

Diabetes as a cause of death, Australia, 1997 and 1998

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DIABETES SERIES

Number 1

Diabetes as a cause of death, Australia, 1997 and 1998

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November 2000

Australian Institute of Health and Welfare
Canberra

AIHW cat. no. CVD 12

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This publication is part of the Australian Institute of Health and Welfare's Diabetes Series. A complete list of the Institute's publications is available from the Publications Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's web site (<http://www.aihw.gov.au>).

ISSN 1444-8033
ISBN 1 74024 088

Suggested citation

Mathur S, Gajanayake I & Hodgson G 2000. Diabetes as a cause of death, Australia, 1997 and 1998. AIHW Cat. No. CVD 12. Canberra: AIHW (Diabetes Series no. 1).

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Published by Australian Institute of Health and Welfare

Printed by Elect Printing

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Preface

Diabetes is increasingly being recognised as a significant and growing public health problem both in Australia and worldwide. The disorder imposes a considerable burden on individuals and the health care system due in part to the morbidity and mortality it causes from a wide range of complications, mainly cardiovascular disease, eye and kidney diseases and limb amputations. This has been recognised by Australian Health Ministers who made diabetes one of the six National Health Priority Areas. This focus has intensified the need for up-to-date information on diabetes and its impact on the Australian community.

Diabetes as a Cause of Death, Australia, 1997 and 1998 is the first national report on diabetes mortality that examines diabetes as an associated cause of death as well as the underlying cause of death. This report has been made possible by the recent move by the Australian Bureau of Statistics to code all causes of death on the death certificate and not just the underlying cause of death. Data are presented for each State and Territory as well as national data. Data on special population groups such as Indigenous Australians, people living in rural and remote areas of Australia, and people who are at a socioeconomic disadvantage are also included.

The report will be relevant to policy makers, health professionals, researchers, and the broader community as a valuable reference on the extent to which diabetes may cause death in Australia.

This report was funded by the Commonwealth Department of Health and Aged Care and is available on the AIHW web site.

Richard Madden
Director

Acknowledgments

Many people have provided valued input to this report. Their time and commitment are greatly appreciated.

The report was refereed by Professor Andrew Tonkin (National Heart Foundation), Professor Stephen Colagiuri (Department of Endocrinology, Diabetes and Metabolism, Prince of Wales Hospital), Dr Jeff Flack (Diabetes Centre, Bankstown Lidcombe Hospital), Professor Ian Ring (School of Public Health and Tropical Medicine, James Cook University), and Ms Sue Walker (National Centre for Classification in Health, Queensland University of Technology).

Maryann Wood (Australian Bureau of Statistics) and Peter Burke (Australian Bureau of Statistics) also provided valuable comment on statistical issues.

The invaluable assistance of other colleagues within the AIHW is also gratefully acknowledged, particularly that of Dr Stan Bennett, Dr Kuldeep Bhatia, Dr Paul Magnus and Ms Joanne Davies.

Summary

This report highlights the considerable contribution that diabetes makes to all-cause mortality in Australia. The recent move by the Australian Bureau of Statistics to code all causes of death listed on the death certificate provides the opportunity to examine diabetes as an associated cause as well as the underlying cause of death. The underlying cause of death refers to the disease or injury initiating the sequence of events leading to death, and the associated causes refers to all other morbid conditions, diseases and injuries leading to death or contributing to death. The term 'diabetes-related deaths' is used in the report to refer to deaths where diabetes is the underlying or an associated cause of death. Multiple cause of death coding first became available for 1997 deaths data and in this report, deaths data for 1997 and 1998 are combined to allow for more detailed analysis.

Diabetes-related deaths

Diabetes-related deaths account for 18,982 deaths, or 7.4% of all deaths in 1997 and 1998. Diabetes-related deaths are substantially higher among Aboriginal and Torres Strait Islander peoples (16.4% of deaths among Indigenous Australians), people living in remote areas of Australia (9.5% of deaths in remote areas) and people living in the most disadvantaged area (8.4% of deaths in the most disadvantaged area)¹. Variation also exists across the States and Territories, with age-standardised rates for diabetes-related deaths highest in the Northern Territory, and lowest in the Australian Capital Territory. The higher proportion of diabetes-related deaths in the Northern Territory and remote areas of Australia can largely be attributed to the high proportion of Indigenous Australians in these areas. Further, the report clearly indicates the strong association between deaths from diabetes and diseases of the circulatory system and diseases of the genito-urinary system.

Diabetes as the underlying cause of death

Diabetes is the underlying cause of death in 2.2% of all deaths. However, in the Northern Territory, among females in remote areas of Australia and among Aboriginal and Torres Strait Islander peoples diabetes is the underlying cause of death between two and three times as often as for other Australians.

When diabetes is coded as the underlying cause of death, diseases of the circulatory system and diseases of the genito-urinary system are commonly listed as associated causes (82.8% and 22.0% of deaths respectively). This pattern is reflected across all population groups. Among Indigenous Australians and people living in the Northern Territory and remote areas of Australia diseases of the circulatory system, while still accounting for the largest proportion of deaths, are less likely to be listed as an associated cause and diseases of the genito-urinary system are more likely to be listed as an associated cause compared with the national average. A possible explanation for this is that among Indigenous Australians with diabetes as the underlying cause of death, renal disease may be selectively competing with coronary heart disease as an associated cause of death.

¹ The most disadvantaged area is derived from an index of relative socioeconomic disadvantage, which classifies people according to the average disadvantage of their statistical local area of usual residence based on social and economic characteristics. For further details see Chapter 2.

Diabetes as an associated cause of death

Diabetes is an associated cause of death in 5.2% of all deaths. This varied across all population groups, with the highest rates occurring among Indigenous Australians (10.0% of deaths among Indigenous Australians) and people living in the Northern Territory (7.3%).

When diabetes is an associated cause of death, diseases of the circulatory system and diseases of the genito-urinary system account for a higher proportion of deaths than when diabetes is not an associated cause of death. This is not surprising given that Type 2 diabetes shares several of the risk factors with and is itself a risk factor for diseases of the circulatory system. Diabetes is, however, less often associated with neoplasms and injury and poisoning. This pattern is reflected across most States and Territories, in urban, rural and remote areas of Australia and for each of the quintiles of socioeconomic disadvantage.

Among Aboriginal and Torres Strait Islander peoples, diseases of the circulatory system are twice as likely to be listed as the underlying cause when diabetes is an associated cause than when it is not an associated cause.

More likely to be an associated than the underlying cause of death

Diabetes is twice as likely to be listed as an associated cause than as the underlying cause of death at the national level. This pattern is reflected across most of the States and Territories, for each of the quintiles of socioeconomic disadvantage, and for urban and rural areas of Australia. In remote areas and among Indigenous Australians, while diabetes is more likely to be an associated cause than the underlying cause, the difference is not as marked (1.5–1.6 times as likely).

Conclusions

As can be seen from these findings, when diabetes is examined as an associated cause of death as well as the underlying cause of death from Australian death certificate data, further insight is gained into the contribution that diabetes makes to all-cause mortality. This report highlights that there are particular population groups, such as Indigenous Australians, people living in the Northern Territory and remote areas of Australia, and people who are at a socioeconomic disadvantage, who clearly experience higher diabetes-related mortality than other Australians. For these populations it is particularly important to identify the underlying causes of these health inequalities, such as the link between risk factors and social and economic circumstances.