

2022 Best Research Poster Award



The Burden of Type 2 diabetes in Australia during the period 1990-2019: Findings from the Global Burden of Disease Study

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INTRODUCTION

Accurately measuring the burden of diabetes allows for strategic planning and resource prioritisation. Previous studies have measured the burden of diabetes in Australia periodically. However, due to methodological differences, the results were not comparable with global reports.

OBJECTIVES

We aimed to evaluate the morbidity, mortality and trends of type 2 diabetes (t2DM) in Australia from 1990 to 2019 and how they compared with similar socioeconomic countries.

METHOD

Australia-specific Global Burden of Diseases, Injuries and Risk Factors Study (GBD) data were used to estimate age-standardised, age-specific and sex-specific rates for prevalence, years lived with a disability (YLDs), years of life lost (YLLs), disability-adjusted T2DM in Australia between 1990 and 2019. Data sources included surveillance and survey data, published, and unpublished research articles and reports, vital registration and hospital data. Data were presented as point estimates with their corresponding 95% uncertainty intervals (UI). Australian data were compared with 14 countries with a similar sociodemographic index (SDI).

RESULTS

The age-standardised prevalence of T2DM in Australia increased from 1,985 in 1990 (95% uncertainty interval [UI] 1,786.7-2,195.3) to 3,429 in 2019 (3,053.3-3,853.7) per 100,000 population. The total number of people with T2DM tripled between 1990 and 2019, from almost 379,532 (342,465-419,475) to 1,307,261 (1,165,522-1,461,180) cases. The age-standardised death rates due to T2DM doubled from 2,098 per 100,000 (1,953-2,203) in 1990 to 4,122 (3,617-4,512) deaths in 2019. Morbidity also increased with DALYs doubling from 70,348 (59,187-83,500) in 1990 to 169,763 (129,792-216,150) in 2019, and increases seen in YLDs and YLLs. The prevalence, death rates, DALYs, YLLs and YLDs attributable to T2DM were all higher in men. Compared to 14 similar SDI countries, Australia ranked 4th in terms of T2DM burden.

DISCUSSION

Findings emphasise that T2DM is a significant and growing burden in Australia contributing to increased risk of morbidity and mortality. These adverse outcomes affect both men and women but appear to be higher in men. These results highlight the need for strategic planning and resource allocation to address this burden of disease through public health prevention programs, screening initiatives to enhance early detection of T2DM and accessible and effective management strategies to mitigate the adverse health outcomes in the significant proportion of the affected population.

CONCLUSION

The burden of T2DM in Australia has increased considerably over three decades and resulted in increased morbidity and mortality. There is an urgent need to prioritise resource allocation for prevention programs, screening initiatives to facilitate early detection and effective and accessible management strategies for the large proportion of the population impacted by T2DM.

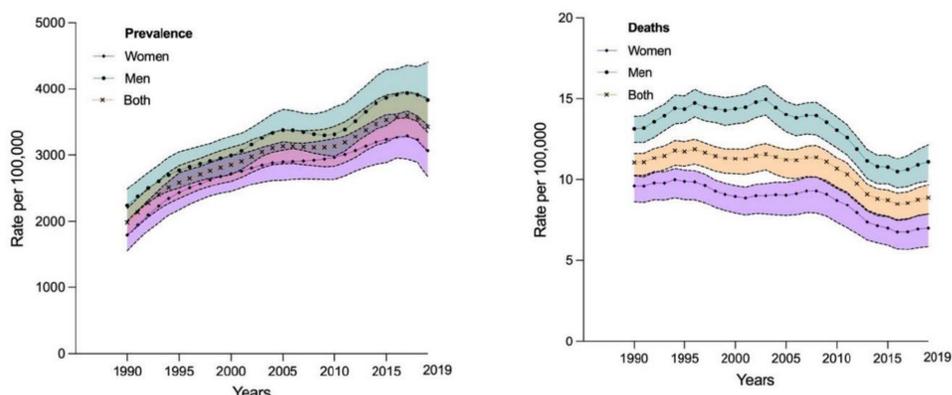


Figure: Age standardised prevalence and Deaths for T2DM for men, women and both groups

REFERENCES & ACKNOWLEDGEMENTS

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