National Diabetes Research Strategy





















## **Executive Summary**

This National Diabetes Research Strategy (2026–2035) presents a unified national vision to transform Australia's response to diabetes through a comprehensive forward-looking research and innovation agenda. It is grounded in the urgent need to reduce the growing burden of diabetes on individuals, families, communities, healthcare systems and the national economy. At the beginning of every life-changing breakthrough lies discovery science - the pursuit of new knowledge through data-driven, pre-clinical and translational research - the foundation for breakthrough innovations that change lives. Yet today, Australia faces an alarming decline in funding for diabetes. Our next generation research workforce stands at a critical tipping point. Without immediate action, Australia risks forfeiting its global leadership in diabetes health innovation.

Guided by the priorities of the Australian National Diabetes Strategy (2021-2030) and informed by the 2024 Parliamentary Inquiry into Diabetes, this strategy sets bold, long-term goals to address the complexity of diabetes in Australia. It emphasises the need to develop precision therapeutic approaches that deliver personalised health care, creating better diagnostics for early detection, improving treatment options, reducing complications, achieving greater equity, finding cures and innovating models of care, all of which deliver transformative health and economic benefits for all Australians. Engaging with the lived experience voice in diabetes ensures that care is informed by real-world insights, fostering more personalised, practical, and effective treatment outcomes.

## Our goals include establishing a MRFF mission to:

- Grow and sustain a fit-for-



## The Strategy is underpinned by the following Principles:

**Alleviate the personal, social and economic impacts** of diabetes to benefit all Australians

**Empower people with diabetes** to inform and engage with, lead, co-design, and evaluate research that impacts them

**Support equitable access** to research participation and benefits across all communities, including Aboriginal and Torres Strait Islander peoples, rural and remote populations, and culturally diverse groups

**Grow and sustain** a fit-for-purpose, interdisciplinary diabetes research workforce through career-long support and training

**Drive novel, high-impact research** and commercialisation through partnerships with industry, healthcare providers, policy makers and technology innovators

**Build research infrastructure** that can track, evaluate, and accelerate innovation in real-world practice

**Leverage diverse investment sources** to ensure research discoveries have a pathway that leads to new therapies, diagnostics, devices and better service delivery for people living with diabetes

**Rapidly transition research into practice** to improve the lives of Australians with or at risk of diabetes.











## Introduction

Diabetes is one of the most pressing and complex public health challenges facing Australia in the 21st century. Over 1.5 million Australians live with diagnosed diabetes, including type 1, type 2 and gestational diabetes and other less common types, while an additional 500,000 are estimated to be living with undiagnosed type 2 diabetes. Millions more are at risk of developing the condition in coming years. If current trends continue, projections indicate that by 2050, up to 3.6 million Australians could be living with diabetes. For those who develop diabetes earlier in their lifetime, numbers of individuals diagnosed at 21-39 and <20 years of age, have significantly increased by 44% and 17% respectively (IDF atlas, 2025).

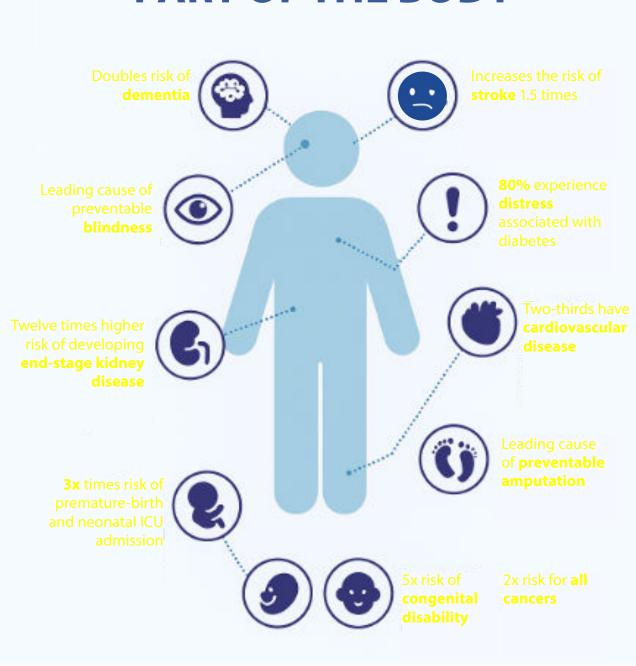
Diabetes is far more than a condition of high blood glucose. It is a driver of complex, life-altering complications including heart disease, kidney failure, limb amputation, stroke, preventable blindness, congenital malformations, dementia, eating disorders and depression. The psychosocial impacts can be profound not just for affected individuals, but also for their carers and families. Diabetes carries significant social and economic consequences, contributing to reduced workforce participation including early retirement and increased disability payouts, decreased quality of life, higher rates of hospitalisation, and premature mortality.

Diabetes disproportionately affects some of our most vulnerable populations. Aboriginal and Torres Strait Islander people are three times more likely to develop diabetes than non-Indigenous Australians, responsible for 50% of their premature mortality and often experience worse outcomes due to reduced access to services, systemic racial and financial disadvantage and complications. This is escalating, with type 2 diabetes diagnosed in Aboriginal children as young as 4 years of age, half of whom need dialysis for kidney failure by age 40, driving serious disparity in life expectancy. Additionally, people from culturally and linguistically diverse (CALD) backgrounds and those living in rural and remote areas face higher rates of complications due to delayed diagnosis and fragmented care pathways. Those individuals that develop diabetes as children, adolescents or young adults, are also particularly impacted by more aggressive disease and less evidence-based treatment options.

According to the Australian Institute of Health and Welfare (AlHW), type 2 diabetes is responsible for 124,000 years of healthy life lost annually, and accounts for more than 2.2% of the total disease burden in Australia, ranking as one of the top ten causes of death. Diabetes costs the Australian health system an estimated \$9.1 billion per year, with indirect costs such as lost productivity bringing the total national cost to more than \$17.6 billion annually.



# DIABETES IMPACTS EVERY PART OF THE BODY



## The Case for a National Research Strategy

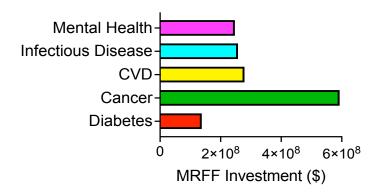
Despite advances in care and technology, Australia's response to diabetes remains fragmented, underfunded, and reactive. NHMRC data reveals a 51% decline in federal diabetes research funding over the past decade, with per capita funding decreasing by 63% even as prevalence has surged. The return on investment from Australian diabetes research is clear as long-term, sustained support has enabled translation of immunotherapies, glucagon like peptide (GLP-1) receptor agonists, and precision diagnostics into practice for people living with diabetes. Despite excellent outcomes, these new medicines and technologies are not "magic bullets" and it takes around 17 years for a discovery to translate to positive life changing outcomes for people living with diabetes. This is also often contingent on affordability of access. Further, a majority of diabetes health challenges still remain, including research to reform our healthcare systems to deliver better care in partnership with people with diabetes. Current infrastructure, data systems/data integration and workforce support are also lacking a coordinated strategic vision to meet the growing need.

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 and Figure 3, MRFF Investment, below). 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.

NHMRC research expenditure (\$ million) by Former Health Priority Areas 2014 to 2024

<b>Priority Areas</b>	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Arthritis											
Osteoporosis	22.7	24.7	19.3	18.9	17.5	18.3	16.1	14.8	16	16.9	17.8
Asthma	23.6	22.7	15.3	13.3	15.7	13.8	13.3	14.1	12.5	11.8	9.2
Cancer	188.3	191.4	170.6	175.8	178.9	181.6	170.2	153.7	158.9	165.6	164.7
Cardiovas Disease	129.4	130	114.9	111.4	105.3	112.6	107.6	102.5	97.5	93.1	88.8
Dementia <sup>1</sup>	31.5	33.4	45.6	50.2	60.9	71.2	64.1	55.3	51.5	44.2	38.8
Diabetes	70.2	70.3	65.0	57.7	50.7	46.5	45.6	42.6	42.3	41.4	34.1
Injury	58.4	61.5	45.8	44.2	49.9	51.1	49.8	46.6	49.8	49.2	48.8
Mental Health <sup>2</sup>	95.9	100	91.1	93.4	104.9	110.2	103.9	102.3	100.8	105.5	102.8
Obesity	40.7	39.0	28.1	27.6	23.0	23.5	24.3	23.1	20	18.4	16

Worryingly, this decline in funding by >30% has persisted while the number of people diagnosed with diabetes has increased by 36% in the last decade. In addition, diabetes is causative of or exacerbates many of the conditions listed above. That means that in 2014, the NHMRC provided \$60 in research funding for every person living with diabetes. In 2024, that figure fell to \$22 per person, despite a 35% increase people with diabetes over this period-



CVD - cardiovascular disease

Australia has world-class research capacity, capability and a track record of excellence in diabetes research. However, efforts are often siloed, short-term, and lacking the translation pipelines required to bring innovations into policy and practice. By contrast, countries like the USA and UK have adopted mission-oriented approaches that link funding, discovery, and policy yielding scalable solutions. Australia must now do the same.

Discovery science globally has already delivered game-changing advances for Australians living with diabetes. The discovery of insulin a century ago, born from basic physiological research —transformed type 1 diabetes from a fatal condition into a manageable condition. More recently, fundamental immunology research led by Australian scientists has paved the way for trials of immune interventions to delay or prevent type 1 diabetes. Discovery-based endocrinology and metabolic science have underpinned the development of GLP-1 receptor agonists, which are now revolutionising type 2 diabetes and obesity management globally, including across Australia. Advances in bioengineering and molecular biology have also contributed to the development of insulin pumps, continuous glucose monitoring (CGM), and closed-loop technologies, dramatically improving glycaemia and quality of life. The positive and ongoing impact of Australian diabetes research is highlighted in the recent National Health and Medical Research Council Evaluation of NHMRC-Funded Dementia and Diabetes research Report.

This Strategy recognises that without investment in foundational discovery science today, the breakthroughs of tomorrow, such as prevention and a cure for type 1 diabetes, or precision prevention strategies for type 2 diabetes, will remain out of reach.

The National Diabetes Research Strategy (2026–2035) responds to this need by providing a unified, goal-oriented research roadmap for the country. It draws on priorities from national diabetes stakeholder goals and is aligned with the Commonwealth National Diabetes Strategy (2021–2030), the NHMRC investment framework, and findings from the 2024 Parliamentary Inquiry into Diabetes. This strategy sets out a transformational agenda aligning with global vision, such as the United Kingdom Diabetes Research Roadmap, the National Institute of Health (NIH USA) Strategic Plan for Diabetes Research and the World Health Organisations (WHO) Global Diabetes Compact. Yet, it is distinctly Australian, reflecting our health system, population needs and unique research strengths.

## Diabetes Research Investment Delivers demonstrable Innovation and Health Outcomes

A recent report from the National Health and Medical Research Council of Australia showed that investment in Australian diabetes research has yielded new successful health interventions and improvements on already successful interventions that were widely adopted. Examples of commercialised or trademarked interventions in the diabetes area includes medical devices such as the Dexcom G6, the MiniMed 670G, Lap-Band surgical systems, diagnostic tools such as PromarkerD or Fibroscan and also the MyCompass digital mental health online solution.

Other outcomes from NH&MRC funded diabetes research include:

- pharmaceutical measures such as preventive and therapeutic drugs;
- diagnostic tools;

- surgical procedures;
- medical devices and technologies;
- behavioural and lifestyle changes, including health education, promotion, and mental health
- public health initiatives involving community health programmes, policy and regulation, and nutritional efforts;
- and health systems interventions that enhance service delivery and workforce training to improve access, quality, and efficiency in healthcare.

## **Uptake of Diabetes research into Policy Documents and Clinical Guidelines**

A considerable share of diabetes publications resulting from NHMRC funded research over the past 10 years (15.2%) received one or more policy-related citations in commissioned reports for governmental agencies, white papers by inter-governmental organisations and legislative documents. This is above other Australian (11.3%) and international funding organisations inclduing NIH (USA) and Wellcome Trust (UK) as the next best performing funders in the area (10.8% and 9.9%). This performance placed NH&MRC funded diabetes research decidedly above the population matched Canadian Institutes of Health HR (6.9%) and the European Commission (6.3%).

A proportion of NHMRC publications from funded research (7.9%) in the past 10 years were also cited in diabetes clinical guidelines, a considerably greater proportion than the next best comparator, Wellcome Trust, UK (6.5%). This level of cited publications also put NHMRC funded diabetes research, two times or more above the global benchmark of funded research (3.4%), the European Commission (3.6%) and the Canadian Institutes of Health (3.9%).



#### CASE STUDIES

## A Legacy Partnership Improving Diabetes Outcomes for First Nations Australians

Aboriginal and Torres Strait Islander People are vulnerable to and disproportionally affected by type 2 diabetes. Beginning with her time in the Kimberley in 1982, Professor Kerin O'Dea did more than demonstrate the power of food and physical movement to stabilise blood glucose levels in Aboriginal Communities. She learned that their hunter-gatherer legacy had set them up for success as peoples with well-developed systems for maintaining a secure and healthy food supply.

Over the next 30 years, Kerin partnered with communities to gain irrevocable evidence



1982: Kerin O'Dea with two Mowanjum Women

that enabling strategies using Aboriginal knowledge for food security, improve and maintain good health better than any available medication. This legacy continues with Aboriginal and Torres Strait Islander leaders such as Profs Alex Brown, Jackie Hughes and Sian Graham partnering with community, health professionals, policy makers to elicit real change for people with diabetes.

**Impact:** Novel Healthcare Models, New Government Policy; Partnering with Community; Indigenous Led Research/Leadership; Improvements in Chronic Disease equivalent to or better than medications.

## **World First Discovery Research Moving towards Type 1 Diabetes Treatment**

Up until now, people with type 1 diabetes have been completely reliant on insulin delivered via injection or pumps to stabilise their blood glucose levels and to survive. A decade of research from Profs Tom Kay and Helen Thomas in Melbourne has culminated in a medication that if administered soon after type 1 diabetes diagnosis, can preserve insulin production enabling better stabilisation of blood sugar and long term management of this condition. The clinical trial, BANDIT, examined novel medicines, Janus kinase (JAK) inhibitors, that block enzymes that lead to overactivity of the immune system.



2023: L to R: Profs Tom Kay, Helen Thomas (SVIMR Leads), Prof Richard MacIsaac (SVH) Clinical Trial Site Lead)

The immune system is the body's natural defence against infection and other diseases but can become overactivated to cause medical problems such as type 1 diabetes. After successfully testing JAK inhibitors in the lab, St. Vincent's Institute of Medical Research in Melbourne, Australia, was the first team globally to conduct a clinical study of a JAK inhibitor in people with newly diagnosed with type 1 diabetes.

**Impact:** New medicines for the treatment of type 1 diabetes; Access to state of the art medicines for people in Australia; Partnership among people with lived experience of diabetes, Australian and international researchers and health care professionals.

## **Strategic Goals for National Diabetes Research (2026–2035)**

The following goals are derived from consultation among the major diabetes stakeholder groups involved in the conception and the planned implementation of this strategy. They provide a thematic structure for research investment, workforce development, and system reform over the next ten years. Each goal identifies a strategic priority area with proposed outcomes, aligned to equity, innovation, translation and impact.

#### Goal 1: Empower People Living with Diabetes to Inform and Shape Research

People living with diabetes and their families/carers are experts through their lived experience and must be central to shaping research questions, outcomes, and evaluation. This goal calls for widespread adoption of privilege for voices of people with lived experience in priority setting and participatory research methods, embedded community advisory models and funding mechanisms that reward authentic partnership with the community. Globally, organisations like Patient Centred Outcomes Research Institute (PCORI) USA have demonstrated the impact of embedded community research leadership. Australia must do more to replicate and build on these models. The outcomes of this goal will be research that is in line with community identified barriers/needs, is feasible in the real world, ethically responsible, and produces relevant, trustworthy, impactful science.

#### Goal 2: Enable Equitable Access to Research Participation and Benefits

Participation in diabetes research remains concentrated in major metropolitan areas. Too often, Australians in rural and remote areas, Aboriginal and Torres Strait Islander communities, culturally and linguistically diverse (CALD) populations, youth and people of lower socioeconomic status are excluded from clinical trials and research participation. By failing to include diverse communities, findings may not be relevant to or effective for those who need them most. This goal ensures that research investment delivers benefits for all, not just the well-resourced.

#### Goal 3: Build and Retain a Skilled, Sustainable Research Workforce

Diabetes research in Australia depends on a workforce that is diverse, multidisciplinary, collaborative and adequately supported across all career stages. Given that diabetes is a complex condition it requires multifaceted solutions from a diverse research workforce. The diabetes research workforce is currently undergoing significant attrition due to insecure funding for a long-term career in research, fewer promotion pathways, lack of interdisciplinary opportunities and limited pathways in rural, regional or primary care settings. This goal supports capacity-building across discovery, clinical, and implementation sciences with strategic investment in long-term fellowships, mentoring, rural career incentives, and cross-sector mobility. With an emphasis on equity and sustainability, a 10-year investment plan for diabetes research careers across the spectrum from the most senior scientists to provide mentorship and guidance to emerging leaders, aligned with broader reforms is proposed in alignment with the Australian Universities Accord and MRFF capacity-building schemes.

- Fund protected diverse career development pathways across early-, mid-, and late-career stages.
- Enable and fund diabetes health care professional engagement in research.
- Expand capability and training in relevant interdisciplinary skills (e.g., commercialisation, epidemiology, digital health/data linkage, health economics, artificial intelligence/bioinformatics, behavioural science, implementation science and clinical trials).
- Provide targeted fellowships for researchers from under-represented groups and regions.
- Diversify funding sources for workforce including via industry and commercial partnerships.

#### **Goal 4: Accelerate Innovation through Collaboration and Commercialisation**

Australia's strong diabetes research has yet to reach its full translational potential. This goal will drive collaboration among researchers, industry, and healthcare providers, and streamline regulatory and commercial pathways to bring innovations into care faster.

- Fund translation-ready innovation platforms in Australia.
- Incentivise cross-sector partnerships with commercial and digital health innovators.
- Build fast-track regulatory and reimbursement pathways for validated technologies and therapeutics.





#### Goal 5: Develop and Maintain Fit-for-Purpose Research Infrastructure

A national research strategy needs a robust infrastructure backbone. This includes integrated datasets, trial networks, lab and clinical platforms, biobanks, and scalable workforce capacity across sectors. The complexities of cross-institutional ethics and governance should also be addressed within this strategy to enable collaborative and inclusive research across health, industry, academic institutions and geographically distant facilities. Shared, open access platforms are essential to avoid duplication and maximise impact.

#### **Goal 6: Translate Research into Practice and Policy**

Translation of research into real-world outcomes is central to reducing the burden of diabetes. This goal supports embedded implementation science, health systems research, and strong connections between evidence and action.

#### **Goal 7: Coordinate National Research Efforts and Drive Policy Alignment**

Australia's research system is currently fragmented, with multiple funding sources and limited strategic alignment. This goal aims to build national coherence across jurisdictions, funders, and sectors to ensure coordinated investment and rapid response.

- Develop a national diabetes research agenda and implementation roadmap through the Department of Health and Aged Care informed by people with lived experience of diabetes.
- Establish a coordinating committee linking NHMRC, MRFF, and the Australian Diabest Alliance - Australian Diabetes Society and Australian Diabetes Educators Association, Breakthrough T1D (Formerly JDRF), Australian and NZ Society for Paediatric Endocrinology and Diabetes (ANZPED), Australasian Diabetes in Pregnancy Society, Diabetes Australia, state diabetes organizations, RACGP and the Federal CDC/Department of Health and Aged Care
- Foster industry partnerships that enable diabetes research and implementation capability
- Map and evaluate existing programs and funding streams to align efforts and identify gaps
- Advocating for streamlining in Health and Research processes eg. ethics and governance.

## **National Research Priorities**

To deliver on the Strategic Goals, the following research priorities form the thematic foundation of the National Diabetes Research Strategy. These themes reflect national health needs, research capacity, funding alignment, and stakeholder input. They will be underpinned by workforce training and community partnership. Each theme identifies a core domain for discovery, translation, and systems integration across the next ten years.

Priority	Description	Priority Breakdown
1. Understanding Cause(s) of Diabetes and its Complications to Better Target Risk Reduction	Addressing diabetes requires deeper knowledge of disease aetiology, triggers, and modifiers. This theme supports research into epi/genetics, immune pathways, metabolic dysfunction, environmental exposures, and intergenerational risk, particularly for vulnerable groups such as Aboriginal and Torres Strait Islander peoples and those with youth-onset diabetes.	<ul> <li>Discovery science to identify:</li> <li>Modifiable risk factors for type 1, type 2, diabetes in pregnancy and other types of diabetes. Including environmental and social determinants of diabetes onset and progression</li> <li>Studies of pancreatic islet beta-cell dysfunction, insulin resistance, autoimmunity, and other intersecting pathways</li> <li>Provide mechanistic understanding of diabetes complications.</li> </ul>
2. Precision Diagnostics, Therapeutics and Monitoring	Personalised care is the future of diabetes management. This theme aims to refine and scale targeted diagnostics, novel therapeutics, and monitoring tools based on subtypes, biomarkers, and patient context.	<ul> <li>Biomarker, including genetic and other risk score development for staging and stratifying diabetes and complications</li> <li>Trials of emerging therapeutics (e.g., SGLT2 inhibitors, incretin based therapies including GLP-1R agonists, immunotherapy, stem cells, multi-agonists/antagonists)</li> <li>Al based models for monitoring outcomes with continuous blood glucose monitoring (CGM), automated insulin delivery systems, ketone monitoring, smart insulin systems, therapy use subsidised by the PBS and evolving technologies especially in high-need populations.</li> </ul>
3. Reducing Complications and Improving Outcomes	Complications from diabetes remain a major cause of disability and death in Australia. This theme focuses on identifying predictors, improving screening, and testing new strategies to prevent and manage kidney disease, cardiovascular disease, neuropathy, mental health comorbidities, and cancer.	<ul> <li>Early biomarkers predicting kidney function decline, cardiovascular risk, diabetic foot ulceration and other complications</li> <li>Environmental and social determinants of diabetes onset and progression</li> <li>Trials of interventions to prevent and reduce complications across diverse populations</li> <li>Integration of physical including lifestyle interventions and behavioural/psychosocial strategies to support people living with diabetes to optimise their self-management</li> <li>Expanding access to AI based models of diabetes and complications risk assessment.</li> </ul>

#### 4. Digital Health, Data and Real-World **Fvidence**

Harnessing Australia's digital health assets can transform how diabetes is detected, monitored and treated. This theme supports data-driven and technology enabled approaches to care delivery, remote monitoring, Al-guided tools and real-world outcome tracking.

- Expansion of My Health Record integration with diabetes registries and CGM platforms
- Al and machine learning applications for prediction and stratification
- Use of real-world evidence to improve understanding of the full burden of diabetes and to optimise health system design and reimbursement decisions
- Mobilisation of pharmacies and telehealth for diagnosis, risk monitoring and self-management.

#### 5. Implementation Science, Models of Care, and Equity

Research impact depends on how well evidence is translated into practice. This theme funds implementation science, policyrelevant trials, and systems-based approaches that in addition address health inequity and promote access in priority populations.

- Embedded a strong research culture at all levels of care
- Integrated clinical research pipeline to translate and scale proven models for all diabetes including psychoeducational programs and support
- Co-designed care models for all people with diabetes, with emphasis on Aboriginal and Torres Strait Islander communities and rural populations
- Integrated diabetes and pregnancy care for women with GDM or pre-pregnancy diabetes
- Relevant co-designed models for other vulnerable groups including youth onset diabetes, the elderly and CALD.
- Novel models of health care delivery to meet the rapidly changing therapeutic landscape
- Expert guidelines for diabetes care freely available to primary care, specialist care, allied health communities and the community

#### 6. Translation, Commercialisation, and Economic Return

Australian diabetes research has substantial commercial and economic potential. This theme enables translation of discoveries into new diagnostics, devices, therapies, and services that benefit patients and the national economy.

- Product development and IP pathways for highimpact research innovations
- Public-private partnerships to support trials, marketing and reimbursement of new technologies
- National incubators and accelerators focused on diabetes-related health technologies and services.





## **Implementation Framework**

Delivering this strategy requires a coordinated and well-resourced implementation plan. In place is an already existing and functioning National Diabetes Alliance that currently includes the major stakeholders in Diabetes (ADS/ANZPED/ADIPS/ADEA/Diabetes Australia and Breakthrough T1D). Overall this framework outlines the mechanisms and structures needed to turn strategic goals and research priorities into measurable progress. It builds on Australia's strengths in medical research and health system delivery, while addressing key barriers in translation, access, and sustainability. In order to implement this strategy, a National Research Taskforce will be commissioned and a chair appointed according to agreed Terms of Reference drafted by the National Diabetes Alliance.

#### 1. Investment and Funding

A bold, long-term investment is required to reverse the decline in diabetes research funding and realise the returns from discovery and innovation. A combined approach leveraging the MRFF, NH&MRC, government and private sector investment will drive high-impact, translational work. Across Australian health and medical research (Research Australia website – HMR facts). While the Federal Government directly undertakes very little health and medical research, it is responsible for funding a much larger proportion, particularly across higher education, where a majority is used for infrastructure (RFP) and research training/student support (RTP) and Medical Research Institutes (MRIs). This includes funding provided through the National Health and Medical Research Council (NHMRC) and Australian Research Council (ARC) (Table 1, below). Hence, this strategy in the first instance focusses on increases in MRFF funding, via a specific diabetes mission and for agreed NHMRC Targeted Research programs and other priority programs directly aligned with the priorities of the Federal Department of Health. In coming years, the implementation plan will strategically assess and extend private including philanthropic and business-based funding sources for diabetes health and medical research.

Australian Government funding of HMR through universities and MRI's		
NHMRC Funding	\$946 million	
ARC Funding contribution to HMR (10%)	\$81 million	
Research Block Grants contribution to HMR (35%)	\$700 million	
MRFF	\$650 million	
Total	\$2,377 million	

Source: Australian Government Science Research and Innovation Budget Tables 2023-24 estimated expenditure for 2023-24





## **Medical Research Future Fund (MRFF) Mission** - Part of a Solution for Equitable Funding for Diabetes

## The Objective

To retain and grow a sustainable, vibrant research workforce and sector for diabetes, informed by people with lived experience of diabetes, health care professionals, industry and government and other relevant stakeholder groups.

#### The Mission

The Diabetes Health Mission would provide \$270 million over 10 years under the Medical Research Future Fund to improve all aspects of diabetes and obesity for every Australian person.

Despite Australia's significant gains over past decades, we still have extensive knowledge gaps in diabetes, ranging from understanding the development and progression of these complex disorders, all the way to delineating systems for equitable and best available health-care delivery for all people at risk for and living with diabetes and obesity. Australian researchers are well positioned to discover, develop and implement transformative solutions with this substantial strategic investment, combined with leadership and collaboration across our sector as the Australian Diabetes and Obesity Research Alliance. There is no doubt that this Mission will improve health and save lives 16 by mobilising and co-ordinating research efforts, supporting a vibrant and sustainable workforce and developing collaborative and translational platforms. It will encompass broad innovations to benefit all Australians, with particular effort to improve equity and outcomes for Aboriginal and Torres Strait Islander peoples and other vulnerable groups disproportionately impacted by diabetes.

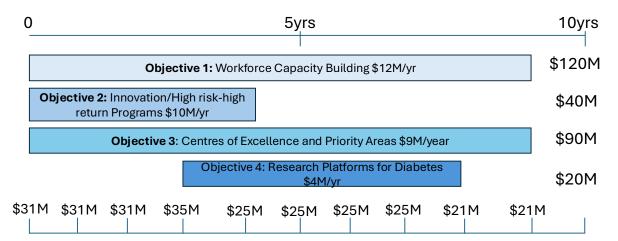
#### **The Goals**

To make transformative improvements in diabetes to improve health for all Australians through:

#### **Governance of the Mission**

Representatives from the already existing National Diabetes Alliance (ADS/ANZPED/ADIPS/ADEA/Diabetes Australia and Breakthrough T1D) will appoint a chair of the Mission by election from nominees from their membership. An appointed representative from other relevant consumer/industry or stakeholder organisations including but not limited to Diabetes Victoria, Brandon Capital, IP Group, MTP Connect will also be considered. Rotating equitable representation from other relevant Health Care professional bodies and their committees/membership in diabetes and obesity eq. ESA, ANZOS, ANZMOSS, ADEA, NACOS, RACGP, NACCHO will also be recruited. At least 70% of this committee must be current researchers in diabetes. There must also be an advisory group of people with lived experience of diabetes to partner and provide additional direction including representation from vulnerable groups and early career researchers that interfaces with the Mission Governance Groups and the Diabetes Alliance Research Taskforce. Project administration officers (x2) will be required over the longevity of the Mission for MRFF administration/integration and other admin such as project milestone assurances and Mission/Alliance support. Other invited members from MRFF or the Department of Health will be included in the governance group. Peer review panels for Research support will be convened by the Mission Leadership Committee with MRFF support in accordance with MRFF policy. The Mission governance group will also ensure that funding is not directed to areas that will duplicate research already being undertaken in Australia or overseas.

## **MRFF Mission in a Nutshell**



## **Mission by Objective**

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#### Objective 1 – To support, attract and retain a vibrant and sustainable research workforce

People drive change. Australian has incredible, internationally competitive diabetes researchers that need sustainable support. This Mission will also attract world-class talent to the sector and support the development of the next generation of global leaders in diabetes research. There is clear evidence that the Australian diabetes research workforce has been eroded by the lack of research funding support over the past 10 years. As an example, the number of research project abstracts for new diabetes discoveries submitted to the annual meeting of the Australian Diabetes Society (~1900 delegates) has reduced by 58% since 2015. To reduce duplication and administrative burden, we would ask that candidates submit leadership fellowships through the NHMRC Early leadership and Leadership scheme and that those awarded a fellowship through that scheme remain there. However, the success rates for those schemes are in the order of 5% which, added to the erosion of researcher numbers in diabetes makes the case for awarding of additional merit-based fellowships that also achieve the recommended for funding scores but are not awarded due to the NHMRC budget restrictions for that scheme reaching capacity. This approach is already used by disease specific missions in other disorders such as cancer. Five year fellowships are recommended.

Early Career Fellowships (<6 years) – 5 years	20 Fellows \$15,240,800
Early Career Fellowships (5-10 years) – 5 years	20 fellows = \$21,723,800
Early/Mid-Career Fellowships (10-15 years) – 5 years	20 fellows = \$30,393,100
Experienced Research Fellows >15 years	20 Fellows = \$50,000,000
PhD Scholarships to attract new talent. \$35.000 per year, 3.5y = \$122,500 per student.	20 scholarships = \$2,450,000

Training Activities to Support Talent – Media Workshops, Dissemination of Knowledge Activities eg. support for skill-based learning activities overseas to bring state of the art learning back to Australia; support to attend International meetings/training programs)	\$2,000,000
Subtotal	\$121,807,700

#### Objective 2 - Innovation and "high risk" frontier research in Diabetes

New frontier, innovative or high risk research is often overlooked in mainstream funding programs. However, historically, the greatest progress often comes from thinking outside the box and then facilitating the rapid adoption of these innovations once proven and rigorously tested for their safe application to and relevance for people living with diabetes. These lessons are well-learned from studying the Nobel Prizes for Medicine and more recently the COVID-19 pandemic, where those innovations that have transformed diseases have transcended barriers and the traditional length of time required for translation given their ultimate impact on prevention, treatment or management of disease.

Industry partnered pilot/feasibility funding for drug discovery and biomedical engineering	1 year "take a risk" grants 20 x \$150,000 = 3,000,000 3 year "accelerator" grants 20 x \$500,000 = 10,000,000
Pilot feasibility funding in diabetes research across all research areas	\$130000 over 1-2 years. 10 per year for 9 years = \$11,700,000
Precision Medicine for early disease detection and Response to treatment (type 2, gestational diabetes, vulnerable groups)	-omics/bioinformatics/Al 10 x \$1,500,000 = \$15,000,000
Subtotal	\$39,700,000

#### Objective 3 – Specific support of identified research priorities for Diabetes

This part of the Mission aims to support projects in specific Research Priority Areas set by fair and equitable processes encompassing as many views as possible to represent and use the integrated power of the voices of people living with diabetes, health care professionals, researchers, industry, policy makers and membership of the stakeholder organisations in Diabetes and Obesity. These projects and programs include research focused on implementing effective and efficient prevention and care, including supporting evidence-informed clinical and policy decision making. Identifying barriers and co-designing solutions to facilitate implementation of value-adding care but also deimplementation of low-value care will also be a focus. Clinical trials would aim to rigorously test innovative interventions in primary care, acute care, rehabilitation and in community settings.

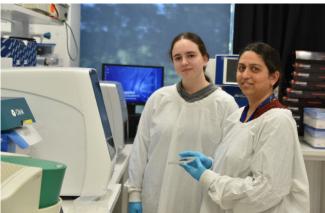
National Centres of Research Excellence to Support National Collaboration. 5 years duration. Alignment with priority areas.	\$10m each; 5 centres supported for 5 years delivered over 10 years = \$50,000,000
Investigator Led Cohorts, Clinical Trials, Implementation, Vulnerable and/or underserved Populations in Diabetes research.	3-5 year grants 20 x \$2 million over 4 years =\$40,000,000
Subtotal	\$90,000,000

#### Objective 4 - Connected and Collaborative - Research Platforms for Diabetes

This objective involves establishment and maintenance of sustainable partnerships to facilitate integrated and connected platforms for research aiming to improve the lives of people living with diabetes. In other successful missions, this has included strategies such as integration of large-scale national and state data linkage systems (eg NDSS, National Integrated Health Services Information, Multi-Agency Data Integration Project) and primary care data linkage systems to develop large-scale data platform/s integrating clinical, state, national and other data sources such as private health insurers and other entities to enable data security, software development while enabling governed access for research. Existing clinical registries, trial networks and cohorts with biobanks could be integrated to create national resources. Funding could be leveraged by incentivising sustainable partnerships with commercial diagnostic companies, and international collaborations with world-class facilities. Specific integration with other MRFF missions to reduce duplication of these platforms and capacity building in regional/rural and underserved populations in terms of access and contribution to research would also be desirable. Some examples are included in the Table of the Mission costs below.

	Monitoring the state of diabetes - Integrated big data	\$5,000,000
	Supporting and Establishing Sustainable National Capacity for Clinical Trials	\$250,000 year for 5 years. \$1,250,000
	Regional and Rural Research or Disadvantaged Capacity Focused Projects	\$10,000,000
	Subtotal	\$16,250,000
Mission Support – Responsible	e Governance and Transition to Sustainable Nati	onal Diabetes Research Alliance
	Mission Administrative Project officers 2 x full time \$110,000 per year per person over the 9 years of funding.	\$1,980,000





## National Health and Medical Research Council – Targeted Calls for Research/ **Partnerships**

Co-developed with the federal department of health, NHMRC and people with lived experience of diabetes, Targeted calls for Research (TCRs) are designed to stimulate research or build research capacity in a particular area of health and medical science to the benefit of Australians. In priority areas TCRs will be conceived, developed and delivered in specific areas of diabetes research need. As outlined by the NH&MRC, TCRs are a one-time request for grant applications to address a specific health issue where there is a significant research knowledge gap or unmet need. A TCR specifies the scope and objectives of the research to be proposed, application requirements and procedures, and the review criteria to be applied in the evaluation of applications submitted in response to the TCR. Other partnerships grant models for specific areas of need to improve the lives of people living with diabetes will also be codeveloped as part of the Partnership grant scheme.

## Strategic Partnerships to Drive Health Innovation and Commercialisation in **Diabetes**

Collaborative partnerships between research institutions, industry and government are fundamental to Australia's health innovation ecosystem. These relationships harness the strengths of academia and the private sector—scientific discovery, clinical insight, commercial capability, and market intelligence enabling and accelerating the translation of diabetes research into tangible outcomes that improve lives and drive economic growth. By aligning academic rigor with industry's capacity for product development, regulatory navigation, and market access, such collaborations transform early-stage discoveries into viable therapeutics, medical devices, diagnostics, and digital health solutions. Joint funding calls, coinvestment frameworks, and structured partnership programs provide scalable mechanisms to deliver both public health benefit and commercial return. As part of the existing Diabetes Alliance

### Goals to be achieved via Industry Collaboration

Industry engagement unlocks significant financial and in-kind investment through co-funding models, competitive scholarships and project-specific grants for infrastructure, equipment, and workforce development. This would enhance national research capability not only in diabetes and ensure critical projects progress toward clinical and commercial milestones.

Partnerships enable cross-sector knowledge exchange, combining research excellence with commercial acumen, manufacturing experience and clinical translation expertise. This integration ensures that discoveries are developed with a clear understanding of regulatory requirements, end-user needs and market pathways.

Co-developed research programs explicitly designed for translational impact. Industry collaboration to provide access to prototyping facilities, clinical trial networks and regulatory guidance, compressing timelines between discovery and benefit for people with lived experience of diabetes. This approach would position Australia as a leader in rapid, evidence-based innovation.

Industry partnerships underpin the establishment and operation of advanced research infrastructure from biomanufacturing hubs and clinical trial networks to digital health platforms. This investment aims to strengthen Australia's sovereign capacity in critical areas of diabetes need, ensuring long-term competitiveness and resilience in the global health sector.

#### 5. Delivering Targeted, High-Impact Diabetes Research

By aligning with national health priorities, industry partnership will drive research toward areas of greatest unmet need in diabetes whilst designing, embracing and manufacturing newer technologies, which are already on the horizon. The result would be an ecosystem that delivers measurable clinical outcomes, economic diversification and global export potential.

### **Exemplars of Industry Partnership Models**

#### (1) Collaborative National Centre of Excellence in Diabetes

The Targeted Translation Research Accelerator is an initiative under Australia's Medical Research Future Fund that provides grants for research and development of new preventative, diagnostic, and therapeutic products for diabetes and cardiovascular disease. It is designed to help move research from the lab to commercial products through mentoring and commercialization advice. In diabetes, the Australian Centre for Accelerating Diabetes Innovation (ACADI), was awarded \$12 million and achieved partner coinvestment of at least that amount again more than 5 years ago. Over that time this centre has achieved outstanding outcomes developing transformative, patient-centred innovations now in clinical use and seeking market expansion (with more to come); Addressed major regional and remote challenges for clinical trial participation (400+ participants from these areas); created 50+ jobs and enhanced workforce and sector resilience/training; prioritising high impact projects such as helping 850+ people aged 1-102 yrs in last 6 months alone access the new Victorian virtual diabetes emergency service resulting in: 85% diversion rate from busy Emergency Departments (saving ~12000/3.5 hospital days per event); 94% patient satisfaction rate; Initiated ketone testing in Victorian Ambulances to support rapid identification of ketoacidosis to address mortality.

#### (2) Industry-Sponsored Research Training

Co-funded PhD and postdoctoral programs would allow early-career researchers to gain direct exposure to commercial R&D environments while contributing to projects with clear market relevance. These programs cultivate a skilled workforce fluent in both academic and industry languages of innovation. These could be delivered via centres of excellence such as training awards provided by the TTRA and ACADI, The MRFF or via other means including philanthropic and federal government investment to Breakthrough T1D, Diabetes Australia or other like entities. As an examplar, the Breakthrough T1D SPARC program has provided funding and industry mentorship, coaching and partnership to discovery team leaders and their early career researchers for ground breaking innovations that have commercially relevant IP for transformative change for people with lived experience of type 1 diabetes.

#### (3) Co-Investment and Public-Private Consortia

Strategic co-investment initiatives unite governments, research institutions, and industry/business partners to undertake research, co-develop technologies such as medical devices, vaccines and digital diagnostics in other fields of research. These consortia leverage shared infrastructure, investment and expertise to facilitate need of the diabetes community, accelerate discoveries to the clinic and other outcomes including develop and scale manufacturing capacity. This area needs further consideration, planning and exploration for Australian diabetes innovations.

#### 2. Workforce and Capacity Development

The strategy supports development of a skilled, diverse research workforce with capacity to lead and implement across all research stages and settings of diabetes. Despite sub-optimal investment in diabetes research in Australia, we have seen significant and tangible outcomes for people living with diabetes. Increases in targeted allocation of funds towards disease areas such as CVD, cancer and dementia has shown that this type of model delivers better health care outcomes.

- Create sustainable national fellowship and scholarship schemes with equity targets
- Fund interdisciplinary and rural research career pathways
- Support co-appointments between academia, health services and community organisations
- Expand training in implementation science, commercialisation, and data analytics
- Capacity for community engagement training for researchers and training for community to assist in these roles.

#### 3. Infrastructure and Data Integration

- Strategic infrastructure investment is essential to link research, care, and innovation. Integrated data systems, clinical trial platforms, biobanks, and digital tools will ensure discoveries are rapidly tested and scaled into practice
- Build and enable diabetes research data platforms, including linked registry, administrative primary to tertiary care electronic health data. This would require leadership by and partnership with federal government, states and territories
- Support shared clinical, technological and lab infrastructure to enable research in urban, rural and remote regions.
- Establish open-access biospecimen and genomic repositories aligned to diabetes research needs
- Integrate digital platforms like CGM, telemonitoring and AI decision tools into trials and care evaluations
- Streamlining ethics and research governance compliance and processes.

#### 4. Stakeholder Coordination and Partnerships

This strategy depends on coordinated action across federal, state, and local governments, research funders, clinical networks, community partners, industry, and the lived-experience community. A clear governance and engagement structure is essential.

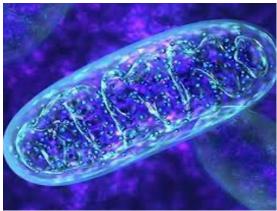
- Establish a National Diabetes Research Strategy Implementation Committee with crosssectoral representation
- Support national innovation hubs involving community/lived experience, clinicians, and researchers
- Foster formal partnerships between ACCHOs, multicultural health services and academic centres
- Engage private sector partners in technology translation, workforce development, and coinvestment.

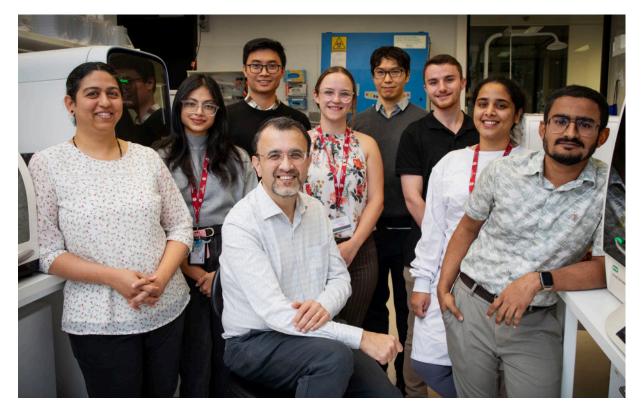
## 5. Governance and Accountability

Transparent, accountable governance is key to sustaining trust and momentum. A monitoring and evaluation framework will track performance and outcomes against defined metrics.

- Develop a national dashboard to track research investment, participation, outputs, and outcomes
- Establish key performance indicators (KPIs) aligned to each strategic goal and research priority
- Report annually to Federal, State and Local Government and the public on progress and outcomes
- Ensure inclusion of lived experience voices in all governance and decision-making structures.







## **Monitoring, Evaluation and Impact**

A comprehensive monitoring and evaluation (M&E) framework is critical to measure progress, adjust priorities, and ensure accountability. This framework enables transparent reporting on how research funding translates into improved outcomes for people living with or at risk of diabetes.

## 1. Key Performance Indicators (KPIs)

Description	Key Points
The following KPIs will	Total diabetes research investment by funding source and allocation by theme.
be tracked and reported annually to assess strategic	Diabetes research workforce by sector and level.
progress:	Number and demographics of participants enrolled in diabetes-related clinical trials.
	<ul> <li>Uptake of research findings in national/international clinical guidelines and practice standards.</li> </ul>
	Hospitalisation rates for acute and chronic diabetes complications and comorbidities over time.
	Number of commercialisation outputs: patents, startups, products launched.
	Research co-design metrics: proportion of studies with community involvement from inception.
	Participation of rural, remote, Aboriginal and Torres Strait Islander Peoples and CALD populations in funded research.

#### 2. Evaluation Tools and Methods

Description	Key Points
Evaluation will draw on both	Logic models and implementation frameworks for large-scale initiatives
quantitative and qualitative tools and methods including:	Real-time data dashboards and national registry integration to PBAC.
	<ul> <li>Impact case studies and outcome narratives informed by benchmarks from organisations including the NHMRC, state and national departments of health</li> </ul>
	<ul> <li>Independent mid-term and end-of-period reviews with stakeholder consultation</li> </ul>
	<ul> <li>Use of AI, big data analytics, and bibliometrics to track citation, policy, and practice translation</li> </ul>
	Economic evaluation of health and research strategies already implemented and projections for newer models.



#### 3. Translating Research into Measurable Impact

Description	Key Points
Beyond traditional outputs such as publications and	Greater community engagement with and satisfaction with research design and outcomes
grants, the strategy focuses on the societal, clinical, and	Improved health equity and outcomes in underserved populations.
economic impacts of research.	<ul> <li>Reduction in diabetes-related complications, hospitalisations, and disability- adjusted life years (DALYs), improved quality of life and reduced diabetes distress</li> </ul>
	• Earlier diagnosis and prevention of all forms of diabetes through screening and prevention innovations
	Economic return on research investment via commercial translation and health system savings
	Evidence-informed health and social policy reform at federal, state and local levels.

## **Conclusion**

The National Diabetes Research Strategy (2026–2035) lays a bold and achievable path toward a healthier, more equitable Australia, reduced health costs and improvements for people living with diabetes. Grounded in the voices of people with lived experience, informed by robust evidence and backed by national and international best practice, this strategy signals a turning point in how diabetes research is prioritized, funded, and translated into real-world change.

As diabetes prevalence rises and its impacts deepen across health, social and economic systems, Australia must respond with urgency and vision. This strategy commits to coordinated national action that empowers communities, accelerates discovery, and ensures that the benefits of research are equitably shared. By embedding research into clinical care, lived experience and policy, it will help prevent diabetes where possible, improve quality of life for those living with the condition, and reduce the long-term impact on families, health services, and the economy.

Success will depend on sustained leadership, inclusive partnerships, and accountable investment. It will require strong coordination between government, academia, industry, health services and importantly the community. Through the implementation of this strategy, Australia can enhance global leadership in diabetes innovation, ensure every research dollar delivers impact and move decisively toward a future where diabetes is no longer a leading cause of disability and inequity.

## **Participating/Consulting Organisations**

Australian Diabetes Society, Australian Diabetes Educators Association, Breakthrough T1D, Australia and New Zealand Society of Paediatric Endocrinology and Diabetes, Diabetes Australia, Diabetes Victoria, Endocrine Society of Australia, Australia and New Zealand Obesity Society, Research Australia, Diabetes Feet Australia.

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## **Glossary of Terms**

ACADI: Australian Centre for Accelerating Diabetes Innovations – a national diabetes research translation and innovation consortium.

CGM: Continuous Glucose Monitoring – technology that tracks glucose levels in real time throughout the day and night.

DALY: Disability-Adjusted Life Year – a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.

GDM: Gestational Diabetes Mellitus – a form of diabetes occurring during pregnancy.

Implementation Science: The study of methods to promote the integration of research findings and evidence into healthcare policy and practice.

Logic Model: A framework that outlines how inputs and activities lead to expected outputs, outcomes, and long-term impacts.

MRFF: Medical Research Future Fund – a significant source of medical research funding administered by the Australian Government.

NHMRC: National Health and Medical Research Council – Australia's leading body for health and medical research funding.

PBS: Pharmaceutical Benefits Scheme – a program of the Australian Government that provides subsidised prescription drugs to residents.

SGLT2 Inhibitor: A class of medications used to lower blood sugar levels in people with type 2 diabetes, also offering heart and kidney protection.

GLP-1RA: A class of medications used to lower blood sugar levels and for weight loss in people with type 2 diabetes, also offering heart and kidney protection and other organ protection.

