



3.5 Mesothelioma

Mesothelioma is an aggressive form of cancer in the mesothelium—the protective lining of the body cavities and internal organs, such as the lungs, heart and bowel. There is no known cure for it and the average time between diagnosis and death is 9 months (AMR 2017).

In 2010–2014, mesothelioma had the lowest 5-year relative survival of all cancer types, at 6.4%. This means that people diagnosed with mesothelioma had a 6.4% chance of surviving for at least 5 years compared with their counterparts in the general population (Australian Cancer Database 2014).

The main cause of mesothelioma is exposure to asbestos, with symptoms usually taking 20–30 years after first exposure to appear (AMR 2017). The term 'asbestos' refers to a group of naturally occurring fibrous minerals that do not readily break down. Mesothelioma is of particular relevance in Australia, where asbestos use was widespread from the 1950s to the 1980s (MacFarlane et al. 2012). Due to its durability and fire and chemical resistance, asbestos was used extensively in construction, including residential homes, as well as for other purposes such as industrial plants and equipment. In December 2003, the import and use of all forms of asbestos was prohibited, yet there is still a large amount of it in buildings and in other products used today (AMR 2017).

The latest information and detailed data on mesothelioma in Australia are available in *Mesothelioma in Australia 2016: 6th annual report* (AMR 2017). Key findings from this report are included in this snapshot. Data are sourced from the Australian Mesothelioma Registry (AMR 2017) (Box 3.5.1).

Box 3.5.1: Australian Mesothelioma Registry (AMR)

The AMR is a national registry of information specific to mesothelioma and asbestos exposure. It aims to better understand the relationship between asbestos exposure and this disease. Since 2011, it has collected information on new cases of mesothelioma diagnosed in Australia from 1 July 2010, fast-tracked by the state and territory cancer registries. The AMR also collects information on asbestos exposure from consenting mesothelioma patients through a postal questionnaire and telephone interview.

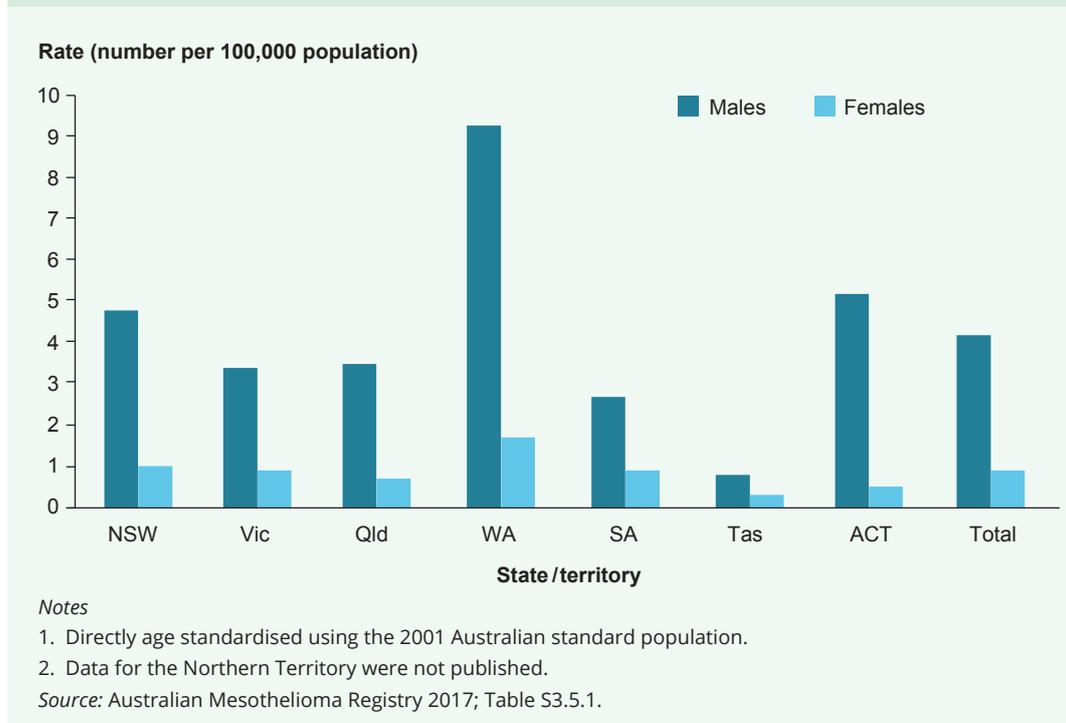
How common is mesothelioma?

Australia has one of the highest rates of mesothelioma incidence in the world. The rate of new cases of mesothelioma recorded by the AMR has showed little change since the AMR data collection began in 2011, with the highest rate of 2.9 per 100,000 population recorded in 2012.



In 2016, the AMR was notified of 700 people newly diagnosed with mesothelioma in Australia; the incidence of the disease that year varied by state and territory (Figure 3.5.1). Mesothelioma is more common in men than women, accounting for around 4 in 5 (81%) cases. This is likely due to men more often working in industries at risk of asbestos exposure (such as construction trades) and completing non-paid home renovations. Rates were highest in Western Australia, where the rate for men was more than double the national rate. Exposure to asbestos has been responsible for many cases of mesothelioma in the Western Australian town of Wittenoom, well known for past mining of asbestos (Franklin et al. 2016).

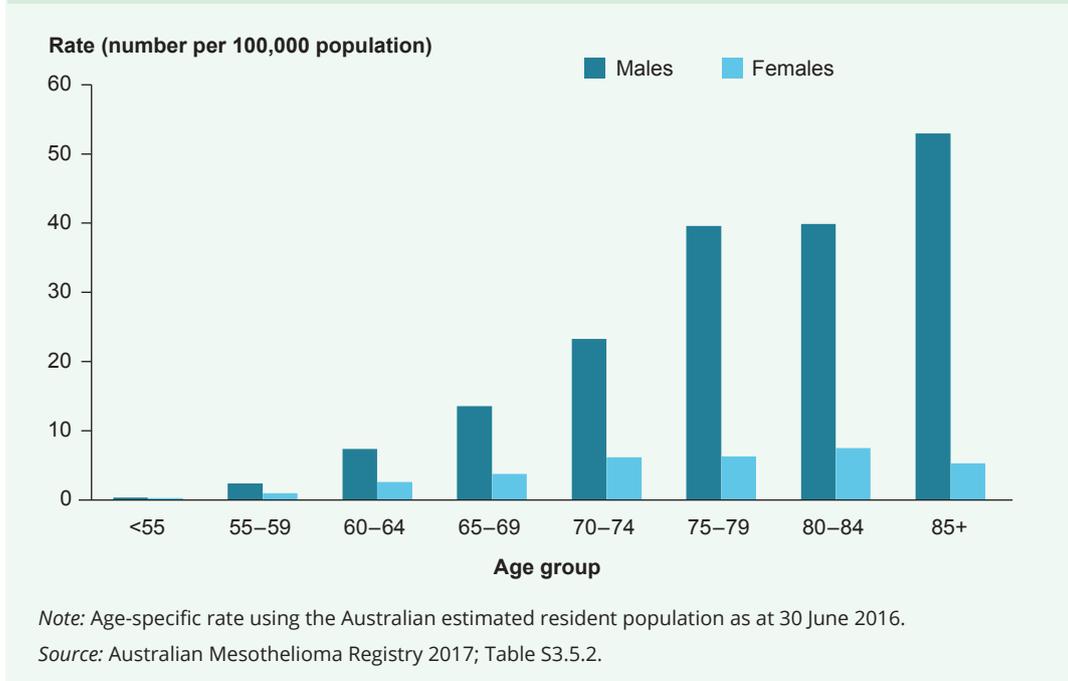
Figure 3.5.1: Incidence rate of mesothelioma, by sex and state and territory, 2016



In 2016, age at diagnosis ranged from 21 to 95. Age-specific rates of mesothelioma generally increased with age, with the highest rate for people aged 85 and over. For men, the rate was highest for people aged 85 and over, at 53 per 100,000 population. For women, the rate was highest for people aged 80-84, at 7.4 per 100,000 population (Figure 3.5.2).



Figure 3.5.2: Age-specific incidence rate of mesothelioma, by age group and sex, 2016



Impact

575 mesothelioma patients were recorded by the AMR as having died in 2016, at a rate of 2.0 per 100,000 population—84% of these deaths were of men. The mortality rate was highest in Western Australia, at 3.9 per 100,000 population.

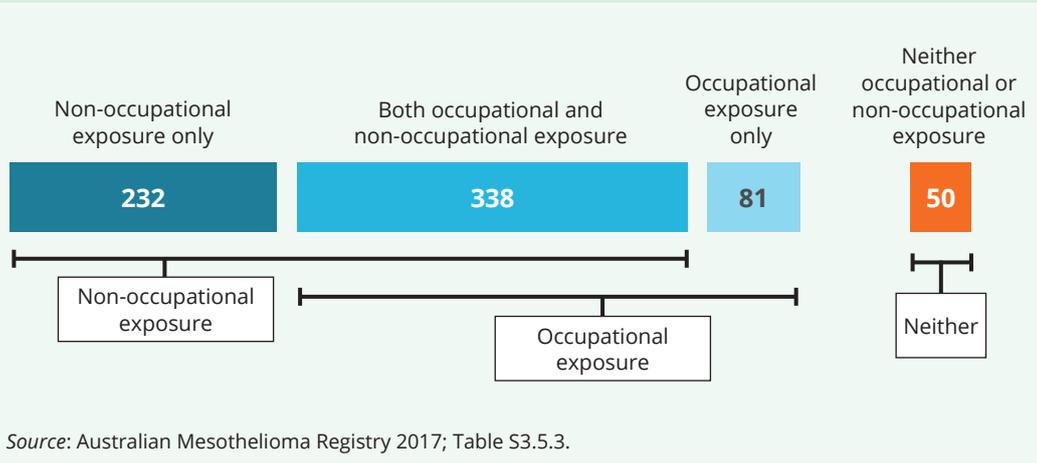
Cause of death information was available for 260 (45%) deaths recorded by the AMR in 2016. Where cause of death was recorded, mesothelioma was the underlying primary cause of death for 235 cases (90%).

Asbestos exposure

As at 3 April 2017, 701 participants had completed both the voluntary questionnaire and telephone interview components of the assessment since the start of the AMR. Of these people, 651 (93%) provided information indicating possible or probable asbestos exposure. For the remaining 50 participants (7.1%), the exposure assessment did not produce information indicating asbestos exposure in either occupational or non-occupational contexts (Figure 3.5.3). This should not be taken, however, to mean that these participants were never exposed to asbestos.



Figure 3.5.3: Summary of occupational and non-occupational asbestos exposure assessment, 2011–2016



A total of 570 participants were identified as having possible or probable non-occupational exposure. Based on information provided, 363 participants reported having done major home renovations that involved asbestos products. Other common potential exposures included living in a house while renovations were occurring, and servicing car brakes and/or clutches.

Based on jobs held during their working career, 491 participants were identified as having possible or probable occupational exposure. Most of these people had a history of working in trades, such as in the construction or metal industries or as an electrician, plumber or mechanic. Almost 9 in 10 (87%) participants with a trade history were classified as having possible or probable exposure.

What is missing from the picture?

Data on mesothelioma notifications are fast-tracked to the AMR by state and territory cancer registries. The incidence and mortality data presented in this snapshot are likely to be an underestimate, as it is probable that not all notifications for 2016 were recorded in the AMR data set when the annual report was published. The AMR data set is regularly updated back to 1 July 2010.

The participation rate in the voluntary components of the AMR is low, with only around 20% of patients diagnosed with mesothelioma taking part. This is partially due to patients dying or being too unwell to participate. Given this low participation rate, it is currently unknown how representative exposure information is. As well, the results of the asbestos exposure assessments consider only the probability of asbestos exposure. Information about the duration, intensity or frequency of exposure has not been reported.





Where do I go for more information?

More information on the AMR is available at <www.mesothelioma-australia.com/home>.

The report *Mesothelioma in Australia 2016: 6th annual report* and previous annual reports are available for free download at <www.mesothelioma-australia.com/publications-and-data/publications>.

People diagnosed with mesothelioma can choose to self-notify their diagnosis by contacting the AMR via email at amr@aihw.gov.au or on the toll-free AMR information line 1800 378 861.

References

AMR (Australian Mesothelioma Registry) 2017. Mesothelioma in Australia 2016: 6th annual report. NSW Health: Cancer Institute NSW. Viewed 25 October 2017, <<https://www.mesothelioma-australia.com/publications-and-data/publications>>.

Franklin P, Reid A, Olsen N, Peters S, de Klerk N, Brims F et al. 2016. Incidence of malignant mesothelioma in Aboriginal people in Western Australia. *Australian and New Zealand Journal of Public Health* 40:383–7.

MacFarlane E, Benke G, Sim MR & Fritschi L 2012. OccIDEAS: an innovative tool to assess past asbestos exposure in the Australian Mesothelioma Registry. *Safety and Health at Work (SH@W)* 3:71–6.

