTATIONS

1. South Western Sydney PHN Clinical Council
2. South Western Sydney PHN Consumer Council
3. South Western Sydney PHN Local Health Councils (7 LGA)
4. SWSLHD Dietetics Heads of Department Meeting
5. SWSLHD Consumer and Community Participation Managers Meeting
6. Liverpool Hospital GDM consumers
7. Fairfield Hospital Adult clinic consumers

Appendix 2 - Policy Environment

The vision for NSW Health is a sustainable health system that delivers outcomes that matter to patients, is personalised, invests in wellness and is digitally enabled. Value based healthcare (VBHC) will help achieve this vision. In NSW, VBHC means continually striving to deliver care that improves the:

- health outcomes that matter to patients and the community
- experiences of receiving care
- experiences of providing care
- effectiveness and efficiency of care.

Implementation of the SWS Diabetes Framework to 2026 will facilitate compliance and local implementation of a broad range of health policies and priorities, including:

- Key NSW Health initiatives including:
 - NSW Diabetes Taskforce recommendations
 - Leading Better Value Care statewide initiatives for the inpatient management of diabetes and high risk foot services
 - Integrating Care initiatives including Risk of Hospitalisation (previously Integrated Care for People with Chronic Conditions) and LUMOS, the Primary Care Data Linkage program

- The **Australian National Diabetes Strategy 2016 - 2020**
- The **NSW State Health Plan: Towards 2021**
- The **NSW Health Strategic Framework for Integrating Care**
- The **NSW Diabetes Prevention Framework**
- The **SWSLHD Strategic Plan 2018 - 2021**
- The SWSLHD **Transforming Your Experience** Strategy
- The **South Western Sydney PHN Strategic Plan 2016 - 2021**
- The SWSLHD Virtual Care Strategy
- The SWSLHD Care in the Community Clinical Services Plan to 2021

Appendix 3 - Diabetes Management Team

Diabetes is best managed with the support of a diabetes healthcare team. Many people can be part of the health care team to help people live well with diabetes. The team can be made up of health professionals as well as family and friends.

The following are the people who may form part of the health care team.

Family doctor/ GP

The family doctor or general practitioner (GP) has a central role in assessing and managing diabetes. The GP can refer to any specialists that may need to be seen. The GP may also have a practice nurse who can assist with assessment and management

Credentialed Diabetes Educator (CDE)

A Credentialed Diabetes Educator (CDE) works with people to help understanding and management of diabetes. The CDE can provide a wide range of

general information about diabetes and associated complications.

The GP may refer to a CDE in the local area, or a CDE may be found on the Australian Diabetes Educators Association website, or local hospital, or diabetes centre or community health centre.

Note: Medicare provides rebates for CDE fees in accordance with the Chronic Disease Management Program. A referral is required from the GP. A rebate may be also be available for those who have private health insurance, depending on the type of cover.

Accredited Practising Dietitian (APD)

An Accredited Practising Dietitian (APD) works with people to develop personalised healthy eating plans to suit an individual's lifestyle, type of diabetes and individual health needs. The dietitian can teach label reading, recipe modification and how to order at restaurants.

APDs can be accessed by contacting the Dietitians Association of Australia on 1800 812 942, or the local hospital (not all hospitals have dietitians) or diabetes centres and community health centres which are listed in the telephone directory.

Note: Medicare provides rebates for APD fees in accordance with the Chronic Disease Management Program. A referral is required from the GP. A rebate may be also be available for those who have private health insurance, depending on the type of cover.

Exercise physiologist/physiotherapist

An exercise physiologist/physiotherapist can help determine the appropriate exercise/activity plan, individually suited to a person's needs and lifestyle. A doctor may provide a referral or the Australian Association for Exercise and Sports Science can provide contact details.

Note: Medicare provides rebates for exercise physiologist/physiotherapist fees in accordance with the Chronic Disease Management Program. A referral is required from the GP. A rebate may be also be available for those who have private health insurance, depending on the type of cover.

Podiatrist

A podiatrist needs to be seen regularly to check the feet. Diabetes can increase the risk of foot ulcers and amputations. A podiatrist can check the feet and determine if there is a low or high risk of developing more serious problems.

The Podiatry Association can provide details of podiatrists with specialised knowledge about diabetes.

Note: Medicare provides rebates for podiatry fees in accordance with the Chronic Disease Management Program. A referral is required from the GP. Department of Veteran Affairs (DVA) gold card holders are entitled to free podiatry services from private podiatrists. Private health funds cover some podiatry services.

Dentist

The dentist needs to be visited regularly to review teeth and gums. Diabetes can affect teeth for a couple of reasons:

Increased levels of sugar in the saliva can put people with diabetes at increased risk of tooth decay and gum disease

Impaired circulation around the gums can prevent gums from healing when there is some injury or trauma.

Note: Medicare provides rebates for dentist fees in accordance with the Chronic Disease Management Program. A referral is required from the GP. A rebate may be also be available for those who have private health insurance, depending on the type of cover.

Optometrist

All people with diabetes are at risk of developing diabetes-related eye disease which, if left untreated, can cause vision impairment or blindness. Most diabetes-related eye diseases do not show symptoms early, so regular visits to the optometrist for a comprehensive eye examination are required.

Local optometrists can be accessed via www.goodvisionforlife.com.au.

Pharmacist

A pharmacist at the local NDSS Access Point can give advice about how to get the best benefit from medicines and discuss the side effects. Pharmacists have a broad scope of knowledge and can help the management of different medications. The doctor can ask for a pharmacist to do a medication review.

Continence Nurse

A Continence Nurse can give advice about bowel and bladder health. Treatment and management options are available and can be discussed with the GP or with a Continence Nurse Advisor on the National Continence Helpline 1800 33 00 66.

Counsellor, psychologist, psychiatrist or a social worker

A counsellor, psychologist, psychiatrist or a social worker can help if a person is having any kind of trouble dealing with the psychological side of diabetes. This is just as important as the physical side of diabetes for managing general health and wellbeing.

Counsellors, social workers (social workers generally work for community services, such as local councils, health centres and hospitals) and psychologists can be contacted directly, OR

the doctor or community or youth health centre may assist with writing a referral. A referral from a doctor is required to see a psychiatrist.

Note: Medicare may provide a rebate on psychologists' or counsellors' fees if there is a chronic condition and the person is referred by a doctor. A rebate may be available via private health insurance, depending on the type of cover available.

Diabetes Centres

Diabetes centres can provide specialised advice to help manage diabetes, if the GP identifies that additional care is required. Diabetes centres are located in public hospitals, some private hospitals and some community health centres. The GP can arrange a referral to a local Diabetes Centre.

Endocrinologist

An endocrinologist is a medical specialist who can provide expert advice on the management of diabetes. They know how to treat conditions that are often complex and involve many systems within the body.

A referral from the doctor is required to see an endocrinologist.

Family & Friends

Family and friends can provide day-to-day support and assistance in managing emotional health, physical health, and motivation for diabetes self-management.

Source: Adapted from Diabetes Australia- <https://www.diabetesaustralia.com.au/health-care-team>

Appendix 4 - Implementation Group Terms of Reference

TERMS OF REFERENCE

South Western Sydney Diabetes Framework to 2026 Implementation Working Group

1. PURPOSE

To lead the implementation of the South Western Sydney Diabetes Framework to 2026 (the Framework)

STRATEGIC CONTEXT

To provide a governance structure, and to engage essential stakeholders in delivering the plan.

1. Develop a framework for implementation of the South Western Sydney Diabetes Framework to 2026
2. Ensure responsibilities and accountabilities of action items are clearly allocated and understood
3. Discuss and review implementation strategies for the 68 action items of the plan
4. Identify opportunities and risks, and develop strategies to overcome emerging challenges
5. Form workgroups to target strategies
6. Apply sustainability principles to all aspects of implementation
7. Monitor progress of the plan
8. Undertake an annual self-assessment, including review of terms of reference

2. MEMBERSHIP

2.1 Details of Membership

Status	Position
Co - Chair	Director of Complex and Internal Medicine, SWSLHD
Co - Chair	PHN Representative
Member	SWSLHD Diabetes Advisor
Member	Director Allied Health and Community Services, SWSLHD (Executive Sponsor)

Member	GP Representatives
Member	Clinical Manager, Complex Care and Internal Medicine
Member	Director of Dietetics, SWSLHD
Member	Integrated Health Manager, SWSPHN
Member	Director of Planning and Performance, SWSPHN
Member	Podiatrist- High Risk Foot Clinic Liverpool Hospital
Member	Nurse Practitioner, SWSLHD
Member	CNC, Diabetes <ul style="list-style-type: none"> » Liverpool » Fairfield » Macarthur » Bankstown
Member	Director, Diabetes and Endocrinology <ul style="list-style-type: none"> » Liverpool/Fairfield » Macarthur » Bankstown
Member	Primary and Community Health Representative
Member	Aboriginal Chronic Care Program Representative
Member	Diabetes NSW Representative
Member	Consumer Representative

2.2 Terms of Office

Membership for the committee will be for the duration of the Framework- 2026.

3. CHAIRPERSON & SECRETARIAT

3.1 Chairperson

The Chair of the Committee is to ensure that meeting papers comply with the SWSLHD and SWSPHN Records Management Policy and that meetings are conducted in accordance with the SWSLHD meeting code of practice.

3.2 Secretariat

Executive Assistant, Complex and Internal Medicine Clinical Stream, SWSLHD

The Secretariat of the Committee is to ensure that:

- meeting papers comply with the SWSLHD Records management Policy
- meeting papers are distributed one week prior to the meeting
- follow up actions occur as appropriate
- the preparation of correspondence as appropriate

4. MEETINGS

4.1 Notice of Meetings

Seven days. A Meeting schedule will be published on an annual basis.

4.2 Quorum

50% plus one.

4.3 Frequency

4 times per year, a joint meeting with Western Sydney Diabetes is proposed once per year.

4.4 Disclosure of Interest

At the commencement of each meeting the chair will invite members to declare whether there are any matters in the agenda that they have a “direct or pecuniary interest”. This will provide members/attendees with an opportunity to discharge their obligations.

4.5 Code of Conduct

Members/attendees of the Committee are bound by their respective organisational or professional code of conduct.

Responsibilities of members;

- Attendance and proactive participation at committee meetings
- Review and comment on issues and provide progress updates
- Provide information and advice in area of expertise
- Communicate implementation strategies back to departmental meetings
- Abide by the SWSLHD code of meeting practice

4. REPORTING RELATIONSHIPS

Reporting on progress against actions will be supported by the SWS Diabetes Framework Reporting Template. Recommendations, decisions and progress will be reported bi-annually to the SWSLHD Chief Executives of SWSLHD and SWSPHN via the South Western Sydney Integrated Care Committee.

5. EVALUATION

The Committee will undertake a self-assessment on an annual basis, including a review of its terms of reference.

6. RECORDS MANAGEMENT

The Committee will comply with the SWSLHD Records management Policy.

7. DOCUMENT HISTORY

Revision	Date	Describe
First draft	21.2.2020	Initial completion of Term of Reference details

Appendix 5 - Acronyms

ABS	Australian Bureau of Statistics
ACCP	Aboriginal Chronic Care Program
ACI	Agency for Clinical Innovation
AHPRA	Australian Health Practitioner Regulation Agency
AMS	Aboriginal Medical Service
AT	Advanced Trainee
BPT	Basic Physician Trainee
CGM	Continuous Glucose Monitoring
CNC	Clinical Nurse Consultant
CNS	Clinical Nurse Specialist
CPD	Continuous Professional Development
CRG	Clinician Reference Groups
CVD	Cardiovascular Disease
DKA	Diabetic Ketoacidosis
ED	Emergency Department
eMR	Electronic Medical Record
GDM	Gestational Diabetes Mellitus
GHK	Growing Healthy Kids
GP	General Practitioner
HHS	Hyperosmolar Hyperglycemic State
HRFS	High Risk Foot Service
ICU	Intensive Care Unit
IDCT	Inpatient Diabetes Care Team
LGA	Local Government Area
LHD	Local Health District
MDT	Multidisciplinary Team
MoH	Ministry of Health
NDIS	National Disability Insurance Scheme
NDSS	National Diabetes Services Scheme
NSW	New South Wales
OGTT	Oral Glucose Tolerance Test
PHN	Primary Health Network
PN	Practice Nurse
QIPC	Quality in Primary Care
RACGP	Royal Australian College of General Practitioners
SCHN	Sydney Children's Hospital Network
SMA	Shared Medical Appointments
SWS	South Western Sydney
SWSLHD	South Western Sydney Local Health District
T1DM	Type 1 Diabetes Mellitus
T2DM	Type 2 Diabetes Mellitus
TYE	Transforming Your Experience
WSD	Western Sydney Diabetes
WSU	Western Sydney University

Appendix 6 - Summary of Actions

Service Development Actions

Section of the Plan	Service Development Action Name	Responsible Organisation
Prevention and early detection of diabetes	Building collaborations with Western Sydney Diabetes to address shared priorities	SWSPHN/SWSLHD
	Promoting and delivering targeted diabetes risk education programs within local high-risk communities, incorporating health literacy, education and peer support	SWSPHN/SWSLHD
	Promoting referral to Get Healthy NSW across all care settings	SWSPHN/SWSLHD
	Undertaking opportunistic diabetes risk assessment and/or screening at identified community events and in association with National Diabetes Week incorporating pathways for ongoing support	SWSLHD
	Investigating opportunities to support risk assessment and/or programs in collaboration with community pharmacies	SWSLHD
Self management and patient education	Providing and/or promoting a tiered and tailored suite of T2DM group education programs through: <ul style="list-style-type: none"> a. Trialling and evaluating practice-based programs collaboratively between diabetes services and primary care providers b. Referring to programs delivered by private allied health, community pharmacy and Diabetes Australia NSW/ACT c. Developing and implementing tailored programs to meet the needs of particular cultural, language groups or other community groups d. Providing highly specialised education for people with complex care needs 	SWSPHN/SWSLHD
	Providing a regular program of OzDAFNE education through: <ul style="list-style-type: none"> a. Encouraging referrals from private endocrinologists and General Practitioners b. Offering a fee for service model to facilitate access for people with T1DM outside of SWS 	SWSLHD
	Developing, maintaining and promoting a SWS Diabetes website as a consolidated patient and service provider resource via the Health Resource Directory	SWSPHN
	Trialling the use of Shared Medical Appointments for people with T2DM who have similar backgrounds and needs	SWSLHD/SWSPHN
Integrated diabetes care	Strengthening primary care capacity to meet the needs of adults with T2DM <ul style="list-style-type: none"> a. Delivering coordinated multidisciplinary care which addresses physical and psychosocial care needs b. Encouraging GPs to participate in the SWSPHN QIPC Program and the Practice Incentives Program to monitor practice-wide compliance with the diabetes cycle of care and improve identification and management of chronic disease 	SWSPHN
	Encouraging and supporting all people with diabetes to register with the NDSS and developing specific programs to enhance the number of Aboriginal people registering	SWSPHN/SWSLHD
	Reviewing, refining and promoting use of the diabetes related HealthPathways for SWS	SWSPHN
	Raising awareness of the South Western Sydney Diabetes Case Conferencing service through a broad range of communication mediums to increase uptake	SWSLHD/SWSPHN

	Supporting people with complex care needs through the My Care Partners model by: a. providing access to care navigation and care coordination b. developing relationships between these teams and SWSLHD Diabetes Services c. building systems to ensure integration with specialist diabetes services for people with T1DM and rare forms of diabetes	SWSLHD
	Developing the capacity of the SWSLHD Aboriginal Chronic Care Program to respond to the needs of Aboriginal people with T2DM and formalising the governance arrangements between the Aboriginal Chronic Care Program and Diabetes Services	SWSLHD/SWSPHN
	Supporting people with diabetes to access appropriate services through the NDIS and My Aged Care (by providing program information, completing reports, assisting access to a support coordinator as needed).	SWSLHD/SWSPHN
	Reviewing the current South Western Sydney Diabetes Case Conferencing model of care to improve accessibility and availability	SWSLHD/SWSPHN
	Reviewing paediatric endocrinology out of hours staffing and support arrangements in collaboration with the SCHN	SWSLHD
	Developing linkages between SWSLHD Youth Health Services, SWSLHD Diabetes Services and other community-based services supporting young people	SWSLHD
	Reviewing and refining models of care for adolescents and young adults with T2DM and/or insulin resistance	SWSLHD/SWSPHN
	Coordinating and promoting Diabetes Contraception and Pre Pregnancy Program across primary health care providers, specialist and community-based services	SWSLHD/SWSPHN
	Reviewing and refining models of care for women with GDM, considering: a. The benefits of moving women between high risk and low risk clinics b. Opportunities for GP Shared Care, particularly for women with GDM who are diet controlled, with rapid access to specialist services as required c. Remote monitoring d. Addressing the needs of women from cultural backgrounds with a high prevalence of GDM and/or limited English e. Post-partum review, risk stratification and referral to T2DM prevention services f. Reviewing group education programs for women with GDM to improve accessibility of programs, including those delivered in community languages and trialling after hours and/or weekend programs	SWSLHD/SWSPHN
	Improving the care of people who are at risk of diabetes or who have diabetes and a mental health condition by a. developing partnerships between specialist diabetes services, mental health services and primary care providers to identify people with mental health conditions who are at high risk of developing diabetes and providing early referral to support and monitoring b. developing models of care to enhance physical health of people with diabetes and mental health issues	SWSLHD/SWSPHN
Prevention and management of complications	Promote consumer registration to Keepsight Australia re-call system among GPs and encourage GPs and community optometrists across SWS to register as Keepsight Healthcare Providers	SWSPHN
	Developing integrated models of care to support the detection and treatment of diabetic eye disease	SWSLHD/SWSPHN

	Supporting the professional development of private podiatry services in the delivery of complex diabetic foot care	SWSLHD/SWSPHN
	Establishing early referral pathways between private podiatry services and HRFS	SWSLHD/SWSPHN
	Developing oral health screening program and tools for patients and health care providers	SWSLHD/SWSPHN
Emergency, acute and inpatient care	Ensuring people with identified diabetes presenting to ED have their blood glucose levels and HbA1c levels checked and their status recorded in the ED	SWSLHD
	Improving the documentation of diabetes in the eMR, including the daily recording of blood glucose levels	SWSLHD
	Establishing Diabetes and Insulin Safety Boards at all facilities across SWSLHD	SWSLHD
	Developing and implementing District wide policies in relation to: <ul style="list-style-type: none"> a. administration of insulin infusions, tailored to the role delineation and capabilities of each facility b. insulin self-administration in hospital, including the use of insulin pumps and the storage of medication c. management of hypoglycaemia, including access to the full range of hypoglycaemic treatment options d. nutrition in hospitals and fasting 	SWSLHD
	Facilitating timely inpatient assessment to access the My Care Partners program and Integrated Care for People with Chronic Conditions programs	SWSLHD
Technology and virtual care	Improve uptake of new technologies which assist the management of diabetes by: <ul style="list-style-type: none"> a. Developing partnerships to improve access to subsidised technological solutions for residents of SWS b. Ensuring capacity and capability of clinics to respond to the use of new technologies by an increasing number of people with diabetes 	SWSLHD/SWSPHN
	Expanding the use telehealth services and virtual clinics to improve service accessibility	SWSLHD/SWSPHN
Workforce development	Facilitating access to and encouraging completion of the AUS-CDEP education program for primary care providers through the SWSPHN, SWSLHD Diabetes website and regular communication with GPs	SWSLHD/SWSPHN
	Promoting the AUS-CDEP and Insulin Management Training programs to SWSLHD staff through the SWSLHD Centre for Education and Workforce Development and providing quarantined time to undertake this training	SWSLHD
	Encouraging the use of the Thinksulin app across inpatient settings	SWSLHD
	Progressively establishing Diabetes Resource Nurses across all adult inpatient settings	SWSLHD
	Facilitating access to structured diabetes education for care professionals outside of the health setting	SWSLHD/SWSPHN
	Supporting nursing, allied health staff and Aboriginal Health Workers to complete post graduate qualifications in Diabetes Education through partnerships with the tertiary sector	SWSLHD/SWSPHN
	Developing relationships with key culturally based Medical Associations to provide education and support to members	SWSPHN
Data collection, data sharing and research	Maintaining the BioGrid database across SWSLHD diabetes services	SWSLHD
	Progressively developing a Diabetes Dashboard across develop across hospital and community settings in SWS to support decision making	SWSLHD/SWSPHN
	Formalise clinical governance arrangements between the Macarthur Diabetes Service and Bowral and District Hospital	SWSLHD

Proposed Enhancement Actions

Section of the Plan	Enhancement description	Responsible Organisation
Self management and patient education	Reviewing group education programs for women with GDM to improve accessibility of programs, including those delivered in community languages and trialling after hours and/or weekend programs	SWSPHN/SWSLHD
	Expanding peer support models through: <ul style="list-style-type: none"> a. Recruiting and training additional facilitators, with an initial focus on priority language and cultural groups b. Promoting the availability of peer support programs through primary and secondary care services c. Ensuring ongoing professional support for facilitators 	SWSLHD
Integrated diabetes care	Developing a telephone-based GP Support Line to provide real time access to specialist diabetes advice	SWSLHD/SWSPHN
	Expanding the capacity of public podiatry services across the District	SWSLHD/SWSPHN
	Providing a dedicated Credentialed Diabetes Educator within the SWSLHD Aboriginal Chronic Care Program	SWSLHD
	Develop a regular multidisciplinary diabetes outreach clinic at the Bankstown Aboriginal Community Health Centre	SWSLHD
	Establishing a regular multidisciplinary diabetes clinic in Wollondilly LGA and at Bowral and District Hospital	SWSLHD
	Building dedicated clinical psychology and social work services into diabetes multidisciplinary teams <ul style="list-style-type: none"> a. offering appointments at both Campbelltown and Liverpool Hospitals for paediatric and young adult services. 	SWSLHD
	Expanding the availability of outpatient clinical services for people with T1DM and rare forms of diabetes across SWS consistent with demand <ul style="list-style-type: none"> a. Consider establishing a clinic for T1DM and rare forms of diabetes at Fairfield Hospital 	SWSLHD
	Establishing a business hours adult T1DM Telephone Advice Service, available to both inpatients and outpatients and exploring demand for an extended hour and/or weekend service	SWSLHD
	Providing a SWSLHD diabetes genetics service to support the identification and treatment of rare forms of diabetes	SWSLHD
	Establishing multidisciplinary paediatric endocrinology clinics at Liverpool Hospital	SWSLHD
	Establishing a diabetes in pregnancy service at Bowral and District Hospital	SWSLHD
	Expanding the availability of diabetes in pregnancy services across SWS consistent with demand and introduction of new models of care	SWSLHD/SWSPHN
	Establishing joint clinics between diabetes services and mental health services to improve the care of mental health consumers with diabetes	SWSLHD
Prevention and management of complications	Trialling and evaluating a joint cardiology and/or renal and diabetes clinic for high risk patients	SWSLHD
	Developing a preventive oral health service targeted to patients at high risk in collaboration with key stakeholders	SWSLHD/SWSPHN

Emergency, acute and inpatient care	Improving access to specialist diabetes services in the hospital setting through: a. Expanding the existing IDCT at Bankstown-Lidcombe, Liverpool, Fairfield and Campbelltown Hospitals and ultimately providing a seven day per week service b. Establishing an IDCT at Bowral and District Hospital supported by the Macarthur Diabetes Service c. Incorporating access to podiatry services within IDCT at all hospital facilities	SWSLHD
	Establishing a Credentialed Diabetes Educator led Diabetes Rapid Access service at Bowral and District Hospital, in collaboration with the Macarthur Diabetes Service	SWSLHD
Technology and virtual care	Providing an integrated glucose point of care testing model within the inpatient setting	SWSLHD
Workforce development	Increasing the number of SWSLHD staff trained as OzDAFNE facilitators	SWSLHD
	Enhancing the specialist diabetes workforce through establishing additional endocrinology training places, clinical fellowships, Diabetes Nurse Practitioners and Credentialed Diabetes Educator positions to deliver additional services identified for the future	SWSLHD
Governance, implementation and monitoring	Engaging a Diabetes Program Manager to monitor and report on implementation of the Diabetes Framework and to implement partnership initiatives, with appropriate administrative support	SWSLHD/SWSPHN

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