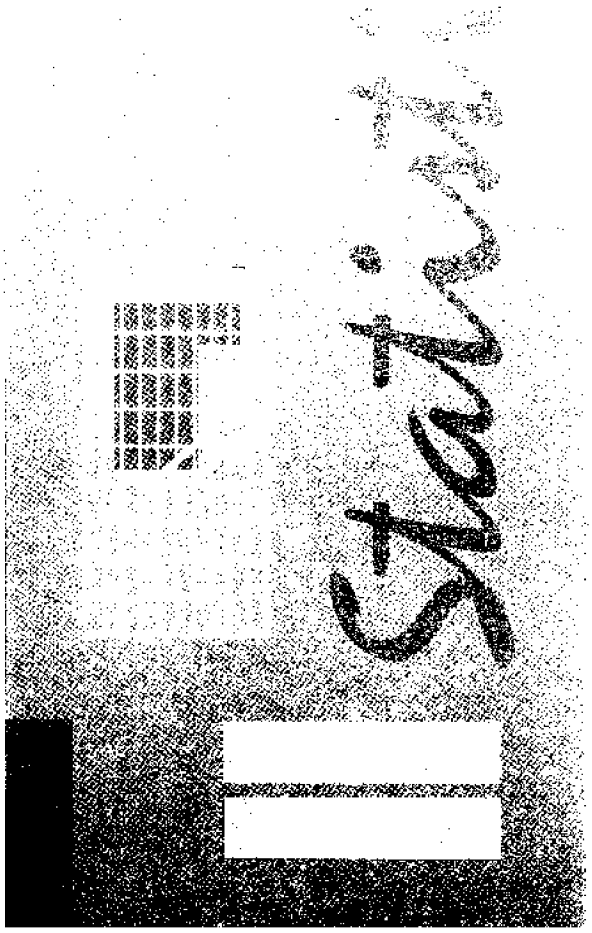
NEW ISSUE

1979–94

EMBARGOED UNTIL 11:30 AM FRI 20 SEPTEMBER 1996

Deaths Due to Diseases and Cancers of the Respiratory System

Australia



ABS Catalogue No. 3314.0

NOTES

SYMBOLS AND OTHER USAGES

The following standard symbols are used in this publication:

ICD	International Classification of Diseases (produced by World Health Organistion)
OECD	Organisation for Economic Cooperation and Development
YPLL	Years of Potential Life Lost
n.p.	not available for publication
—	nil or rounded to zero

GRAPH NOTE

Standardised death rates in this publication are expressed as a rate per 100,000 of the mid-year 1991 population. See paragraph 11 of the Explanatory Notes.

INQUIRIES

For further information about these statistics and the availability of related unpublished statistics, contact Peter Crowe on Canberra (06) 252 6967.

For information about other ABS statistics and services, please refer to the back of this publication.

W. McLennan
Australian Statistician

CONTENTS

INTRODUCTION

This publication contains summary statistics on deaths registered in Australia between 1979 and 1994, where the underlying cause of death was determined to be a disease of the respiratory system or a malignant neoplasm of the trachea, bronchus and lung, as defined by the Ninth (1975) Revision of the World Health Organisation's International Classification of Diseases (ICD).

Diseases of the respiratory system are identified as the underlying cause of death in approximately 8% of all deaths in Australia each year. An additional 5% of all deaths in Australia each year are due to malignant neoplasms of the trachea, bronchus and lung.

Reductions in mortality due to both asthma and malignant neoplasms of the trachea, bronchus and lung have been included among the specific targets identified in *Goals and Targets for Australia's Health in the Year 2000 and Beyond*, a 1993 report by the Department of Health, Housing and Community Services (now the Department of Health and Family Services).

This publication provides information on the recent trends in deaths in the following specific groupings:

- Pneumonia and influenza (ICD codes 480–487);
- Chronic obstructive pulmonary disease (ICD codes 490–496). This group includes:
    - Asthma (ICD code 493);
    - Chronic airways obstruction not elsewhere classified (NEC) (ICD code 496);
    - Chronic bronchitis (ICD codes 490–491); and
    - Emphysema (ICD code 492);
- Other respiratory disease (ICD codes 460–478, 500–519);
- Total diseases of the respiratory system (ICD codes 460–519); and
- Malignant neoplasms of the trachea, bronchus and lung (ICD code 162). This group is referred to as cancers of the respiratory system in this publication.

TRENDS IN MORTALITY

NUMBER OF DEATHS

Between 1979 and 1994, a total of 138,826 deaths were registered, where the underlying cause was a disease of the respiratory system. There were a further 92,263 deaths registered in this period from malignant neoplasms of the trachea, bronchus and lung. (See table 5.)

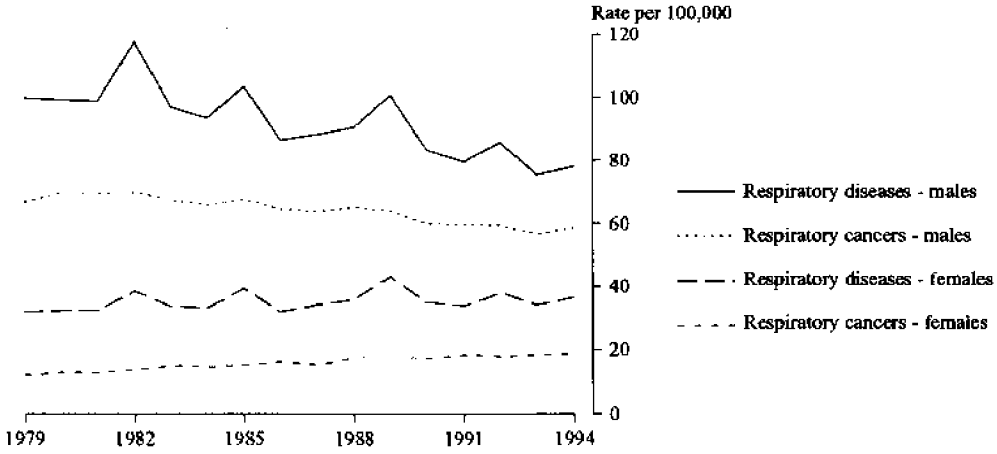
Deaths from respiratory disease made up 6.7% of total deaths in 1979 and this proportion had increased slightly to 7.9% by 1994. Pneumonia and influenza was the only respiratory disease group which declined as a proportion of total deaths, from 2.0% in 1979 to 1.5% in 1994. Cancers of the respiratory system also increased as a proportion of total deaths from 4.4% in 1979 to 5.3% in 1994. (See table 12.)

Males were more likely than females to die from either diseases or cancers of the respiratory system. Differences between numbers of male and female deaths was more pronounced for cancers than for diseases of the respiratory system. For males, cancers of the respiratory system caused more deaths than any specific respiratory disease while for females, chronic obstructive pulmonary disease accounted for more deaths than cancers of the respiratory system. (See table 5.)

STANDARDISED DEATH RATES

The standardised death rate from diseases of the respiratory system fell by 9.5% between 1979 and 1994, from 58.1 to 52.6 deaths per 100,000 of the standard population. The standardised death rate due to malignant neoplasms of the trachea, bronchus and lung remained relatively stable, beginning and ending the reference period at about 36 deaths per 100,000 of the standard population and fluctuating within a narrow range.

STANDARDISED DEATH RATES, DISEASES OF THE RESPIRATORY SYSTEM AND MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG



1 AVERAGE STANDARDISED DEATH RATES[1], BY SPECIFIC CAUSE OF DEATH

Year	Asthma	Chronic airways obstruction (NEC)	Chronic obstructive pulmonary disease	Pneumonia and influenza	Other respiratory disease	Total respiratory diseases	Malignant neoplasms of the trachea, bronchus and lung
			MALES				
1979–81	4.1	38.8	70.8	22.2	8.4	109.8	68.7
1982–84	4.7	44.7	72.7	20.8	9.0	102.5	67.7
1985–87	5.6	43.8	68.2	15.9	8.6	92.7	65.3
1988–90	5.4	44.7	66.7	15.3	9.5	91.4	62.9
1991–93	4.2	40.5	56.9	13.5	9.8	80.2	58.5
1994	4.2	39.5	54.4	13.0	10.6	78.0	58.7
			FEMALES				
1979–81	3.5	6.7	16.1	12.7	4.3	29.7	12.5
1982–84	4.1	8.6	18.5	12.5	4.3	35.2	14.4
1985–87	5.1	10.2	21.1	10.3	3.9	35.3	15.5
1988–90	5.2	13.0	23.5	9.8	4.6	38.0	17.4
1991–93	4.3	13.2	22.5	8.2	4.8	35.4	18.2
1994	4.7	13.8	23.8	8.0	5.0	36.8	18.7

[1] Standardised death rates per 100,000 of the mid-year 1991 population (average rate for a three year period).

A feature of the death rate for diseases of the respiratory system are the notable peaks which occurred in 1982, 1985, 1989 and 1992. These peaks were due to the periodic emergence of new strains of the influenza virus. Laboratory reports on influenza produced by the Department of Health and Family Services[1] show peaks in 1982, 1985, 1988–89 and 1992. In these years there was increased mortality from most respiratory diseases or conditions, as well as an increase in the relatively small number of deaths each year which were directly attributed to the influenza virus on the medical certificate of cause of death.

Standardised rates were higher for males than females for both causes. However, male and female rates showed differing trends. For males, the standardised death rate for diseases of the respiratory system fell by 21% from 99.7 deaths per 100,000 in 1979 to 78.0 in 1994. In contrast, the rate for females increased by 15% from 32.1 deaths per 100,000 in 1979 to 36.8 in 1994. The age-specific death rates for females aged below 55 years declined while death rates for females aged 65–84 showed an upward trend.

The standardised death rates for males from cancers of the respiratory system declined by 12% over the reference period from 66.9 deaths per 100,000 of the standard population in 1979 to 58.7 in 1994. Age-specific death rates for males decreased in all age groups except those aged 85 years and over. For females the standardised death rate increased from 12.1 deaths per 100,000 of the standard population in 1979 to 18.7 in 1994, a rise of 55%. This largely reflects the substantial increase in death rates for females aged 55 years and over.

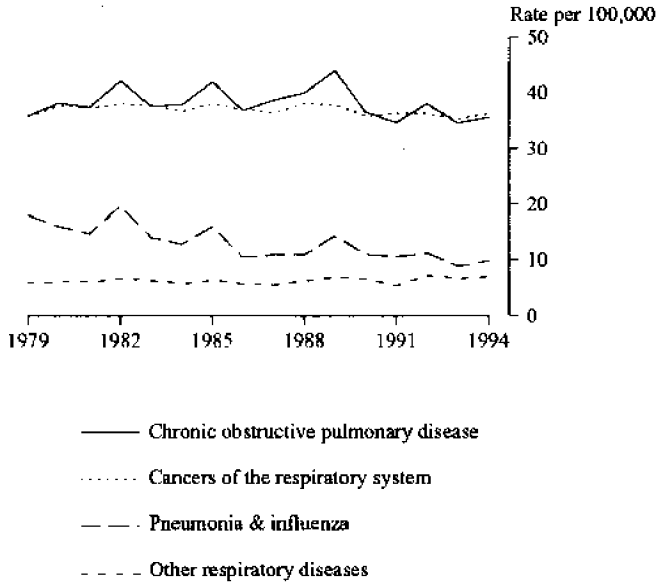
For both males and females, the greatest contributor to the standardised death rate for total respiratory disease was chronic obstructive pulmonary disease. Within the chronic obstructive pulmonary disease group, chronic airways obstruction (NEC) had the highest rate throughout the period.

[1] Department of Health and Family Services, *Communicable Diseases Intelligence*, 18 March 1996, vol. 20, no. 6, p. 14.1.

SPECIFIC CAUSES OF DEATH

Of the four specific causes examined, cancers of the respiratory system and chronic obstructive pulmonary disease had the higher standardised death rates and the rates remained relatively stable for both these causes over the reference period. The standardised death rate for pneumonia and influenza almost halved between 1979 and 1994.

STANDARDISED DEATH RATES, BY SPECIFIC CAUSE OF DEATH



PNEUMONIA AND INFLUENZA

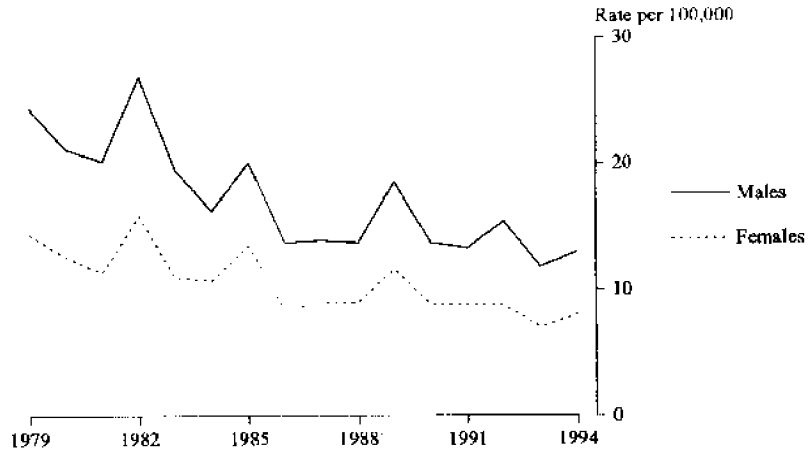
Although showing upward fluctuations due to periodic outbreaks of the influenza virus, the standardised death rate for pneumonia and influenza fell by 46% over the reference period, from 18.0 deaths per 100,000 of the standard population in 1979 to 9.8 in 1994.

Rates for males were higher than for females throughout the period. While the male standardised death rate fell by 47% from 24.3 to 13.0 deaths per 100,000 of the standard population between 1979 and 1994 it was still consistently higher than the female rate. The latter recorded a similar decrease of 44% from 14.3 deaths per 100,000 of the standard population to 8.0 over the same period.

Between 1979 and 1994 average age-specific death rates for pneumonia and influenza fell for all age groups. Among those aged over 65 years, where most deaths occurred, the greatest decrease was in the 75–84 age group, which decreased by 52%. (See tables 7 to 9.)

Despite the higher standardised death rate for males, there were actually more female deaths from pneumonia and influenza than male deaths over the reference period — 15,897 female deaths compared to 14,381 male deaths. This was a direct result of the larger number of females in older age groups in the population, which were where most pneumonia deaths occurred. In 1994, in the population aged 85 years and over, there were two and a half times more women than men.

STANDARDISED DEATH RATES, PNEUMONIA AND INFLUENZA



Standardised death rates for pneumonia and influenza for all States and the Northern Territory fell between 1979–81 and 1994. The Northern Territory rate was considerably higher than that shown for the other States throughout the reference period. In 1994 this rate was 64.3 deaths per 100,000 whereas the other State rates ranged from 6.7 for Victoria to 11.3 for Tasmania. (See table 10.)

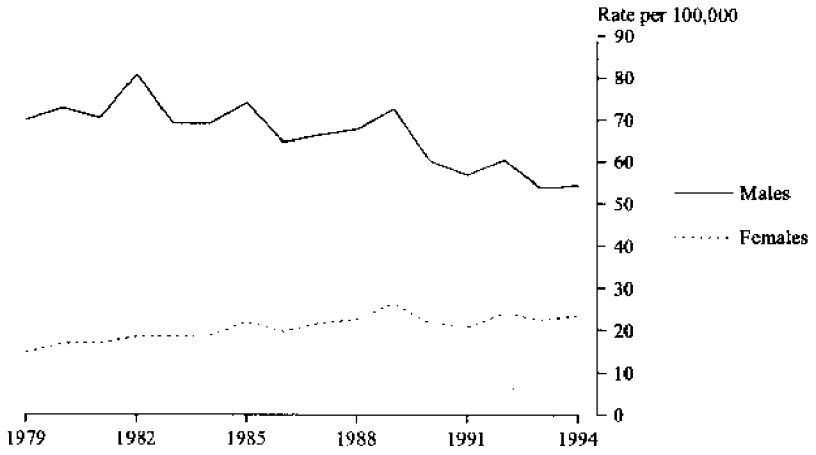
CHRONIC OBSTRUCTIVE PULMONARY DISEASE

The ICD subgroup chronic obstructive pulmonary disease and allied conditions (codes 490–496) covers the following diseases and conditions:

- Bronchitis, not specified as acute or chronic (code 490);
- Chronic bronchitis (code 491);
- Emphysema (code 492);
- Asthma (code 493);
- Bronchiectasis (code 494);
- Extrinsic allergic alveolitis (code 495); and
- Chronic airways obstruction, (NEC) (code 496).

The standardised death rate from chronic obstructive pulmonary disease for all persons remained stable over the reference period. However, the higher male standardised rate decreased while the female standardised rate increased. The male rate fell by 22% from 69.7 deaths per 100,000 in 1979 to 54.4 deaths in 1994 while the female rate rose by 63% from 14.6 deaths per 100,000 in 1979 to 23.8 deaths in 1994.

STANDARDISED DEATH RATES, CHRONIC OBSTRUCTIVE PULMONARY DISEASE

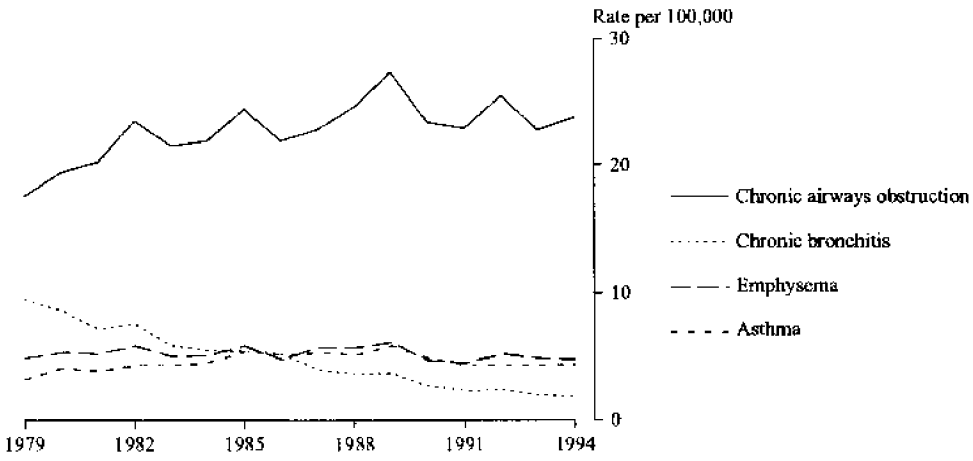


Age-specific death rates for males fell in all age groups. Death rates for females in younger age groups either fell or showed no change, while death rates for those aged over 55 increased.

Western Australia, Tasmania and the Northern Territory showed declines in the standardised death rates from this cause, which reflects substantial declines in previously high rates of death from chronic bronchitis. The other States and the Australian Capital Territory showed little change between 1979 and 1994. (See table 10.)

The standardised death rates for the various conditions within chronic obstructive pulmonary disease showed differing trends. Within this group, most deaths were registered to chronic airways obstruction (NEC), a residual category, used when a more specific diagnosis is not made.

STANDARDISED DEATH RATES, SELECT CHRONIC OBSTRUCTIVE PULMONARY DISEASES

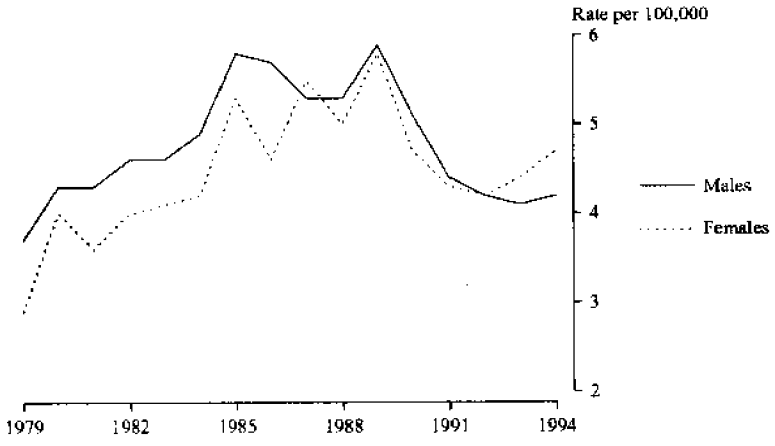


Asthma

The standardised death rate from asthma increased from 3.2 deaths per 100,000 of the standard population in 1979 to a peak of 5.8 in 1989 but has since decreased to 4.4 in 1994.

The male death rate was slightly higher than the equivalent female rate for most of the reference period, until they converged in the late 1980s. Since 1992 the female rate has increased above the male rate. As with pneumonia and influenza, despite the slightly higher male standardised death rate over most of the period, the larger female population in the older age groups, means that there were actually more female deaths from asthma. Between 1979 and 1994 there were 6,223 female deaths and 5,332 male deaths.

STANDARDISED DEATH RATES, ASTHMA



The age-specific death rates from asthma among persons aged 65 years and over increased between 1979–81 and 1988–90. After 1990 the death rates for these age groups remained relatively stable. Primarily as a result of the large increases in the asthma death rates recorded for the older age groups, mortality from asthma has become increasingly concentrated in those aged 65 and over. In 1994, 71% of deaths from asthma occurred in the 65 and over age group, whereas in 1979, 44% of asthma deaths occurred in this age group. Decreases in the death rates for younger age groups, and the effect of the aging of the population, also contributed to this shift, to a lesser extent.

The increase in the asthma death rates in the 1980s has received some attention from researchers who hypothesise that the rate may be affected by diagnostic transfer, particularly amongst older people. Diagnostic transfer refers to a trend to diagnose one condition rather than another owing to similarities in symptoms and changing recognition of diseases. It has been suggested that diagnostic transfer affected rates within the chronic obstructive pulmonary disease group, as asthma, chronic bronchitis and emphysema all share some symptoms. (See paragraph 15 in the Explanatory Notes for further information.) The death rates from asthma for older people tended to stabilise after about 1990, although in 1994 the 85 years and over age group showed another large upward fluctuation. (See table 9.)

Asthma-related deaths

In addition to those deaths where asthma was the underlying cause, the ABS has also attempted to identify those deaths where asthma may be a contributing factor. In 1994 such deaths were identified on a national basis for the first time.

In addition to the 825 deaths in which asthma was identified as the underlying cause, asthma was noted on 965 death certificates as either one of the causes in the chain of morbid events leading to death or as a contributing factor. Thus asthma-related deaths were 1.4% of total deaths in 1994, twice the number of deaths directly attributed to asthma.

Of the 965 additional deaths, the underlying cause in 60% of cases was a disease of the circulatory system. This included 41% (399 deaths) due to ischaemic heart disease, and 7% (69 deaths) due to cerebrovascular disease. Neoplasms were the underlying cause of 16% (159 deaths) of the total additional deaths.

Chronic airways obstruction (NEC)

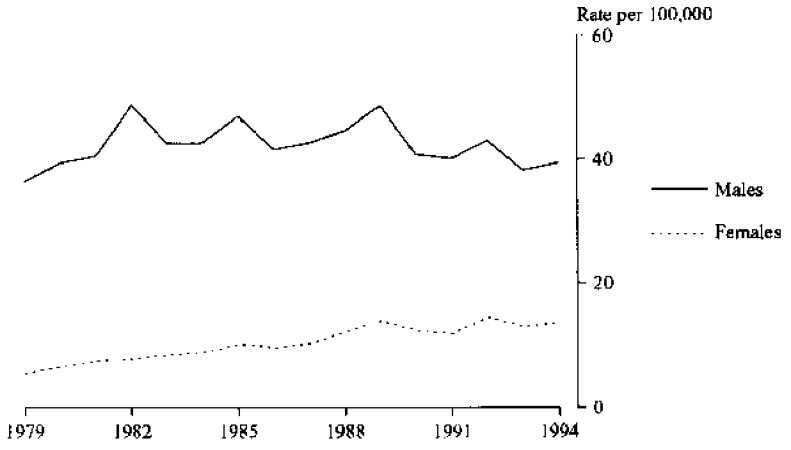
Chronic airways obstruction (NEC) (ICD code 496) is used when a death is ascribed to chronic lung disease or obstructive lung disease but where none of the specific diseases or conditions such as asthma, bronchitis or emphysema are mentioned on the medical certificate of cause of death.

Thus the cause of death code, chronic airways obstruction (NEC), functions as a residual category within the subgroup, chronic obstructive pulmonary disease. However more deaths are registered to chronic airways obstruction (NEC) than to any other code within this subgroup. For this reason chronic airways obstruction (NEC) has been contrasted to other groupings of respiratory disease. It must be remembered, however, that this is not a recognised disease or condition in the same sense as are the other conditions in the subgroup.

The standardised death rate from chronic airways obstruction (NEC) was 17.6 deaths per 100,000 of the standard population in 1979 and 23.8 in 1994, a rise of 35%. Most of this increase occurred in the earlier years of the reference period.

The male standardised death rate rose by 8% from 36.5 deaths per 100,000 of the standard population in 1979 to 39.5 in 1994. This is a minor fluctuation in a rate which had been relatively stable and shows the periodic peaks common to other respiratory diseases, which coincide with certain influenza outbreaks. The much lower female rate showed an upward trend, rising by 142% from 5.7 deaths per 100,000 of the standard population in 1979 to 13.8 in 1994.

STANDARDISED DEATH RATES, CHRONIC AIRWAYS OBSTRUCTION (NEC)



As with all respiratory diseases, deaths from chronic airways obstruction (NEC) are largely concentrated in the older age groups with 88% of deaths over the reference period occurring at ages 65 years and over. Furthermore, the age-specific death rates for those aged 65 and over increased over that period, with the largest increases experienced by those over 85 years. This is largely attributable to increases in the female rates which offset decreases in most corresponding male rates. (See tables 7 to 9.)

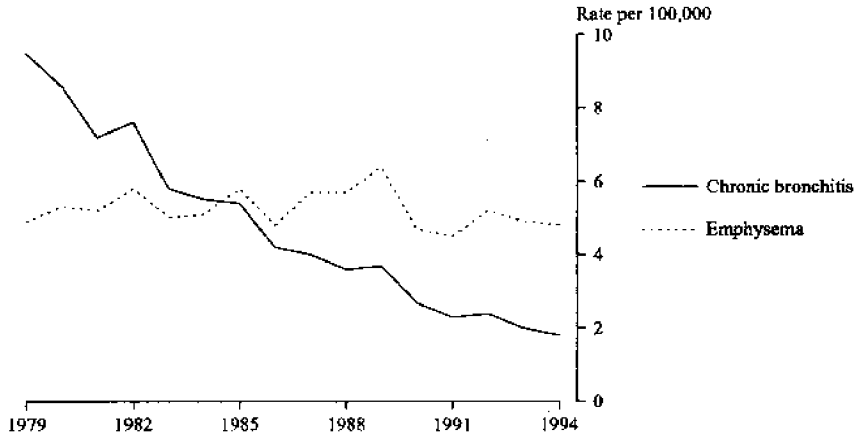
The Northern Territory and Tasmania had consistently higher standardised death rates from chronic airways obstruction (NEC) than the other States. In 1994, the Northern Territory had the highest standardised death rate at 52.2 deaths per 100,000 of the standard population, followed by Tasmania at 32.8, Victoria at 25.2, New South Wales at 23.8, and Queensland at 23.2. (See table 10.)

Chronic bronchitis, emphysema

There was a substantial decrease of 81% in the standardised death rate from chronic bronchitis, from 9.5 deaths per 100,000 in 1979 to 1.8 in 1994. The initially high rate for males showed the greatest decrease, from 19.1 deaths per 100,000 of the standard population in 1979 to 2.5 in 1994. Over the same period the female rate declined from 3.7 to 1.3.

Despite minor fluctuations, the standardised death rate for emphysema remained stable at around 5.0 deaths per 100,000. A decline in the male death rate, from 9.9 deaths per 100,000 in 1979 to 7.6 in 1994, was offset by an increase in the female rate from 1.5 deaths per 100,000 population in 1979 to 2.9 in 1994.

STANDARDISED DEATH RATES, CHRONIC BRONCHITIS AND EMPHYSEMA

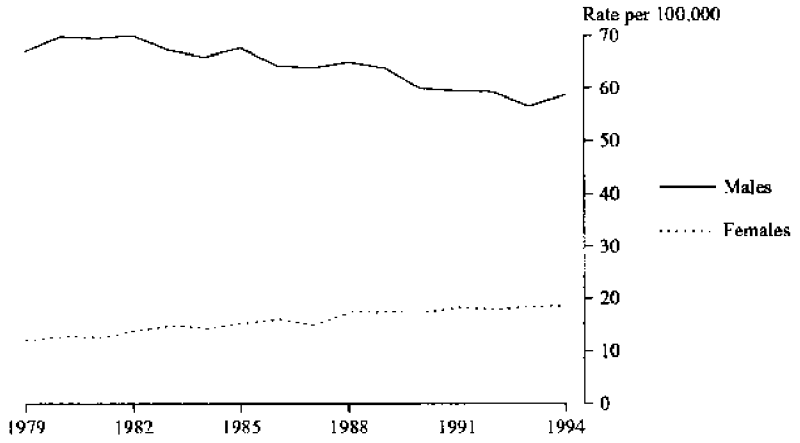


MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG

Cancers of the respiratory system caused 92,263 deaths between 1979 and 1994 as opposed to 138,826 deaths from diseases of the respiratory system, that is 40% of the 231,089 deaths from both causes. Over the reference period the standardised death rate from cancers of the respiratory system remained relatively stable, fluctuating within a narrow range, from a high of 38.0 deaths per 100,000 of the standard population in 1980 and 1985 to a low of 35.4 in 1993.

The male standardised death rate decreased by 12%, from 66.9 deaths per 100,000 of the standard population in 1979 to 58.7 in 1994. By comparison, the lower female rate increased by 55% from 12.1 deaths per 100,000 of the standard population in 1979, to 18.7 in 1994.

STANDARDISED DEATH RATES, MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG



With the exception of those aged 85 and over age-specific death rates for males were lower at the end of the reference period than at the beginning. In contrast the female age-specific death rates increased for most age groups, with the largest increases in the older age groups.

Over the reference period the standardised death rates for the States were at similar levels to the national rate, which remained relatively stable at around 36.0 deaths per 100,000. The two Territories, which had relatively small population sizes, showed greater fluctuation. The rate for the Australian Capital Territory was generally lower than the States, while the rate for the Northern Territory was considerably higher.

BIRTHPLACE

To enable analysis of the standardised death rates by birthplace, data was aggregated into the following groupings of cause of death: chronic obstructive pulmonary disease (ICD codes 490–496), other respiratory diseases (ICD codes 460–487 and 500–519), and malignant neoplasms of the trachea, bronchus and lung (ICD code 162). To calculate meaningful average standardised death rates by region of birth, data was aggregated by three year periods from 1980–82.

2 AVERAGE STANDARDISED DEATH RATES[1], BY CAUSE OF DEATH, BIRTHPLACE

Year	Australia	New Zealand	UK and Ireland	Southern Europe	North Western Europe	Eastern Europe and former USSR	Middle East and Africa	Asia	North America	Overseas
					CHRONIC OBSTRUCTIVE PULMONARY DISEASE					
1980–82	40.0	39.4	41.7	26.5	24.4	20.2	23.6	29.1	50.8	34.7
1983–85	40.2	43.4	42.6	23.6	23.3	24.7	19.2	28.9	61.8	34.5
1986–88	40.1	37.9	42.5	22.1	22.2	24.7	26.6	21.8	44.7	33.1
1989–91	40.1	35.9	43.1	22.6	24.1	26.2	21.3	21.5	38.6	33.1
1992–94	38.1	42.2	40.4	17.5	26.9	22.9	19.6	22.8	31.7	30.9
					OTHER RESPIRATORY DISEASES					
1980–82	23.0	19.0	21.4	22.8	17.0	15.9	20.8	12.4	35.6	20.8
1983–85	20.5	19.2	18.5	15.3	11.9	16.6	16.4	14.4	34.5	17.4
1986–88	16.7	12.0	16.1	13.9	12.1	15.4	13.3	12.8	20.6	15.0
1989–91	19.0	16.3	18.0	14.1	13.8	15.5	11.3	13.9	18.3	16.2
1992–94	17.5	11.1	16.5	11.8	12.5	16.1	12.0	14.1	11.7	15.1
					MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNGS					
1980–82	34.5	34.2	53.3	37.8	40.6	40.7	36.8	35.0	60.1	45.5
1983–85	34.6	34.0	52.9	34.7	46.3	39.7	30.3	30.0	52.9	44.5
1986–88	34.8	32.1	51.2	35.5	41.2	44.0	26.3	31.2	52.5	42.9
1989–91	34.7	32.1	49.8	35.0	43.1	43.5	29.9	25.4	44.0	41.5
1992–94	34.7	32.4	46.3	26.2	42.1	42.9	23.5	24.9	43.2	38.8

[1] Standardised death rates per 100,000 of the mid-year 1991 population, (average rate for a three year period).

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

The average standardised death rate for Australian-born persons was stable at around 40 deaths per 100,000 of the standard population, dropping to 38.1 in 1992–94. Rates for those born in New Zealand and the United Kingdom and Ireland were at a similar level to the Australian rate and remained stable. The rate for North American-born persons was initially higher than the rate for Australian-born persons but dropped below it by 1992–94.

The rates for persons born in other regions were lower than the rate for Australian-born persons throughout the period. Of these rates, those for persons born in Southern Europe and Asia showed downwards trends while the rates for persons born in other overseas regions fluctuated with no clear trend.

OTHER RESPIRATORY DISEASE

Australian-born persons had a higher average standardised death rate for other respiratory diseases than persons born in most overseas regions. Rates for persons born in Australia and most overseas regions showed a decreasing trend. The exceptions were Asia and Eastern Europe and the former USSR which showed little change.

MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG

While the average standardised death rate for Australian-born persons remained constant at around 35 deaths per 100,000 of the standard population, rates for persons born in most overseas regions decreased over the period. The most significant declines, of approximately 30% occurred in rates for persons born in North America, Asia and the Middle East and Africa. The exceptions were North West Europe and Eastern Europe including the former USSR, which showed a slight increase. Both these regions had rates higher than the Australian-born rate. The highest rates occurred in persons born in North America and the United Kingdom and Ireland.

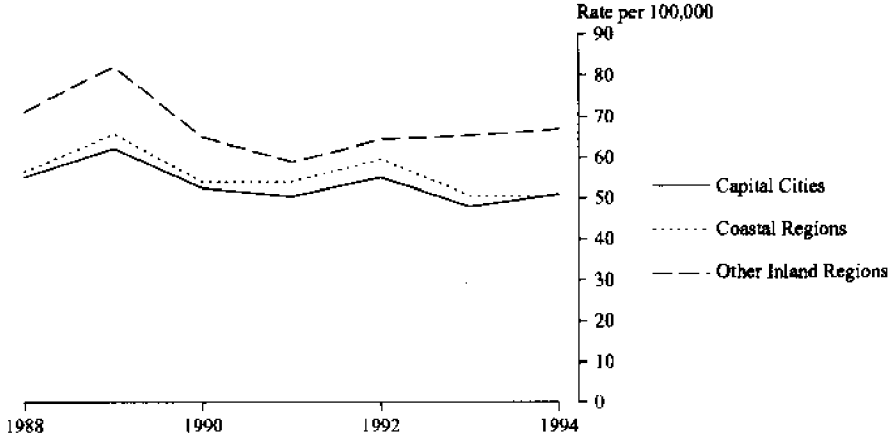
COASTAL/INLAND GEOGRAPHIC ANALYSIS

For this analysis, capital cities were treated as a distinct category, and areas outside capital cities were categorised as either coastal or inland. Due to significant differences in the boundaries of the Statistical local areas and their classification prior to 1988, this analysis is restricted to the years 1988 to 1994. (See paragraphs 6 and 7 of the Explanatory Notes.)

Within the defined geographic areas, standardised death rates for malignant neoplasms of the trachea, bronchus and lung were at a similar level. The average rate for inland areas was 38.1, and for both coastal areas and capital cities was 37.1.

More variation was apparent among the standardised rates for diseases of the respiratory system. The inland areas had the highest standardised death rates for diseases of the respiratory system and capital city regions had the lowest. Rates for coastal regions were slightly higher than the capital city rates. The average standardised death rates for the three areas over the seven years were 67.7 per 100,000 for inland areas, 55.7 for coastal areas, and 53.4 for capital city areas. The rates for all three areas showed a similar trend, with peaks in 1989 and 1992.

STANDARDISED DEATH RATES, DISEASES OF THE RESPIRATORY SYSTEM, GEOGRAPHIC SPLIT



SPECIFIC CAUSES OF DEATH

Climatic variation is regarded as a possible risk factor for asthma. A study[2] carried out in New South Wales examined the variations in severity of asthma in different climatic regions and showed slightly higher prevalence of asthma in children in coastal regions and in the far-west regions than those living in other inland regions. While noting the significant impact of differences in diagnostic patterns in the reported hospital admissions, asthma diagnostics, medications and symptoms in different regions, the study concluded that the variations in current prevalence in asthma are due to different allergic sensitisation.

Table 11 shows the standardised death rates for each of the specific diseases of the respiratory system based on the geographic location. For all specific respiratory diseases, including asthma, inland areas had the higher rate, followed by coastal areas and capital cities. This difference was true for standardised rates for males and females as well as at the aggregate level.

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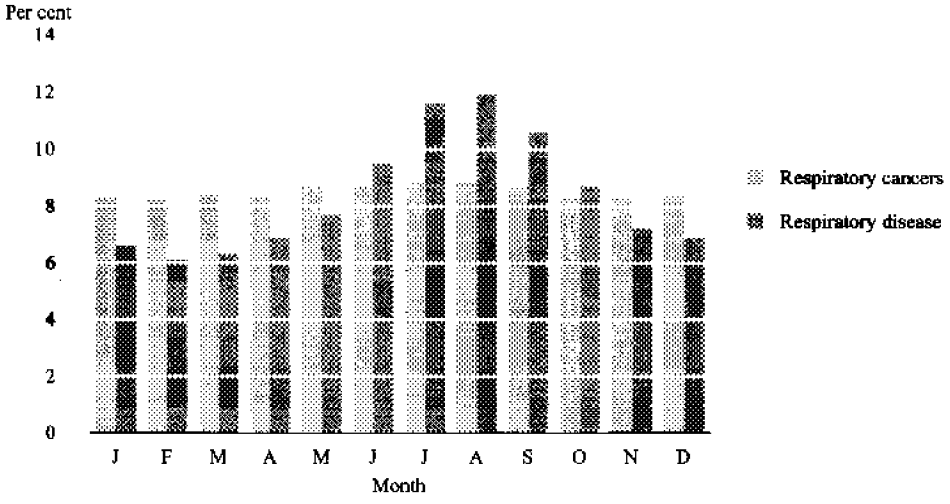
[2] Peat, J.K., Toelle, B.G., Gray, E.J., Haby, M.M., Belousova, E., Mellis, C.M., and Woolcock, A.J. 1995, 'Prevalence and severity of childhood Asthma and allergic sensitisation in seven regions of New South Wales', *The Medical Journal of Australia*, vol. 163, (3):22–26.

MONTH OF OCCURRENCE

Deaths from diseases of the respiratory system had a prominent peak in the winter months and declined in the summer, so that 6.1% of deaths (adjusted to a standard 30 day calendar month), occurred in February while 11.9% occurred in August. This pattern was the same for each of the component conditions. In all cases February had the lowest proportion of deaths and July/August the highest.

Deaths due to malignant neoplasms of the trachea, bronchus and lung were distributed more evenly across the year. They displayed a slight peak in the colder months, but to a much lesser extent than for diseases of the respiratory system.

AGGREGATED DEATHS, MONTH OF OCCURRENCE



YEARS OF POTENTIAL LIFE LOST

Years of potential life lost (YPLL) measures the extent of premature mortality, where premature mortality is assumed to be deaths occurring between the ages of 1 and 76 years. By estimating years of potential life lost for diseases of the respiratory system and malignant neoplasms of the trachea, bronchus and lung, it is possible to assess the relative significance of these conditions as a cause of untimely death.

In 1979, malignant neoplasms of the trachea, bronchus and lung and diseases of the respiratory system each contributed approximately 4.5% of the YPLL for total causes of death. By 1994, YPLL from malignant neoplasms of the trachea, bronchus and lung increased to 5.5% while the percentage for diseases of the respiratory system had remained stable at 4.6%. (See table 3.)

In 1994 the largest contributor to the YPLL from diseases of the respiratory system was chronic airways obstruction (NEC) followed by asthma. Chronic airways obstruction (NEC) increased its contribution to YPLL from respiratory diseases over the reference period. However, this increase has been counterbalanced by declining contributions to the YPLL from other chronic obstructive pulmonary diseases, and pneumonia and influenza.

3 YEARS OF POTENTIAL LIFE LOST, BY CAUSE OF DEATH AND YEAR

Year	*Malignant neoplasms of the trachea, bronchus and lung*	*Asthma*	*Chronic airways obstruction (NEC)*	*Chronic obstructive pulmonary disease*	*Pneumonia and influenza*	*Other respiratory diseases*	*Total respiratory diseases*	*Total all causes of death*
1979	47 394	8 287	11 154	30 024	12 229	6 426	48 679	1 073 858
1980	50 842	9 688	12 061	32 018	10 241	5 525	47 784	1 063 523
1981	51 157	9 980	13 447	33 278	9 278	6 733	49 289	1 039 170
1982	51 252	9 760	15 126	35 989	10 346	6 217	52 552	1 065 221
1983	52 572	9 981	13 335	32 249	7 552	6 456	46 257	1 010 583
1984	51 490	12 392	13 521	34 336	7 817	4 014	46 167	974 507
1985	53 253	12 957	15 320	37 552	9 969	4 828	52 349	1 023 229
1986	51 659	13 819	14 077	35 135	6 915	4 426	46 476	997 921
1987	51 233	13 869	13 930	36 207	7 320	4 673	48 200	983 572
1988	53 236	12 475	15 635	36 319	8 333	5 255	49 907	1 012 836
1989	53 867	13 609	16 785	39 215	8 013	5 116	52 344	994 005
1990	50 325	11 746	14 684	32 701	7 065	5 187	44 953	965 428
1991	51 956	9 924	14 404	30 599	7 601	5 272	43 463	938 931
1992	51 334	8 033	15 193	29 834	7 272	5 338	42 444	931 656
1993	49 819	9 908	14 279	30 665	7 495	4 603	42 763	908 731
1994	49 692	8 347	14 318	29 103	7 745	5 149	41 997	903 859

INTERNATIONAL COMPARISON

While international comparisons provide useful insights, care should be exercised in interpreting the data below as they refer to different years. The rates are those published in the World Health Organisation's *1994 World Health Statistics, Annual*.

Australia ranked in the middle of the twenty selected OECD countries for both diseases of the respiratory system and malignant neoplasms of the trachea, bronchus and lung. OECD countries which showed markedly higher death rates for diseases of the respiratory system were Ireland, Japan, United Kingdom, Spain and New Zealand. The OECD countries which showed much lower death rates for diseases of the respiratory system compared to Australia were Austria, France and Greece.

In the case of malignant neoplasms of the trachea, bronchus and lung there were major differences between the male and female standardised death rates for all the selected OECD countries. When compared to other OECD countries, using available data and bearing in mind the different reference years, Australian males occupy a relatively better position (rank sixteenth) in the standardised death rate from malignant neoplasms of the trachea, bronchus and lung, than Australian females who rank seventh.

4 STANDARDISED DEATH RATES[1] FOR DISEASES OF THE RESPIRATORY SYSTEM AND MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG, SELECTED OECD COUNTRIES AND AUSTRALIA

		Diseases of the respiratory system			*Malignant neoplasms of the trachea, bronchus and lung*		
Selected OECD country	*Year*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Australia	**1992**	**49.7**	**23.9**	**34.3**	**40.9**	**12.8**	**25.6**
Austria	1993	32.6	13.7	20.7	45.4	9.6	24.3
Canada	1992	46.2	22.7	31.9	53.4	22.1	36.0
Denmark	1992	47.6	31.3	37.2	48.9	24.5	35.1
Finland	1993	59.1	27.5	38.6	44.4	6.6	21.9
France	1992	37.5	16.6	24.9	47.3	5.3	24.3
Germany	1993	44.5	17.4	27.0	47.5	8.8	24.9
Greece	1993	29.6	17.6	22.9	51.0	6.6	26.9
Ireland	1992	85.8	52.5	66.1	45.4	17.6	30.2
Italy	1991	40.9	15.0	25.1	56.9	7.3	29.3
Japan	1993	67.1	28.7	43.4	30.9	8.2	17.8
Netherlands	1992	48.2	19.0	29.6	66.1	11.7	35.0
New Zealand	1992	59.4	38.6	46.5	43.2	17.5	28.7
Norway	1992	48.7	31.3	38.1	31.1	10.7	19.9
Portugal	1993	59.4	26.4	39.8	29.8	4.8	15.9
Spain	1991	61.2	22.6	38.5	46.8	3.8	23.0
Sweden	1992	36.5	20.0	26.5	23.4	11.1	16.6
Switzerland	1993	39.1	18.1	26.4	42.1	9.6	23.8
United Kingdom	1992	64.7	36.5	47.1	54.1	21.0	35.1
United States of America	1991	55.4	32.2	41.2	57.2	25.4	39.2

[1] Age-standardised per 100,000 of the world population.

Source: Table B-4, *World Health Statistics Annual, 1994*.

DETAILED MORTALITY TABLES

5 CAUSES OF DEATH

Year	*Asthma* no.	*Chronic airways obstruction (NEC)* no.	*Chronic obstructive pulmonary disease* no.	*Pneumonia and influenza* no.	*Other respiratory disease* no.	*Total all respiratory diseases* no.	*Malignant neoplasms of the trachea, bronchus, and lung* no.
				MALES			
1979	220	1 712	3 314	1 046	411	4 771	3 785
1980	253	1 910	3 539	943	416	4 898	4 060
1981	269	2 013	3 535	880	421	4 836	4 134
1982	288	2 490	4 153	1 181	498	5 832	4 266
1983	298	2 229	3 663	885	463	5 011	4 233
1984	331	2 321	3 796	784	430	5 010	4 226
1985	379	2 653	4 227	992	523	5 742	4 470
1986	399	2 429	3 836	725	472	5 033	4 351
1987	378	2 578	4 075	760	481	5 316	4 456
1988	380	2 764	4 258	787	569	5 614	4 631
1989	434	3 103	4 711	1 062	593	6 366	4 666
1990	381	2 696	4 018	835	613	5 466	4 466
1991	335	2 750	3 931	814	627	5 372	4 560
1992	332	3 030	4 301	985	686	5 972	4 666
1993	326	2 797	3 974	808	686	5 468	4 552
1994	329	2 976	4 132	894	765	5 791	4 810
				FEMALES			
1979	209	408	1 044	1 039	320	2 403	873
1980	290	505	1 232	956	343	2 531	937
1981	269	578	1 282	887	330	2 499	940
1982	303	628	1 434	1 288	356	3 078	1 071
1983	325	700	1 476	918	371	2 765	1 172
1984	330	751	1 526	918	348	2 792	1 165
1985	434	877	1 853	1 200	369	3 422	1 260
1986	388	860	1 718	807	362	2 887	1 351
1987	469	953	1 935	895	345	3 175	1 296
1988	446	1 138	2 090	920	412	3 422	1 538
1989	530	1 351	2 469	1 242	534	4 245	1 570
1990	441	1 223	2 103	962	470	3 535	1 587
1991	415	1 210	2 081	993	460	3 534	1 722
1992	427	1 511	2 481	1 023	592	3 096	1 734
1993	451	1 388	2 364	855	558	3 777	1 828
1994	496	1 509	2 581	994	592	4 167	1 887
				PERSONS			
1979	429	2 120	4 358	2 085	731	7 174	4 658
1980	543	2 415	4 771	1 899	759	7 429	4 997
1981	538	2 591	4 817	1 767	751	7 335	5 074
1982	591	3 118	5 587	2 469	854	8 910	5 337
1983	623	2 929	5 139	1 803	834	7 776	5 405
1984	661	3 072	5 322	1 702	778	7 802	5 391
1985	813	3 530	6 080	2 192	892	9 164	5 730
1986	787	3 289	5 554	1 532	834	7 920	5 702
1987	847	3 531	6 010	1 655	826	8 491	5 752
1988	826	3 902	6 348	1 707	981	9 036	6 169
1989	964	4 454	7 180	2 304	1 127	10 611	6 236
1990	822	3 919	6 121	1 797	1 083	9 001	6 053
1991	750	3 960	6 012	1 807	1 087	8 906	6 282
1992	759	4 541	6 782	2 008	1 278	10 068	6 400
1993	777	4 185	6 338	1 663	1 244	9 245	6 380
1994	825	4 485	6 713	1 888	1 357	9 958	6 697

6 STANDARDISED DEATH RATES[1], BY CAUSE OF DEATH

Year	Asthma	Chronic airways obstruction (NEC)	Chronic obstructive pulmonary disease	Pneumonia and influenza	Other respiratory disease	Total all respiratory diseases	Malignant neoplasms of the trachea, bronchus, and lung
			MALES				
1979	3.7	36.5	69.7	24.3	8.1	99.7	66.9
1980	4.3	39.5	72.5	21.1	8.5	99.1	69.7
1981	4.3	40.5	70.1	20.1	8.5	98.7	69.4
1982	4.6	48.7	80.4	26.8	10.3	117.5	69.9
1983	4.6	42.6	68.8	19.4	8.7	96.9	67.2
1984	4.9	42.7	68.8	16.2	8.4	93.4	65.9
1985	5.8	47.0	73.9	20.0	9.6	103.5	67.6
1986	5.7	41.6	64.4	13.7	8.3	86.4	64.3
1987	5.3	42.7	66.3	13.9	8.0	88.2	63.9
1988	5.3	44.6	67.5	13.7	9.2	90.4	65.0
1989	5.9	48.6	72.5	18.5	9.6	100.6	63.9
1990	5.1	40.8	60.0	13.7	9.6	83.3	59.9
1991	4.4	40.1	56.7	13.3	9.5	79.5	59.5
1992	4.2	43.0	60.3	15.4	10.0	85.7	59.3
1993	4.1	38.3	53.8	11.8	9.8	75.4	56.7
1994	4.2	39.5	54.4	13.0	10.6	78.0	58.7
			FEMALES				
1979	2.9	5.7	14.6	14.3	4.2	32.1	12.1
1980	4.0	6.8	16.7	12.6	4.4	32.4	12.8
1981	3.6	7.6	16.9	11.3	4.3	32.5	12.6
1982	4.0	8.0	18.4	15.8	4.4	38.6	13.9
1983	4.1	8.7	18.4	10.9	4.5	33.8	14.9
1984	4.2	9.1	18.6	10.7	4.0	33.2	14.5
1985	5.3	10.3	21.9	13.5	4.2	39.6	15.3
1986	4.6	9.8	19.7	8.4	3.9	32.0	16.1
1987	5.5	10.5	21.7	9.0	3.6	34.3	15.0
1988	5.0	12.3	22.7	9.0	4.2	35.9	17.4
1989	5.8	14.2	26.2	11.6	5.2	43.0	17.5
1990	4.7	12.5	21.7	8.8	4.5	35.0	17.2
1991	4.3	12.0	20.8	8.8	4.3	33.9	18.3
1992	4.2	14.6	24.1	8.7	5.3	38.1	17.9
1993	4.4	13.1	22.4	7.0	4.8	34.3	18.5
1994	4.7	13.8	23.8	8.0	5.0	36.8	18.7
			PERSONS				
1979	3.2	17.6	35.8	18.0	5.8	58.1	35.7
1980	4.1	19.4	38.1	15.9	6.0	58.1	37.5
1981	3.9	20.2	37.3	14.6	5.9	57.8	37.2
1982	4.3	23.5	42.0	19.7	6.6	68.3	38.0
1983	4.3	21.5	37.5	13.9	6.2	57.6	37.6
1984	4.5	21.9	37.7	12.7	5.7	56.1	36.6
1985	5.4	24.4	41.8	15.9	6.3	64.0	38.0
1986	5.1	21.9	36.8	10.4	5.6	52.8	36.9
1987	5.3	22.8	38.6	10.8	5.4	54.8	36.3
1988	5.1	24.6	39.9	10.8	6.2	56.9	38.1
1989	5.8	27.3	43.9	14.2	6.9	65.0	37.7
1990	4.9	23.4	36.5	10.8	6.5	53.8	35.9
1991	4.3	22.9	34.7	10.5	5.3	50.5	36.3
1992	4.3	25.5	38.1	11.2	7.2	56.5	36.2
1993	4.3	22.8	34.6	8.9	6.7	50.2	35.4
1994	4.4	23.8	35.7	9.8	7.1	52.6	36.3

[1] Standardised death rate per 100,000 of the mid-year 1991 population.

7 AGE-SPECIFIC DEATH RATES[1], BY CAUSE OF DEATH, MALES

Year	Age group (years) 0–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75–84	85+	Total[2]	SDR[3]
ASTHMA												
1979–81	0.3	0.7	1.1	1.2	1.9	3.8	8.0	15.0	22.2	44.0	3.4	4.1
1982–84	0.3	0.8	1.5	1.2	2.0	4.1	8.6	18.4	32.3	27.6	4.0	4.7
1985–87	0.4	0.9	1.9	1.4	2.0	4.1	10.5	22.4	32.5	62.4	4.8	5.6
1988–90	0.1	0.8	1.5	1.4	1.9	3.6	10.4	21.1	37.3	54.2	4.7	5.4
1991–93	0.4	0.4	1.1	0.9	1.3	2.8	7.8	15.5	32.5	50.7	3.8	4.2
1994[4]	0.3	0.3	0.6	0.9	0.5	1.9	7.0	14.7	30.8	97.9	3.7	4.2
CHRONIC AIRWAYS OBSTRUCTION (NEC)												
1979–81	—	0.1	—	0.1	0.5	6.3	38.0	161.3	466.0	735.4	25.6	38.8
1982–84	0.1	—	—	—	0.4	5.2	39.3	186.7	532.5	952.2	30.5	44.7
1985–87	0.1	—	—	0.1	0.5	4.1	40.8	180.2	510.7	974.8	31.9	43.8
1988–90	—	—	—	—	0.2	4.5	39.7	172.5	528.2	1 063.0	34.0	44.7
1991–93	0.1	—	—	—	0.2	3.7	34.7	160.6	476.8	978.2	32.8	40.5
1994[4]	—	—	—	—	0.1	3.1	31.1	160.8	462.2	1 005.4	33.5	39.5
CHRONIC OBSTRUCTIVE PULMONARY DISEASE												
1979–81	0.8	0.9	1.2	1.5	3.1	16.0	74.7	284.1	799.4	1 398.7	47.2	70.8
1982–84	0.5	0.8	1.8	1.5	3.3	14.2	70.2	295.4	821.3	1 546.1	50.4	72.7
1985–87	0.8	1.0	2.1	1.6	3.3	11.4	70.5	280.5	747.8	1 459.8	50.6	68.2
1988–90	0.3	0.8	1.6	1.6	2.6	10.5	68.4	262.5	742.7	1 484.9	51.6	66.7
1991–93	0.6	0.4	1.2	1.1	1.8	8.5	55.4	229.2	641.7	1 286.2	46.7	56.9
1994[4]	0.9	0.3	0.7	1.0	0.9	6.5	50.4	223.5	605.4	1 344.3	46.5	54.4
PNEUMONIA AND INFLUENZA												
1979–81	6.0	0.3	0.7	1.0	2.1	7.1	14.0	46.2	188.0	930.8	13.0	22.2
1982–84	4.9	0.3	0.6	0.7	2.0	5.2	10.0	43.4	172.6	958.0	12.4	20.8
1985–87	3.8	0.2	0.3	1.0	1.7	4.2	11.1	35.8	117.9	696.3	10.3	15.9
1988–90	2.9	0.1	0.5	0.8	1.6	3.8	10.9	33.6	125.8	657.0	10.7	15.3
1991–93	2.8	0.1	0.4	0.7	1.8	3.3	9.1	30.2	103.1	592.7	10.0	13.5
1994[4]	0.9	0.1	0.5	1.3	1.2	3.3	10.8	33.2	88.3	561.0	10.1	13.0
OTHER RESPIRATORY DISEASES												
1979–81	3.7	0.2	0.4	0.5	0.7	3.5	9.6	26.6	71.0	240.7	5.7	8.4
1982–84	2.9	0.2	0.2	0.4	1.0	2.7	8.5	28.9	73.7	304.4	6.0	9.0
1985–87	2.2	0.1	0.3	0.3	0.7	2.2	7.6	24.8	92.4	250.7	6.1	8.6
1988–90	2.2	0.2	0.2	0.3	0.8	2.3	7.6	27.1	98.7	291.0	7.1	9.5
1991–93	1.8	0.1	0.2	0.2	0.6	1.7	7.5	29.1	102.6	309.4	7.6	9.8
1994[4]	1.5	—	0.3	0.4	0.6	1.2	8.0	27.1	119.2	357.7	8.6	10.6
TOTAL RESPIRATORY DISEASES												
1979–81	10.5	1.4	2.3	3.1	5.9	26.6	98.3	357.0	1 058.4	2 570.2	65.9	109.8
1982–84	8.3	1.3	2.7	2.5	6.3	22.0	88.7	367.7	1 067.6	2 808.5	68.7	102.5
1985–87	6.7	1.3	2.7	2.8	5.6	17.8	89.2	341.0	958.1	2 406.8	67.0	92.7
1988–90	5.4	1.2	2.3	2.8	5.0	16.5	86.8	323.2	967.3	2 432.9	69.3	91.4
1991–93	5.2	0.6	1.8	2.0	4.2	13.5	72.0	288.5	847.4	2 188.3	64.3	80.2
1994[4]	3.3	0.4	1.5	2.6	2.7	11.0	69.2	283.8	812.9	2 263.0	65.2	78.0
MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG												
1979–81	—	—	0.1	0.6	6.5	51.1	167.3	368.1	528.0	412.9	54.4	68.7
1982–84	—	—	0.1	0.4	6.1	47.2	165.5	366.3	518.0	445.7	55.2	67.7
1985–87	0.1	—	—	0.4	5.0	41.1	164.3	347.6	502.0	481.2	55.3	65.3
1988–90	—	—	—	0.4	4.8	36.3	153.8	333.2	506.2	471.9	54.7	62.9
1991–93	—	—	—	0.4	4.3	31.2	140.7	321.4	459.9	450.3	52.7	58.5
1994[4]	—	—	0.1	0.2	4.5	27.5	128.6	333.2	464.5	514.0	54.1	58.7

1 Age-specific death rate per 100,000 of the mid-year population (average rate for a three year period).

2 Total represents the crude death rate per 100,000 of the mid-year population (average rate for a three year period).

3 Standardised death rates per 100,000 of the mid-year 1991 population (average rate for a three year period).

4 Age-specific, crude and standardised death rates have been calculated on a single year basis for 1994.

8 AGE-SPECIFIC DEATH RATES[1], BY CAUSE OF DEATH, FEMALES

Year	Age group (years) 0–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75–84	85+	Total[2]	SDR[3]
ASTHMA												
1979–81	0.2	0.5	1.3	1.0	1.5	4.6	7.3	11.6	18.4	27.5	3.5	3.5
1982–84	0.2	0.5	1.0	1.5	2.2	4.5	7.4	14.6	24.5	32.4	4.1	4.1
1985–87	0.1	0.6	2.0	1.7	2.3	5.5	10.4	18.8	28.4	37.0	5.4	5.1
1988–90	0.2	0.5	1.6	1.2	2.3	5.1	10.6	18.2	31.5	55.2	5.6	5.2
1991–93	0.2	0.4	1.0	0.8	1.4	3.3	7.2	17.5	31.4	55.2	4.9	4.3
1994[4]	—	0.5	0.9	1.3	1.3	2.8	6.9	18.2	34.3	81.2	5.5	4.7
CHRONIC AIRWAYS OBSTRUCTION (NEC)												
1979–81	—	—	—	—	0.3	3.0	12.9	36.3	57.5	84.5	6.8	6.7
1982–84	0.1	—	—	—	0.3	3.4	15.9	46.7	77.7	106.3	9.0	8.6
1985–87	—	—	—	—	0.3	2.7	16.8	54.5	96.3	147.0	11.2	10.2
1988–90	0.1	—	—	—	0.5	3.6	21.0	65.3	131.0	187.0	14.7	13.0
1991–93	0.1	—	—	—	0.3	2.1	18.0	69.0	140.0	203.0	15.6	13.2
1994[4]	—	—	—	0.1	0.1	2.2	17.3	71.7	148.4	225.6	16.9	13.8
CHRONIC OBSTRUCTIVE PULMONARY DISEASE												
1979–81	0.3	0.5	1.4	1.4	2.7	10.7	29.1	70.7	129.1	235.7	16.1	16.1
1982–84	0.6	0.6	1.1	1.8	3.2	11.2	33.4	87.8	146.6	252.5	19.2	18.5
1985–87	0.3	0.6	2.1	1.8	3.1	11.4	36.0	100.1	175.4	289.7	22.9	21.1
1988–90	0.6	0.6	1.7	1.3	3.2	10.2	40.9	108.5	212.4	332.0	26.4	23.5
1991–93	0.3	0.5	1.1	0.9	1.9	7.2	34.1	109.4	217.4	343.0	26.3	22.5
1994[4]	0.5	0.5	1.0	1.5	1.6	6.8	34.1	114.6	233.8	392.0	28.8	23.8
PNEUMONIA AND INFLUENZA												
1979–81	4.9	0.3	0.2	0.7	1.2	3.1	6.2	21.5	108.6	652.2	13.1	12.7
1982–84	3.2	0.2	0.2	0.4	0.7	2.5	6.3	22.7	101.1	674.0	13.5	12.5
1985–87	3.1	0.2	0.3	0.5	0.8	1.8	5.7	19.9	82.3	532.8	12.1	10.3
1988–90	2.5	0.3	0.5	0.6	0.7	1.8	4.6	17.9	77.7	552.6	12.4	9.8
1991–93	1.9	0.2	0.3	0.6	0.8	1.7	4.7	17.0	61.9	456.1	10.9	8.2
1994[4]	2.2	0.1	0.1	0.3	0.9	1.5	5.8	19.8	52.3	444.0	11.1	7.9
OTHER RESPIRATORY DISEASES												
1979–81	3.6	0.2	0.3	0.3	0.5	1.7	4.1	11.4	30.9	170.9	4.5	4.3
1982–84	2.4	0.1	0.2	0.4	0.5	1.3	3.7	10.2	34.0	183.1	4.6	4.3
1985–87	1.5	0.1	—	0.2	0.4	1.3	4.2	8.5	38.0	141.7	4.5	3.9
1988–90	1.4	0.1	0.1	0.2	0.5	1.7	3.2	11.8	45.8	177.6	5.6	4.6
1991–93	1.4	0.1	0.2	0.2	0.5	1.4	4.2	12.6	47.4	181.1	6.1	4.8
1994[4]	0.8	0.1	0.1	0.2	0.5	1.5	2.6	11.9	58.1	180.6	6.6	5.0
TOTAL RESPIRATORY DISEASES												
1979–81	8.8	1.1	2.0	2.4	4.4	15.5	39.3	103.6	268.6	1 058.8	33.7	29.7
1982–84	6.1	0.9	1.4	2.6	4.4	14.9	43.4	120.7	281.7	1 109.7	37.3	35.2
1985–87	4.9	0.9	2.4	2.5	4.3	14.4	45.9	128.5	295.7	964.2	39.4	35.3
1988–90	4.6	0.9	2.3	2.1	4.4	13.7	48.7	138.2	335.9	1 062.3	44.3	38.0
1991–93	3.6	0.8	1.5	1.7	3.2	10.2	43.1	139.0	326.7	980.2	43.3	35.4
1994[4]	3.5	0.6	1.2	2.0	3.0	9.8	42.5	146.2	344.1	1 016.6	46.5	36.7
MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG												
1979–81	—	—	—	0.3	3.0	15.1	37.9	64.6	64.2	51.8	12.5	12.5
1982–84	0.1	—	0.1	0.5	2.8	15.8	44.4	76.5	76.5	56.9	14.7	14.4
1985–87	—	—	—	0.4	3.8	15.4	44.3	80.8	91.7	68.7	16.2	15.5
1988–90	—	—	—	0.3	3.8	14.8	50.7	93.6	106.3	74.6	18.6	17.4
1991–93	—	—	—	0.3	2.7	15.9	48.5	98.1	122.9	96.9	20.1	18.2
1994[4]	—	—	—	0.1	2.4	16.7	46.4	103.5	133.0	86.8	21.1	18.7

1 Age-specific death rate per 100,000 of the mid-year population (average rate for a three year period).
2 Total represents the crude death rate per 100,000 of the mid-year population (average rate for a three year period).
3 Standardised death rates per 100,000 of the mid-year 1991 population (average rate for a three year period).
4 Age-specific, crude and standardised death rates have been calculated on a single year basis for 1994 .

9 AGE-SPECIFIC DEATH RATES[1], BY CAUSE OF DEATH, PERSONS

Year	Age group (years) 0–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75–84	85+	Total[2]	SDR[3]
ASTHMA												
1979–81	0.2	0.6	1.2	1.1	1.7	4.2	7.7	13.1	19.9	32.1	3.4	3.7
1982–84	0.2	0.6	1.3	1.4	2.1	4.3	8.0	16.3	27.5	31.1	4.1	4.4
1985–87	0.2	0.7	1.9	1.5	2.1	4.8	10.5	20.4	30.0	43.8	5.1	5.3
1988–90	0.1	0.7	1.6	1.3	2.1	4.3	10.5	19.5	33.8	54.9	5.2	5.3
1991–93	0.3	0.4	1.0	0.9	1.3	3.1	7.5	16.6	31.8	53.9	4.4	4.3
1994[4]	0.2	0.4	0.8	1.1	0.9	2.3	6.9	16.5	32.9	86.2	4.6	4.4
CHRONIC AIRWAYS OBSTRUCTION (NEC)												
1979–81	—	—	—	—	0.4	4.7	25.1	93.2	211.9	264.5	16.2	19.1
1982–84	0.1	—	—	—	0.4	4.3	27.5	110.2	252.5	330.9	19.7	22.3
1985–87	—	—	—	0.1	0.4	3.4	28.8	111.8	258.2	369.2	21.5	23.0
1988–90	—	—	—	—	0.3	4.1	30.4	114.6	287.6	431.6	24.3	25.1
1991–93	0.1	—	—	—	0.2	2.9	26.4	111.7	273.7	428.6	24.2	23.7
1994[4]	—	—	—	—	0.1	2.7	24.3	113.6	273.5	455.8	25.1	23.8
CHRONIC OBSTRUCTIVE PULMONARY DISEASE												
1979–81	0.6	0.7	1.3	1.5	2.9	13.4	51.3	168.0	382.2	557.5	31.6	37.1
1982–84	0.5	0.7	1.4	1.6	3.3	12.7	51.6	182.0	405.6	594.1	34.8	39.1
1985–87	0.5	0.8	2.1	1.7	3.2	11.3	53.4	182.3	398.8	610.0	36.7	39.1
1988–90	0.5	0.7	1.6	1.5	2.9	10.4	54.7	179.6	422.4	656.2	39.0	40.1
1991–93	0.4	0.5	1.1	1.0	1.9	7.9	44.8	165.2	386.3	616.7	36.5	35.8
1994[4]	0.7	0.4	0.8	1.2	1.3	6.6	42.3	165.8	381.9	673.1	37.6	35.7
PNEUMONIA AND INFLUENZA												
1979–81	5.4	0.3	0.5	0.9	1.7	5.1	10.0	32.8	138.6	729.2	13.0	16.3
1982–84	4.0	0.2	0.4	0.5	1.4	3.9	8.1	32.1	128.6	749.4	12.9	15.4
1985–87	3.4	0.2	0.3	0.7	1.2	3.0	8.4	27.1	96.2	576.7	11.2	12.4
1988–90	2.7	0.2	0.5	0.7	1.1	2.8	7.7	25.1	96.7	581.8	11.5	11.9
1991–93	2.4	0.1	0.4	0.6	1.3	2.5	6.9	23.1	78.3	495.9	10.4	10.2
1994[4]	1.6	0.1	0.3	0.8	1.0	2.4	8.3	26.1	66.6	478.6	10.6	9.8
OTHER RESPIRATORY DISEASES												
1979–81	3.7	0.2	0.4	0.4	0.6	2.6	6.8	18.3	46.1	190.2	5.1	5.9
1982–84	2.7	0.2	0.2	0.4	0.8	2.0	6.0	18.7	49.3	215.3	5.3	6.2
1985–87	1.8	0.1	0.2	0.2	0.5	1.7	5.9	15.9	59.3	170.9	5.3	5.8
1988–90	1.8	0.1	0.2	0.3	0.6	2.0	5.4	18.8	66.7	209.3	6.3	6.5
1991–93	1.6	0.1	0.2	0.2	0.5	1.6	5.8	20.3	69.3	218.4	6.9	6.7
1994[4]	1.2	—	0.2	0.3	0.6	1.4	5.3	19.1	82.4	232.9	7.6	7.1
TOTAL RESPIRATORY DISEASES												
1979–81	9.7	1.2	2.2	2.7	5.2	21.2	68.1	218.9	567.2	1 476.7	49.8	59.2
1982–84	7.3	1.1	2.0	2.5	5.4	18.6	65.7	232.7	583.9	1 560.8	53.0	60.7
1985–87	5.8	1.1	2.5	2.7	5.0	16.1	67.5	225.3	554.5	1 351.4	53.2	57.2
1988–90	5.0	1.0	2.3	2.5	4.7	15.2	67.8	223.4	584.8	1 445.0	56.8	58.6
1991–93	4.4	0.7	1.7	1.8	3.7	11.9	57.6	208.7	533.4	1 331.7	53.8	52.7
1994[4]	3.4	0.5	1.4	2.3	2.9	10.4	55.9	210.9	531.0	1 384.6	55.8	52.6
MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG												
1979–81	—	—	0.1	0.4	4.8	33.5	101.1	202.8	239.5	151.7	33.4	36.8
1982–84	—	—	0.1	0.4	4.5	31.9	104.2	207.9	246.3	160.1	34.9	37.4
1985–87	—	—	—	0.4	4.4	28.6	104.2	202.3	252.0	179.4	35.8	37.1
1988–90	—	—	—	0.3	4.3	25.8	102.4	203.9	264.0	185.5	36.6	37.2
1991–93	—	—	—	0.4	3.5	23.7	94.8	202.2	256.6	199.7	36.3	36.0
1994[4]	—	—	—	0.2	3.5	22.2	87.7	211.6	265.2	212.9	37.5	36.3

1 Age-specific death rate per 100,000 of the mid-year population (average rate for a three year period).

2 Total represents the crude death rate per 100,000 of the mid-year population (average rate for a three year period).

3 Standardised death rates per 100,000 of the mid-year 1991 population (average rate for a three year period).

4 Age-specific, crude and standardised death rates have been calculated on a single year basis for 1994.

10 STANDARDISED DEATH RATES[1], BY STATE AND TERRITORY OF USUAL RESIDENCE

Year	NSW	Vic.	QLD	SA	WA	Tas.	NT	ACT	Aust.
				ASTHMA					
1979–81	3.7	4.4	3.3	3.2	3.3	n.p.	n.p.	n.p.	3.7
1982–84	4.1	5.1	4.2	4.0	4.4	n.p.	n.p.	n.p.	4.4
1985–87	5.8	5.9	5.1	3.4	4.5	n.p.	n.p.	n.p.	5.3
1988–90	5.7	5.8	5.0	4.2	4.2	n.p.	n.p.	n.p.	5.3
1991–93	4.8	4.7	3.8	3.4	3.5	n.p.	n.p.	n.p.	4.3
1994[2]	4.6	5.2	3.6	4.1	2.5	n.p.	n.p.	n.p.	4.4
				CHRONIC AIRWAYS OBSTRUCTION (NEC)					
1979–81	19.3	18.0	18.5	15.3	20.2	34.4	77.8	n.p.	19.1
1982–84	22.6	22.1	21.5	19.2	20.9	30.2	65.4	n.p.	22.3
1985–87	24.7	22.4	22.5	17.1	20.3	33.1	87.1	22.5	23.0
1988–90	26.9	24.3	24.2	22.0	20.9	33.8	74.5	22.1	25.1
1991–93	24.2	24.5	22.3	20.8	20.7	33.0	83.7	21.2	23.7
1994[2]	23.8	25.2	23.2	20.7	19.7	32.8	52.2	24.6	23.8
				CHRONIC OBSTRUCTIVE PULMONARY DISEASE					
1979–81	35.4	39.2	34.7	32.9	39.5	52.5	116.3	34.4	37.1
1982–84	37.7	41.2	38.0	34.7	37.8	47.3	101.2	37.3	39.1
1985–87	40.2	41.8	38.2	29.0	34.5	46.8	118.5	36.6	39.1
1988–90	41.9	40.2	40.0	34.5	35.0	44.2	104.3	36.5	40.1
1991–93	36.9	37.0	34.0	31.1	32.2	42.9	104.9	28.9	35.8
1994[2]	35.4	37.7	35.3	32.3	29.6	46.1	81.2	35.9	35.7
				PNEUMONIA AND INFLUENZA					
1979–81	12.7	15.9	16.6	21.0	22.6	23.4	110.6	n.p.	16.2
1982–84	12.0	17.2	14.9	21.7	17.4	13.5	67.0	n.p.	15.4
1985–87	11.3	11.3	12.5	17.0	13.0	12.4	54.9	n.p.	12.4
1988–90	9.7	10.6	11.7	18.6	13.7	20.3	49.0	n.p.	11.9
1991–93	7.6	8.7	10.6	16.4	11.7	21.0	52.4	16.2	10.2
1994[2]	7.3	6.7	9.9	8.4	8.1	11.3	64.3	n.p.	9.8
				OTHER RESPIRATORY DISEASES					
1979–81	5.9	5.2	7.4	3.9	8.1	5.7	n.p.	n.p.	5.9
1982–84	6.5	5.0	7.9	4.8	6.9	n.p.	n.p.	n.p.	6.2
1985–87	6.0	5.2	6.7	4.3	5.9	n.p.	n.p.	n.p.	5.8
1988–90	7.1	6.4	6.8	4.9	5.9	n.p.	n.p.	n.p.	6.5
1991–93	7.7	6.0	5.9	6.2	6.5	7.5	n.p.	n.p.	6.7
1994[2]	7.4	6.1	8.0	7.2	7.3	7.1	n.p.	n.p.	7.1
				TOTAL RESPIRATORY DISEASES					
1979–81	54.0	60.4	58.7	57.7	70.2	81.6	271.7	61.6	59.2
1982–84	56.3	63.4	60.8	61.2	62.2	64.5	192.0	59.3	60.7
1985–87	57.5	58.3	57.4	50.3	53.4	62.6	202.3	63.3	57.2
1988–90	58.7	57.1	58.5	58.0	54.6	67.8	186.9	62.2	58.6
1991–93	52.2	51.7	50.5	53.7	50.3	71.4	175.5	52.4	52.7
1994[2]	50.1	50.5	53.2	47.9	45.0	64.5	155.9	46.0	52.6
				MALIGNANT NEOPLASMS OF THE TRACHEA, BRONCHUS AND LUNG					
1979–81	37.0	37.9	34.0	33.6	40.2	37.9	61.5	32.9	36.8
1982–84	37.8	36.8	36.7	34.8	41.9	38.8	41.8	34.3	37.4
1985–87	37.7	37.2	36.7	32.2	39.2	37.9	60.7	35.0	37.1
1988–90	37.3	37.8	36.0	34.5	39.0	42.2	41.0	36.3	37.2
1991–93	36.1	36.2	35.2	34.6	37.0	36.5	61.8	32.2	36.0
1994[2]	35.4	38.0	34.9	36.0	36.8	37.4	79.0	28.1	36.3

1 Standardised death rates per 100,000 of the mid-year 1991 population, (average rate for a three year period).

2 Standardised death rate per 100,000 of the mid-year 1991 population.

11 STANDARDISED DEATH RATES[1], CAPITAL CITY, COASTAL AND INLAND REGIONS, BY CAUSE OF DEATH

Cause	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*Average*
				CAPITAL CITIES[2]				
Asthma	4.8	5.7	4.6	4.1	4.2	3.8	4.2	4.5
Chronic airways obstruction (NEC)	24.2	26.5	23.5	22.4	24.9	21.9	23.3	23.8
Chronic obstructive pulmonary disease	38.6	42.0	35.5	33.3	36.9	32.3	34.3	36.1
Pneumonia and influenza	10.5	13.5	10.2	10.4	10.9	8.7	9.4	10.5
Other diseases of the respiratory system	6.2	6.8	6.8	6.7	7.5	6.9	7.3	6.9
Total respiratory diseases	55.3	62.3	52.5	50.5	55.2	47.9	51.0	53.4
				COASTAL[2]				
Asthma	5.1	5.2	4.8	4.3	4.2	4.6	4.0	4.6
Chronic airways obstruction (NEC)	24.0	27.7	22.3	24.7	27.1	22.8	22.7	24.5
Chronic obstructive pulmonary disease	39.4	44.2	36.4	37.2	40.7	36.0	35.0	38.4
Pneumonia and influenza	11.2	14.7	11.4	10.9	11.7	8.5	9.2	11.1
Other diseases of the respiratory system	6.2	7.0	6.3	6.0	7.3	6.2	6.5	6.5
Total respiratory diseases	56.7	65.9	54.0	54.2	59.7	50.7	50.6	55.7
				INLAND REGIONS[2]				
Asthma	7.0	7.6	6.4	5.6	5.4	6.1	6.2	6.3
Chronic airways obstruction (NEC)	29.9	33.3	27.3	25.8	29.3	29.1	29.8	29.2
Chronic obstructive pulmonary disease	50.4	55.8	44.9	41.8	44.5	46.2	45.6	47.0
Pneumonia and influenza	13.5	18.1	13.6	11.4	13.2	11.5	13.1	13.5
Other diseases of the respiratory system	7.4	8.4	6.5	5.7	6.8	7.7	8.3	7.3
Total respiratory diseases	71.3	82.3	65.0	59.0	64.5	65.4	67.0	67.6

1 Standardised per 100,000 of the mid-year 1991 population.

2 See paragraph 6 of the Explanatory Notes.

12 CAUSES OF DEATH AS A PERCENTAGE OF TOTAL DEATHS FOR ALL CAUSES

Year	*Asthma* %	*Chronic airways obstruction (NEC)* %	*Chronic obstructive pulmonary disease* %	*Pneumonia and influenza* %	*Other respiratory disease* %	*Total respiratory diseases* %	*Malignant neoplasms of the trachea bronchus, and lung* %
1979	0.4	2.0	4.1	2.0	0.7	6.7	4.4
1980	0.5	2.2	4.4	1.7	0.7	6.8	4.6
1981	0.5	2.4	4.4	1.6	0.7	6.7	4.7
1982	0.5	2.7	4.9	2.2	0.7	7.8	4.7
1983	0.6	2.7	4.7	1.6	0.8	7.1	4.9
1984	0.6	2.8	4.8	1.5	0.7	7.1	4.9
1985	0.7	3.0	5.1	1.8	0.8	7.7	4.8
1986	0.7	2.9	4.8	1.3	0.7	6.9	5.0
1987	0.7	3.0	5.1	1.4	0.7	7.2	4.9
1988	0.7	3.3	5.3	1.4	0.8	7.5	5.1
1989	0.8	3.6	5.8	1.9	0.9	8.5	5.0
1990	0.7	3.3	5.1	1.5	0.9	7.5	5.0
1991	0.6	3.3	5.0	1.5	0.9	7.5	5.3
1992	0.6	3.7	5.5	1.6	1.0	8.1	5.2
1993	0.6	3.4	5.2	1.4	1.0	7.6	5.2
1994	0.7	3.5	5.3	1.5	1.1	7.9	5.3

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains statistics on deaths from diseases of the respiratory system and malignant neoplasms of the trachea, bronchus and lung in Australia (see paragraph 2), which have been compiled from data made available by the Registrars of Births, Deaths and Marriages in the States and Territories. The primary purpose of this publication is to provide an insight into the trends in deaths from diseases and cancers of the respiratory system in Australia. Additional information is available on request (see paragraph 20).

SCOPE AND COVERAGE

2 The statistics in this publication include all deaths where the underlying cause was determined as being a disease of the respiratory system (ICD code 460–519) or a malignant neoplasm of the trachea, bronchus and lung (ICD code 162), as classified under the Ninth (1975) Revision of the International Classification of Diseases (ICD) (see paragraph 8).

3 The statistics relate to the number of deaths registered, not those which actually occurred, in the years shown. Normally about 5% to 6% of deaths occurring in one year are not registered until the following year or later.

GEOGRAPHICAL CLASSIFICATIONS

4 Statistics for States and Territories have been compiled in respect of the State or Territory of usual residence of the deceased, regardless of where in Australia the death occurred and was registered. Statistics compiled on a State or Territory of registration basis are available on request.

5 The Australian Standard Geographical Classification (ASGC) versions used since 1993 have a category Other Territories comprising Jervis Bay, Christmas Island and Cocos (Keeling) Islands. In the past, Jervis Bay was included with Australian Capital Territory and the two island Territories in Offshore and Migratory. Statistics for 1993 and 1994 in this publication do not include data for Other Territories.

6 Statistics for areas classified as coastal were defined as being the statistical local areas (SLAs) adjacent to the coastline of Australia. Three SLAs were excluded from the definition of coastal, specifically: 7282 Tambo Shire Part B in Victoria; 3220 East Pilbara (S) in Western Australia; and 4409 Victoria in the Northern Territory. These three SLAs have been excluded because only a small part of their area is adjacent to the coastline. These three SLAs, and the balance of Australia, were defined as inland. Capital City statistical divisions are as defined in the ASGC.

7 Coastal/inland breakdowns are only given for the years 1988 onwards due to significant changes in the SLA boundaries and the unavailability of comparable population data prior to 1988. This information is required to calculate age-specific and standardised death rates for these years.

CAUSE OF DEATH CLASSIFICATION USED

8 The causes of death in this publication are classified according to the Ninth (1975) Revision of the World Health Organisation's International Classification of Diseases (ICD), which was adopted for world-wide use from 1979. Particulars relate to the underlying cause of death, which the World Health Organisation has defined as the disease or injury which initiates the train of morbid events leading directly to death.

9 The extensive nature of the ICD enables classification of cause of death at fine levels of detail. For the purposes of this publication, data is

mainly presented at the Class level, with further disaggregation for diseases of the respiratory system.

10 In addition to those deaths where asthma is the underlying cause of death, the ABS has also attempted to identify those deaths where asthma is a contributory factor. This identification has been carried out in Victoria, South Australia and Western Australia since 1989. National identification of these deaths commenced in 1994.

DEATH RATES

11 Five forms of death rates are shown in this publication. These are crude death rates, age-specific death rates, average age-specific death rates, standardised death rates and average standardised death rates as defined below:

- *Crude death rates* relate to the total number of deaths for specific causes and are the number of deaths for those causes per 100,000 of the estimated mid-year population.
- *Age-specific death rates* relate to deaths from a specific cause for age groups and are the number of deaths per 100,000 of the mid-year estimated resident population in a particular age/sex group.
- *Average age-specific death rates* used in this publication relate to the age-specific death rates from a specific cause of death averaged over three year periods, per 100,000 of the relevant age/sex population in the middle year of the time period. For example, for 1979–81, the 1980 mid-year population was used.
- *Standardised death rates* relate to the overall death rates that would have prevailed in a standard population if it had experienced at each age the death rates of the population being studied. The standard population used in these calculations is the 1991 Australian total population. For the international comparison, the populations used are those published in the World Health Organisation's *1994 World Health Statistics, Annual*. The Australian Bureau of Statistics (ABS) as a general rule does not publish standardised death rates for any cause of death for a given year unless the number of registered deaths are at least 20 or more because standardised death rates based on a small number of deaths can give inaccurate results.
- *Average standardised death rates* were prepared using the direct method of standardisation as described above except *average age-specific death rates* for a three year period were used instead of annual *age-specific death rates*.

DATA QUALITY

12 The registration of deaths is the responsibility of the individual State and Territory Registrars of Births, Deaths and Marriages. As part of the registration process, information as to the cause of death is supplied by the medical practitioner certifying the death or by a coroner. Guidelines for the provision of cause of death information are made available to medical practitioners by the ABS. Other information about the deceased is supplied by a relative or other person acquainted with the deceased, or by an official of the institution where the death occurred. This information is provided to the ABS by individual Registrars for compilation into aggregate statistics shown in this publication.

13 Since 1993, all processing of cause of death information for Australia has been carried out in the Queensland office of the ABS. For previous years, cause of death processing was carried out in each ABS State office. Some of the benefits expected to accrue from centralised processing are more consistency in coding and improved data quality.

14 In compiling these statistics, the ABS employs a variety of quality control measures to ensure that the statistics are as reliable as possible. These measures include: seeking further information where necessary to enable accurate classification of the underlying cause of death; check-coding of cause of death; detailed computer editing of data; and checks on the statistical output, at the individual record and aggregate levels. However, it is acknowledged that the quality of the data can be affected by circumstances beyond the control of the ABS. Diagnostic transfer is recognised as influencing death certification and thus mortality statistics.

15 Diagnostic transfer refers to a tendency for diagnosing one condition rather than another owing to similarities in symptoms and changing recognition of diseases. Researchers have debated the role diagnostic transfer had in the increase in the asthma death rates in the mid-1980s. For example, studies conducted by Jenkins, et al.[1] on deaths which occurred in Victoria between May 1986 and April 1987, and by Campbell, et al.[2] on deaths which occurred in South Australia between May 1988 and April 1990, where asthma appeared in either Part I or Part II of the Medical Certificate of Cause of Death, suggested that the number of deaths in the older age groups[3], which were attributed to asthma, was significantly overstated.

16 Research by Jenkins, et al. suggests that the cause of inaccuracy on the death certificates may be that 'particularly in the elderly, the features of asthma may be mimicked by other diseases...such as chronic bronchitis and emphysema'. A 1988 report on Asthma morbidity and mortality, by the National Health and Medical Research Council[4] commented that 'There is evidence that the increase in the older age group may be due to changing death certification practises by doctors.' The report suggested that as other chronic respiratory diseases fell over the same period, it was possible that 'there has been a tendency over time for certifying doctors to classify a higher percentage of deaths as asthma rather than other chronic airways diseases ... should this be the case the apparent increase in asthma mortality in the older population would ... simply be a statistical rearrangement within the general category of chronic airways disease.'

17 This publication does not attempt to either substantiate or repudiate either of these studies. These references have been included to ensure that readers of this publication are aware of some of the potential difficulties associated with interpreting this data.

POPULATIONS

18 The crude and age-specific death rates and years of potential life lost shown in this publication have been compiled using estimates of resident populations based on 1991 Population Census final data. The population estimates for the year 1994 have been revised also, using final 1991 Census data.

RELATED PUBLICATIONS

19 Other ABS publications which may be of interest include:

Births, Australia (3301.0) — available annually

Deaths, Australia (3302.0) — available annually

Causes of Death, Australia (3303.0) — available annually

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1 Jenkins, M.A., Rubinfeld, A., Robertson, C.F., Bowes, G. 1992, 'Accuracy of asthma death statistics in Australia' *Australian Journal of Public Health*, vol. 16, no. 4, pp. 427–429.

2 Campbell, D.A., McLennan G., Coates J.R., Frith, P.A., Gluyas, P.A., Latimer, K.M., Martin A.J., Roder, D.M., Ruffin, R.E., Yellowlees, P.M. 1992, 'Accuracy of asthma statistics from death certificates in South Australia' *Medical Journal of Australia*, vol. 156, June 15, pp. 860–863.

3 Jenkins, et al. define the older age group as 50 years and over. Campbell, et al. define this group as 65 years and over.

4 National Health and Medical Research Council. 1988, *Asthma in Australia; Strategies for reducing morbidity and mortality*, Report of the NHMRC Working Party on Asthma Associated Deaths.

Australian Social Trends (4102.0) — available annually

Social Indicators 1992 (4101.0) — issued irregularly

Women's Health (4365.0) — issued irregularly

Suicides, Australia 1982–1992 (3309.0) — issued irregularly

Trends in Mortality 1971–1992 (3313.0) — issued irregularly

ADDITIONAL STATISTICS AVAILABLE

20 Tables containing more detailed cause of death information by sex and/or age group at death are available on hard copy and microfiche from any ABS office. These tables are available on a State or Territory of usual residence or State or Territory of registration basis.

21 In addition, information on other particulars of the deceased is available (see Unpublished Statistics on Causes of Death). Users who are interested in obtaining tabulations of cause of death by any of these particulars can be provided with the information in one or more of the following forms: photocopy, magnetic tape and electronic media, computer printout and clerically-extracted tabulation. Generally, a charge is levied for providing unpublished information.

EFFECTS OF ROUNDING

22 Where figures have been rounded, discrepancies may occur between totals and sums of the component items.

TECHNICAL NOTE — YEARS OF POTENTIAL LIFE LOST

Estimates of years of potential life lost (YPLL) were calculated for deaths of persons aged 1–75 years based on the assumption that deaths occurring between ages 1 and 76 years are considered untimely.

$$YPLL = \Sigma_x (D_x (76 - A_x))$$

A_x = Adjusted age at death. As age at death is only available in completed years the midpoint of the reported age was chosen (e.g. age at death 34 years was adjusted to 34.5)

D_x = Registered number of deaths at age x due to a particular cause of death

YPLL was standardised for age using the following formula:

$$YPLL_s = \Sigma_x (D_x (76 - A_x) C_x)$$

where the age correction factor C_x is defined for age x as:

$$C_x = \frac{N_{xs}}{N_s} \cdot \frac{1}{N_x} \cdot N$$

N = Number of persons aged 1–75 years in the relevant mid-year population

N_x = Number of persons aged x years in the relevant mid-year population

N_{xs} = Number of persons aged x years in the standard population

N_s = Number of persons aged 1–75 years in the standard population

The Australian population at 30 June 1991 was chosen as the standard population.

Estimates of YPLL by cause of death, as presented in the table on page 15, indicate the number of years lost due to specific causes based on the assumption that up to exact age 76 years the deceased would not have died from any other cause. YPLL therefore should not be used as measure of gains in years of life expectancy should a cause of death be eliminated or reduced.

UNPUBLISHED STATISTICS ON CAUSES OF DEATH

GENERAL

Causes of death data are available from calendar year 1964, in a variety of forms through our special data service. Please note that for comparability purposes the data conform to the different revisions of the International Classification of Diseases (ICD), namely:

— ICD 7 1964 to 1967
— ICD 8 1968 to 1978
— ICD 9 1979 to the present

Documentation is available detailing the relationship between the ninth revision of the ICD and earlier revisions (ICD 7 & ICD 8). Detailed data tables excluded from the national cause of death publication since 1984 are available on microfiche or through our special data service.

DATA ITEMS FOR CROSS –TABULATION WITH CAUSES OF DEATH

- State or Territory of registration of the death
- Month and year of registration of the death
- Place of usual residence of deceased — State or Territory
  — Statistical Division
  — Statistical Local Area
- Occupation of deceased
  From 1990
  Males and Females aged 15 years and over
  — Pre–1990
  Males aged 15–64 years only
  — 1985 to 1990
  Females aged 15–59 years only
- Sex of deceased
- Age of deceased
  — in completed days at under 1 week
  — in completed days at under 1 month
  — in completed months at under 1 year
  — in completed years at other ages
- Date of death of deceased
- Country of birth of deceased
- Duration of residence in Australia (where deceased is not Australian born)
- Marital status of deceased
- Number of issue of deceased
- Aboriginality (for all States except Queensland)
- Post–mortem indicator
- Drowning indicator (from 1992)
- AIDS indicator (where AIDS is mentioned on the Death Certificate, whether the underlying cause or not)
- Certifier of cause of death (Doctor or Coroner)
- Cancer indicator (where Cancer is mentioned on the Death Certificate, whether the underlying cause or not)

TABLES ON MICROFICHE

TABLE	DESCRIPTION
UR1	Deaths by State/Territory of usual residence by cause of death (S list) by sex by 5 year age groups.
UR2	Deaths by State/Territory of usual residence by cause of death (ICD–3 digit) by sex.
UR3	Deaths by State/Territory of usual residence by cause of death (ICD–3 digit) by sex by 5 year age groups
RG1	Deaths by State/Territory of registration by cause of death (S list) by sex by 5 year age groups
RG2	Deaths by State/Territory of registration by cause of death (ICD–3 digit) by sex
RG3	Deaths by State/Territory of registration by cause of death (ICD–3 digit) by sex by 5 year age groups

STANDARD CAUSE OF DEATH TABLES	TABLE	DESCRIPTION OF TABLE
	COD 1	Causes of death (ICD–3 digit) by age by sex by State/Territory of usual residence
	COD 2	Causes of death (ICD–3 digit) by age by sex State/Territory of registration
	COD 3	Causes of death (ICD–3 digit) (S list) by occupation by sex by age
	COD 4	Causes of death (ICD–3 digit) (S list) by country of birth by sex by age
	COD 5	Causes of death (ICD–3 digit) by month by State
	COD 6	Causes of death (ICD–3 digit) (S list) by marital status by sex by age

For more information . . .

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the ABS Catalogue of Publications and Products available from all ABS Offices.

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Internet

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A wide range of ABS information is available via the Internet, with basic statistics available for each State, Territory and Australia. We also have Key National Indicators, ABS product release details and other information of general interest.

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Client Services, ABS, PO Box 10, Belconnen ACT 2616

Produced by the Australian Government Publishing Service

2331400001792
ISBN 0 642 23123 0

Recommended retail price: $15.00

ABS Catalogue No. 3314.0 **Deaths Due to Diseases and Cancers of the Respiratory System, Australia** 1979–94