

Chronic disease estimates: type 2 diabetes, 2001

Note: The figure for all of Australia for type 2 diabetes, 2.3%, published in the 2001 National Health Survey (NHS) conducted by the Australian Bureau of Statistics (and used as the basis for the synthetic estimates shown here) is substantially lower than the AusDiab figure of 7.5%. The NHS is based on self-report: the AusDiab is based on physical and bio-chemical measures taken by qualified people.

The AusDiab figure, 7.5%, is comprised of 3.8% diagnosed and 3.8% undiagnosed – that is, AusDiab state that for every one person with known diabetes, they found one unknown case. There is good evidence (Qld and SA) to suggest this relationship is an overstatement. Further, a number of aspects of the sample design and use, and survey practices are likely to have contributed to this high figure. For example, the high non-contact level meant households were replaced where contact could not be made, with additional, neighbouring, Collection Districts added: this added to the already clustered sample selections, as well as over-selecting those in the population likely to be 'at home'. Respondents attending the test sites 'self-selected' such that bias in the results is clearly possible – the survey was advertised in local media as a diabetes survey, and was likely to attract those with diabetes and those with a family history of diabetes. The response rate (as distinct from the contact rate) was also very low, below 30% overall and lower in some age/ sex groups (again leading to possible bias in the results). The sample also appears to have relatively few disadvantaged people (because of the particular Collection Districts selected for surveying); this would suggest their diagnosed figure could be lower than would be achieved from a well-drawn/ executed sample with adequate response rates across socioeconomic groups. For a comment on some of these issues from a Queensland perspective, see http://www.mja.com.au/public/issues/180_02_190104/letters_190104_fm-2.html
A similar situation to that described in this letter existed is known to have occurred in South Australia.

Given the problems with the AusDiab data, PHIDU was not prepared to use those data to estimate rates in small areas.

The data to estimate small area prevalence is that from the 2001 NHS (which achieves a response rate of over 90%), based on self-reported responses to the question 'have you ever been told by a doctor or nurse that you have diabetes'. Self-reported response rates are generally recognized to understate the true level of chronic conditions such as diabetes. Thus, the 2.3% for all of Australia for type 2 diabetes (2.9% for all 'diabetes') is much lower than the 7.5% achieved by AusDiab, and than what might be the true situation. For example, it is also lower than found in an ongoing survey in SA (also involving physical and bio-chemical measures taken by qualified people), which reports 6.6% - 5.5% diagnosed and 1.1% undiagnosed.

The value of the synthetic estimates, albeit on this low overall rate, is in showing likely variations between areas across Australia.

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