Canstat

No 36, January 2002
ISSN 0815-7219
Registered by Australia Post
PP 328866/00118

Canstat: A digest of facts and figures on cancer

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Lung cancer

Contents

Anti-Cancer Council of Victoria

Overview

In 1999, lung cancer was diagnosed in 1,299 men and 701 women in Victoria.

Incidence

Lung cancer includes cancer of the trachea, main bronchus and lung. Each year around 2,000 Victorians are diagnosed with lung cancer. It is more common in men than in women. The male:female ratio is 1.85:1. In 1999, there were 1,299 new diagnoses in men and 701 in women with age-standardised incidence rates of 37.1 and 17.3 per 100,000 person years for men and women respectively. Based on present rates, the lifetime risk of contracting lung cancer is 1 in 22 men and 1 in 46 women.

Men and women differ in the histology of their lung cancers. In men, the proportions of squamous cell carcinoma and adenocarcinoma are similar while, in women, the rate of adenocarcinoma is more than double that of squamous cell carcinoma (Table 1). Substantial numbers of tumours are not histologically confirmed -tumour type is not known for 19.2% and 21.5% of tumours in men and women respectively.

Figure 1 shows the age-specific incidence distribution of people diagnosed with lung cancer. It is skewed towards later life with rates for both sexes falling after the age of 70. The median age at diagnosis is 71 years for both men and women.

Figure 2 shows proportions of new lung cancer diagnoses by age group and sex in Victoria in 1997–9 and in the early years of cancer registration 1982–4. During this interval, the distribution of lung cancer has shown a shift of between five and 10 years towards older age in both men and women.

Mortality

On average, lung cancer causes nearly 1,700 deaths annually in Victorians. In 1999, this cancer caused the deaths of 1,126 men and 553 women with age-standardised death rates of 31.4 and 13.0 per 100,000 person years for men and women respectively. Lung cancer accounts for 5,833 years of premature life lost before the age of 75 years (YPLL) in men and 3,142 YPLL in women. These figures represent 18% (in men) and 11% (in women) of total years of premature mortality due to all cancers.

Epidemiology

The excess of lung cancer in men over women can be largely explained by the differences in the history and current prevalence of tobacco smoking (see pages 4–5). In Australia, the fraction of lung cancer due to smoking has been estimated at 90% in men and 65% in women (Ridolfo et al. 2001). Asbestos exposure increases the risk of lung cancer and interacts synergistically with smoking. Radiation exposure increases risk, as does employment in mining and smelting industries and respiratory exposure to radon, arsenic, chromium, nickel and polycyclic aromatic hydrocarbons. Air pollution, including tobacco smoke, also contributes to a small increase in risk.

Table 1: Distribution of lung cancers by histological type and sex, Victoria 1997–9

Percent of histologically verified lung cancers diagnosed in Victoria 1997–9. About one-fifth of all lung tumours have no histological confirmation.

Histological type	Men (%)	Women (%)
Squamous cell carcinoma	30.8	18.0
Adenocarcinoma	30.5	38.7
Small cell carcinoma	14.5	16.8
Large cell carcinoma	12.4	14.0
Other & unspecified carcinoma	11.7	12.2
Other tumours (sarcomas etc)	0.3	0.4

Figure 1: Age-specific incidence rates for lung cancer

Incidence rates by age group and sex for lung cancer in Victoria in 1997–9.

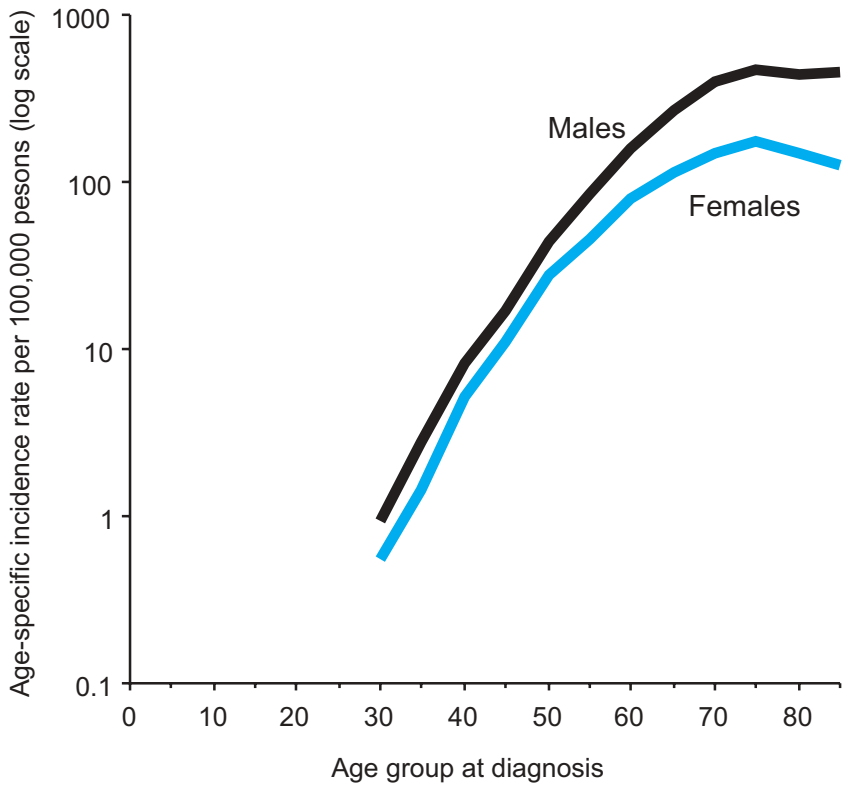
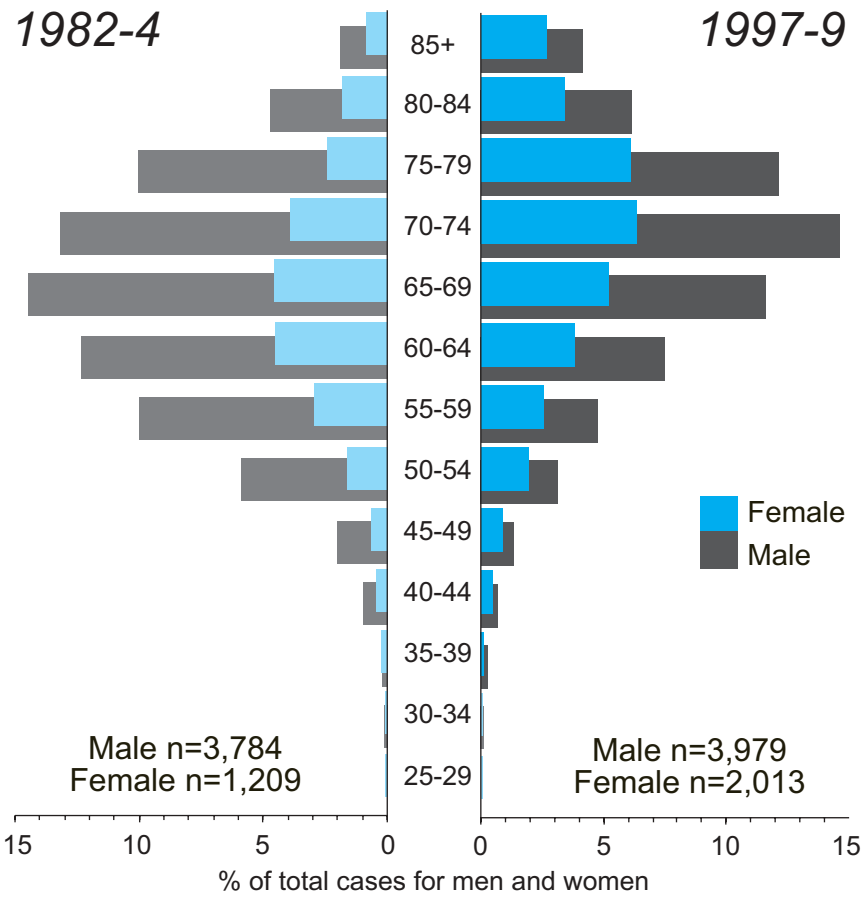


Figure 2: Lung cancer incidence by age and sex, Victoria 1982–4 and 1997–9

Proportion of total lung cancer incidence by age group and sex in Victoria in 1982–4 and 1997–9 showing increasing proportions of cases in women and older men.



Victorian lung cancer trends

Figure 3 shows annual age-standardised incidence and mortality rates for lung cancer in Victoria from 1982 to 1999. Incidence in men declined by 2.3% annually from 54.6 to 37.1 per 100,000 person years while in women rates rose annually by 1.6% from 13.1 to 17.3 per 100,000 person years. During the same period, male lung cancer mortality decreased from 47.6 to 31.4 per 100,000, while in women rates rose from 10.2 to 13.0 per 100,000 person years.

Figure 4 shows Victorian trends in lung cancer incidence between 1982 and 1999 by age group. Each line represents incidence rates in a specific age group by the median year of birth. In men, it can clearly be seen that incidence has been falling across all age groups during the last two decades. In men aged under 60 years, the rates in 1999 are less than half those of the early 1980s. With a 40–50 year time lag between onset of smoking and development of lung cancer, the effect of the peak smoking prevalence in the 1940s is still being experienced in the oldest age groups. The gradual decline in smoking prevalence from over 70% in 1945 to 21% in 1999 has resulted in the decreasing mortality in younger age groups.

In women the pattern is very different with the increase in tobacco use much later than in men. In women, smoking prevalence in 1945 was around 26% rising to a peak of 31% in the late 1970s. It has only recently shown signs of a decline. The trends in age-specific female lung cancer incidence shown in Figure 5 closely reflect the patterns of smoking prevalence in women with rates still increasing rapidly in women over 65 years with smaller increases in younger women.

Figure 5 shows smoking prevalence in adult Australians since 1945. The decline in smoking has occurred across all socioeconomic groups and in both sexes. The prevalence also remains highest among young people (35% in men and women between the ages of 25–29), the unemployed, those with low socioeconomic status and those with lower levels of education. The rate of smoking among secondary school children over the past 15 years appears to have dropped and then reverted back to 1984 levels. Gains made in earlier years have been lost. However, gains continue to be made in reducing experimental smoking or preventing uptake, but there has been little success with preventing the progression to addiction.

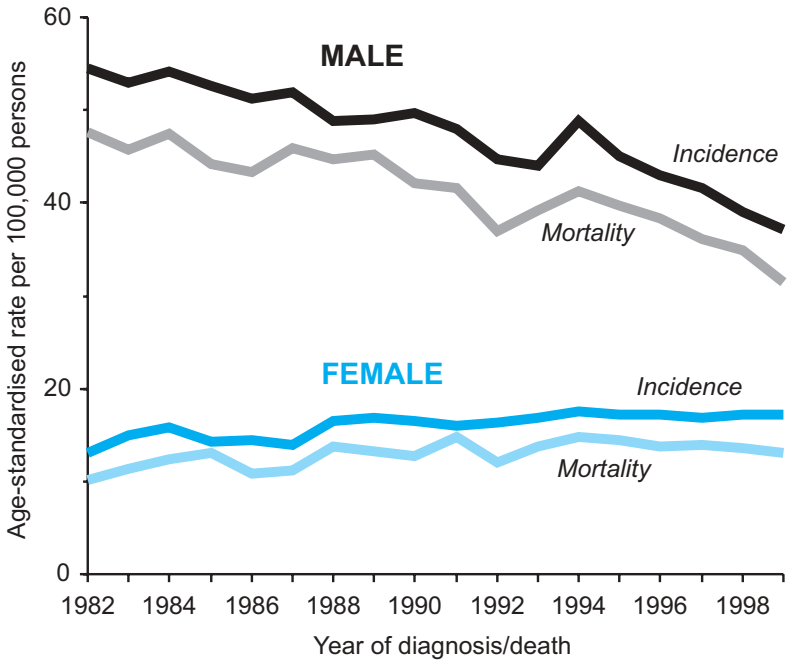


Figure 3: Lung cancer incidence and mortality trends by sex, Victoria 1982–99

Figure 4: Age-specific lung cancer incidence in men and women in Victoria 1982–99 by median year of birth

The curves show trends in lung cancer incidence in specific age groups of Victorian men and women.

Note difference in scale.

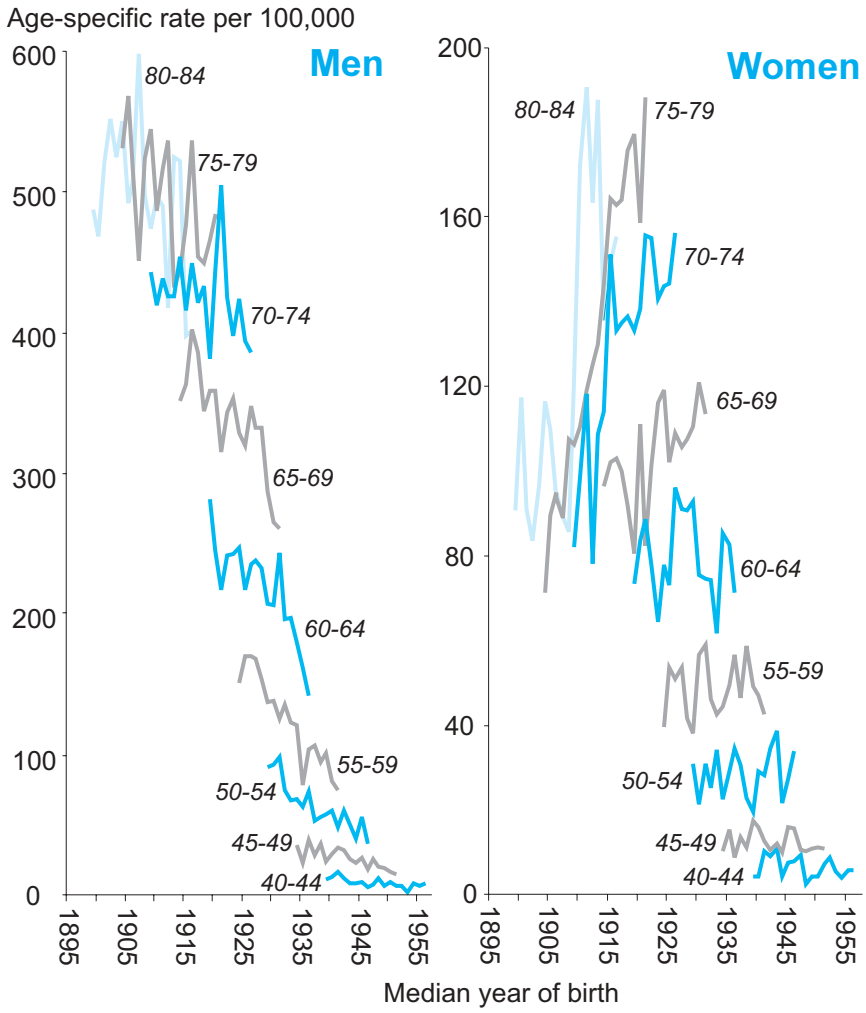
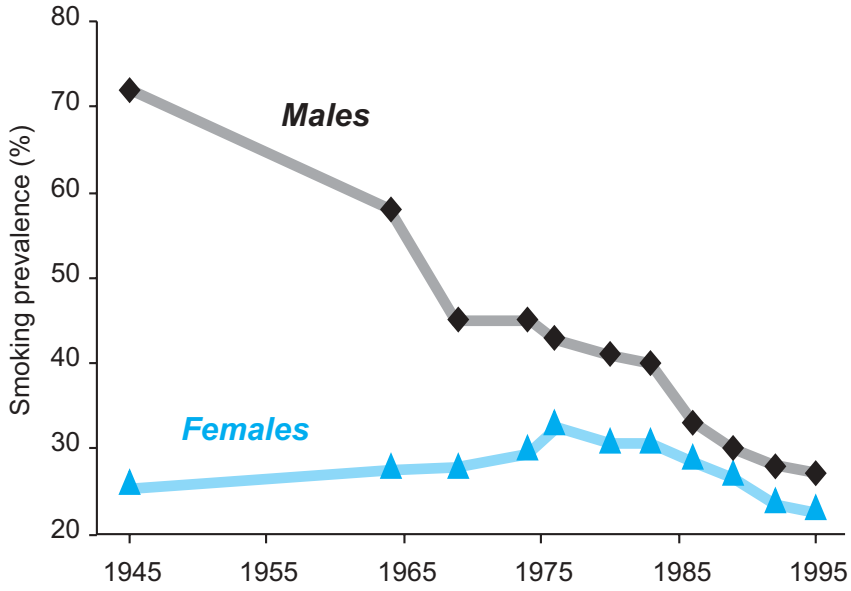


Figure 5: Trends in the prevalence of smoking among adult Australians 1945–95

Good historical data on the prevalence of tobacco use in Australia are scarce with only a few data points (for the years 1945, 1964 and 1969) from market surveys available prior to 1974 when the Anti-Cancer Council of Victoria began its regular survey of smoking patterns.



The lung cancer epidemic

Figure 6 shows the impact of lung cancer on overall cancer mortality this century. The long-term mortality curve has been dramatically influenced by the effect of lung cancer mortality caused by the prevalence of cigarette smoking. Tobacco smoking is known to be the predominant risk factor in lung cancer and this cancer is therefore a useful marker of the effect of tobacco smoking on overall cancer rates. However, smoking is also a risk factor for many other cancers. These are discussed on page 12.

Figures 7 and 8 on the opposite page compare Australian mortality from lung cancer with trends in other cancer death rates between 1930–4 and 1995–9. The graph for males clearly indicates the dramatic increase in lung cancer following World War II when tobacco smoking became pandemic in the male populations of Australia and other Western nations. By the mid 1950s, lung cancer had overtaken stomach cancer as the leading cause of cancer death in men. By the early 1980s it had peaked at 49 per 100,000 men. In the late 1980s the cumulative effect of smoking cessation in males was observed when mortality from lung cancer began to decrease. This steady decline has continued and the rate in 1995–9 was 38 per 100,000 men, similar to rates 30 years ago.

Lung cancer mortality in Australian women did not start to rise until twenty years after the male epidemic and only overtook stomach cancer mortality in the early 1970s. The delay was consistent with the later adoption of cigarette smoking by women. In some countries lung cancer has overtaken breast cancer as the leading cause of death in women. Breast cancer mortality is beginning to decline (possibly as a result of screening programmes) and it seems likely that the rates for breast and lung cancer will converge in Australian women over the next decade. The rate of increase in female lung cancer mortality is slowing and appears to be reaching its plateau at around 15 per 100,000 women, a peak much lower than that which occurred in men.

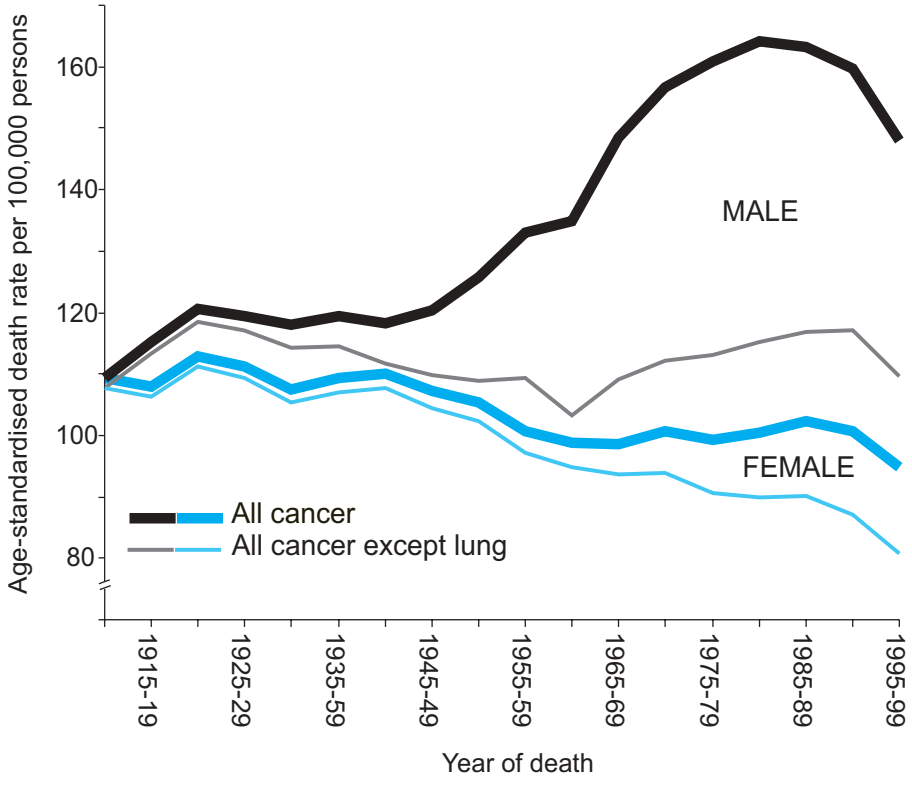


Figure 6: Cancer mortality, Australia 1910–99

Trends in male and female cancer mortality 1910–99 showing the effect of lung cancer mortality caused by the prevalence of cigarette smoking.

Figure 7: Trends in male cancer mortality, Australia 1930–99

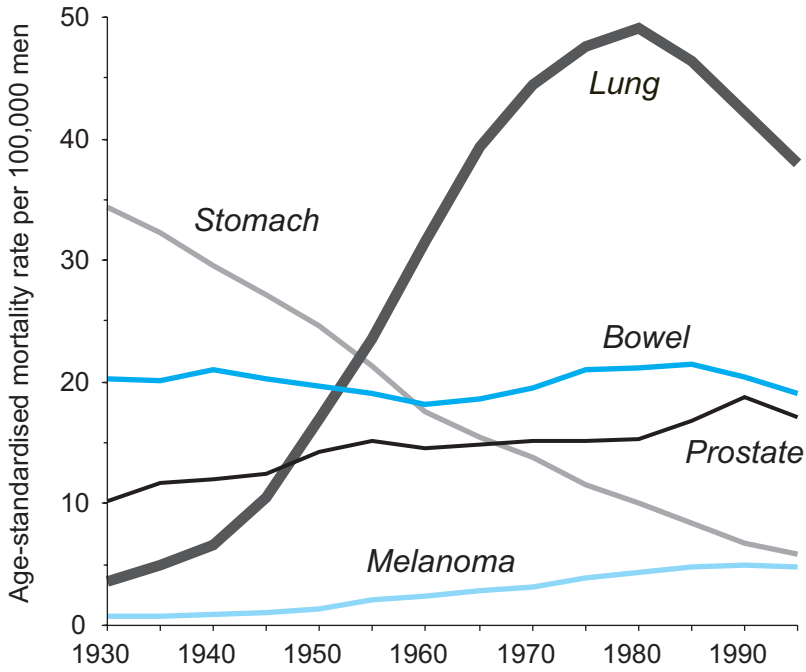
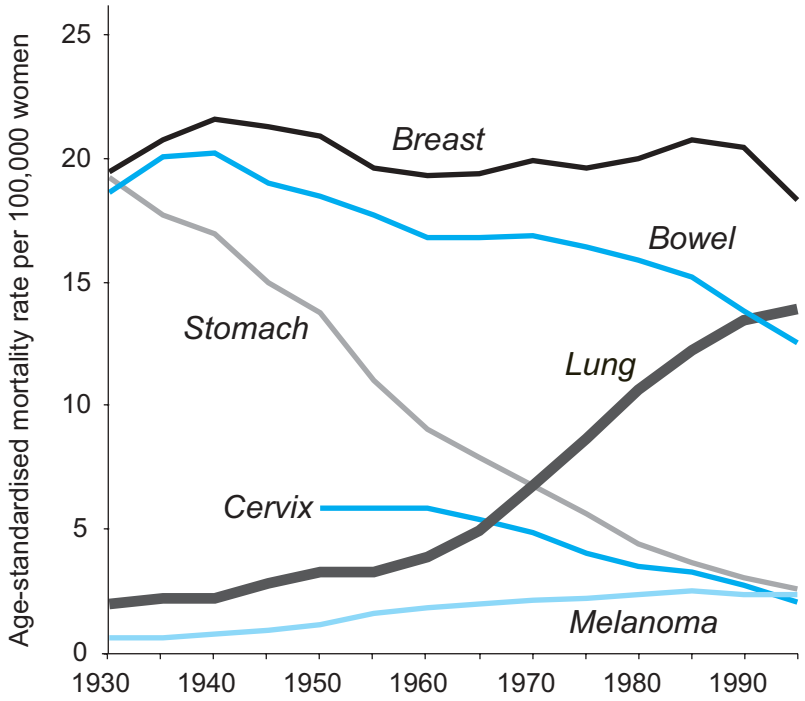


Figure 8: Trends in female cancer mortality, Australia 1930–99



Comparisons

International variation

Lung cancer varies dramatically between populations around the world due to the historical and current prevalence of tobacco smoking. The rates in men are universally higher than in women. When Victoria is compared with other countries of a similar level of economic development, its lung cancer rates in both men and women are lower than in England and the United States, but they are higher than in countries like China and Japan. Figure 9 shows male and female lung cancer incidence rates for selected countries. This clearly shows the quite different patterns in men and women due to cultural differences in smoking prevalence.

Migrants to Australia

Lung cancer in Victoria varies by demographic subgroup, and migrants to Australia tend to reflect the international variations in lung cancer rates (Figure 10). For example, British migrants have significantly higher lung cancer rates than the Australian born. This pattern is consistent with the higher prevalence of smoking and of lung cancer in Britain. Conversely migrants from countries whose populations have lower smoking prevalence, for example women from southern Europe and the Middle East, have significantly lower lung cancer rates.

Socioeconomic status

Lung cancer is also associated with socioeconomic status (SES). A Melbourne based analysis of lung cancer incidence and mortality (Williams et al. 1991) showed significant negative gradients with SES (Figure 11). There was a reduction of about 40% in age adjusted incidence and mortality rates between the highest and lowest deciles of SES. This pattern mirrors the prevalence of smoking by SES.

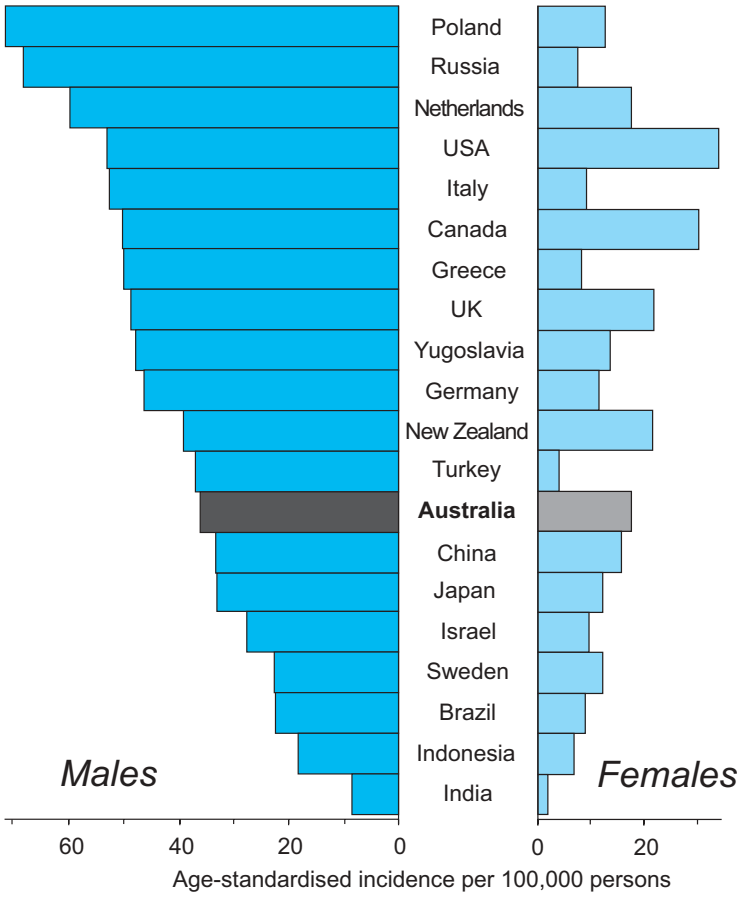


Figure 9: Lung cancer incidence by region

Estimates of lung cancer incidence in males and females in 2000 for selected countries from GLOBOCAN (Ferlay et al. 2001)

Figure 10: Lung cancer incidence by birthplace

Countries of birth were grouped into Australia, British Isles, Southern Europe, Middle East, Asia and Other Europe. The graphs of migrant rates display age-standardised rates and their 95% confidence intervals as horizontal lines. The vertical bar represents the 95% confidence interval for the rate in the Australian born. Migrant groups having confidence intervals that do not overlap the vertical bar have rates that differ significantly from the Australian born rate.

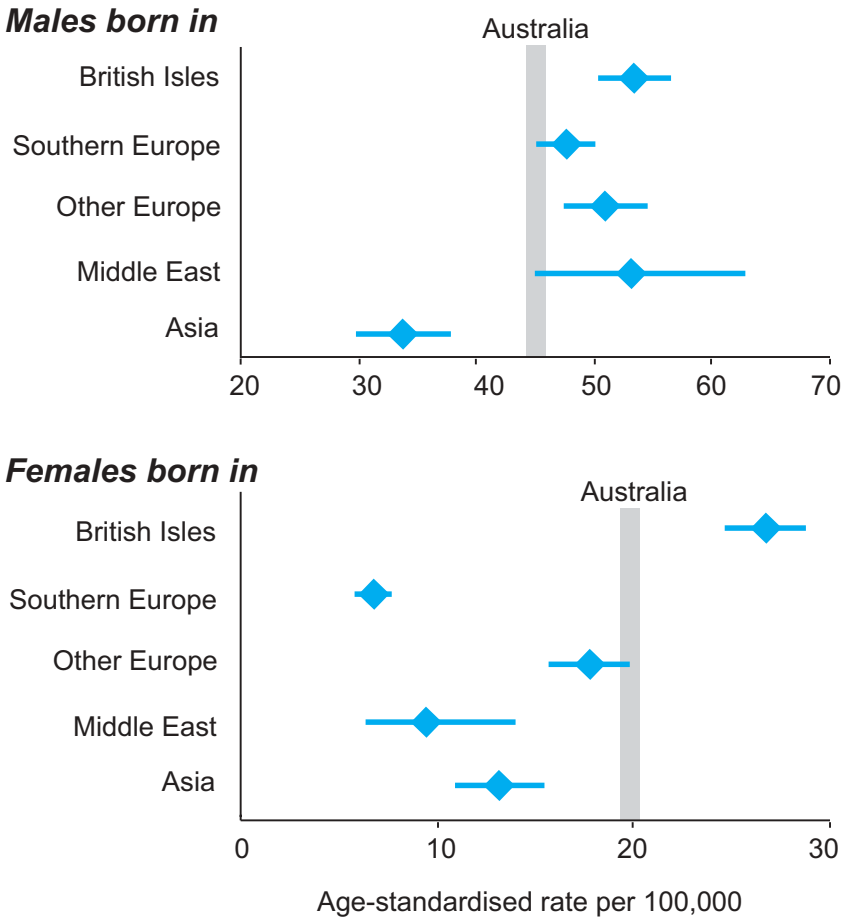
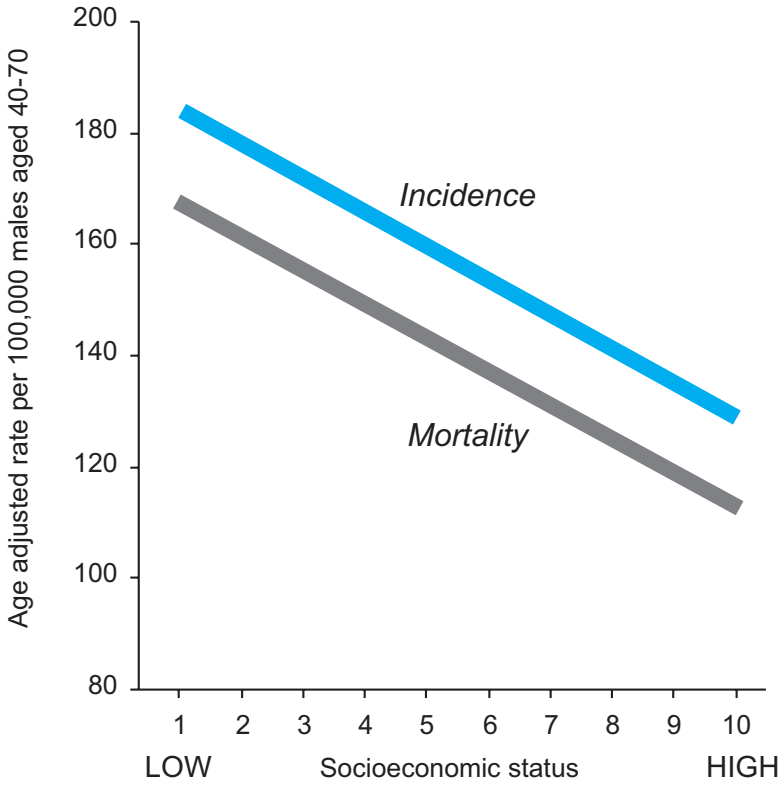


Figure 11: Patterns of lung cancer incidence and mortality by SES in Melbourne



Lung cancer management and survival

Lung cancer continues to be a major public health problem with over 2,000 patients presenting with the disease each year in Victoria alone. Therapeutic advances over the last 30 years, though real, have been limited and have led to the pessimistic perception that little will alter the eventual outcome of patients presenting with this cancer. While surgical treatment of resectable non-small cell lung cancer (NSCLC) is widely accepted, the management of patients with unresectable disease remains controversial.

Members of the Victorian Cooperative Oncology Group's Lung Study Group decided that it would worthwhile to obtain baseline data on management practices in Victoria to assess compliance with existing treatment guidelines and inform the development of similar guidelines in Australia. To this end, a survey was conducted in 1996–7 to investigate how lung cancer was actually being managed in Victoria in a population-based series of patients diagnosed in 1993 (with at least three years of follow-up). Doctors involved in the management of each case were invited to complete questionnaires, the scope of which included symptoms and method of diagnosis, type and extent of tumour, initial and subsequent treatment and factors affecting management plan. All questonnaires were de-identified with respect to patient and treating doctor prior to analysis.

Information was obtained for 868 patients (82% of those eligible) with a median age of 69 years (ranging from 31 to 94 years) at diagnosis and of whom 70% were male. As in other lung cancer series, most patients were symptomatic at diagnosis with cough, dyspnoea, weight loss, chest pain and haemoptysis being the most common symptoms. Most patients (64%) presented with advanced disease. The majority (73%) were diagnosed with NSCLC, 14% with small cell lung cancer and 13% with no histological diagnosis.

The survey found no clear approach to the assessment of disease extent. The size of primary tumour was recorded in about half of patients and most had a chest x-ray. However, CT scan, a superior investigation for the evaluation of mediastinal node involvement, was performed in only 68% of cases. Staging investigations to identify distant metastatic disease were performed in fewer than half of the patients. While it appears that published pre-treatment guidelines were often not adhered to, this may in some cases have been due to patient age and comorbidity.

Almost half of the patients in the survey were considered to have comorbid conditions that interfered with their treatment plan—in particular, significant chronic obstructive airways disease (19%), ischaemic heart disease (11%) or other atherosclerotic disease (13%). Severe comorbidity significantly reduces the ability to administer effective doses of chemotherapy or radiation, leading to a decision to treat palliatively and hence negating the need for accurate staging in such patients.

Table 2 summarises treatment received by patients with small-cell lung cancer, NSCLC and those without histological diagnosis. Most patients were not treated in a multidisciplinary fashion, potentially denying them more effective treatment options and very few were involved in clinical trials to evaluate potentially more effective treatments. The study highlighted the difficulties in treating lung cancer and the overall poor outcome with regard to five-year survival.

Treatment was carried out with curative intent in 28% of patients, with complete response being achieved in 61% of these, and crude five-year survival of 33%. In the 46% of patients treated palliatively, symptom control was achieved in 55% and crude five-year survival was 3%. A quarter of patients received no treatment for a variety of reasons including coexisting medical conditions (41%), metastatic disease (20%) or both of these (21%). The crude five-year survival in this group was 2%.

The results of this study were published in the *Medical Journal of Australia* (Richardson et al. 2000) and additional detail and commentary can be found in that paper.

Table 2: Summary of investigations and treatment by type of lung cancer

Results from the survey of management of patients diagnosed with lung cancer in Victoria in 1993.

Relative survival in the survey cohort for small cell and non-small cell lung cancer

Five-year relative survival proportions are given by gender, lymph node status and clinical stage.

Overall relative survival in the study cohort was 12%.

This is lower than that of Canada and the USA (whites) but similar to Europe, USA (Black), South Australia and New South Wales. The range of overall five-year survival in these countries was 6–15%.

Relative survival figures from New South Wales for the period 1990–5 show similar patters with overall survival of 12% (Supramanium et al. 1998). Survival by extent of disease (diagnosis from 1980–95) was 23% for patients without nodal disease, 12% with localised disease, 1% with distant metastases and 11% in patients with unknown extent of disease.

	Small cell lung cancer		Non-small cell lung cancer		No histo-logical diagnosis	
	N	%	N	%	N	%
Total number	**124**		**635**		**109**	
Sex						
Male	84	*68%*	453	*71%*	72	*66%*
Female	40	*32%*	182	*29%*	37	*34%*
Age at diagnosis						
Median (years)	70		68		76	
Range	45–94		31–92		50–90	
Staging investigations						
Chest x-ray	110	*89%*	603	*95%*	101	*93%*
CT chest/abdomen	86	*69%*	444	*70%*	59	*54%*
Bone scan	40	*32%*	147	*23%*	13	*12%*
Brain scan	23	*19%*	99	*16%*	14	*13%*
Extent of disease						
Limited stage	31	*25%*				
Extensive stage	65	*52%*				
Inadequately staged	22	*18%*				
No information	6	*5%*				
Primary lesion only			149	*23%*	12	*11%*
Hilar nodes positive			46	*7%*	3	*3%*
Mediastinal nodes positive			13	*2%*	3	*3%*
Distant metastases			238	*37%*	53	*49%*
Not recorded			189	*30%*	38	*35%*
Treatment						
Surgery only	1	*1%*	137	*22%*	3	*3%*
Chemotherapy only	67	*54%*	28	*4%*	6	*6%*
Radiotherapy only	15	*12%*	249	*39%*	29	*27%*
Surgery + chemotherapy	1	*1%*	5	*1%*	0	*0%*
Surgery + radiotherapy	0	*0%*	47	*7%*	0	*0%*
Surgery + chemotherapy + radiotherapy	1	*1%*	1	*0%*	0	*0%*
Chemotherapy + radiotherapy	19	*15%*	25	*4%*	2	*2%*
None	17	*14%*	131	*21%*	64	*59%*
Not recorded	3	*2%*	12	*2%*	5	*5%*
Five-year relative survival (%)	**N**	**%**	**N**	**%**	**N**	**%**
All patients	124	3	635	15	109	1
Sex						
Male	84	2	453	16	not available	
Female	40	3	182	13		
Lymph node status						
None	29	3	29	33		
Local nodes positive	24	1	116	10		
Distant metastases	15	2	46	5		
Node status not known	56	2	244	3		
Clinical stage						
Stage I	11	8	149	47		
Stage II	6	3	46	22		
Stage III	2	1	13	18		
Stage IV	65	<1	238	18		
Stage not known	40	3	189	6		

Other tobacco-related cancers

Tobacco smoking is well known to be the principal risk factor for lung cancer causing 90% of male and 65% of female lung cancers (Ridolfo et al. 2001). However, tobacco smoking increases the risk of many other cancers, accounting for 12.5% of all new cases of cancer and 8.9% of all deaths from cancer in Australia. Aetiological fractions, based on an analysis of international and Australian studies, were calculated by Ridolfo et al. These estimate the probability that a specific agent (tobacco) causes a specific condition (cancer). Table 3 lists those cancers considered to be directly attributable to smoking (excluding passive smoking) with separate aetiological fractions for men and women.

Using these fractions, we estimate that 2,613 new cases of cancer diagnosed in Victoria in 1999 were directly attributable to smoking. This represents 17.3% of new cancers in men and 7.1% in women. The large difference can be attributed to the higher prevalence of smoking in men over the past 30 years. As with lung cancer rates, the overall rates for tobacco-related cancers are falling in males and rising in females.

Respiratory organs, which are directly exposed to cigarette smoke, show the highest proportion of cancers caused by smoking. This results from direct exposure to carcinogens in tobacco smoke such as polycyclic aromatic hydrocarbons. However, other cancers, including those of the digestive tract, bladder, kidneys and pancreas, are also associated with smoking (English et al. 1995).

Table 4 shows summary statistics for tobacco-related cancer incidence and mortality in Victoria in 1999 including age-specific numbers and rates. The median age at diagnosis is 71.4 years and 72.8 years in men and women respectively.

If current risks of contracting a tobacco-related cancer continued throughout life, about one in every twenty-three Victorians would be diagnosed with one of these cancers in their lifetime (to age 75 years). The lifetime risks for men and women are one in 15 and one in 48 respectively.

Table 3: Percent of cancers attributable to smoking by cancer site and gender (Ridolfo et al. 2001)

Cancer site	Male	Female
	(%)	(%)
Oropharynx	46	36
Oesophagus	42	32
Stomach	9	6
Anus	35	26
Pancreas	17	12
Larynx	61	51
Lung cancer	90	65
Endometrium	-	-8
Vulva	-	28
Penis	16	-
Bladder cancer	30	22
Renal parenchyma	14	9
Renal pelvis	42	32

Table 4: Incidence and mortality of smoking related cancers in Victoria, 1999

INCIDENCE

	Males		Females		Persons	
Age groups	New cases	*A-S rate*	New cases	*A-S rate*	New cases	*A-S rate*
Under 40	0	*0.0*	0	*0.0*	0	*0.0*
40-44	18	*10.2*	5	*2.7*	22	*6.4*
45-49	48	*29.5*	14	*8.4*	61	*18.8*
50-54	93	*62.7*	35	*23.9*	128	*43.4*
55-59	149	*129.7*	46	*40.9*	195	*85.6*
60-64	209	*220.7*	62	*64.5*	272	*141.8*
65-69	323	*379.9*	101	*112.5*	424	*242.3*
70-74	423	*572.2*	146	*170.4*	570	*356.5*
75-79	347	*642.8*	143	*194.6*	489	*384.4*
80+	314	*1122.3*	137	*298.9*	450	*611.5*
Total cases	**1,923**		**689**		**2,613**	
% of all cancers		*17.3%*		*7.1%*		*12.5%*
Lifetime risk		*1 in 15 men*		*1 in 48 women*		*1 in 23 people*
Standardised rate		**60.0**		**17.8**		**37.1**
95% confidence interval		(57.4-62.8)		(16.5-19.2)		(35.7-38.6)

MORTALITY

	Males		Females		Persons	
Age groups	Deaths	*A-S rate*	Deaths	*A-S rate*	Deaths	*A-S rate*
Under 40	0	*0.0*	0	*0.0*	0	*0.0*
40-44	6	*3.5*	2	*1.4*	9	*2.4*
45-49	22	*13.5*	5	*2.8*	26	*8.1*
50-54	57	*38.6*	20	*13.8*	78	*26.2*
55-59	90	*78.9*	34	*30.0*	124	*54.6*
60-64	130	*137.5*	35	*35.6*	165	*86.0*
65-69	191	*224.0*	90	*100.4*	281	*160.4*
70-74	292	*394.7*	107	*124.8*	399	*249.8*
75-79	278	*515.3*	108	*147.4*	386	*303.3*
80+	265	*949.8*	119	*261.3*	385	*522.7*
Total deaths	**1,332**		**521**		**1,853**	
% of all cancer deaths		*12.0%*		*5.4%*		*8.9%*
Standardised rate		**40.9**		**13.2**		**25.6**
95% confidence interval		(38.7-43.1)		(12.1-14.3)		(24.5-26.8)

A-S rate = age-specific rate per 100,000 persons in age group.
Standardised rate, 95% confidence interval = age-standardised rate (to World Standard Population) per 100,000 persons with 95% confidence interval.
Lifetime risk = cumulative risk of contracting a tobacco-related cancer by the age of 75.
Note: some totals may appear incorrect due to rounding errors

Tobacco control in Australia

The relationship between smoking and lung cancer was established by Sir Richard Doll and Sir Austin Bradford Hill, in an article in the *British Medical Journal* in 1950. It was twelve years later that the Royal College of Surgeons of London published its first report and another two years before the US Surgeon General's report.

The initial progress of worldwide tobacco control, following the publication of these results, was slow. However, enormous progress has been made since the 1970s, both internationally and particularly in Australia. This results from public health and advertising programs and legislative changes. The anti-smoking lobby has comprised disparate groups of people including the medical establishment, several governments and all political parties, prominent public figures and many diverse and creative groups of activists.

The following timeline summarises significant milestones in the progress towards tobacco control in Australia.

MILESTONES IN TOBACCO CONTROL

1906 Victoria's Juvenile Smoking Prevention Act prohibits the sale of tobacco to those under the age of 16.

1935 Smoking is banned in cinemas and auditoriums.

1950 Relationship between smoking and lung cancer is established by Sir Richard Doll and Sir Austin Bradford Hill, in an article in the *British Medical Journal*, **Smoking and carcinoma of the lung.**

1957 US Surgeon General identifies smoking as a cause of lung cancer.

1962 Britain's Royal College of Surgeons publishes **Smoking and Health**. This is the first consolidated report by an authoritative British body on the dangers of smoking.

1964 The US Surgeon General's Report confirms that cigarette smoking can cause lung cancer.

UK and NZ ban cigarette advertising on radio and television.

1972 Victoria introduces State Tobacco Licence fee.

The phase-out of cigarette advertising on radio and television begins in Australia.

US bans cigarette advertising on radio and television.

1973 Standard cigarette packet warning is introduced in Australia.

1975 Smoking banned on Victorian metropolitan buses.

1976 Advertising of tobacco is banned on radio and television in Australia.

1984 **QUIT Campaign** is firmly established and enhanced in Victoria.

1985 Standard packet warning is replaced by four rotating warnings.

1986 Phasing out of smoking in Federal workplaces begins.

1987 Victorian Tobacco Act is passed, phasing out cinema and outdoor advertising; outlawing the sale of "kiddie packs" of 15 cigarettes; stiffening penalties on sales to minors. The hypothecation of tobacco taxes leads to the establishment of the **Victorian Health Promotion Foundation.**

1989	Federal government bans smoking on domestic airlines.
1990	A ban is placed on all tobacco advertising in the print media.
1991	The Federal Court of Australia rules that passive smoking causes lung cancer, asthma attacks and respiratory disease in young children.
1992	New cigarette pack labelling regulations are announced. State Tobacco Licence fee is increased to 75% of the wholesale value of tobacco sold. Federal government bans tobacco sponsorships and most remaining forms of advertising (except point of sale) from 1995.
1993	Implementation of legislation to increase Victorian age to purchase tobacco from 16 to 18 years.
1994	ACT introduces first smokefree public places legislation in Australia.
1995	New health warnings appear on tobacco packages, black on white warnings with a description on the back of the pack. Remaining tobacco sponsorship removed, except for events of international significance.
1997	National Tobacco Campaign launched, and 'Artery', the first of the 'Every Cigarette is Doing You Damage' television advertisements begins airing. Tobacco franchise fees declared invalid by High Court.
1998	Victoria's Melbourne Cricket Ground goes completely smokefree.
1999	British American Tobacco Australasia formed by the merger of Rothmans and WD & HO Wills. Imperial Tobacco enters the Australian market. Tax implemented per stick rather than by weight, increasing the price of large packs in particular. Tasmanian Government legislates to ban tobacco advertising at the point of sale.
2000	VicHealth Centre for Tobacco Control established. Smokefree dining introduced in New South Wales. GST implemented, increasing price of cigarettes Victorian Magistrates Court awards Victorian woman Andrea Bowles more than $7000 in damages for a severe asthma attack caused by exposure to cigarette smoke while she was seated in the non-smoking section of a Melbourne restaurant.
2001	Federal Government announces the phase-out of tobacco sponsorship of internationally significant events by 2006. Quit Victoria, together with the Victorian government, launches a campaign to encourage parents to stop smoking. Smokefree dining introduced in Victoria and Tasmania. Former New South Wales barmaid Marlene Sharp awarded $466,000 in damages by a New South Wales Supreme Court jury for the development of throat cancer from exposure to environmental tobacco smoke in the Port Kembla RSL and Port Kembla Hotel.

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