



Australian Government

**National Occupational
Health and Safety Commission**

NOHSC DATA

THE INCIDENCE OF MESOTHELIOMA
IN AUSTRALIA 1999 TO 2001

Australian Mesothelioma Register Report 2004

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AUSTRALIAN MESOTHELIOMA REGISTER REPORT 2004

Australian Mesothelioma Register

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SUMMARY

This publication is the sixteenth report of the Australian Mesothelioma Register (the Register), produced by the National Data Team of the National Occupational Health and Safety Commission (NOHSC). Mesothelioma is a fatal form of cancer usually with a very long period between exposure and diagnosis.

Long-term data from the Register, excluding the last two years that are likely to underestimate the true number of mesothelioma cases due to underreporting to the Register, indicates that:

- (a) the incidence rates of malignant mesothelioma have been increasing in Australia since 1965. It is believed that these high rates of mesothelioma are related to the extensive use and production of asbestos in Australia in previous decades;
- (b) mesothelioma incidence rates are higher in males than females, possibly because of a higher exposure in male-dominated industries that produced or used asbestos (e.g. construction and manufacturing);
- (c) the 50-64, 65-79 and 80 plus age groups have the highest age-specific incidences of mesothelioma;
- (d) year-to-year fluctuations in age-specific mesothelioma cases are lower in persons older than 64 years than in younger persons on account of the former having large numbers; and
- (e) most Australian mesothelioma cases are cancerous lesions of the pleura. Mesothelioma cases affecting the peritoneum and other sites are fewer.

Based on the malignant mesothelioma cases recorded from 1999 to 2001, long-term data from the Register, and comparison data from the National Cancer Statistics Clearing House of the Australian Institute of Health and Welfare (AIHW) (see Tables 13 and 14):

- a) from 1986 to 2000, The Register had 3.4% fewer notifications of new cases of malignant mesothelioma than did the AIHW National Cancer Statistics Clearing House;
- b) the percentage difference between the Register and the AIHW ranged from 8.7% fewer cases in the Register (for Victoria) to 7.0% more cases in the Register (for Tasmania);
- c) a number of jurisdictions (most notably Victoria, New South Wales and, to a lesser extent, South Australia and Queensland) have probably underreported cases from cancer registries to the Mesothelioma Register from 1999 onwards. Therefore, figures reported to the Register for this period are likely to underestimate the true number of mesothelioma deaths;
- d) the Register is often notified of some backlog cases whose year of diagnosis occurred previous to the year of notification. When this happens, the number of notified cases in that notification year are inflated;
- e) there is no firm indication of when the incidence rates of mesothelioma will start to decline in Australia;
- f) incidence rates of malignant mesothelioma continue to be the highest in males; and
- g) Western Australia consistently, and South Australia inconsistently, have incidence rates above the national average. Queensland incidence rates are at or above the national average, while New South Wales rates are near the national average of 42-61 cases per million males. Rates for the Australian Capital Territory, Northern Territory and Tasmania are imprecise because they are based on low numbers, but the true underlying rates are likely to be well below the national average.

Since 1986 the Register has received 6,630 notifications of mesothelioma. Past employment history recorded as text on the mesothelioma case notification forms received by the Register from 1999 to 2001 was used to study occupational exposure to asbestos, given industry and occupation, with the view to improve efficiency in monitoring mesothelioma. The ANZSIC (ABS 1993) and ASCO (ABS 1997) coding systems were used to code for industry and occupation, respectively. Some de-identified cases were notified to the Register in 2002 from Victoria. These cases could not be coded

for occupation and industry owing to lack of information on past employment. The remaining 1,201 cases notified to the Register from 1999 to 2001 were categorised as follows (see Tables 15 to 24):

- (a) about 50% of the cases were uncodeable for industry and occupation;
- (b) about 50% of the cases were uncodeable for occupational asbestos exposure and work-relatedness;
- (c) of the persons reported to have been exposed to asbestos, 29% worked in the *Construction* industry, 28% worked in the *Manufacturing* industry, 46% had a *Tradespersons and related workers* occupation and 16% had a *Labourers and related workers* occupation;
- (d) of the mesothelioma cases with a past asbestos exposure, 87% were considered work-related, 4% were not work-related and the rest (9%) could not be classified;
- (e) of the mesothelioma cases that were considered to be work-related, 82% had a past asbestos exposure, 2% possibly had a past asbestos exposure, 3% had no known asbestos exposure and the rest (13%) could not be classified; and
- (f) of the persons with work-related mesothelioma, 32% worked in the *Construction* industry, 31% worked in the *Manufacturing* industry, 49% had a *Tradespersons/Related workers* occupation, 16% had a *Labourers/Related workers* occupation, and 15% had an *Intermediate Production/Transport workers* occupation.

INTRODUCTION

This document is the sixteenth report of the Australian Mesothelioma Register, produced by the National Data Team of the National Occupational Health and Safety Commission (NOHSC).

Malignant mesothelioma is a cancer of the outer covering of the lung (the pleura) or the abdominal cavity (the peritoneum). Formerly rare, it is increasing in incidence throughout the industrial world and is very frequently associated with past exposure to asbestos. It is usually fatal and has no direct relation to smoking. Australia has the world's highest incidence rate (Takahashi et al, 1999; Tossavainen and Takahashi, 2000).

ASBESTOS PRODUCTION AND USE IN AUSTRALIA

In Australia, more chrysotile than amphibole asbestos was mined until 1939. With the commencement of mining at Wittenoom, Western Australia in 1937, crocidolite dominated production, until final closure in 1966. New South Wales, the first State to mine asbestos, also produced the largest tonnages of chrysotile (until 1983) as well as smaller quantities of amphibole (until 1949). With the closing of the crocidolite mine at Wittenoom, Australian asbestos production and exports declined. Imports of chrysotile also started to decline. The main sources of raw asbestos imports were from Canada (chrysotile) and South Africa (crocidolite and amosite). Consumption peaked in about 1975 at 70,000 tonnes/year.

In addition to imports of asbestos fibre, Australia also imported many manufactured asbestos products, including asbestos cement articles, asbestos yarn, cord and fabric, asbestos joint and millboard, asbestos friction materials and gaskets. The main sources of supply were the United Kingdom, USA, Federal Republic of Germany and Japan. In Australia, over 60% of all production and 90% of all consumption of asbestos fibre was used by the asbestos cement manufacturing industry. From about 1940 to the late 1960s all three types of asbestos were used in this industry. The use of crocidolite began being phased out from 1967. Amosite was used until the mid 1980s. Much of this industry output remains in service today in the form of "fibro" houses and water and sewerage piping. By 1954 Australia was number four in the Western world in gross consumption of asbestos cement products, after the USA, UK and France, and clearly first on a per capita basis. After World War II to 1954, 70,000 asbestos cement houses were built in the State of New South Wales alone (52% of all houses built). In Australia as a whole, until the 1960s, 25% of all new housing was clad in asbestos cement.

Exposures in the past were very high in some industries and jobs - (eg, 25 million particles per cubic foot (150 fibres/ml) in asbestos pulverisers and disintegrators in the asbestos cement industry; up to 600 fibres/ml in baggers at Wittenoom). Australia used to import about 1,500 tonnes a year of chrysotile fibre and some asbestos products a year, mainly friction material and gaskets. Handling of asbestos in place and removal operations are subject to a National Code of Practice. A series of regulations adopted in the late 1970s and early 1980s by the various States now impose exposure limits of 0.1 fibre/ml for crocidolite, amosite and mixtures and 0.1-1.0 fibre/ml for chrysotile (TWA 8 hr membrane filter method light microscopy, WHO fibres). In July 2003 a new chrysotile standard of 0.1 fibre/ml was declared by NOHSC. The prohibition of chrysotile was adopted simultaneously under regulations in each Australian OHS jurisdiction on 31 December 2003. This includes a prohibition on importation of asbestos.

The first reported case of mesothelioma, from Wittenoom, was in 1962 (McNulty, 1962). Retrospective search identified 658 cases (535 male, 123 female) occurring in Australia from 1945-1979 (Musk et al, 1989).

THE AUSTRALIAN MESOTHELIOMA PROGRAM AND REGISTER

The Australian Mesothelioma Surveillance Program (Ferguson et al, 1987) began on 1 January 1980. Formal voluntary notification of cases was actively sought from a network of respiratory physicians, pathologists, general and thoracic surgeons, medical superintendents, medical records administrators, State and Territory departments of occupational health, cancer registries, compensation authorities or any other source. A full occupational and environmental history was obtained for each case, either from the patient or next-of-kin. The history taking was non-directive but included specific questions on asbestos exposure at the end. Occupational and environmental exposure was based on the opinions of two experienced hygienists, who were not independent or blinded as to disease status. The diagnosing pathologist was requested to provide slides and/or tissue specimens. These were circulated among a pathology expert panel for confirmation of diagnosis. Post-mortem examination was actively sought in every case in order to confirm diagnosis and to obtain lung tissue free of tumour for lung fibre content analysis.

From 1 January 1986, a less detailed notification system has operated, with a short questionnaire history. In the case of all WA and most of the NSW notifications (comprising 60% of the total Australian notifications), detailed occupational and environmental exposure histories from interview are available from the WA Mesothelioma Register and the NSW Dust Diseases Board. Only histologically confirmed cases are accepted but there is no pathology panel diagnosis confirmation. This is now known as the Australian Mesothelioma Register but is a continuation of the Program. Cross checks with State cancer registries were regularly carried out until 1998, but this has become increasingly less complete since then because of privacy legislation. Annual incidence reports are published (NIOHS (AGPS) 1989 – 1996; NOHSC (AGPS) 1997-2003). Recent reviews are available (Leigh 2004a, 2004b; Leigh and Driscoll, 2003; Leigh et al, 2002a, 2002b).

This report includes data on cases notified to the register and diagnosed in 1999, 2000 and 2001. Reconciliation with only some State cancer registries has been carried out, and under-reporting from 1999 onwards might be expected because of the recent changes in Commonwealth and State privacy legislation.

Full analysis of incidence in 2002, 2003 and 2004 awaits reconciliation checks with State cancer registries. However, notifications for 2002, 2003 and 2004 (to 30 June 2004) were respectively 322, 331 and 219.

NOHSC acknowledges the continued cooperation of the notification network.

STATISTICS

Incidence in a calendar year is defined as the number of new cases of mesothelioma first occurring* in an Australian State or Territory in that year. Age specific incidence rates are computed from population tables published by the Australian Bureau of Statistics for the estimated resident mid year populations for 1999, 2000 and 2001 (estimates based on Census 30 June, 1996). Standardised incidence rates (SI) were calculated using the "World Standard Population" 20 years of age or greater¹.

The cumulative incidence rate (CR) is obtained by summing the annual incidence rates (assumed constant in each 5 year group). It can be shown, for rare diseases like mesothelioma, that the cumulative incidence rate approximates the cumulative risk, or probability, of developing the disease in a lifetime². This can be expressed as a percentage. Cumulative Risk in this publication is calculated for ages 20 to 75 years. Thus the figure 0.37 in Table 3 for NSW (males) under CR indicates a 0.37% or 0.0037 lifetime (20-75) risk of developing mesothelioma. Therefore, the chance of developing mesothelioma between the ages 20-75 is approximately 1 in 274. It is not possible using Register information to develop an equivalent risk estimate for developing mesothelioma following occupational exposure to asbestos.

The following section presents information on the number of cases (Tables 1, 2, 5, 6, 9 and 10) and the incidence of cases (Tables 3, 4, 7, 8, 11, and 12). The incidence tables include summary rows for the crude all-age incidence rates (labelled "All ages"), the age-standardised incidence rates (labelled "SI") and the cumulative risks (labelled "CR"). The final row of the incidence tables is the inverse of the cumulative risk, which is the lifetime risk expressed in terms of "1 chance in xx".

The occupation and industry of the mesothelioma cases notified to the Register in 1999-2001 are reported in Tables 15 to 24.

* "First occurrence" is the earliest known date of diagnosis (presumptive or confirmed). Cases where a presumptive diagnosis had been rejected before the data for this report were extracted (September 2004) have been excluded.

1. Waterhouse, J., Muir, C., Shanmugaratnam, K., & Powell, J., eds, *Cancer Incidence in Five Continents Volume IV*, Lyon (IARC Scientific Publications No 42, 1982) pp 671-674.
2. Breslow, N. & Day, N., *Statistical Methods in Cancer Research Volume I*, Lyon (IARC Scientific Publications No 32, 1980) pp 51-52.

Table 1: Male cases of mesothelioma in Australia, 1999 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0	1	0	0	0	0	0	0	1
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	1	0	0	0	1
35-39	1	1	0	0	0	0	0	0	2
40-44	0	1	1	1	2	0	0	0	5
45-49	4	1	3	0	0	0	0	0	8
50-54	5	8	3	2	7	0	0	3	28
55-59	8	6	10	6	2	1	0	0	33
60-64	13	12	10	10	6	0	0	0	51
65-69	28	12	10	11	10	0	0	2	73
70-74	30	13	6	11	9	1	0	2	72
75-79	32	9	9	12	8	0	0	1	71
80-84	14	6	5	6	9	1	0	0	41
85+	9	2	7	4	3	0	0	0	25
ALL AGES	144	72	64	63	57	3	0	8	411

Table 2: Female cases of mesothelioma in Australia, 1999 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	2	0	0	0	0	0	0	0	2
35-39	0	1	0	0	0	0	0	0	1
40-44	0	0	0	0	0	0	0	0	0
45-49	3	2	0	0	0	0	0	0	5
50-54	1	2	2	2	0	0	0	0	7
55-59	4	3	0	3	1	0	0	0	11
60-64	1	3	1	2	0	0	0	0	7
65-69	2	0	0	1	0	0	0	0	3
70-74	5	5	1	1	3	0	0	0	15
75-79	5	4	3	0	3	0	0	0	15
80-84	2	1	3	2	0	0	0	0	8
85+	3	1	1	0	0	0	0	0	5
ALL AGES	28	22	11	11	7	0	0	0	79

Table 3: Age-specific incidence rates for mesothelioma per million males in Australia, 1999 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	1.4
25-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-34	0.0	0.0	0.0	0.0	14.1	0.0	0.0	0.0	1.4
35-39	3.9	5.4	0.0	0.0	0.0	0.0	0.0	0.0	2.7
40-44	0.0	5.7	7.7	18.0	27.8	0.0	0.0	0.0	7.1
45-49	18.0	6.2	24.1	0.0	0.0	0.0	0.0	0.0	12.0
50-54	24.2	53.9	25.9	41.0	115.5	0.0	0.0	282.1	45.8
55-59	50.4	52.3	114.5	161.4	44.6	82.7	0.0	0.0	70.8
60-64	99.5	126.5	144.8	320.0	169.7	0.0	0.0	0.0	134.7
65-69	240.8	141.1	170.8	381.4	337.4	0.0	0.0	514.9	219.4
70-74	294.4	175.7	118.2	410.0	363.7	128.5	0.0	644.3	248.2
75-79	425.2	166.9	242.0	601.4	452.4	0.0	0.0	442.5	334.2
80-84	355.0	214.7	252.0	568.2	1010.3	323.4	0.0	0.0	369.1
85+	366.5	103.2	543.6	577.6	468.6	0.0	0.0	0.0	342.9
ALL AGES	63.2	42.9	51.7	117.6	86.2	18.4	0.0	73.9	61.1
SI	49.2	37.3	45.8	89.6	77.0	12.5	0.0	78.1	50.8
CR	0.37	0.29	0.30	0.67	0.54	0.11	0.00	0.72	0.37
LIFETIME RISK 1 in:	274	349	330	150	186	947	-	139	269

Table 4: Age-specific incidence rates for mesothelioma per million females in Australia, 1999 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-34	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
35-39	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	1.3
40-44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45-49	13.6	12.1	0.0	0.0	0.0	0.0	0.0	0.0	7.5
50-54	5.0	13.5	18.1	40.8	0.0	0.0	0.0	0.0	11.8
55-59	25.9	26.5	0.0	80.7	23.8	0.0	0.0	0.0	24.4
60-64	7.6	31.0	15.0	61.6	0.0	0.0	0.0	0.0	18.5
65-69	16.4	0.0	0.0	32.7	0.0	0.0	0.0	0.0	8.7
70-74	42.7	58.3	17.9	32.7	110.4	0.0	0.0	0.0	45.5
75-79	49.8	54.5	63.9	0.0	131.4	0.0	0.0	0.0	53.2
80-84	31.3	21.9	98.6	117.3	0.0	0.0	0.0	0.0	44.8
85+	51.9	23.0	36.7	0.0	0.0	0.0	0.0	0.0	30.3
ALL AGES	11.9	12.5	8.7	19.6	10.6	0.0	0.0	0.0	11.4
SI	8.6	9.9	5.3	16.6	7.5	0.0	0.0	0.0	8.5
CR	0.06	0.07	0.03	0.12	0.07	0.00	0.00	0.00	0.06
LIFETIME RISK 1 in:	1670	1362	3919	805	1490	-	-	-	1659

Table 5: Male cases of mesothelioma in Australia, 2000 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	1	0	0	0	1
45-49	2	0	2	0	1	0	0	0	5
50-54	7	1	4	1	1	0	0	1	15
55-59	15	4	9	6	4	0	0	0	38
60-64	18	2	8	3	12	0	0	1	44
65-69	26	3	18	3	4	3	0	0	57
70-74	24	3	12	4	6	4	0	0	53
75-79	15	4	8	3	12	0	0	0	42
80-84	13	0	4	4	6	0	0	0	27
85+	8	1	7	2	5	0	0	0	23
ALL AGES	128	18	72	26	52	7	0	2	305

Table 6: Female cases of mesothelioma in Australia, 2000 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	2	0	0	0	1	0	0	0	3
40-44	1	0	0	0	0	0	0	0	1
45-49	0	0	0	0	1	0	0	0	1
50-54	1	0	2	1	1	0	0	0	5
55-59	0	0	1	1	0	1	0	0	3
60-64	3	1	0	0	1	0	0	0	5
65-69	1	0	0	0	1	0	0	0	2
70-74	7	0	2	1	2	0	0	0	12
75-79	3	1	3	2	0	0	0	0	9
80-84	2	0	1	2	0	0	0	0	5
85+	1	1	2	0	1	0	0	0	5
ALL AGES	21	3	11	7	8	1	0	0	51

Table 7: Age-specific incidence rates for mesothelioma per million males in Australia, 2000 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40-44	0.0	0.0	0.0	0.0	13.6	0.0	0.0	0.0	1.4
45-49	8.9	0.0	15.9	0.0	14.5	0.0	0.0	0.0	7.5
50-54	33.0	6.5	33.4	19.9	15.8	0.0	0.0	90.2	23.8
55-59	90.8	33.6	97.2	154.1	85.2	0.0	0.0	0.0	78.1
60-64	133.6	20.5	110.1	93.7	326.1	0.0	0.0	190.5	112.3
65-69	226.0	35.6	305.3	106.1	134.0	334.6	0.0	0.0	172.2
70-74	233.1	39.8	232.2	148.1	236.4	503.4	0.0	0.0	180.0
75-79	195.1	72.2	209.5	147.2	662.2	0.0	0.0	0.0	193.0
80-84	311.4	0.0	189.0	356.8	627.9	0.0	0.0	0.0	228.7
85+	308.6	49.3	511.3	271.9	747.5	0.0	0.0	0.0	299.1
ALL AGES	55.4	10.6	57.0	48.2	77.3	42.9	0.0	18.3	44.6
SI	46.1	8.9	50.5	36.1	68.6	33.5	0.0	20.2	37.8
CR	0.36	0.07	0.40	0.26	0.41	0.42	0.00	0.14	0.29
LIFETIME RISK 1 in:	276	1470	252	383	242	239	-	712	348

Table 8: Age-specific incidence rates for mesothelioma per million females in Australia, 2000 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35-39	7.9	0.0	0.0	0.0	13.5	0.0	0.0	0.0	4.0
40-44	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
45-49	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0	1.5
50-54	4.9	0.0	17.4	19.8	16.9	0.0	0.0	0.0	8.1
55-59	0.0	0.0	11.3	25.7	0.0	81.6	0.0	0.0	6.4
60-64	22.4	10.1	0.0	0.0	28.0	0.0	0.0	0.0	12.9
65-69	8.3	0.0	0.0	0.0	32.6	0.0	0.0	0.0	5.8
70-74	59.8	0.0	35.6	32.9	72.1	0.0	0.0	0.0	36.3
75-79	29.5	13.4	62.2	73.0	0.0	0.0	0.0	0.0	31.4
80-84	30.0	0.0	31.5	112.6	0.0	0.0	0.0	0.0	26.8
85+	16.7	22.1	70.2	0.0	67.6	0.0	0.0	0.0	29.1
ALL AGES	8.8	1.7	8.5	12.4	11.9	5.8	0.0	0.0	7.2
SI	6.4	1.1	5.3	6.6	10.7	5.4	0.0	0.0	5.1
CR	0.05	0.01	0.03	0.04	0.09	0.04	0.00	0.00	0.04
LIFETIME RISK 1 in:	1862	19 850	3110	2550	1125	2451	-	-	2621

Table 9: Male cases of mesothelioma in Australia, 2001 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	1	0	0	0	1	0	0	0	2
45-49	1	0	1	1	0	0	0	0	3
50-54	3	1	5	3	3	2	0	2	19
55-59	9	3	9	3	4	2	0	0	30
60-64	7	2	7	6	6	0	0	1	29
65-69	15	5	11	7	12	1	0	2	53
70-74	15	6	7	7	15	0	0	0	50
75-79	16	4	11	5	9	1	0	0	46
80-84	9	4	7	4	8	1	0	0	33
85+	3	3	7	2	8	0	0	0	23
ALL AGES	79	28	65	38	66	7	0	5	288

Table 10: Female cases of mesothelioma in Australia, 2001 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	1	0	0	0	0	0	1
40-44	0	0	0	0	1	0	0	0	1
45-49	0	0	1	0	0	0	0	0	1
50-54	3	0	1	0	1	0	0	0	5
55-59	2	0	2	1	2	0	0	1	8
60-64	1	0	2	1	2	0	0	0	6
65-69	3	0	2	0	1	1	0	0	7
70-74	4	2	7	0	4	0	0	0	17
75-79	4	0	3	0	1	1	0	0	9
80-84	4	1	0	1	1	1	0	0	8
85+	2	0	0	0	2	0	0	0	4
ALL AGES	23	3	19	3	15	3	0	1	67

Table 11: Age-specific incidence rates for mesothelioma per million males in Australia, 2001 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40-44	4.0	0.0	0.0	0.0	13.3	0.0	0.0	0.0	2.7
45-49	4.4	0.0	7.8	18.8	0.0	0.0	0.0	0.0	4.4
50-54	13.8	6.4	40.3	58.1	45.6	123.1	0.0	178.6	29.2
55-59	52.5	24.3	92.4	74.4	81.5	155.7	0.0	0.0	59.2
60-64	50.7	19.9	92.1	183.4	156.8	0.0	0.0	183.3	71.7
65-69	131.7	59.7	183.9	250.0	402.0	113.7	0.0	492.2	160.7
70-74	144.8	78.9	133.6	262.6	575.7	0.0	0.0	0.0	168.3
75-79	204.0	70.0	279.4	240.8	475.6	169.9	0.0	0.0	205.8
80-84	200.1	124.6	305.3	330.7	776.1	296.8	0.0	0.0	259.2
85+	108.3	138.6	475.6	255.0	1127.9	0.0	0.0	0.0	279.8
ALL AGES	33.7	16.1	50.5	70.0	96.3	42.8	0.0	45.0	41.5
SI	26.3	12.5	41.2	54.1	84.1	31.6	0.0	51.7	33.4
CR	0.20	0.09	0.28	0.42	0.64	0.20	0.00	0.43	0.25
LIFETIME RISK 1 in:	498	1057	364	236	157	510	-	234	403

Table 12: Age-specific incidence rates for mesothelioma per million females in Australia, 2001 by age and jurisdiction

Age group (Years)	Jurisdiction								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
20-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35-39	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	1.4
40-44	0.0	0.0	0.0	0.0	13.6	0.0	0.0	0.0	1.4
45-49	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	1.5
50-54	14.3	0.0	8.3	0.0	16.1	0.0	0.0	0.0	7.9
55-59	12.0	0.0	21.5	24.6	44.0	0.0	0.0	131.0	16.3
60-64	7.3	0.0	27.5	29.8	54.0	0.0	0.0	0.0	15.0
65-69	25.1	0.0	33.6	0.0	32.5	106.8	0.0	0.0	20.4
70-74	34.3	23.3	122.6	0.0	141.8	0.0	0.0	0.0	51.3
75-79	38.9	0.0	61.1	0.0	42.8	128.2	0.0	0.0	31.0
80-84	57.3	19.8	0.0	52.9	63.8	183.6	0.0	0.0	40.7
85+	31.7	0.0	0.0	0.0	127.0	0.0	0.0	0.0	22.2
ALL AGES	9.5	1.7	14.4	5.3	21.8	17.2	0.0	8.7	9.4
SI	6.3	0.9	12.3	4.1	17.9	9.0	0.0	8.7	6.9
CR	0.05	0.01	0.11	0.03	0.15	0.05	0.00	0.07	0.06
LIFETIME RISK 1 in:	2151	8581	875	3682	663	1872	-	1527	1738

Table 13: Number of mesothelioma cases in Australia, by gender, notified to the Australian Mesothelioma Register (NOHSC) and the National Cancer Statistics Clearing House of the Australian Institute of Health and Welfare (AIHW), 1986-2000

Diagnosis year	NOHSC			AIHW			% difference ¹		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1986	207	29	236	196	30	226	-5.6	3.3	-4.4
1987	181	27	208	176	29	205	-2.8	6.9	-1.5
1988	235	32	267	243	32	275	3.3	0.0	2.9
1989	223	37	260	229	38	267	2.6	2.6	2.6
1990	244	26	270	258	35	293	5.4	25.7	7.8
1991	254	48	302	260	46	306	2.3	-4.3	1.3
1992	263	38	301	287	38	325	8.4	0.0	7.4
1993	294	46	340	318	51	369	7.5	9.8	7.9
1994	361	40	401	372	47	419	3.0	14.9	4.3
1995	345	62	407	332	58	390	-3.9	-6.9	-4.4
1996	384	55	439	361	53	414	-6.4	-3.8	-6.0
1997	393	75	468	388	76	464	-1.3	1.3	-0.9
1998	421	61	482	409	57	466	-2.9	-7.0	-3.4
1999	374	65	439	397	76	473	5.8	14.5	7.2
2000	305	51	356	391	75	466	22.0	32.0	23.6
Total	4,484	692	5,176	4,617	741	5,358	2.9	6.6	3.4

1: The percentage difference between the number of cases according to the AIHW and the number of cases according to the NOHSC Mesothelioma Register.

Table 14: Number of mesothelioma cases in Australia, by jurisdiction, notified to the Australian Mesothelioma Register (NOHSC) and the National Cancer Statistics Clearing House of the Australian Institute of Health and Welfare (AIHW), 1986-2000

Diagnosis year	NSW		VIC		QLD		SA		WA		TAS		ACT		NT		Total	
	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW	NOHSC	AIHW
1986	82	79	48	41	39	37	30	35	32	31	2	1	2	*	1	*	236	226
1987	82	83	40	37	26	29	24	21	33	32	0	0	3	*	0	*	208	205
1988	99	99	48	45	39	48	34	38	41	39	6	6	0	*	0	*	267	275
1989	100	96	58	54	32	32	25	41	41	39	3	3	1	*	0	*	260	267
1990	82	105	64	59	41	46	33	36	42	40	5	5	2	*	1	*	270	293
1991	91	104	70	62	53	56	38	38	47	41	3	3	0	*	0	*	302	306
1992	93	121	74	71	38	40	45	40	47	49	4	4	0	*	0	*	301	325
1993	98	126	84	78	50	55	30	29	69	70	8	9	1	*	0	*	340	369
1994	174	167	60	88	63	71	37	29	56	53	8	6	3	*	0	*	401	419
1995	152	140	94	88	60	58	33	31	60	62	6	6	1	*	1	*	407	390
1996	162	147	107	106	55	57	31	30	71	64	8	5	4	*	1	*	439	414
1997	150	154	114	112	84	78	46	47	66	62	5	5	3	*	0	*	468	464
1998	167	158	112	107	72	83	58	41	65	64	7	7	1	*	0	*	482	466
1999	172	170	42	89	76	89	74	49	64	63	3	3	8	*	0	*	439	473
2000	149	160	21	98	83	89	33	50	60	56	8	8	2	*	0	*	356	466
Total	1,853	1,909	1,036	1,135	811	868	571	555	794	765	76	71	31	-	4	-	5,176	6,025
% Diff	2.9	8.7	6.6	-2.9	-3.8	-7.0	-	3.4	-	-	-	-	-	-	-	-	-	-

1: The percentage difference between the number of cases according to the AIHW and the number of cases according to the NOHSC Mesothelioma Register

Table 15: Number of mesothelioma cases associated with a past asbestos exposure and industry (level 1) in Australia, 1999-2001

Industry	Asbestos Exposure				Total	% Yes ¹
	Yes	No	Possibly	Unknown		
Construction	162	5	3	20	190	29.4
Manufacturing	156	6	2	21	185	28.3
Transport and Storage	31	1	1	13	46	5.6
Public Administration and Defence	37	1	2	5	45	6.7
Finance, Property and Business Services	23	4	1	12	40	4.2
Trade	21	3	0	6	30	3.8
Mining	17	0	0	2	19	3.1
Agriculture, Forestry and Fishing	9	1	1	4	15	1.6
Electricity, Gas and Water	11	0	1	1	13	2.0
Health and Community Services	4	0	0	6	10	0.7
Education	2	1	0	5	8	0.4
Accommodation	3	3	0	0	6	0.5
Cultural and Recreational Services	3	0	0	3	6	0.5
Personal and Other Services	1	0	0	4	5	0.2
Communication	1	1	0	0	2	0.2
Home duties	12	1	0	6	19	2.2
Unknown	58	15	11	478	562	10.5
Total	551	42	22	586	1201	100.0

1: Shows the percentage of all cases with asbestos exposure that were in each industry group.

Table 16: Number of mesothelioma cases associated with a past asbestos exposure and industry (level 2) in Australia, 1999-2001

Industry	Asbestos exposure				Total
	Yes	No	Possibly Unknown		
Agriculture, Forestry, Fishing, Hunting					
Agriculture	6	1	1	4	12
Services to Agriculture; Hunting and Trapping	2	0	0	0	2
Forestry and Logging	1	0	0	0	1
Commercial Fishing	1	0	0	1	2
Mining					
Coal Mining	3	0	0	0	3
Metal Ore Mining	12	0	0	1	13
Other Mining	1	0	0	0	1
Manufacturing					
Food, Beverage and Tobacco Manufacturing	5	1	0	1	7
Textile, Clothing, Footwear and Leather	8	1	0	2	11
Manufacturing					
Wood and Paper Product Manufacturing	3	1	1	2	7
Printing, Publishing and Recorded Media	3	1	0	0	4
Petroleum, Coal, Chemical and Associated Product Manufacturing	3	1	1	2	7
Non-Metallic Mineral Product Manufacturing	37	0	0	0	37
Metal Product Manufacturing	36	1	0	9	46
Machinery and Equipment Manufacturing	58	0	0	2	60
Other Manufacturing	3	0	0	3	6
Electricity, Gas and Water					
Electricity and Gas Supply	10	0	1	1	12
Water Supply, Sewerage and Drainage Services	1	0	0	0	1
Construction					
General Construction	42	0	1	8	51
Construction Trade Services	120	5	2	12	139
Wholesale and Retail Trade					
Basic Material Wholesaling	2	1	0	0	3
Personal and Household Good Wholesaling	0	0	0	1	1
Food Retailing	2	0	0	0	2
Personal and Household Good Retailing	5	1	0	1	7
Motor Vehicle Retailing and Services	12	1	0	4	17
Accommodation, Cafes and Restaurants					
	3	3	0	0	6
Transport and Storage					
Road Transport	9	0	0	5	14
Rail Transport	2	0	0	0	2
Water Transport	1	0	0	1	2
Air and Space Transport	1	0	0	0	1
Other Transport	0	0	0	1	1
Services to Transport	17	1	1	3	22
Storage	1	0	0	3	4
Communications Services					
	1	1	0	0	2
Finance, Property and Business Services					
Finance	1	1	0	1	3
Business Services	22	3	1	11	37

Table 16: Number of mesothelioma cases associated with a past asbestos exposure and industry (level 2) in Australia, 1999-2001 (continued)

Industry	Asbestos exposure			Total	
	Yes	No	Possibly Unknown		
Public Administration and Defence					
Government Administration	2	0	0	2	4
Defence	35	1	2	3	41
Education	2	1	0	5	8
Health and Community Services					
Health Services	3	0	0	4	7
Community Services	1	0	0	2	3
Cultural and Recreational Services					
Motion Picture, Radio and Television Services	1	0	0	0	1
Libraries, Museums and the Arts	0	0	0	2	2
Sport and Recreation	2	0	0	1	3
Personal and Other Services					
Personal Services	1	0	0	1	2
Other Services	0	0	0	3	3
Home duties	12	1	0	6	19
Unknown	58	15	11	478	562
Total	551	42	22	586	1201

Table 17: Number of work-related mesothelioma cases and industry (level 1) in Australia, 1999-2001

Industry	Work-related			Total	% Yes ¹
	Yes	No	Unknown		
Construction	187	0	3	190	32.2
Manufacturing	179	2	4	185	30.8
Transport and Storage	41	2	3	46	7.1
Public Administration and Defence	42	1	2	45	7.2
Finance, Property and Business Services	35	3	2	40	6.0
Trade	28	0	2	30	4.8
Mining	18	0	1	19	3.1
Agriculture, Forestry and Fishing	11	1	3	15	1.9
Electricity, Gas and Water	13	0	0	13	2.2
Health and Community Services	8	0	2	10	1.4
Education	4	0	4	8	0.7
Accommodation	6	0	0	6	1.0
Cultural and Recreational Services	2	1	3	6	0.3
Personal and Other Services	2	2	1	5	0.3
Communication	2	0	0	2	0.3
Home duties	0	18	1	19	0.0
Unknown	3	6	553	562	0.5
Total	581	36	584	1201	100.0

1: Shows the percentage of all work-related cases that were in each industry group.

Table 18: Number of work-related mesothelioma cases and industry (level 2) in Australia, 1999-2001

Industry	Work-related			Total
	Yes	No	Unknown	
Agriculture, Forestry, Fishing, Hunting				
Agriculture	8	1	3	12
Services to Agriculture; Hunting and Trapping	2	0	0	2
Forestry and Logging	1	0	0	1
Commercial Fishing	1	0	1	2
Mining				
Coal Mining	3	0	0	3
Metal Ore Mining	13	0	0	13
Other Mining	1	0	0	1
Manufacturing				
Food, Beverage and Tobacco Manufacturing	6	1	0	7
Textile, Clothing, Footwear and Leather	8	1	2	11
Manufacturing				
Wood and Paper Product Manufacturing	7	0	0	7
Printing, Publishing and Recorded Media	4	0	0	4
Petroleum, Coal, Chemical and Associated Product Manufacturing	7	0	0	7
Non-Metallic Mineral Product Manufacturing	37	0	0	37
Metal Product Manufacturing	46	0	0	46
Machinery and Equipment Manufacturing	59	0	1	60
Other Manufacturing	5	0	1	6
Electricity, Gas and Water				
Electricity and Gas Supply	12	0	0	12
Water Supply, Sewerage and Drainage Services	1	0	0	1
Construction				
General Construction	50	0	1	51
Construction Trade Services	137	0	2	139
Wholesale and Retail Trade				
Basic Material Wholesaling	2	0	1	3
Personal and Household Good Wholesaling	0	0	1	1
Food Retailing	2	0	0	2
Personal and Household Good Retailing	7	0	0	7
Motor Vehicle Retailing and Services	17	0	0	17
Accommodation, Cafes and Restaurants				
	6	0	0	6
Transport and Storage				
Road Transport	14	0	0	14
Rail Transport	2	0	0	2
Water Transport	1	0	1	2
Air and Space Transport	1	0	0	1
Other Transport	0	1	0	1
Services to Transport	20	1	1	22
Storage	3	0	1	4
Communications Services				
	2	0	0	2
Finance, Property and Business Services				
Finance	3	0	0	3
Business Services	32	3	2	37

Table 18: Number of work-related mesothelioma cases and industry (level 2) in Australia, 1999-2001 (continued)

Industry	Work-related			Total
	Yes	No	Unknown	
Public Administration and Defence				
Government Administration	2	1	1	4
Defence	40	0	1	41
Education	4	0	4	8
Health and Community Services				
Health Services	7	0	0	7
Community Services	1	0	2	3
Cultural and Recreational Services				
Motion Picture, Radio and Television Services	1	0	0	1
Libraries, Museums and the Arts	0	0	2	2
Sport and Recreation	1	1	1	3
Personal and Other Services				
Personal Services	0	2	0	2
Other Services	2	0	1	3
Home duties	0	18	1	19
Unknown	3	6	553	562
Total	581	36	584	1201

Table 19: Number of mesothelioma cases associated with a past asbestos exposure and occupation (level 1) in Australia, 1999-2001

Occupation	Asbestos Exposure				Total	% Yes ¹
	Yes	No	Possibly	Unknown		
Tradespersons and related workers	252	7	4	30	293	45.7
Labourers and related workers	86	4	3	11	104	15.6
Intermediate production and transport workers	53	1	1	16	71	9.6
Professionals	34	1	0	18	53	6.2
Managers and administrators	25	3	3	12	43	4.5
Associate professionals	16	3	0	10	29	2.9
Intermediate clerical, sales and service workers	7	2	0	6	15	1.3
Elementary clerical, sales and service workers	9	3	1	2	15	1.6
Advanced clerical and service workers	1	2	0	1	4	0.2
Home duties	12	1	0	6	19	2.2
Unknown	56	15	10	474	555	10.2
Total	551	42	22	586	1201	100.0

1: Shows the percentage of all cases with asbestos exposure that were in each occupation group.

Table 20: Number of mesothelioma cases associated with a past asbestos exposure and occupation (level 2) in Australia, 1998-2000

Occupation	Asbestos exposure				Total
	Yes	No	Possibly	Unknown	
Managers and administrators					
Generalist Managers	21	2	3	8	34
Specialist Managers	1	0	0	0	1
Farmers And Farm Managers	3	1	0	4	8
Professionals					
Science, Building And Engineering Professionals	23	1	0	5	29
Business And Information Professionals	4	0	0	0	4
Health Professionals	3	0	0	3	6
Education Professionals	0	0	0	5	5
Social, Arts And Miscellaneous Professionals	4	0	0	5	9
Associate professionals					
Science, Engineering And Related Associate Professionals	4	0	0	2	6
Managing Supervisors (Sales And Service)	2	1	0	3	6
Health And Welfare Associate Professionals	0	1	0	1	2
Other Associate Professionals	10	1	0	4	15
Tradespersons and related workers					
Mechanical And Fabrication Engineering Tradespersons	83	1	0	9	93
Automotive Tradespersons	13	0	0	3	16
Electrical And Electronics Tradespersons	24	1	0	2	27
Construction Tradespersons	96	2	1	8	107
Food Tradespersons	1	1	0	1	3
Skilled Agricultural And Horticultural Workers	1	0	0	1	2
Other Tradespersons And Related Workers	34	2	3	6	45
Advanced clerical and service workers					
Secretaries And Personal Assistants	1	0	0	1	2
Other Advanced Clerical And Service Workers	0	2	0	0	2
Intermediate clerical, sales and service workers					
Intermediate Clerical Workers	4	1	0	6	11
Intermediate Service Workers	3	1	0	0	4
Intermediate production and transport workers					
Intermediate Plant Operators	6	0	1	2	9
Intermediate Machine Operators	10	1	0	4	15
Road And Rail Transport Drivers	11	0	0	6	17
Other Intermediate Production And Transport Workers	26	0	0	4	30
Elementary clerical, sales and service workers					
Elementary Clerks	0	2	0	1	3
Elementary Sales Workers	7	1	0	1	9
Elementary Service Workers	2	0	1	0	3
Labourers and related workers					
Cleaners	1	1	0	1	3
Factory Labourers	29	0	0	5	34
Other Labourers And Related Workers	56	3	3	5	67
Home duties	12	1	0	6	19
Unknown	56	15	10	474	555
Total	551	42	22	586	1201

Table 21: Number of work-related mesothelioma cases and occupation (level 1) in Australia, 1999-2001

Occupation	Work-related			Total	% Yes ¹
	Yes	No	Unknown		
Tradespersons and related workers	284	4	5	293	48.9
Labourers and related workers	95	1	8	104	16.4
Intermediate production and transport workers	66	0	5	71	11.4
Professionals	44	2	7	53	7.6
Managers and administrators	38	0	5	43	6.5
Associate professionals	25	1	3	29	4.3
Intermediate clerical, sales and service workers	11	2	2	15	1.9
Elementary clerical, sales and service workers	14	0	1	15	2.4
Advanced clerical and service workers	2	2	0	4	0.3
Home duties	0	18	1	19	0.0
Total	581	36	584	1201	100.0

1: Shows the percentage of all work-related cases that were in each occupation group.

Table 22: Number of work-related mesothelioma cases and occupation (level 2) in Australia, 1999-2001

Occupation	Work-related			Total
	Yes	No	Unknown	
Managers and administrators				
Generalist Managers	32	0	2	34
Specialist Managers	1	0	0	1
Farmers And Farm Managers	5	0	3	8
Professionals				
Science, Building And Engineering Professionals	28	0	1	29
Business And Information Professionals	2	2	0	4
Health Professionals	6	0	0	6
Education Professionals	3	0	2	5
Social, Arts And Miscellaneous Professionals	5	0	4	9
Associate professionals				
Science, Engineering And Related Associate Professionals	6	0	0	6
Managing Supervisors (Sales And Service)	5	0	1	6
Health And Welfare Associate Professionals	1	0	1	2
Other Associate Professionals	13	1	1	15
Tradespersons and related workers				
Mechanical And Fabrication Engineering Tradespersons	91	0	2	93
Automotive Tradespersons	16	0	0	16
Electrical And Electronics Tradespersons	27	0	0	27
Construction Tradespersons	106	0	1	107
Food Tradespersons	2	1	0	3
Skilled Agricultural And Horticultural Workers	0	1	1	2
Other Tradespersons And Related Workers	42	2	1	45
Advanced clerical and service workers				
Secretaries And Personal Assistants	2	0	0	2
Other Advanced Clerical And Service Workers	0	2	0	2
Intermediate clerical, sales and service workers				
Intermediate Clerical Workers	8	1	2	11
Intermediate Service Workers	3	1	0	4
Intermediate production and transport workers				
Intermediate Plant Operators	9	0	0	9
Intermediate Machine Operators	13	0	2	15
Road And Rail Transport Drivers	17	0	0	17
Other Intermediate Production And Transport Workers	27	0	3	30
Elementary clerical, sales and service workers				
Elementary Clerks	3	0	0	3
Elementary Sales Workers	8	0	1	9
Elementary Service Workers	3	0	0	3
Labourers and related workers				
Cleaners	2	0	1	3
Factory Labourers	33	0	1	34
Other Labourers And Related Workers	60	1	6	67
Home duties	0	18	1	19
Unknown	2	6	547	555
Total	581	36	584	1201

Table 23: Number of mesothelioma cases classified by industry (level 1) and occupation (level 1) in Australia, 1999-2001

	Managers and administrators	Professionals	Associate professionals	Tradespersons and related workers	Advanced clerical and service workers	Intermediate clerical, sales and service workers	Intermediate production and transport workers	Elementary clerical, sales and service workers	Labourers and related workers	Home duties	Unknown	Total
Agriculture, Forestry and Fishing	8	0	0	0	0	0	0	0	7	0	0	15
Mining	0	0	0	0	0	0	17	0	2	0	0	19
Manufacturing	2	9	1	107	0	0	26	0	40	0	0	185
Electricity, Gas and Water	0	2	0	7	0	0	0	0	3	0	1	13
Construction	29	2	1	129	0	0	6	2	21	0	0	190
Trade	1	0	4	14	0	0	1	9	1	0	0	30
Accommodation	0	0	2	1	0	3	0	0	0	0	0	6
Transport and Storage	0	3	0	3	1	2	18	0	19	0	0	46
Communication	0	0	0	0	0	0	1	1	0	0	0	2
Finance, Property and Business Services	2	19	2	2	3	6	0	3	3	0	0	40
Public Administration and Defence	0	1	12	25	0	3	2	0	1	0	1	45
Education	0	6	1	0	0	0	0	0	0	0	1	8
Health and Community Services	0	7	3	0	0	0	0	0	0	0	0	10
Cultural and Recreational Services	0	3	1	2	0	0	0	0	0	0	0	6
Personal and Other Services	0	1	1	2	0	1	0	0	0	0	0	5
Home duties	0	0	0	0	0	0	0	0	0	19	0	19
Unknown	1	0	1	1	0	0	0	0	7	0	552	562
Total	43	53	29	293	4	15	71	15	104	19	555	1201

Table 24: Mesothelioma cases by work-relatedness and asbestos exposure in Australia, 1998-2000. Number and per cent.

(i) Number

Asbestos exposure	Yes	Work-relatedness		Total
		No	Unknown	
Yes	477	20	54	551
No	19	8	15	42
Possibly	11	0	11	22
Unknown	74	8	504	586
Total	581	36	584	1201

(ii) Per cent exposed to asbestos in each work-relatedness group

Asbestos exposure	Yes	Work-relatedness		Total
		No	Unknown	
Yes	82.1	55.6	9.2	45.9
No	3.3	22.2	2.6	3.5
Possibly	1.9	0.0	1.9	1.8
Unknown	12.7	22.2	86.3	48.8
Total	100.0	100.0	100.0	100.0

(iii) Per cent work-related in each asbestos exposure group

Asbestos exposure	Yes	Work-relatedness		Total
		No	Unknown	
Yes	86.6	3.6	9.8	100.0
No	45.2	19.0	35.7	100.0
Possibly	50.0	0.0	50.0	100.0
Unknown	12.6	1.4	86.0	100.0
Total	48.4	3.0	48.6	100.0

Figure 1: Incident cases of malignant mesothelioma, Australia, 1986-2001

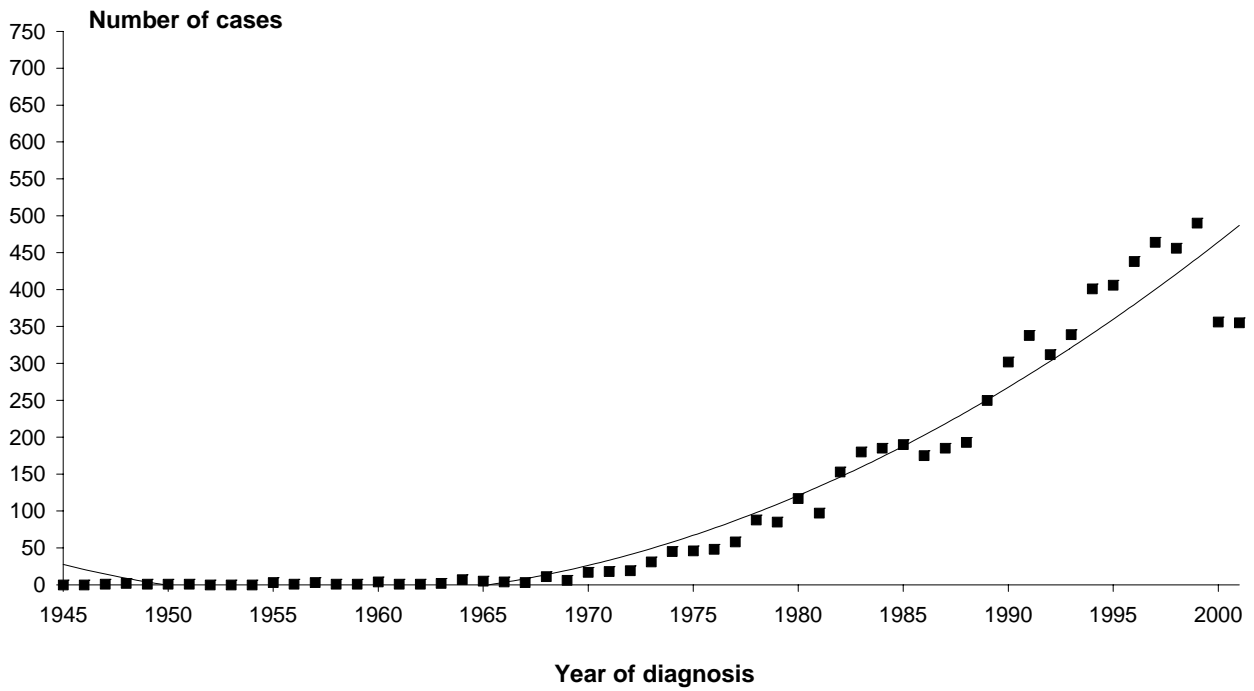


Figure 2: Age-specific incidence rates of malignant mesothelioma in Australian men, 1986-2001

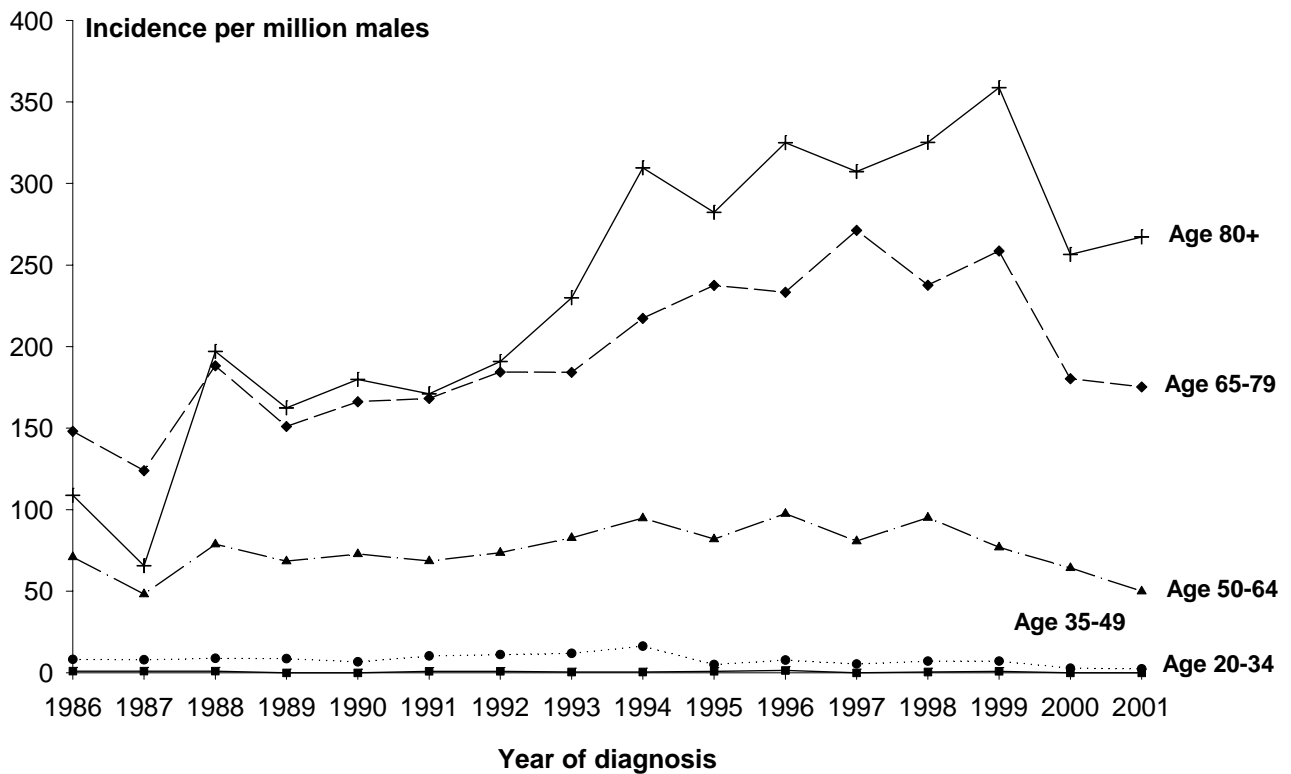


Figure 3: Age-specific incidence rates of malignant mesothelioma in Australian women, 1986-2001

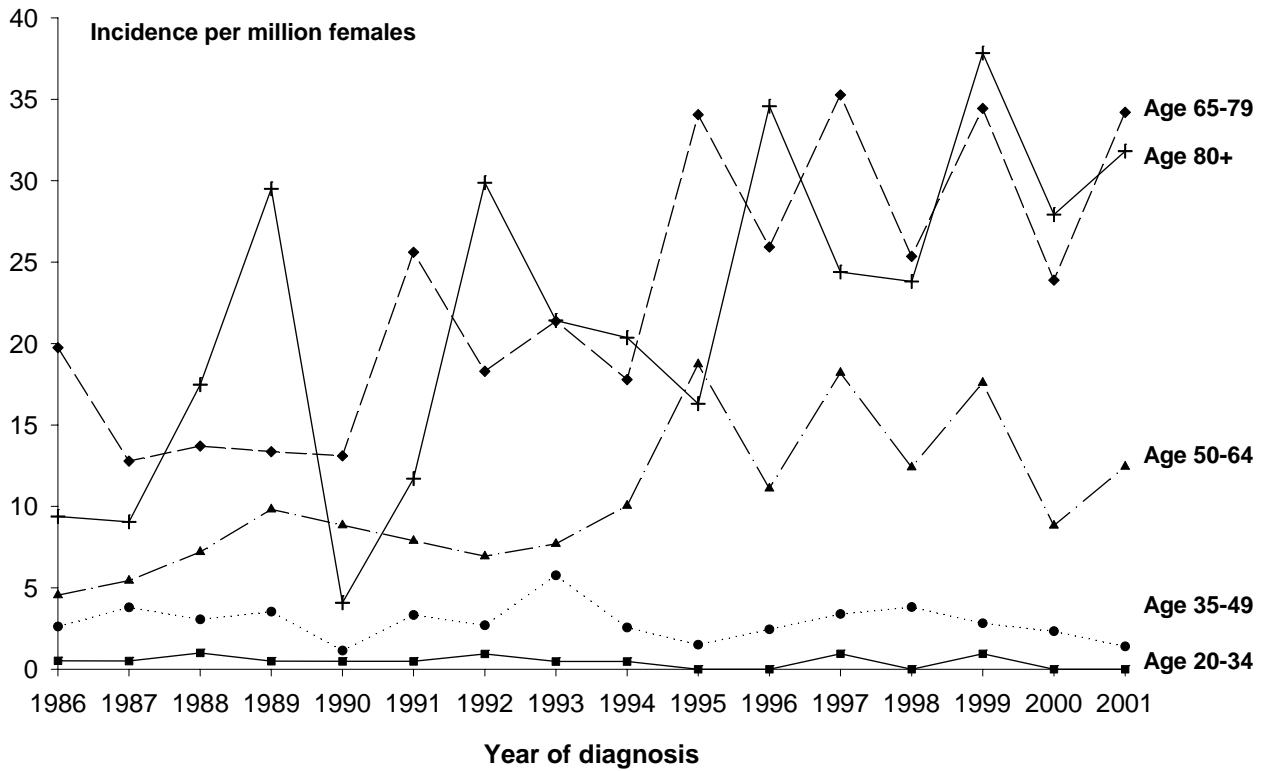


Figure 4: Cases of mesothelioma in Australia, 1998-2001, by site of primary lesion

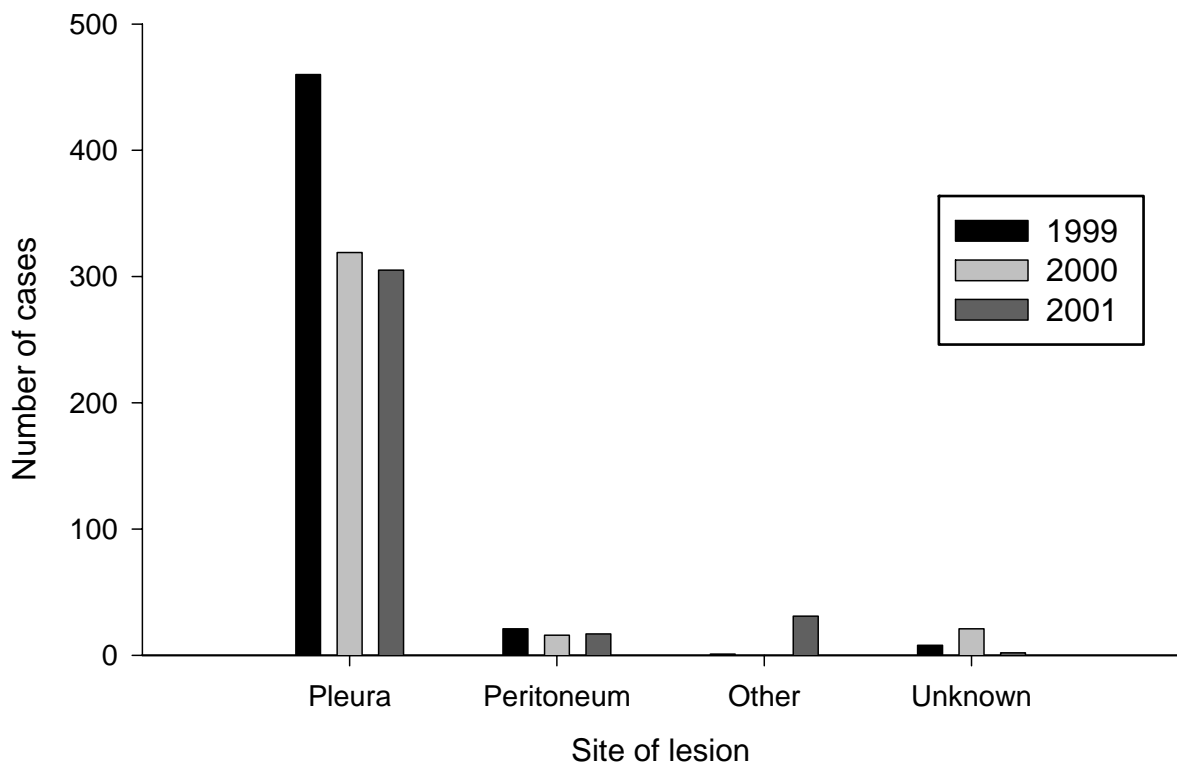


Figure 5: Trends in Australian incidence of mesothelioma per million persons, by jurisdiction, 1982-2001
Standardised to World population 20 years of age or greater

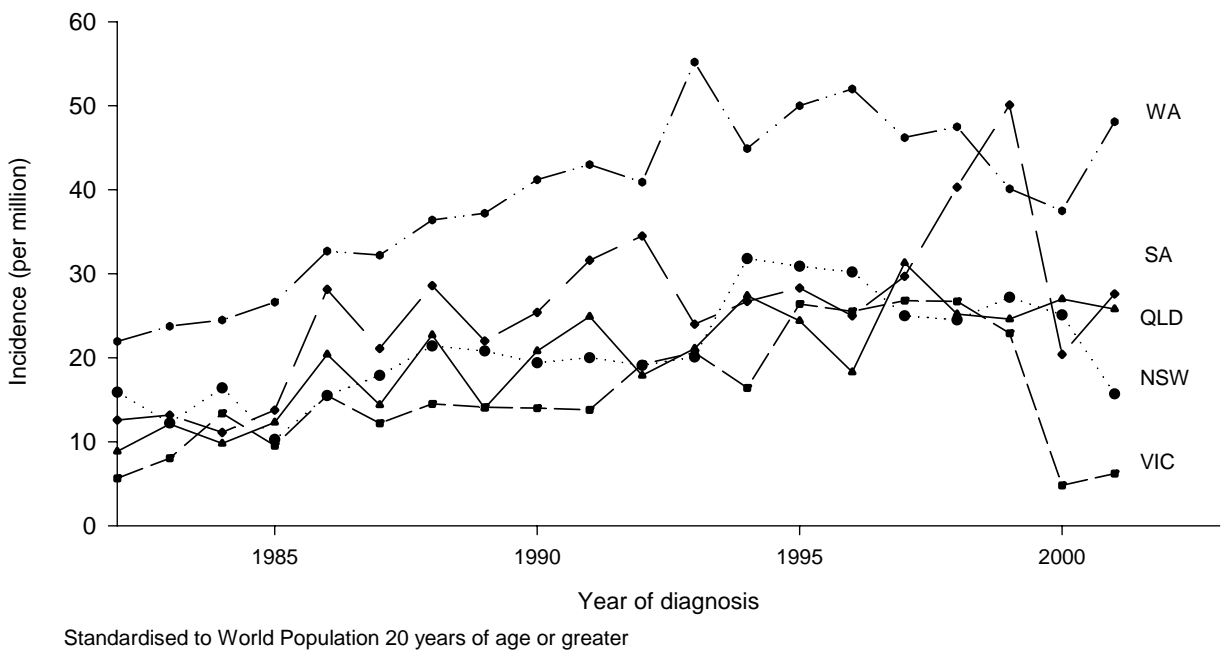
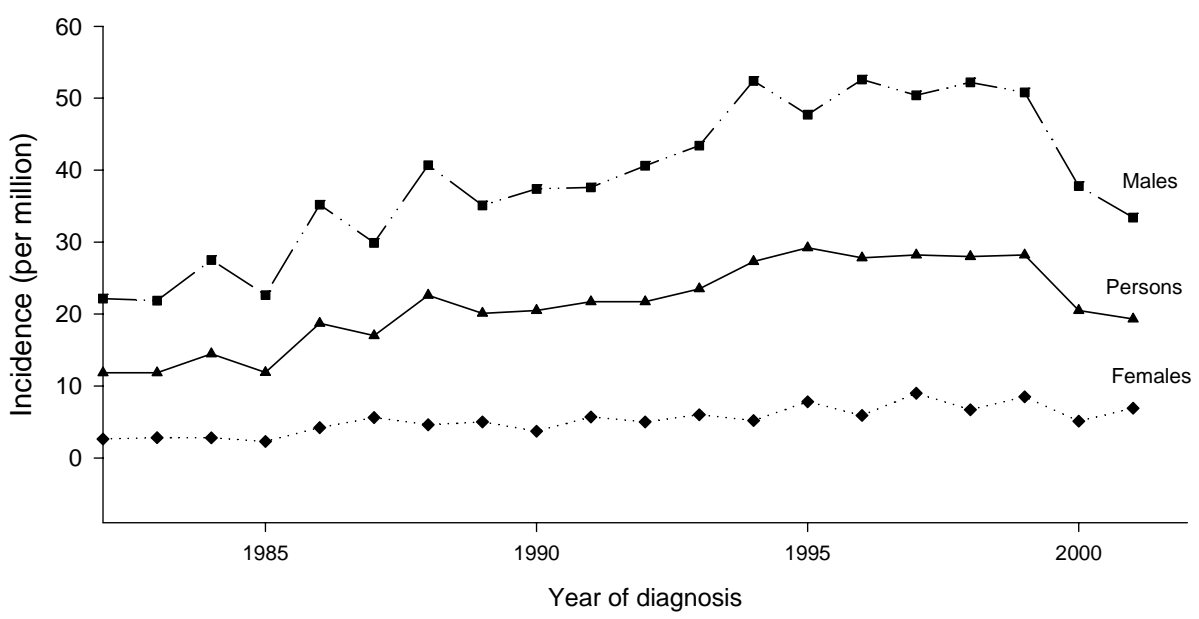


Figure 6: Trends in Australian incidence of mesothelioma per million persons, by sex, 1982-2001
Standardised to World population 20 years of age or greater



APPENDIX A: Register Notification Form



Australian Government
**National Occupational
 Health and Safety Commission**

AUSTRALIAN MESOTHELIOMA REGISTER NOTIFICATION

Please direct all correspondence to:

**The Registrar
 Australian Mesothelioma Register
 National Occupational Health and Safety Commission
 GPO Box 1577 Canberra ACT 2600
 Telephone: (02) 6279 1005**

Patient details - please supply ALL available information

SURNAME: FIRST NAMES:

ADDRESS:

STATE: POSTCODE: GENDER: M / F DATE OF BIRTH: / /

IF DECEASED, DATE OF DEATH: / / PLACE OF DEATH:

DATE OF INITIAL DIAGNOSIS: Month Year: HISTOLOGICAL: YES / NO

HOSPITAL DIAGNOSED: PRIMARY SITE:

CLINICIAN'S NAME: NAME OF LOCAL GP:

ADDRESS: ADDRESS:

.....

Please describe briefly main occupation(s) of patient's worklife.

OCCUPATION	INDUSTRY	YEAR
1.	1.	19 - 19
2.	2.	19 - 19
3.	3.	19 - 19

KNOWN ASBESTOS EXPOSURE: YES / NO

If "YES" please indicate circumstances and duration:

.....

.....

Details of person completing this form.

NAME: SIGNATURE:

ADDRESS: DATE:

Please circle the appropriate category: CLINICIAN PATHOLOGIST CANCER REGISTRY MEDICAL RECORDS ADMIN
 DUST DISEASES BOARD OTHER:

Office Use Only
 Date Received:

REGISTRATION NO:

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