

National Diabetes Research Strategy and Alliance Taskforce

Pre-Budget Submission
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The Diabetes Epidemic

The global diabetes epidemic is one of the largest and most complex health challenges Australia has ever faced.¹ There are almost 1.9 million Australians living with all types of diabetes including around 500,000 people living with silent, undiagnosed type 2 diabetes.² The three common types of diabetes are Type 1 Diabetes, Type 2 Diabetes and gestational diabetes. Each has a distinct cause but there are many similarities with respect to prevention strategies, day to day management and complications.¹

In Australia, there has been a 220% increase in the number of people diagnosed with diabetes since 2000³ now affecting 5.5% of our population. The fiscal costs of diabetes in Australia are estimated to exceed \$17.6 billion/annum and continue to grow.^{4, 5} Investing in diabetes research not only directly reduces these diabetes costs but provides a 400% return for every research dollar spent.

Diabetes is a serious, chronic health condition that impacts every part of the body. It can lead to a range of serious and potentially life-threatening complications including kidney failure, blindness, heart disease, stroke and foot infection leading to amputation.¹ Diabetes is also a major risk factor for dementia, cancer, liver failure, tooth decay and life-threatening infection.¹ Living with or caring for people who have diabetes is also associated with serious mental health challenges including treatment-related distress, anxiety and depression.

Australian Institute of Health and Welfare data shows that over the past two decades, direct health care costs have increased by 289%, hospital costs have increased by 308% and Pharmaceutical Benefits Scheme costs have jumped by 282%.⁶

¹ International Diabetes Federation Atlas. 10th Edition. 2021. www.diabetesatlas.org

² National Diabetes Services Scheme (NDSS). Snapshots – All Types of Diabetes [Fact Sheet]. National Diabetes Services Scheme. <https://www.ndss.com.au/wp-content/uploads/snapshots/2013/ndss-data-snapshot-201312-all-types-diabetes.pdf>. Accessed 30th September 2022

³ “Change the Future: Reducing the Impact of the Diabetes Epidemic”. Report, Diabetes Australia. 2022

⁴ 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.

⁵ Deloitte Access Economics. (2014) Productivity impacts of diabetes.

⁶ Australian Institute of Health and Welfare (2022) Diabetes: Australian facts, AIHW, Australian Government, accessed 31 October 2022.

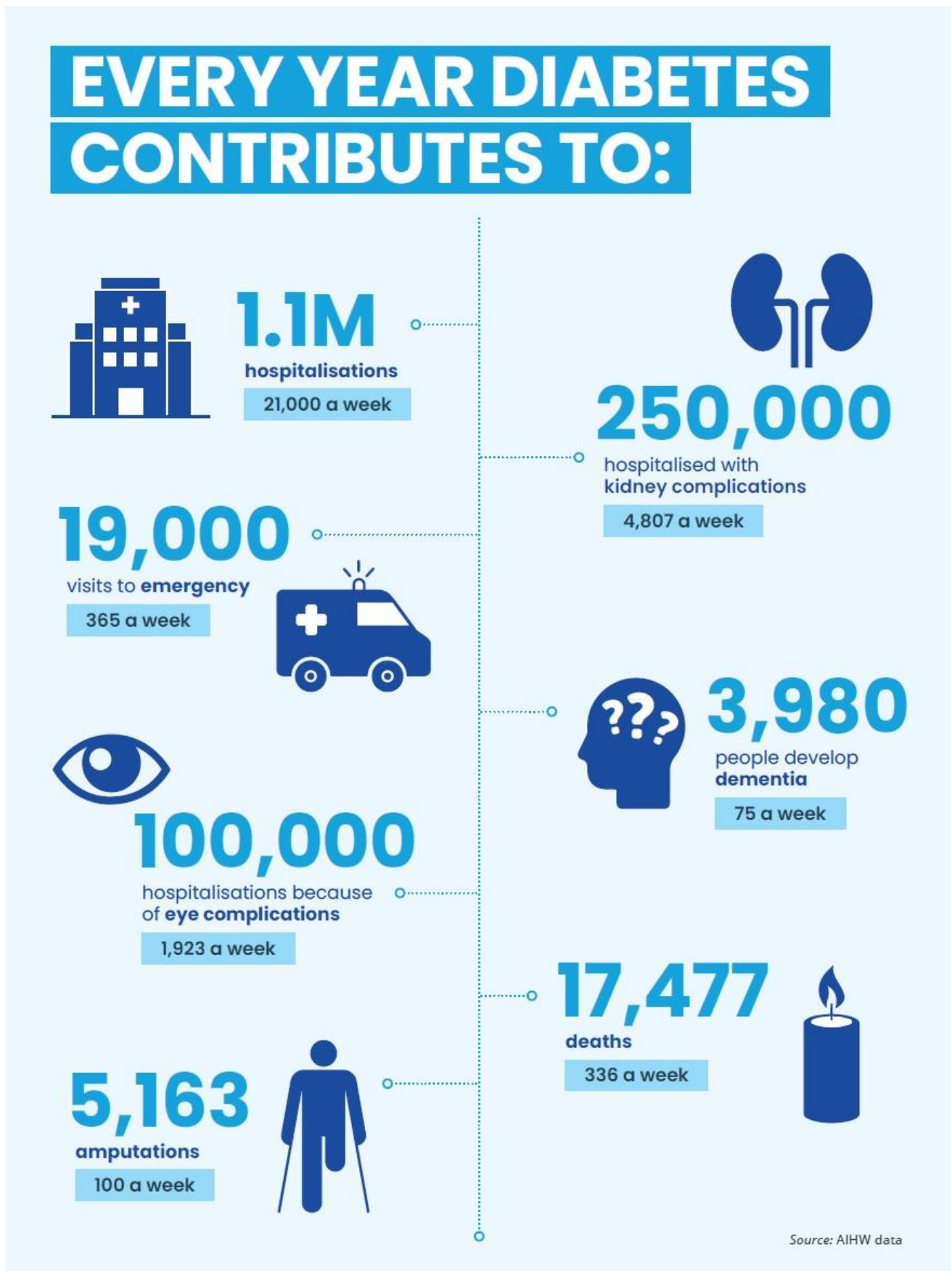


Figure 1: Australian Institute of Health and Welfare Data in Diabetes Impacts^{3,6}

Research is critical for reducing the impact of the diabetes epidemic

Australia's diabetes researchers and research institutes are world-class. They are focussed on a better understanding of the complexity of all types of diabetes and potential new life-changing treatments, but their progress is limited by a lack of funding.

Research is critical to meeting the challenges of the diabetes epidemic. This is exemplified by the clear health benefits being delivered by the latest generation of diabetes medicines, including improved management of blood glucose levels which reduces the risk of diabetes-related complications. As exciting as these new medicines and their predicted benefits for people with diabetes are, a majority of diabetes health challenges remain.

Economic analysis shows medical research delivers a return of almost \$4 for every dollar invested.⁷ We anticipate the returns on investment in diabetes research are even higher. This return is generated through better treatments that reduce the impact of serious complications and prevent, or reduce the length or number of hospital admissions and primary healthcare visits. Research breakthroughs can also improve workforce productivity and provide opportunities for Australian businesses to commercialise the results of the research .

How does research support better health care and improved economic outcomes?

Innovation in healthcare drives economic growth by improving efficiency and increasing productivity by optimising outcomes for people living with diabetes. Research leading to innovation can make healthcare more convenient, effective and economically viable. Together these can also contribute to health sector reform and drive the creation of new business models that support horizontal or vertical integration and minimises duplication and redundancy. Healthy and sustainable research also supports job creation, biotechnology and industry start-up companies and is key to meeting the greatest of health care challenges, exemplified recently by the ability to combat the COVID-19 pandemic. All of these research outcomes ultimately save money and generate new revenue streams which benefit all Australians.

⁷ Rynne B and Schilling C (2018) *Economic Impact of Medical Research in Australia*. KPMG. Sydney. <https://aamri.org.au/wp-content/uploads/2018/10/Economic-Impact-of-Medical-Research-exec-summary.pdf>

Current investment in diabetes research

Unfortunately, investment in diabetes research in Australia is less than 1% of what is required for diabetes care and support. This is in sharp contrast to other major disease areas (see Figure 2, NH&MRC investment below⁸). The COVID-19 pandemic has delivered additional challenges including declining income to medical research charities for diabetes, which may be further eroded given the current global economic climate.

Figure 2: NH&MRC expenditure (m) by Former National Health Priority Areas 2013 to 2021⁷

Priority Areas	2013	2014	2015	2016	2017	2018	2019	2020	2021
Arthritis/Osteoporosis	23.7	22.7	24.7	19.3	18.9	17.5	18.3	16.1	14.8
Asthma	21.5	23.6	22.7	15.3	13.3	15.7	13.8	13.3	14.1
Cancer	179.2	188.3	191.4	170.6	175.8	178.9	181.6	170.2	153.7
Cardiovascular Disease	117.1	129.4	130	114.9	111.4	105.3	112.6	107.6	102.5
Dementia ¹	24.9	31.5	33.4	45.6	50.2	60.9	71.2	64.1	55.3
Diabetes	65.2	70.2	70.3	65.0	57.7	50.7	46.5	45.6	42.6
Injury	45.4	58.4	61.5	45.8	44.2	49.9	51.1	49.8	46.6
Mental Health ²	85.1	95.9	100	91.1	93.4	104.9	110.2	103.9	102.3
Obesity	41.7	40.7	39.0	28.1	27.6	23.0	23.5	24.3	23.1

Worryingly, this decline in funding has persisted while the number of people diagnosed with the condition has increased. In addition, diabetes is causative of some of these conditions listed above. While the number of people living with diabetes has increased by 32% since 2013, funding for research has fallen by 30%. **That means that in 2013, the NH&MRC provided \$59 in research funding for every person living with diabetes. In 2021, that figure fell to \$30 per person, despite a 35% increase in the number of people with diabetes over this period.**

Australian National Diabetes Strategy 2021-2030

The role of research in meeting the challenges of the diabetes epidemic is widely acknowledged. Goal 7 of the *Australian National Diabetes Strategy 2021-2030* calls for the strengthening of prevention and care through research, evidence and data.

In particular, the Strategy recognises the development of a national research agenda, that coordinates diabetes research across multiple funding streams, as a priority area for action as a measure of progress towards better healthcare for people with diabetes.

Solution

Establish the National Diabetes Research Alliance and develop an Australian Diabetes Research Strategy outlining clear research priorities and setting a research agenda that leverages Australia's existing expertise and diabetes research infrastructure to maximise the investment into diabetes research and make measurable progress towards reducing the impact of the diabetes epidemic.

Cost: \$2.2 million over five years

⁸ <https://www.nhmrc.gov.au/funding/data-research/research-funding-statistics-and-data>

National Diabetes Research Alliance

Vision and Objectives

Australia has world-leading research institutes and researchers. It includes experts in the epidemiology and causes of diabetes, new approaches to treatment and management and the psychosocial burden of this disease.

The establishment of a National Diabetes Research Alliance, led by Diabetes Australia in partnership with Australian Diabetes Society and support from the Australian Diabetes Educators Association, would support and empower this workforce and their discoveries and allow new findings to be translated rapidly into new treatments and therapies leading to improved outcomes for people living with diabetes. The first step will be convening a Taskforce representing all major research areas. Its specific objectives would include:

1. Ensuring that national consultation processes include fair representation of all stakeholders including but not limited to diabetes research workforce, people living with diabetes, Aboriginal and Torres Strait Islander Peoples, clinicians and other health care professionals, Government and industry/commercial
2. Set national diabetes research priorities and support the development of a five year National Diabetes Research Strategy. The Strategy will draw from and build upon previous research strategies from all relevant stakeholders
3. Work with other chronic disease areas including obesity, mental health, vulnerable populations and early life to maximise the impact of research dollars spent by (i) coordinating collaborative and streamlined research efforts (ii) harnessing and distilling knowledge and experiences by facilitating flagship working groups.
4. Supporting and encouraging innovation and collaboration to reduce replication, grow economic benefits and maximise use of funding for diabetes research by partnering with industry and other stakeholders, to enable better outcomes for both the Australian economy and for people living with diabetes.

Implementation Plan

Step 1: Establish the National Diabetes Research Taskforce

Diabetes Australia would establish a Taskforce to oversee and drive the development of a National Diabetes Research Strategy and ensure its alignment with the Australian National Diabetes Strategy (Goal 7).

The Taskforce membership will incorporate the following skill sets with diversity and geographical balance:

- i. Chair – Diabetes Australia Director of Research
- ii. A representative of the Federal Department of Health and Aged Care
- iii. Representatives from other major diabetes research funding organisations such as Juvenile Diabetes Research Foundation
- iv. Up to three Endocrinologists registered with FRACP at least two of whom must have research track records extending more than 5 years (including from iii)
- v. Three diabetes researchers who are qualified scientists/non-medical practitioners with PhD who must have researcher track records extending more than 5 years (including from iii; Biomedical/Exercise Physiology/Dietetics/Nursing/other)
- vi. Practising Credentialed Diabetes Educators
- vii. General Practitioner registered with FRACGP
- viii. An early career researcher (within 5-10 years of PhD acquisition)
- ix. An Industry/Commercialisation representative
- x. At least two people living with diabetes
- xi. Person with diabetes/diabetes practitioner of Aboriginal or Torres Strait Islander ancestry.

The Taskforce objectives will be:

1. To collate resources and lead a national process around diabetes research
2. To synthesize consultation into a five-year National Diabetes Research Strategy outlining research priorities that align with the Australian National Diabetes Strategy.
3. To establish a National Diabetes Research Alliance as an ongoing consultation point for government and funding organisations, that is a permanent and self-sustaining Alliance and capable of growing a secure funding and investment pipeline into Australian diabetes research and its workforce.

STEP 2: National Consultation with Stakeholders to Set Diabetes Research Priorities

The Taskforce would commission an independent national consultation process with all stakeholders, including the health sector, Federal and State Governments, universities and other funders, to map areas of current strength and expertise, identify gaps and opportunities as well as establish the most critical research priorities.

Potential National Research Priorities include but are not exclusive are:

- Creating certainty for ongoing improvements in research, care and innovation through sustainable investment in our research workforce that ensures diversity and equity
- Preventing and curing for diabetes
- Preventing and managing of complications
- Better quality care delivery by health care professionals
- Daily diabetes self-management including effective use of technologies/ devices
- Using data to track progress and inform areas of need
- Accelerating translation pathways to allow discoveries to move rapidly to becoming usable treatments and therapies

STEP 3: Completion, Dissemination and Implementation of a National Diabetes Research Strategy

The Taskforce will be responsible for completing and disseminating the National Diabetes Research Strategy with support from the major diabetes stakeholders. Delivering the strategy will involve fair and equitable ongoing consultation with Federal and State governments, diabetes stakeholders, and other research stakeholder organisations. The action plan will be developed as part of the National Diabetes Research Strategy.

STEP 4: Establish a Sustainable National Diabetes Research Alliance

Diabetes Australia, in partnership with the Australian Diabetes Society and support from the Australian Diabetes Educators Association, would establish a National Diabetes Research Alliance to deliver the outcomes listed below.

- i. To be a united consultation point for government and funding organisations
- ii. To synthesize and collate diabetes research priorities in consultation with all stakeholders
- iii. To grow and assure funding and investment into Australian Diabetes Research and its workforce
- iv. To create pathways for uniting research platforms which would benefit from national collaboration to leverage resources, provide the greatest utilisation of funds and serve diabetes researchers and individuals.