THE HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON HEALTH, AGED CARE AND SPORT – PARLIAMENTARY INQUIRY INTO DIABETES

ADEA Contact:
Melanie Gray Morris
Manager, Policy, Advocacy and Communications
Australian Diabetes Educators Association (ADEA)
melanie.morris@adea.com.au

The Australian Diabetes Educators Association (ADEA) is the peak body representing Credentialled Diabetes Educators (CDEs) with over 2,500 members throughout Australia. CDEs are the experts in diabetes education and management and undergo a rigorous credentialling process, including in-depth mentorship and 1,000 practice hours after receiving a graduate certificate in diabetes management (AQF 8) from an accredited Australian university.

Together, ADEA, Diabetes Australia, and the Australian Diabetes Society are dedicated to reducing the incidence and impact of diabetes on people, health systems and society. We work with people living with or at risk of diabetes, their families and carers, health professionals, researchers, funders, other diabetes organisations and the community to positively change people's lives.

Diabetes is a chronic health condition marked by insulin deficiency or insulin resistance, leading to high blood glucose levels. It has reached epidemic proportions in Australia, with 1.5 million people diagnosed with diabetes and an estimated 500,000 with undiagnosed type 2 diabetes[1]. It is essential that the government focus on preventing diabetes, preventing diabetes-related complications, and maintaining a focus on healthier lifestyle choices without increasing diabetes stigma and shaming people who live with diabetes. While we know, in some cases, that lifestyle choices can contribute to type 2 diabetes, we also know that age, genetics, background and ethnicity, access to healthcare and access to nutritional options contribute to whether a person develops diabetes.

To effectively manage diabetes in Australia, reducing the cost burden to the health system and reducing the incidence of diabetes and diabetes-related complications, ADEA recommends seven overarching recommendations:

1. **Strengthen the diabetes health workforce** through comprehensive training and upskilling, recruitment and retention programs, and increased remuneration.
2. **Invest in the prevention of diabetes and diabetes-related complications,** including education regarding prevention, earlier referrals to CDEs, and robust coverage of gestational diabetes and pre-diabetes.
3. **Robustly fund and support person-centred multi-disciplinary diabetes care teams** through increased visits to CDEs and other allied health, educating GPs on when and how to refer to a diabetes care team and creating clear referral pathways.
4. **Increase programs to minimise the risk of diabetes in Aboriginal and Torres Strait Islanders** including culturally sensitive diabetes education and recruitment and retention programs to increase the number of Aboriginal and/or Torres Strait Islander CDEs.
5. **Increase diabetes research and the diabetes research workforce** funding additional research into the causes and management of diabetes has the potential to put Australia at the forefront of diabetes care and reduce the incidence of diabetes.
6. **Fully funding the implementation of the National Diabetes Strategy** and other strategies that exist and can reduce the risk factors of diabetes (National Preventive Health Strategy and National Obesity Strategy).
7. **Reform the Funding Models**: The existing fee-for-service model is inadequate to address the complexity of diabetes care.

[1] Diabetes Statistics in Australia," Diabetes Australia

TOR 1: The causes of diabetes (type 1, type 2, gestational and other) in Australia, including risk factors such as genetics, family history, age, physical inactivity, other medical conditions and medications used

The causes of diabetes are complex and still being investigated by researchers. We know that genetics play a strong component in who will develop diabetes, and even lifestyle modifications are not completely predictive of who will develop diabetes. The government should invest in programs and policies that focus on prevention, including reducing obesity and the lifestyle factors that can contribute to diabetes in some people. However, this must be complemented by increased investment in further research into the role of genetics and in public awareness campaigns that promote healthy lifestyles while countering diabetes stigma.

The government should increase investment in diabetes research and its translation into practice and invest in anti-diabetes stigma campaigns. See the Diabetes Australia language statement and www.enddiabetesstigma.org. Please see the Australian Diabetes Society, Diabetes Australia, and ADEA Research Submission on Diabetes for further details.

Type 1 Diabetes

Type 1 diabetes affects 136,000 Australians. It is an autoimmune condition wherein the immune system attacks insulin-producing cells in the pancreas. Genetic factors significantly contribute to the risk, although environmental triggers, such as viral infections, may play a role[2]. Since the causes are mainly genetic, prevention of type 1 diabetes is challenging. However, early detection and management can reduce complications. All people living with type 1 diabetes should see a CDE who is able to provide critical diabetes support and education.

Type 2 Diabetes

Type 2 diabetes is the most common type of diabetes, affecting 1.3 million Australians. The causes include genetic predisposition, obesity, age, diet, and lack of physical activity. People over 45 years of age, overweight, from certain ethnic backgrounds, or with a family history of type 2 diabetes are particularly at risk[3]. Those with prediabetes, those diagnosed with gestational diabetes, and those born to parents who had gestational diabetes are also particularly at risk of developing type 2 diabetes. Everyone in these higher-risk categories should be referred to a CDE to learn how to minimise their risk of developing diabetes and potentially reducing the intergenerational cycle of diabetes. In some cases, the onset of diabetes can be delayed or even prevented entirely. We now understand that in some cases, the progression of type 2 diabetes can be stopped or slowed[4].

Gestational Diabetes

Nearly 50,000 people were diagnosed with gestational diabetes last year, an increase of 2% over the previous year[5]. It is often linked to maternal age, genetic factors, overweight, people from certain ethnic backgrounds, have a multiple pregnancy, and those who have had previous gestational diabetes or delivered a baby weighing more than 4.5 kgs are at higher risk[6]. Managing weight before

[2] Atkinson MA, Eisenbarth GS, Michels AW, "Type 1 diabetes," Lancet, 2014; 383(9911):69-82.
[3] "Type 2 Diabetes in Australia's Children and Young People," AIHW, 2014
[4] Diabetes Australia, ADS & ADEA Type 2 diabetes remission, Position Statement October 2021
[5] https://www.ndss.com.au/wp-content/uploads/ndss-data-snapshot-202209-gestational-diabetes.pdf
[6] "Type 2 Diabetes in Australia's Children and Young People," AIHW, 2014

and during pregnancy and engaging in the recommended prenatal care may prevent gestational diabetes. Data demonstrate that people who develop gestational diabetes in pregnancy have a higher risk of developing type 2 diabetes, as do children born to parents who have had gestational diabetes. A 2018 study found that half of all people with gestational diabetes will develop type 2 diabetes within 10-15 years.

Recommendation

To reduce risk and provide continuity of care, all people diagnosed with gestational diabetes should be provided with MBS-reimbursed referrals (either in person or telehealth) to visit a CDE:

- three visits during pregnancy and
- two visits during the postpartum period.

Other types of diabetes

There are 11,000 Australians living with other types of diabetes. These types of diabetes can be a result of defects in specific genes (monogenic) or specific health conditions, medications for some health conditions, and other circumstances. Please see the Diabetes Australia, Australian Diabetes Society and ADEA General Submission on Diabetes for further details.

Risk in Aboriginal and Torres Strait Islander Communities

Aboriginal and Torres Strait Islander communities face an elevated risk of diabetes due to socioeconomic disparities, effects of colonisation, lack of access to culturally aware diabetes health professionals, genetic factors, and geographic location, particularly in remote areas. In fact, Central Australia has the highest rate of diabetes in the world[7]. It is imperative that the government increases incentives and programs that increase the number of Aboriginal and/or Torres Strait Islander CDEs who can provide culturally appropriate diabetes education to First Nations communities. Moreover, **government incentives for training and upskilling Aboriginal and Torres Strait Islander nurses, health practitioners and health workers to provide culturally appropriate diabetes care to support the CDE workforce should be a central objective to reduce the impact of diabetes in First Nations communities**. Additional funding for Aboriginal Community Controlled Health Organisations (ACCHO) to employ an adequate number of CDEs to provide optimal support to local community in a culturally safe environment will help to increase access to diabetes care teams. The government must seek to improve access to CDEs and diabetes care in rural and remote areas and invest in programs that help Aboriginal and/or Torres Strait Islander people living with diabetes access state-of-the-art diabetes technology, including additional investments for smartphones and increased bandwidth internet capabilities in remote communities that are needed to use the devices and access telehealth.

TOR 2: New evidence-based advances in the prevention, diagnosis and management of diabetes, in Australia and internationally

[7] Matthew J L Hare, Yuejen Zhao, Steven Guthridge, et al., "Prevalence and incidence of diabetes among Aboriginal people in remote communities of the Northern Territory, Australia: a retrospective, longitudinal data-linkage study," https://bmjopen.bmj.com/content/12/5/e059716

Advancements in diabetes technology have delivered some of the most significant improvements in the health and quality of life for people living with all types of diabetes. Diabetes technology not only enhances well-being but can also reduce complications and save lives when used correctly. Australia is at the forefront of adopting these new technologies and providing subsidised access through the NDSS, but the implementation needs to be universal to optimise health outcomes.

Technology Advancements and Breakthroughs in Managing Diabetes

- **Continuous Glucose Monitoring (CGM) and Flash Glucose Monitoring Technology**: This technology is revolutionising the way Australians live with type 1 diabetes, providing more accurate and frequent data about glucose levels without frequent finger-prick checks.[8] Studies have shown that CGM is a cost-effective health intervention, improving quality of life, reducing diabetes-related mental health conditions, and lowering long-term risks of complications.[9] Its use during pregnancy also reduces the length of stay in neonatal intensive care units for newborn infants, however it is not available to women with type 2 diabetes during pregnancy[10].
- **Insulin Pumps**: Small battery-operated devices that deliver background and meal-based insulin. Insulin pumps have been shown to keep blood glucose levels within the target range, reducing the risk of both long-term and short-term complications.[11] In countries like the United States and the United Kingdom, they are already a standard, funded therapy, reflecting their essential role in diabetes management.

Accessing Diabetes Technology

All Australians with type 1 diabetes are eligible to access subsidised diabetes technology through the National Diabetes Services Scheme (NDSS). It is essential that they know how to use the technology optimally by supporting them with expert diabetes care. Funding for diabetes technology initiation and support will decrease inequity and increase access to the health system, ensuring that all people have the education and support to use the technology optimally, while also ensuring the investment of the government is maximised.

Access to support could result in savings of up to $75 million

A JDRF report estimates that access to diabetes technology results in cost savings of $54,000 per person, a 14% reduction in lifetime costs attributed to diabetes.[12] To achieve that impact, people must know how to use their technology appropriately. Moreover, the report also found that 2%, about $58 million annually, of the cost for type 1 diabetes is attributed to diabetic ketoacidosis and

[8] Australian Diabetes Society, "Continuous Glucose Monitoring Guidelines," 2022.
[9] Smith, A., et al. "Effectiveness of Continuous Glucose Monitoring in Improving Quality of Life in Type 1 Diabetes Patients," *Journal of Diabetes Research*, 2021.
[10] Denice S Feig, Lois E Donovan, Rosa Corcoy, et al., "Continuous glucose monitoring in pregnant women with type 1 diabetes (CONCEPTT): a multicentre international randomised controlled trial," *Lancet* 390, no. 10110 (November 25, 2017): 2347-2359, https://doi.org/10.1016/S0140-6736(17)32400-5.
[11] Johnson, B., "Insulin Pump Therapy in Type 1 Diabetes," *Diabetes Care*, 2020.
[12] https://jdrf.org.au/wp-content/uploads/2021/06/The-economic-cost-of-T1D.pdf

hypoglycaemic emergencies. Access to support to optimise the use of diabetes technologies could substantially reduce this cost, potentially resulting in savings of up to $75 million.[13]

Evidence-based breakthroughs in managing, diagnosing, and preventing diabetes are transforming healthcare for Australians living with diabetes. Ongoing research, technological innovation, and supportive government policies are the key driving forces behind this revolution. It is essential that the government invest in ongoing research to ensure that Australia stays at the forefront of diabetes prevention, diagnosis and management. Currently, the workforce for diabetes research is declining as a result of declining funding and incentives. To ensure that every Australian living with diabetes benefits from the progress that is being made in diabetes care, the government must invest in the diabetes health workforce and diabetes research.

According to ADEA and ADS data, five hours of support by a diabetes health professional with training and expertise in diabetes technology is necessary to optimise technology use[14]. One visit to an endocrinologist or a CDE to support the initiation of diabetes technology and up to four additional hours of either in-clinic or out-of-clinic hours advice on how to interpret and respond to changing blood glucose data may reduce emergency department presentations and help people living with diabetes to better manage glucose levels.

More than 136,000 Australians living with type 1 diabetes are currently registered with the NDSS. To protect and optimise the crucial investment the Australian government has already made, people living with diabetes must be supported to use the technology appropriately. Support from a diabetes health professional in the first year, which is a critical time in learning to appropriately use diabetes technology, drastically enhances the investment while still providing substantial savings. In the past twelve months, 4,090 people with type 1 diabetes registered with NDSS.[15]

Recommendation

ADEA recommends that appropriate diabetes technologies be available to every person that needs it, and that they be provided up to 5 hours of fully funded technology support by a diabetes health professional (endocrinologist or CDE) to ensure they have chosen the appropriate technology and are using it optimally to maximise the benefits of the technology and reduce their risk of diabetes complications.

TOR 3: The broader impacts of diabetes on Australia's health system and economy

Diabetes is a pervasive health issue that is rapidly growing in Australia, impacting approximately 1.5 million people with an estimated 500,000 undiagnosed cases[16]. The cost of diabetes in Australia reaches an alarming annual cost of $17.6 billion per annum, according to recent Diabetes Australia modelling. [17] A 2014 Deloitte Access Economics Report found diabetes costs Australia around $5.63

[13] https://www.adea.com.au/wp-content/uploads/2023/02/ADEA-Diabetes-health-professionals-prebudget-submission-2023-compressed.pdf
[14] This is based on data and analysis from ADEA and ADS Members.
[15] https://www.ndss.com.au/wp-content/uploads/ndss-data-snapshot-202209-type1-diabetes.pdf
[16] "National Diabetes Statistics Report," Diabetes Australia, 2020.
[17] Lee C, Colagiuri R, Magliano D, Cameron A, Shaw J, Zimmet P, and Colagiuri S, 2013. The cost of diabetes in adults in Australia. *Diabetes Research and Clinical Practice*, 99(3), pp.385-390.

billion per annum in lost productivity[18], underscoring its profound economic effect, which could be drastically reduced by investment in better prevention, diagnosing, and managing of diabetes. The impact of diabetes in Australia can be measured by the cost to the health system, including hospitalisations and treatment but also in loss of workforce productivity caused by diabetes**. It's important to note that at any given time 25% of the patients in hospital have diabetes[19].** Ensuring that CDEs are on hand to manage this, and assist with transitions of care, and ensuring that everyone living with diabetes has a multi-disciplinary diabetes care team, can reduce the number of people with diabetes in hospital, and reduce the length of stay for people who are in hospital.

The Cost of Diabetes

While recent Diabetes Australia modelling puts the full cost of diabetes in Australia at $17.6 billion per annum, in 2018-19 AIHW estimated the direct cost of diabetes in Australia, which only includes medical expenses related to treatment, diagnosis, and care of diabetes accounted for $3 billion in the Australian health system[20]. This is likely even higher in 2023 and underscores the urgent need for the prevention and efficient management of diabetes.
Beyond the healthcare costs, diabetes exerts pressure on the Australian economy by affecting the productivity of the workforce, both those living with diabetes and their families and support persons, and reducing purchasing power as household budgets are redirected to pay for diabetes care. These indirect costs are less visible but can be even more debilitating for the economy in the long term.

Role of Credentialled Diabetes Educators (CDEs)

Identifying people at risk of developing diabetes and providing early intervention, such as consultations with a CDE, can reduce the risk[21]. Investing in diabetes treatment and diagnosis requires upfront costs but translates to net savings and less stress on the healthcare system. The ADEA and the Australian Diabetes Society (ADS) have proposed measures that could result in savings of $1.5 billion[22].

Optimal care and early intervention may reduce complications, emergency department visits, and hospitalisations, and the length of stay in hospital, resulting in significant cost savings. For conditions like prediabetes and gestational diabetes, these visits may even prevent diabetes entirely in some individuals[23]. (Please see the Diabetes Australia, ADEA, and the Australian Diabetes Society submission on type 2 diabetes and remission) Additionally, upskilling health professionals to be aware of symptoms of undiagnosed diabetes and to know the referral pathways could result in additional and earlier referrals to GPs and the diabetes care team, and more screening to diagnose diabetes and prediabetes earlier.

Evidence from other countries confirms the cost-saving potential of investing in diabetes care. In the United States, the Robert W Johnson Foundation estimated lifetime cost savings of up to $18 million

[18] Deloitte Access Economics. (2014) Productivity impacts of diabetes
[19] Bach LA, Ekinci EI, Engler D, Gilfillan C, Hamblin PS, MacIsaac RJ, Soldatos G, Steele C, Ward GM, Wyatt S. "The high burden of inpatient diabetes mellitus: the Melbourne Public Hospitals Diabetes Inpatient Audit." *Med J Aust.* 2014;201(6):334-338. doi: 10.5694/mja13.00104.
[20] Australian Institute of Health and Welfare, "Diabetes Expenditure in Australia 2018-19," 2020.
[21] Australian Diabetes Educators Association (ADEA) and Australian Diabetes Society (ADS), "Budget Proposals 2022-23," 2022.
[22] Ibid.
[23] Robert W Johnson Foundation, "Diabetes Prevention Program Cost Savings," 2019.

as a result of diabetes prevention programs. Australian research has found similar results, with a Deloitte Access Economic Report revealing that every dollar invested in structured diabetes self-management education leads to downstream savings of $16[24].

Recommendation

Diabetes is an urgent and expensive challenge for Australia, both in terms of healthcare expenditure and broader economic impact. Investing in prevention, early intervention, and optimal care through CDEs and other allied health providers can make a substantial difference in reducing costs and improving the quality of life for those with diabetes. To do this well, GPs must understand when and how to involve and refer to a multi-disciplinary care team. Educating GPs on how to refer, and creating referral pathways will improve access to CDEs and diabetes care teams resulting in improved care for people living with diabetes. Strategic investments in these areas could save over a billion dollars, demonstrating that spending on diabetes care and prevention will not only improve health outcomes but is a sound economic investment[25].

TOR 4: Any interrelated health, issues between diabetes and obesity in Australia, including the relationship between type 2 and gestational diabetes and obesity, the causes of obesity and the evidence-base in the prevention, diagnosis and management of obesity

Diabetes and obesity are interrelated, complex health issues that are increasingly prevalent in Australia. With 8 million Australians currently living with obesity, the situation is reaching alarming proportions[26]. Though obesity is significantly linked to type 2 diabetes, it is crucial to recognise that obesity is not 100% responsible for type 2 diabetes, as it accounts for 55% of its burden[27]. Around two-thirds of Australian adults and one in four children are living with overweight or obesity[28]. Despite this urgent public health priority, support for obese Australians is noticeably lacking. Interventions for managing obesity, such as pharmacotherapy or bariatric surgery, are scarce, and there's a need to fund both discovery and clinical research for the prevention and management of obesity.

The Australian dietary scenario is not ideal, with less than one percent of the population eating according to the Australian Dietary Guideline recommendations[29]. In addition, less than one in ten people consume the recommended servings of vegetables, and around a third of energy comes from discretionary foods[30]. This has contributed to overweight, obesity, and an increased risk of non-communicable diseases, including type 2 diabetes, heart disease, and cancer[31]. A multi-disciplinary diabetes care team can assist in helping those at risk of type 2 diabetes understand how to modify their daily food intake and physical activity to minimise their risk of developing diabetes, or for those with diabetes how to modify their daily food intake and physical activity to manage their diabetes

[24] Deloitte Access Economics. *Productivity Impacts of Diabetes* August 2014
[25] https://www.adea.com.au/wp-content/uploads/2023/02/ADEA-Diabetes-health-professionals-prebudget-submission-2023-compressed.pdf
[26] "Obesity in Australia," Health Direct, 2022
[27] "Type 2 Diabetes Statistics in Australia," Diabetes Australia, 2021.
[28] Australian Institute of Health and Welfare, "Overweight and Obesity in Australia," 2020.
[29] National Health and Medical Research Council, "Australian Dietary Guidelines," 2013.
[30] Australian Bureau of Statistics, "Australian Health Survey," 2019.
[31] World Health Organization, "Non-communicable diseases in Australia," 2020.

well to minimise the risk of diabetes-related complications and comorbidities. The National Obesity Plan addresses many of these issues, and the government should focus on implementing the strategy, including incentivising healthier food choices and the availability of fresh fruits and vegetables, especially in remote communities.

Obesity is responsible for 55% of the burden of type 2 diabetes, with dietary risks responsible for 26%[32]. However, caution must be exercised against diabetes stigma and shaming people with diabetes, as obesity is not the sole cause. Stigma and shaming risk disengaging people with their diabetes management, increasing the risk of complications and increasing health care costs.

Overweight and obesity contribute to 18% of Australia's health spending on diseases attributed to modifiable risk factors, amounting to an estimated $4.3 billion[33]. The economic burden further emphasises the urgency of the situation and indicates that earlier intervention and prevention programs could improve health outcomes and reduce costs.

It's vital for those at risk of developing diabetes and newly diagnosed people with type 2 diabetes to be referred to CDEs. CDEs help manage diabetes through lifestyle interventions, reducing the risk of complications, and increasing the likelihood of managing diabetes through lifestyle changes alone.

The pressing issue of diabetes and obesity in Australia requires immediate and targeted intervention. By increasing access to a diabetes care team including a CDE, dietitian, and exercise physiologist, as well as providing support to make lifestyle changes, enhancing support for people living with obesity, increasing funding for research, and leveraging the expertise of CDEs, Australia can create a healthier future. To enable people living with diabetes and/ or obesity to engage with their care, it is also essential for the government to foster a society free from stigma and shaming associated with these conditions.

Recommendation

All people diagnosed with pre-diabetes should immediately be referred to a CDE. Upon diagnosis of diabetes, all people should be immediately referred to a multi-disciplinary diabetes care team consisting of a GP, CDE, dietitian, exercise physiologist and other allied health.

TOR 5: The effectiveness of current Australian Government policies and programs to prevent, diagnose and manage diabetes.

The current federal policies do not do enough to address the current incidence of diabetes in Australia, and current policies will fail to address the increasing prevalence and complexity of diabetes. Approximately 1.5 million Australians live with diabetes, and there are another 500,000 estimated existing cases which are undiagnosed. That number has risen by more than 80% since 2000 and is anticipated to continue to rise into the future.[34]

Recommendation

The current shortcomings and opportunities of the current Australian Government policies lie in three key areas, which are addressed in detail below. The government must:

(1) strengthen the diabetes health workforce

[32] "Type 2 Diabetes Statistics in Australia," Diabetes Australia, 2021.
[33] "Health Spending on Obesity-related Diseases," Australian Government, Department of Health, 2021.
[34] https://www.diabetesaustralia.com.au/about-diabetes/

(2) support and fund patient-centred multi-disciplinary diabetes care teams to reduce the incidence of diabetes and diabetes-related complications
(3) create and fund an implementation plan for the 2021-2030 National Diabetes Strategy

Strengthening the diabetes health workforce: The need for a larger and better-supported diabetes health workforce

The current diabetes workforce (CDEs and diabetologists) is understaffed compared to the number of people living with diabetes in Australia, this is particularly true in regional and remote areas; in Aboriginal and Torres Strait Islander communities, which have the highest rates of diabetes; and in other CALD communities who require culturally appropriate diabetes care. The diabetes workforce must at least double to provide optimal support for all people living with diabetes.

To meet the growing demand for diabetes management, there is a pressing need to expand and better support the diabetes workforce. This can be achieved through developing and funding a robust pathway to build and invest in the diabetes workforce. By growing and strengthening the workforce, access to quality diabetes care and education can be improved, leading to better health outcomes for individuals with diabetes.

Funding the management of diabetes in Australia

The current fee-for-service model is not fit for purpose, as a fee-for-service model does not incorporate the net cost savings of longer visits and of preventive care. Chronic conditions, like diabetes, must have a flexible blended funding model that supports wrap-around care allowing for robust consultations and ongoing support from the multidisciplinary diabetes care team. Current MBS item numbers for diabetes education do not adequately reflect the time and expertise required by CDEs to deliver comprehensive care. Introducing new MBS item numbers, such as a 60-minute initial consultation, an extended 30-minute regular consultation, and a new double length 40-minute consultation, with appropriate fee adjustments, will allow CDEs to provide evidence-based, patient-centred care. Adequate reimbursement will support longer consultations, ensuring individuals receive the necessary education and support to manage their diabetes effectively. A blended funding model for diabetes management ensures that patients receive not only medical interventions but also essential access to a multi-disciplinary care team. A blended funding model can address the complicated factors that cause diabetes and result in optimal health outcomes, while decreasing healthcare costs into the future.

The fee-for-service model is also insufficient for people living with diabetes. Diabetes is a complex condition and not all individuals living with diabetes have the same needs. The high annual cost of living with diabetes, and insufficient MBS visits, means that individuals can struggle to afford optimal healthcare, even with MBS reimbursement. Additionally, where a gap fee is charged the current Medicare rebate process requires people living with diabetes to be charged a high upfront fee as the Medicare rebate is claimed and received afterwards. As a result, this can limit access to, and even completely prevent some people with diabetes from accessing essential CDE and multi-disciplinary care.

Private health insurance could help to reduce the economic burden on the health system by being required to cover structured diabetes education provided by a CDE for every person living with diabetes or pre-diabetes.

The current model does not work for people living with diabetes, it doesn't work for CDEs and diabetes health professionals, and it does not work for the health system. The government should seek advice from experts and stakeholders on the best funding models to improve diabetes health outcomes, while adequately remunerating the diabetes health workforce and minimising the cost of diabetes to the individual and the health system.

Increasing access to CDEs

The CDE is the lead profession for delivering accurate, evidence-based diabetes education to support and empower all people and their families who live with diabetes or who are at risk of developing diabetes. The CDE has completed a postgraduate qualification (level AQF 8) at an accredited Australian university in the specialty area of diabetes and has progressed through a robust process to achieve credentialling status. The CDE is an expert in all areas of diabetes management – some specialise in specific areas for example, diabetes in pregnancy, paediatrics, and diabetes technology. Others will have a broad overall knowledge and see people with all types of diabetes, especially those working in rural/regional areas. CDEs in rural and remote regions provide a service that encompasses a person through their entire life, and through all life stages, and all forms of diabetes mellitus and associated complications. Annual accreditation ensures the CDE is abreast of current best practices in relation to monitoring, medications, technology, life scenarios such as pregnancy or fasting for medical or cultural reasons, complications reviews, and the pathology parameters e.g. renal, which may affect medication.

It is essential that every hospital, aged care centre, diabetes centre, and health clinic be appropriately staffed with CDEs. Approximately 25% of all patients in health care settings have diabetes, many with complications that require their diabetes be carefully managed. The CDE workforce must at least double to provide appropriate care to the increasing incidence of diabetes in Australia. It's of note that there is a discrepancy in access between metropolitan areas and rural and remote areas. Special attention should be paid to CDE recruitment and retention efforts in rural and remote areas, as well as expanding the infrastructure to ensure all communities are able to access robust telehealth services.

Enhancing the diabetes workforce by enabling CDEs to work to their full Scope of Practice

The National Scope of Practice Review is essential to ensure that all CDEs are working to their full scope of practice. The National Scope of Practice Review should ensure CDEs are recognised as a single, national profession with its own scope of practice rather than individual practitioners being identified by, and having their scope limited to, their underlying health profession. For example, variations in scope of practice based on underlying profession causes discrepancies in which CDEs can order pathology. CDEs receive appropriate education and training in diabetes education, management and care and should be able to work to their full scope of practice. Reforms resulting from the National Scope of Practice Review have the potential to strengthen and increase Australia's CDE workforce working to their full scope, reduce pressure on general practice and make it easier for people to access high-quality CDE care.

Improved data collection to inform the future of diabetes care

The government must support enhanced data collection to best inform future policies that can strengthen and enhance the diabetes workforce. This data must be collected across federal, state and territory governments. The data should:

- Capture diabetes services provided by allied health professionals via telehealth, by profession.
- Follow patients who are referred to CDEs upon diagnosis to determine if patients who have multi-disciplinary care teams have better health outcomes, and those referred at diagnosis of pre-diabetes to determine if onset of diabetes is prevented or delayed.
- Understand the frequency, length and format of consultations and determine if and how diabetes technology impacts diabetes consultations and health outcomes.
- Collect data on complications screening and the diabetes annual cycle of care, to determine if early detection of complications prevents hospital admissions, focusing on hospital avoidance.
- Develop a national diabetes complications screening database for people with diabetes as a central point to monitor an individual's complications screening and outcomes. Public and private hospital, medical and allied health services should have access, including to prevent duplication of complications screening.

Supporting patient-centred multi-disciplinary diabetes care teams

Promoting Patient-Centred Care and Multidisciplinary Teams

Patient-centred care is essential in diabetes management, as everyone's diabetes, needs and risk profiles differ. Creating wraparound payment models and supporting multidisciplinary diabetes care teams allows for flexible, personalised care that considers medical, cultural, and familial factors. This approach fosters a collaborative environment where CDEs, endocrinologists, GPs, and other allied health professionals work together to deliver comprehensive diabetes care, resulting in better patient outcomes. To promote seamless multidisciplinary care, all members of the diabetes care team, including CDEs and all allied health specialities should have access to MyHealthRecord. GPs are the coordinators of the multi-disciplinary care team, and CDEs are essential to support GPs. A multidisciplinary care team can provide expert diabetes support and reduce the workload on GPs but must have access to the same health records to promote communication and collaboration. It is essential that GPs, GP practices and practice nurses, who have a crucial role in diabetes screening and the preparation of chronic disease management plans, be supported with access to a CDE and an understanding of when and how to refer patients to a CDE. CDEs have the required skills and expert knowledge in diabetes and support the work of the GP and practice nurse by managing and supporting a person with diabetes self-management and ongoing care, including functioning as the resource person for GPs, advising GP's on treatment changes, the development of sick day management plans, hypoglycaemia action plans, school, work or travel plans.

Additional funded CDE visits for the population at increased risk of diabetes-related complications will prevent poor health outcomes and unnecessary complications. The NDSS annual cycle of care recommends that a person living with diabetes receives between four (for low-risk people) and up to 17 (for high-risk people) allied health visits a year to maintain optimum health, manage diabetes, and lower the risk of complications such as heart attacks, stroke, kidney failure, blindness, and foot amputations. Five visits a year for allied health, and an additional five reserved for CDE visits, at a GP's discretion, will help people living with diabetes access the care they require to manage their condition well and lessen the risk of complications. Please note that the ESSA Submission also requests additional visits to allied health for people living with diabetes.

Identifying and Referring Frequent Hospital Users to Diabetes Care Teams

Individuals with diabetes who frequently use hospital services are at higher risk of complications and often face fragmented care. To minimise complications and improve patient outcomes, frequent hospital users with diabetes should be identified and referred to specialised diabetes care teams. These teams, comprising CDEs, endocrinologists, practice nurses, dietitians, exercise physiologists, and other allied health professionals, can provide additional support and tailored care, reducing the need for emergency department visits and hospitalisations in the future.

Transitions of care are essential to managing diabetes well, particularly those who are at higher risk of developing diabetes related complications. Every person in hospital with diabetes should be referred to a community based CDE upon discharge, if they do not already have a regular CDE and diabetes care team.

Referring people immediately upon diagnosis, at discharge from hospital to a CDE, and involving CDEs in transitions of care will help to ensure that every person living with diabetes has a multidisciplinary diabetes care team in place reducing hospitalisations and diabetes-related complications and the number of frequent hospital users with diabetes.

Culturally Appropriate Diabetes Education for First Nations Communities

Diabetes among Aboriginal and Torres Strait Islander populations is in part a result of inequality, and of systemic disadvantages. The federal government must prioritise closing the gap in treating and preventing diabetes among First Nations peoples.

The barriers — including the lack of diabetes education; lack of access to CDEs; and the low numbers of CDEs working in Aboriginal and Torres Strait Islander communities — coupled with diabetes risk factors means diabetes is more pronounced in First Nations communities. Additional risk factors include social determinants and lack of access to healthy lifestyle choices (fresh foods and exercise).

The Australian Bureau of Statistics (ABS) shows that diabetes was the second leading cause of death among Aboriginal and Torres Strait Islander people in 2018[35]. An ABS survey for about the same period shows the diabetes rate was 2.9 times higher than non-Indigenous Australians.[36] However, anecdotal evidence from the frontline shows that this figure could be much higher.

The uptake of chronic disease management plans by First Nations peoples is low because of various socioeconomic barriers, including lack of access to CDEs, dietitians, exercise physiologists, and other members of the diabetes care team, as well as lack of access to culturally appropriate health care.

More government funding and incentives are needed to:

- Attract health professionals to become CDEs, and provide retention incentives, particularly for those who identify as Aboriginal and Torres Strait Islander and those working in rural and remote areas.
- Create and provide culturally sensitive training to health professionals to create the trust necessary to deliver essential diabetes care.
- Provide education about where and how to access help delivered in ways relevant to communities.

[35] https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/national-aboriginal-and-torres-strait-islander-health-survey/latest-release
[36] https://www.aihw.gov.au/reports/diabetes/diabetes/contents/summary

Funding additional CDE positions throughout Australia, particularly in rural and remote First Nations communities, would help create a healthier and more equitable Australia and result in a stronger, more efficient, and less costly health system.

Create and fund an implementation plan for the National Diabetes Strategy

The 2016-2020 National Diabetes Strategy lacked funding for implementation; as a result, the majority of the 55 progress indicators were not achieved. It is imperative that this result is not replicated in the current plan. Two years into the 2021-2030 National Diabetes Strategy an implementation plan has still not yet been developed, and there is no funding for implementation. Without sufficient funding for implementation, nothing will change. **ADEA recommends that an implementation plan be developed as a priority and that it be fully funded.**

Conclusion

The current federal policies addressing diabetes in Australia fall short of adequately addressing the growing incidence and complexity of diabetes. **The urgency to take effective action is clear; Australians simply cannot afford to wait for policies that reduce the incidence of diabetes and prevent diabetes-related complications.**

ADEA recommends that the federal government:

1. **Invest in strengthening and growing the diabetes health workforce** through comprehensive training and upskilling, recruitment and retention programs, and increased remuneration.
2. **Invest in the prevention of diabetes and diabetes-related complications,** including education regarding prevention, earlier referrals to CDEs, and robust coverage of gestational diabetes and pre-diabetes.
3. **Robustly fund and support person-centred multi-disciplinary diabetes care teams** through increased visits to CDEs and other allied health, educating GPs on when and how to refer to a diabetes care team, creating clear referral pathways, enabling access to My Health Record, and capturing workforce and service data by profession.
4. **Increase programs to minimise the risk of diabetes in Aboriginal and Torres Strait Islanders,** including culturally sensitive diabetes education and recruitment and retention programs to increase the number of Aboriginal and/or Torres Strait Islander CDEs.
5. **Increase diabetes research and the diabetes research workforce** through funding a national diabetes research strategy and additional research into the causes and management of diabetes. This has the potential to put Australia at the forefront of diabetes care and reduce the incidence of diabetes.
6. **Fully fund the implementation of the National Diabetes Strategy** and other strategies that exist and can reduce the risk factors of diabetes (National Preventive Health Strategy and the National Obesity Strategy).
7. **Reform the Funding Models**: The existing fee-for-service model is inadequate to address the complexity of diabetes care.

By implementing the recommendations outlined above, Australia can pave the way for a healthcare system that effectively manages diabetes, improves health outcomes and increases the quality of life for those affected by diabetes, all while reducing the economic burden on the healthcare system.