14 May 2024

Senator Penny Allman-Payne
Chair
Senate Standing Committees on Community Affairs
PO Box 6100
Parliament House
Canberra ACT 2600

By email only: community.affairs.sen@aph.gov.au

Dear Senator Allman-Payne,

Excess mortality of Australians with diabetes

Thank you for inviting Diabetes Australia to make a submission to the Community Affairs Committee's inquiry into excess mortality.

Diabetes Australia is concerned that provisional data published by the Australian Bureau of Statistics (**ABS**) suggests that the proportion of excess deaths caused by diabetes is higher than any other cause (other than COVID-19) in both 2022 and 2023. This is despite the acknowledged reality that diabetes is underreported as a cause or contributor to deaths.

COVID-19-related delays in emergency and routine care may have contributed to these excess deaths, reflecting the need for strong action to reduce the impact of the diabetes epidemic, save lives and safeguard the sustainability of Australia's health system.

Diabetes Australia recommends that the Committee:

- recognise the disproportionately high number of excess deaths attributable to diabetes;
- acknowledge gaps in data and research on the long-term excess deaths attributable to diabetes;
- recommend increased investment into diabetes research;
- recognise the impact of delays to routine and emergency healthcare for people with diabetes, and its impact on excess mortality;
- recommend strengthening Australia's response to diabetes, to avoid excess deaths and safeguard the sustainability of Australia's health system; and
- adopt Diabetes Australia's recommendations to the Health Committee inquiry to address the impacts of Australia's diabetes epidemic, including excess deaths attributable to diabetes.

Understanding the data

The ABS publication ***Provisional Mortality Statistics*** for 2023 notes the baseline average for diabetes is 4,689, but the numbers of deaths were 5,609 in 2022 and 5,403 in 2023.[1] On our calculations, these are, respectively, 20% and 15% above the baseline or expected number, reflecting the largest proportion of excess deaths for any cause other than COVID-19 (for which there is no baseline average). The Australian Institute of Health and Wellbeing (**AIHW**) has found recent deaths exceed baseline averages:[2]

> *According to ABS Provisional Mortality Statistics, in 2022, doctor-certified deaths due to diabetes (registered by 28 February 2023) 19.2% above the baseline average (comprising the years 2017–2019 and 2021). The age-standardised diabetes death rate for 2022 was 10.5% higher than the baseline average…*

We understand that excess deaths are not reported by cause of death prior to the COVID-19 pandemic, making comparisons difficult. Similarly, diabetes is underreported as a cause or contributor to deaths,[3] making more detailed analysis difficult. However, the published ABS data reflects international evidence that shows diabetes mortality increased during the COVID-19 pandemic.[4]

While limited, the information provided by the ABS reinforces the importance of diabetes-related research - research into the causes, complications and cure for all types of diabetes is critical in the fight to combat the diabetes epidemic. As we set out in our 2024 pre-budget submission ***Diabetes Research***, a sustained funding decline has brought diabetes research to a dire state in Australia:[5]

> *Economic analysis shows medical research delivers a return of almost $4 for every dollar invested. We anticipate that the return on investment for diabetes research is even higher. This return is generated through better treatments that reduce the impact of serious complications, and prevent or reduce hospital admissions and primary healthcare visits.*

Recommendations:	***That the Committee recognise the disproportionately high proportion of excess deaths attributable to diabetes.***
	That the Committee acknowledge gaps in data and research on the long-term excess deaths attributable to diabetes.
	That the Committee recommend increased investment into diabetes research.

Interpreting the data

Diabetes can exacerbate other health challenges, as the COVID-19 pandemic demonstrated.

Diabetes carries a higher risk of morbidity and mortality from infection with COVID-19,[6] with the Australian Institute of Health and Welfare (**AIHW**) stating that *'diabetes is one of many conditions correlated with greater health consequences throughout the COVID-19 pandemic including increased risk of complication and mortality'*.[7]

People living with diabetes are at a higher risk of severe COVID-19 including hospitalisation, intensive care unit admission and even death. Around one in five deaths from COVID-19 (third most common co-morbidity) and around one third of all intensive care hospitalisations (most common co-morbidity) involved people living with diabetes.[8] With the CSIRO forecasting an increased risk of infectious disease outbreaks in the future, there is a very real risk that the diabetes epidemic will worsen the severity of any future pandemics.[9]

The Parliamentary Library[10] cites Actuaries Institute's COVID-19 Mortality Working Group, which suggested likely reasons for excess deaths in 2022 (where COVID-19 was not the underlying or a contributing cause) to be:[11]

- The impact of [having had] COVID-19 on subsequent mortality risk, including diabetes;
- Delays in emergency care, particularly at times of high prevalence of COVID-19 and/or influenza; and
- Delays in routine care, which refers to missed opportunities to diagnose or treat non-COVID-19 diseases and the likelihood of consequent higher mortality from those conditions in future.

These reasons are reflected in the lived experience of Australians with diabetes.

The AIHW identified that people avoiding and/or delaying medical care for diabetes during the COVID-19 pandemic was an *'emerging global issue'*,[12] and in Australia reduced access to primary care, diagnostic and hospital services for diabetes, combined with fear of exposure to the virus in these settings, led to a significant drop in access to usual diabetes care.[13] From the diabetes care perspective, there was a significant and concerted diversion of hospital resources and staff to COVID-19 specific activities,[14] and there was a reduction in HbA1c testing (the main biomarker used to assess long-term glycaemic control) amongst people with type 2 diabetes.[15]

The AIHW also reports a decrease in diabetes-related hospitalisations during the pandemic:[16]

> *According to the National Hospital Morbidity Database (NHMD), the number of diabetes hospitalisations fell in April 2020 (both as a principal and/or additional diagnosis), which may be associated with aspects of the early COVID-19 period and Australia's response to it, which had an impact on the provision of healthcare services and hospital activity generally (AIHW 2022b).*
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> *Compared with the pre-pandemic baseline (average monthly hospitalisations between 2015–16 and 2018–19), the number of hospitalisations in April 2020 with a principal diagnosis of diabetes was down 8.6% while the number with an additional diagnosis was down 27%. Similar results were found across type 1, type 2 and other diabetes. The corresponding period in 2020-2021 showed the number of diabetes hospitalisations had returned to the pre-pandemic level recorded in 2018–19 with increases of 12.8% and 9.2% in hospitalisations for diabetes as a principal and additional diagnosis, respectively, compared to the baseline average.*

Research showed a significant increase in the frequency of severe diabetic ketoacidosis (**DKA**) at presentation at hospitals, showing people experiencing more acute (and often avoidable) diabetes-related complications. In one example, the proportion of type 1 diabetes presentations with severe DKA increased from 5% to 45% in one Australian tertiary centre, compared with the equivalent period in the previous years.[17]

Diabetes Australia recognised these issues during the pandemic, and provided a number of resources to people with diabetes encouraging them to maintain their routine care, access emergency services if required, and take preventive action: see www.diabetesaustralia.com.au/tag/covid-19/ for more information.

Recommendations:	***That the Committee recognise the impact of delays to routine and emergency healthcare for people with diabetes, and its impact on excess mortality.***
	That the Committee recommend strengthening Australia's response to diabetes, to avoid excess deaths and safeguard the sustainability of Australia's health system.

Strengthening Australian's response to diabetes

The House of Representatives' Standing Committee on Health, Aged Care and Sport (**Health Committee**) is currently conducting an inquiry into diabetes, which provides an opportunity to act decisively to reduce the impact of the diabetes epidemic, save lives and safeguard the sustainability of Australia's health system.

Diabetes Australia has made several submissions to the Health Committee's inquiry, encouraging the government to take action to address diabetes. These include priority areas such as:

- Increasing funding for research into the causes and complications of diabetes;
- Expanding and improving access to life saving technology, including continuous glucose monitoring, for people living with all types of diabetes;
- Implementing a national kidney disease screening program;
- Increasing investment into type 2 prevention programs;
- Investing in the qualified diabetes workforce;
- Extending Diabetes in Schools to Aboriginal and Torres Strait Islander kids with type 2 diabetes; and
- Developing and funding an implementation plan for the National Diabetes Strategy.

Our submissions are available on the Health Committee's web page (www.aph.gov.au/Parliamentary_Business/Committees/House/Health_Aged_Care_and_Sport/Inquiry_into_Diabetes/Submissions), and we encourage your Committee to adopt these recommendations to address the impacts of diabetes, including the excess deaths attributable to diabetes.

Recommendation:	***That the Committee adopt Diabetes Australia's recommendations to the Health Committee inquiry to address the impacts of Australia's diabetes epidemic, including excess deaths attributable to diabetes.***

We would welcome the opportunity to discuss this issue further with your Committee. You can contact James Farrell, our National Manager, Advocacy, on or

Thank you again for seeking Diabetes Australia's expert advice on this important issue.

Yours sincerelv.

Taryn Black
Chief Strategy Officer
Diabetes Australia

References

[1] Australian Bureau of Statistics, *Provisional Mortality Statistics: January-December 2023* (Catalogue No 3303.0.55.004, 26 March 2024). www.abs.gov.au/statistics/health/causes-death/provisional-mortality-statistics/latest-release.

[2] Australian Institute of Health and Welfare (**AIHW**), *Diabetes: Australian facts* (14 December 2023). www.aihw.gov.au/reports/diabetes/diabetes

[3] Davina E Whittall et al, 'Deaths from diabetes are under-reported in national mortality statistics' (1990) 152(11) *The Medical Journal of Australia* 598.

[4] Emma Barron et al, 'Associations of type 1 and type 2 diabetes with COVID-19-related mortality in England: a whole population study' (2020) 8(10) *Lancet Diabetes Endocrinology* 813; Fan Lv et al, 'Excess diabetes mellitus-related deaths during the COVID-19 pandemic in the United States' (2022) 54 *The Lancet Discovery Science* 101671.

[5] Diabetes Australia, Australian Diabetes Educators Association and Australian Diabetes Society, *2024 Pre-Budget Submission: Diabetes Research.* www.diabetesaustralia.com.au/wp-content/uploads/2024-25-Pre-budget-Submission-Research.pdf.

[6] Daniel J Drucker, 'Coronavirus Infections and Type 2 Diabetes-Shared Pathways with Therapeutic Implications' (2020) 41(3) *Endocrine Reviews* 14; Daniel C Klonoff and Guillermo Umpierrez, 'COVID-19 in patients with diabetes: risk factors that increase morbidity' (2020) 108 *Metabolism* 154224; Bo Li et al, 'Prevalence and impact of cardiovascular metabolic diseases on COVID-19 in China' (2020) 109 *Clinical Research in Cardiology* 531.

[7] AIHW, above n 2; see further Slobodan Peric and Thomas M Stulnig, 'Diabetes and COVID-19: Disease-Management-People' (2020) 132(13014) *Wien Klin Wochenschr* 356.

[8] COVID-19 National Incident Centre Surveillance Team. *COVID-19 Australia: Epidemiology Report 64: Reporting period ending 31 July 2022* (12 September 2022).

[9] Kate Naughtin et al, *Our Future World: Global megatrends impacting the way we live over coming decades* (July 2022).

[10] Parliamentary Library, *Excess Deaths in Australia: Frequently Asked Questions* (13 December 2023). www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp/rp2324/ExcessDeathsAustraliaFAQ

[11] COVID-19 Mortality Working Group, *Confirmation of 20,000 excess deaths for 2022 in Australia,* Actuaries Digital (6 April 2023). www.actuaries.digital/2023/04/06/covid-19-mortality-working-group-confirmation-of-20000-excess-deaths-for-2022-in-australia/. See also Parliamentary Library, above n 10.

[12] AIHW, above n 2.

[13] Sof Andrikopoulos and Greg Johnson, 'The Australian response to the COVID-19 pandemic and diabetes - Lessons learned' (2020) 165 *Diabetes research and clinical practice* 108246.

[14] Ibid.

[15] NPS MedicineWise *MedicineInsight report: HbA1c testing in MedicineInsight patients newly diagnosed, or with a history of diabetes in 2018–2019* (December 2020).

[16] AIHW, above n 2.

[17] Chris Lawrence et al, 'Increased paediatric presentations of severe diabetic ketoacidosis in an Australian tertiary centre during the COVID-19 pandemic' (2021) 38(1) *Diabetic medicine* e14417.