

4 Incidence and mortality tables

Guide to interpreting incidence and mortality tables

This section provides information to assist in the interpretation of the tables in this report. More detailed information on methods is given in Appendix B.

Table features

Tables are ordered according to the International Classification of Diseases

All rates are presented per 100,000 population.

Age-standardised rates are calculated by the 'direct method'. Age-standardised rates for Australia use both the total 1991 Australian population and the World Standard Population as the standard populations. Age-standardised rates for the States and Territories use only the total 1991 Australian population as the standard population.

Therefore, particular care should be taken not to compare these State and Territory rates with previous Cancer Series publications – *Cancer in Australia 1989–1990 (with Projections to 1995)*, *Cancer in Australia 1986–1988* or *Cancer in Australia 1983–1985* – where age-standardisation used the World Standard Population.

The person-years of life lost (PYLL) and lifetime risk estimates are for the age group 0–74.

The confidence intervals used for crude and age-standardised rates are at the 95% level.

The 'all cancers' incidence and mortality estimates exclude non-melanocytic skin cancers.

In this publication the term 'cancer site' is used to represent cancers located in specific organs or tissues as well as systemic cancers such as leukaemia and lymphoma.

In this publication the term 'melanoma' refers to melanoma of the skin only. Melanomas generally occur on the skin, but may also occur on the eye and mucous membranes (such as the vagina and nasal cavities).

Comparison of rates

Care should be exercised when interpreting a comparison between incidence or mortality rates: for example, when comparing different cancers or when comparing the same cancer in different years. The confidence intervals indicate the likely range of fluctuation of each rate. Some fluctuations may be within expectations, while others may indicate a change in the patterns of cancer incidence or mortality. Where small annual numbers of cancer cases or deaths are presented in a table, a direct comparison may produce a false perception of dramatic changes over time and, in these instances, averages over a period of time should be used. In general, cancer incidence and mortality rates change relatively slowly over time, although from year to year there may be marked fluctuations due to significant changes in

diagnostic procedures or changes over the longer term may reflect changing exposures to risk factors.

Combining rates

Age-specific rates may be summed over cancer sites for a particular age and sex.

Age-specific rates may not be summed across different ages or sexes, but should be recalculated from the raw data. However, if populations are similar, the crude rates for a 10-year age group will be approximated by the average of the two 5-year age-specific rates. For comparison within broader age groups, summary rates should be age-standardised.

State and Territory data

Cancer incidence data are available to 1996 for all States and Territories, to 1997 for Tasmania and the Northern Territory and to 1998 for South Australia and Western Australia. Breast cancer incidence data and cancer mortality data are available nationally to 1997.

The Australian data are presented as annual numbers and rates, while the data for each State and Territory are presented as average annual rates and numbers of cases and deaths based on the 5-year average 1992–1996. By presenting the data in this manner, natural statistical variation due to small numbers of cases or deaths within each State and Territory and cancer site are averaged across the period and provide a more stable and representative rate of incidence or mortality. Nonetheless, care should be taken in the interpretation of these rates, especially for less common cancers or for States and Territories with small populations.

All numbers of cases or deaths in the State and Territory tables are rounded to the nearest integer. Occasionally the number of cases or deaths will be zero but a small corresponding rate will appear. This indicates that there were, on average, fewer than 0.5 cases or deaths per year over the 5-year period and, although the rounding process has made the entry zero, a rate can still be presented at one decimal point.

The data in this report will not correspond exactly to data published by the individual State and Territory cancer registries due to the 5-year annual averaging, the use of different standard populations for age-standardisation and the continual updating of data sets by the cancer registries.

In this report, State and Territory incidence and mortality rates have been directly age-standardised to the total estimated resident population of Australia at 30 June 1991. Care should be taken not to compare these State and Territory age-standardised rates with previous Cancer Series publications – *Cancer in Australia 1989–1990 (with Projections to 1995)*, *Cancer in Australia 1986–1988* or *Cancer in Australia 1983–1985* – where age-standardisation was done using the World Standard Population. However, the NCSCH is able to provide State and Territory rates that have been age-standardised to the World Standard Population on request or the registries can be contacted directly.

Cancer incidence estimates provided in this publication were made at September 1999. These estimates may be updated at any time as case details are added, modified or deleted in the national database. These modifications may occur several years after the initial diagnosis as additional case details are received by the State and Territory cancer registries from data suppliers and then passed to the NCSCH. This may have the impact of making incidence estimates for the same year incompatible between publications, but for the most part these changes are trivial.