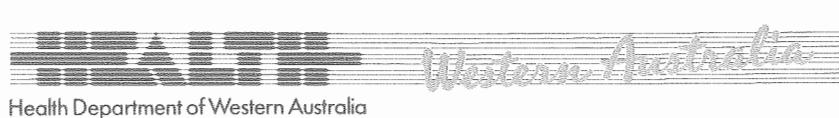


# MORTALITY ATTRIBUTABLE TO DRUG USE IN WESTERN AUSTRALIA: 1981 - 1991

Greg Swensen

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The WA Drug Data Collection Unit is an initiative of the National Campaign Against Drug Abuse

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## **Summary**

Tobacco smoking and the use of alcohol and other drugs are estimated to have caused 20,824 deaths in Western Australia in the period 1981-1991 - an average of almost 1,900 deaths per year. There were 15,026 male deaths and 5,796 female deaths attributable to the use of drugs.

Tobacco smoking alone was responsible for an estimated 15,453 deaths (11,731 males, 3,721 females) at an average of 1,405 deaths per year; alcohol use for 4,769 deaths (3,721 males and 1,841 females) at an average of 434 deaths per year; and the use of other drugs for 602 deaths (368 males and 234 females) at an average of 55 deaths per year.

The average annual number of deaths caused by the use of all drugs increased over the period 1981-1991, but, after allowance was made for differences in the age patterns of the deaths and the ageing of the population, overall death rates actually declined - by 23 per cent for males and by 8 per cent for females. For each sex the major decline occurred in the late 1980s, but whereas the rate for males was fairly steady between 1981 and 1986, the rate for females increased over that period.

The declines in the age standardised rates for deaths caused by all drugs mainly reflect the changes in rates for deaths caused by tobacco smoking, which decreased by 26 per cent for males and by 12 per cent for females. Age standardised rates for deaths caused by alcohol use decreased marginally over the period, but those for deaths caused by the use of other drugs increased (even though they were slightly lower in 1991 than in 1984-1987).

Age-specific rates for deaths caused by tobacco smoking increased with age; those for deaths caused by alcohol use were also highest among older people, but were also quite high among young adults. In contrast, rates for deaths caused by the use of other drugs were highest among young adults, then decreased with age.

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- Margherita Veroni for extracting mortality data from the Health Department's computer databases.
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- Dr Neil Thomson, Manager, Population Health Surveys, who generously provided time in the preparation of the final draft of the manuscript with assistance in interpretation of the data and close attention to the structure and format of the report.

# 1 Introduction

The object of this report is to estimate the total number of deaths which occurred in Western Australia in the period 1981 to 1991 and which were attributable to the use of all types of drugs. The report contains detailed analyses of sex and age-specific mortality caused by tobacco smoking, and by the use of alcohol and other drugs.<sup>1</sup>

The results will enable planners, policy-makers and researchers to make inferences about the impact of drugs and of strategies developed in conjunction the National Campaign Against Drug Abuse (NCADA) - these include the Drunksafe Campaign, the expansion of treatment services for illicit opiate users since 1985, the opening of sobering-up shelters in mid 1990 and random breath testing (RBT) of WA motorists. This report is the third in a series analysing the relationship between drug use and mortality<sup>2</sup>.

## Statistical methods

The numbers of deaths attributable to the use of various drugs have been estimated by the aetiological fractions method developed by Holman, Armstrong and colleagues<sup>3</sup>. This indirect method requires the application of separate sets of probability measures of the contribution to mortality of the use of tobacco, alcohol and other drugs.

Some deaths are wholly attributable to the use of drugs (an example is alcoholic liver cirrhosis), in which case the probability (or aetiological fraction) is 1.0. Most causes of deaths (and morbidity), however, cannot be attributed wholly to the use of drugs. For these causes of death, Holman, Armstrong and colleagues undertook a detailed analysis of the scientific literature of the health effects of the use of drugs. This analysis provided sex and age-specific estimates of the proportions of deaths from particular causes which could be attributed to the use of drugs. For example, the analysis concluded that for males of all ages 35 per cent of deaths from falls could be attributed to the use of alcohol. The application of the probability (or aetiological fraction) of 0.35 to the number of deaths of males resulting from falls (for example, 100) estimates that a number (35) of such deaths could be attributed to the use of alcohol. Thus, for causes of death not wholly attributable to the use of a drug, the aetiological fractions method does not identify individual deaths, but provides an estimate of the number of deaths attributable to the use of that drug.

For tobacco smoking and the use of alcohol, the aetiological fractions for some conditions are negative (see Tables A1 to A5, pages 17 to 21 for the sets of fractions that were used to estimate the numbers of deaths attributable to tobacco smoking, alcohol use and the use of other drugs). For these conditions, tobacco smoking and the use of alcohol appear to have some protective effect. Examples of these are provided in the following notes specific to the drug groups considered.

Differences in fractions between age groups and between the two sexes are due to variations in the pooled estimates of relative risk for specific conditions that were combined with measures of prevalence of drug use in Australia in the computation of the sets of fractions.

This analysis applies the aetiological fractions method to deaths occurring in Western Australia in the period 1981-1990. The numbers of deaths caused (or prevented) by a drug for each five-year age group for each set of conditions for males and females were calculated by multiplying the number of sex and cause-specific deaths each year by the corresponding set of aetiological fractions (positive or negative). These numbers were then summed to provide estimates of the total numbers of deaths attributable to the use of tobacco, alcohol and other drugs.

In this report, 'wholly attributable deaths' are deaths from causes of death for which the aetiological fractions for a particular drug are equal to 1.0. 'Other deaths' are the deaths estimated for causes of death for which the aetiological fractions are not equal to 1.0.

<sup>1</sup> Note: Although this report is not a study of cause-specific mortality, as the total number of deaths for each of the three drug groups is an aggregate of the number of deaths attributable to each cause, the cause-specific data has been included with this report in Appendix C, to assist other researchers.

<sup>2</sup> Swensen G (1992) *Deaths from tobacco smoking in Western Australia: 1981-1990. Occasional Paper/48*. Perth: Health Department of WA, WA Drug Data Collection Unit

Swensen G (1992) *Deaths caused by alcohol use in Western Australia: 1981-1990. Occasional Paper/50*. Perth: Health Department of WA, WA Drug Data Collection Unit

<sup>3</sup> Holman CDJ, Armstrong BK, Arias LN, Martin CA, Hatton WM, Hayward LD, Salmon MA, Shean RE, Waddell VP (1990) *The quantification of drug caused morbidity and mortality in Australia 1988*. Canberra: Australian Government Publishing Service

## Tobacco smoking

Apart from perinatal conditions and fire injuries it was assumed that tobacco smoking did not cause deaths in persons aged less than 15 years. In accordance with the published aetiological fractions<sup>4</sup> (see Tables A1 and A2, pages 17 and 18) a protective effect has been applied to the conditions of Parkinson's disease and ulcerative colitis for both males and females, and endometrial cancer and hypertension of pregnancy for females.

There are a number of differences between the causes of death for males and females, as five causes of death - endometrial cancer, cervical cancer, spontaneous abortion, antepartum haemorrhage and hypertension of pregnancy - were specific to females.

Only one condition (tobacco abuse) has an aetiological fraction of 1.0.

## Alcohol use

Alcohol use is considered to provide a protective effect for both males and females aged 15 to 59 years for four conditions: ischaemic heart disease, cardiac dysrhythmias, heart failure and cholelithiasis<sup>5</sup> (Tables A3 and A4, pages 19 and 20). The abrupt change from protective effect to no effect at age 60 years for the first three of these conditions is somewhat anomalous, but Holman, Armstrong and colleagues<sup>2</sup> did not believe there was sufficient evidence to support a protective effect of alcohol use for ischaemic heart disease (IHD) mortality for people aged 60 or more. The estimate of the total number of deaths caused by alcohol use would be substantially changed if a protective effect of alcohol was applicable to people aged 60 years and over, as the majority of deaths ascribed to IHD occur among older people.

In response to recent debate about their methodology, including the protective effect of alcohol on IHD, Holman and Armstrong re-analysed their 1986 data. They concluded that an 'assumption that the protective effect of alcohol on ischaemic heart disease extends beyond 60 years of age results in the estimation of a net saving of 1,901 lives as opposed to the net excess of 5,360 deaths'.<sup>6</sup>

Apart from perinatal conditions and selected injuries it was assumed that alcohol did not cause mortality in persons aged less than 15 years.

A number of conditions are considered wholly attributable to alcohol use (the aetiological fraction is 1.0) - these include alcohol poisoning, alcoholic psychosis, alcohol dependence and alcoholic cardiomyopathy (see Tables A3 and A4, pages 19 and 20).

## Other drugs

There is no scientific evidence that the use of opiates, barbiturates, tranquillisers, sedatives, anti-depressants, cocaine, psychostimulants, hallucinogens, cannabis, volatile substances or other or unspecified drugs provides a protective health effect (Table A5, page 21). In this report, the term 'other drugs' is used to refer to deaths caused by the use of these drugs, rather than the term originally used - 'illicit drugs'.<sup>2</sup>

As well as those conditions specific to the use of other drugs (with aetiological fractions of 1.0), a proportion of total cases of other conditions (such as viral hepatitis) is due to the use of other drugs.

<sup>4</sup> Holman CDJ, Armstrong BK, Arias LN, Martin CA, Hatton WM, Hayward LD, Salmon MA, Shean RE, Waddell VP (1990) *The quantification of drug caused morbidity and mortality in Australia 1988, Part 2*. Canberra: Australian Government Publishing Service: 346-347

<sup>5</sup> Holman CDJ, Armstrong BK, Arias LN, Martin CA, Hatton WM, Hayward LD, Salmon MA, Shean RE, Waddell VP (1990) *The quantification of drug caused morbidity and mortality in Australia 1988, Part 1*. Canberra: Australian Government Publishing Service: 188-189

<sup>6</sup> Holman CDJ, Armstrong BK (1993). The quantification of alcohol-caused morbidity and mortality in Australia: the authors respond. *Medical Journal of Australia* (accepted for publication).

## 2 RESULTS AND DISCUSSION

### 2.1 Overview

There were an estimated 20,824 deaths caused by tobacco smoking and the use of alcohol and other drugs in Western Australia in 1981-1991 (Table 1)<sup>7</sup>. Of these deaths, tobacco smoking was responsible for 15,453 deaths (74 per cent), alcohol use for 4,769 (23 per cent) and the use of other drugs for 602 (3 per cent) (Figure 1). On average, there were an estimated 1,893 deaths caused each year by drug use - 1,405 by tobacco smoking, 434 by alcohol use and 55 by the use of other drugs.

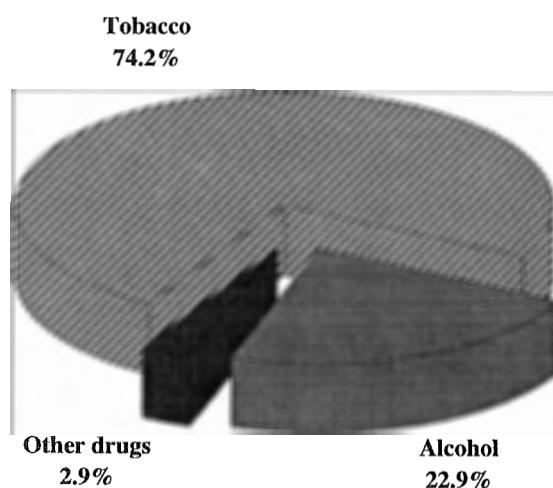
There were 1,714 deaths (8 per cent) wholly attributable to the use of drugs (that is, due to conditions for which the aetiologic fraction was 1.0) - 1,134 (66 per cent) to the use of alcohol and 580 (34 per cent) to the use of other drugs. In addition to the deaths wholly attributable to the use of drugs, it is estimated that a further 19,110 deaths were caused by drugs - 15,453 (81 per cent) by tobacco smoking, 3,635 (19 per cent) by the use of alcohol and 22 (0.1%) by the use of other drugs. These deaths are estimated for causes of death for which the aetiologic fractions are not equal to 1.0.

These results illustrate clearly the paradox of drug-caused mortality: only 8 per cent of the estimated drug-caused deaths in Western Australia in 1981-1991 were unambiguously attributed to the use of drugs. More than 9 out of every 10 deaths estimated to have been caused by the use of drugs were partly hidden.

Between 1981 and 1991, the total annual number of all drug-caused deaths tended to increase (Table 1). In 1981-1985, there was an average of 1,787 deaths per year, compared with an average of 1,981 deaths per year in 1986-1991.

For all drug types, the estimated numbers of deaths were greater for males than for females (Table 2). Of the 15,453 deaths estimated to have been caused by tobacco smoking, 11,731 (76 per cent) were of males and 3,721 (24 per cent) of females. Alcohol use was estimated to have caused the deaths of 2,927 males (61 per cent of all deaths caused by alcohol use) and of 1,841 females (39 per cent). Of the 602 deaths estimated to have been caused by the use of other drugs, 368 (61 per cent) were of males and 234 (39 per cent) of females.

**Figure 1**  
**Proportions of estimated drug-caused deaths, by drug type**  
**Western Australia, 1981-1991**



<sup>7</sup> The methodology used in this study provides an accurate estimate of the mortality separately attributable to tobacco smoking, alcohol and other drugs. As there is an interactive effect between alcohol use and tobacco smoking for cancers of the mouth, pharynx, larynx and oesophagus, a correction may be necessary when separate totals are combined. It has recently been estimated that this interaction effect may result in an overestimation of the combined number of deaths, of 3% or less. (Cf Holman CDJ & Armstrong BK (1992). Lack of positive bias of the confounding effect of risk factors estimated by marginal aetiological fractions. *International Journal of Epidemiology*; 21: 820-823.)

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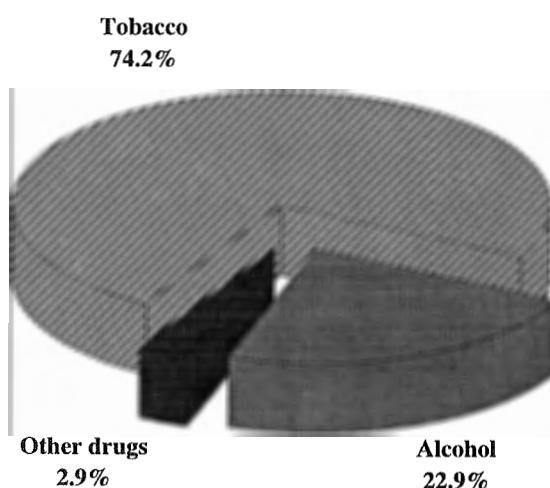
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**Table 1**  
**Estimated numbers of deaths attributable to drug use, by type of drug, Western Australia, 1981-1991**

Year	Wholly attributable deaths			Other deaths			Estimated total deaths			
	Tobacco	Alcohol	Other	Tobacco	Alcohol	Other	Tobacco	Alcohol	Other	All Drugs
1981	-	79	34	1282	273	2	1282	352	36	1669
1982	-	94	37	1335	305	2	1335	399	39	1773
1983	-	83	48	1364	299	2	1364	382	50	1796
1984	-	103	63	1388	296	1	1388	399	64	1851
1985	-	112	62	1343	325	2	1343	437	64	1844
1986	-	112	64	1498	348	3	1498	460	67	2025
1987	-	101	63	1391	329	2	1391	430	65	1886
1988	-	116	49	1489	375	2	1489	491	51	2031
1989	-	128	49	1495	369	2	1495	497	51	2042
1990	-	106	56	1424	358	2	1424	464	58	1945
1991	-	100	55	1444	358	2	1444	458	57	1959
1981-1991	-	1134	580	15453	3635	22	15453	4769	602	20824

**Note:** Column totals may vary because of rounding for presentation.

'Wholly attributable deaths' are deaths from causes of death for which the aetiological fractions for a particular drug are equal to 1.0.

'Other deaths' are the deaths estimated for causes of death for which the aetiological fractions are not equal to 1.0.

Table 2

Estimated numbers of deaths attributable to drug use, by sex and type of drug, Western Australia, 1981-1991

Type of drug	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Males											
Tobacco	1000	1055	1045	1076	1024	1135	1063	1113	1111	1042	1067
Alcohol	215	243	228	248	271	279	270	310	319	277	267
Other drugs	22	20	30	34	36	41	44	31	35	41	34
All drugs	1237	1318	1304	1358	1331	1455	1378	1454	1465	1360	1368
Females											
Tobacco	282	280	319	313	318	363	329	376	384	381	376
Alcohol	137	157	153	150	166	181	159	181	178	187	192
Other drugs	14	19	20	30	28	26	21	20	16	17	23
All drugs	433	456	492	493	512	570	509	577	586	591	

Note: Column totals may vary because of rounding for presentation.

## Age standardised death rates

The estimated annual numbers of deaths tended to increase over the period 1981-1991, but, after making allowance for the age pattern of the deaths and the ageing of the population, the overall rate for drug-caused deaths declined by 19 per cent - from 113.4 deaths per 100,000 person-years in 1981 to 92.3 in 1991 (Table 3).

This decline largely reflects the marked reduction in the age standardised death rate for conditions caused by tobacco smoking. Overall, the rate declined by 23 per cent - from 87.0 deaths per 100,000 person-years in 1981 to 67.3 in 1991.

Throughout most of the period the age standardised death rate for conditions caused by alcohol use fluctuated around 25 deaths per 100,000 person-years, but declined slightly to around 22 per 100,000 in 1990-1991.

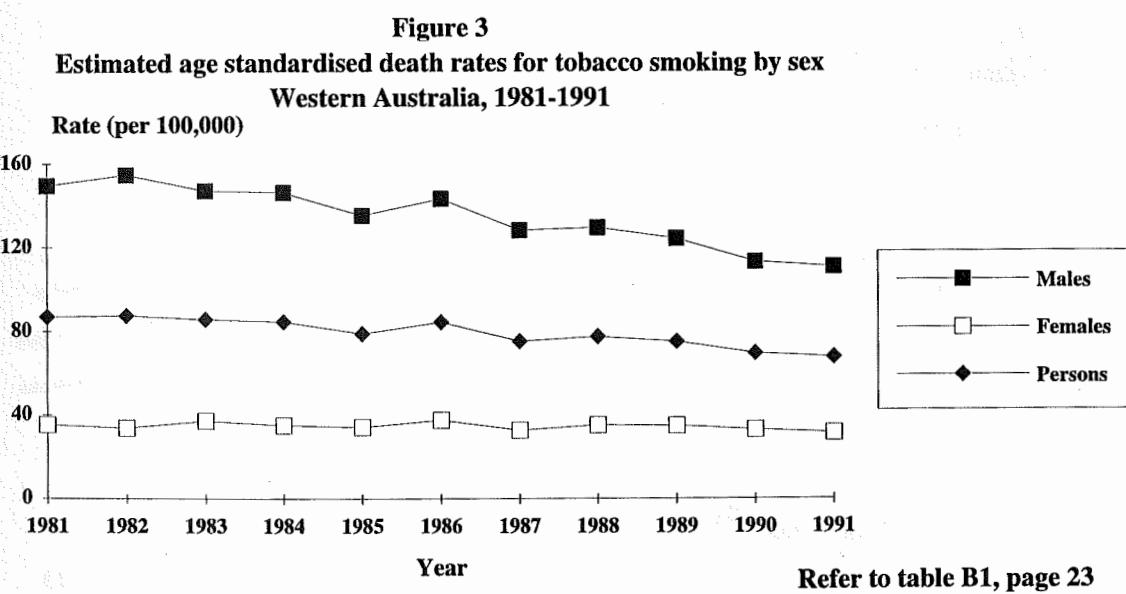
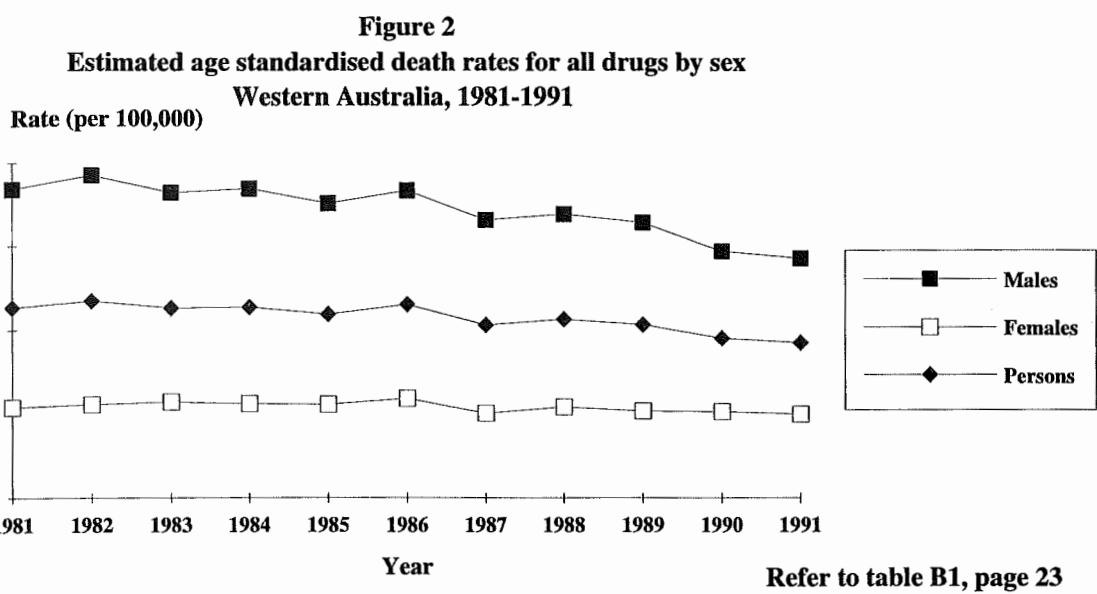
In contrast to the death rates for conditions caused by tobacco smoking and alcohol use, the age standardised death rate for conditions caused by other drugs increased overall by 20 per cent, from 2.5 deaths per 100,000 in 1981 to 3.0 in 1991. During the mid 1980s, the death rate from these conditions was somewhat higher at around 4 per 100,000.

The age standardised death rates were generally much higher for males than for females, but there were marked differences between males and females in the changes in rates over the period 1981-1991. The age standardised death rate from conditions caused by all drugs combined declined by 23 per cent for males (from 184.3 deaths to 142.4 per 100,000 person-years) and by 8 per cent for females (from 54.2 to 49.9) (Figure 2; Table B1, page 23). For each sex the major decline occurred in the late 1980s, but whereas the rate for males was fairly steady between 1981 and 1986, the rate for females increased over that period.

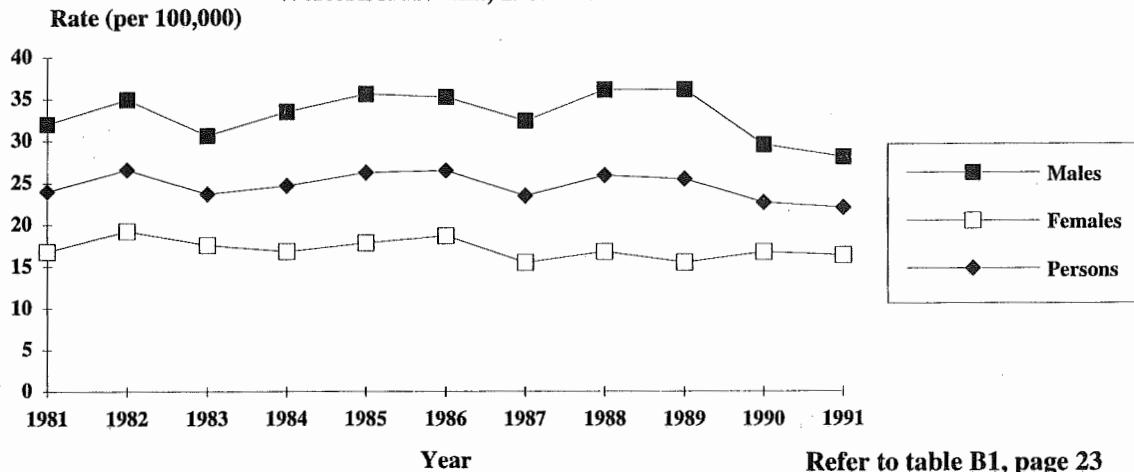
As for changes in the overall rate, these declines largely reflect the changes in the age standardised death rates for conditions caused by tobacco smoking, the rate for males declining by 26 per cent (from 149.4 to 110.7) and that for females by 12 per cent (from 35.4 to 31.3) (Figure 3; Table B1, page 23). The age standardised death rates for conditions caused by alcohol use declined for each sex, but by less than for conditions caused by tobacco smoking - by 13 per cent for males (from 32.0 to 28.0) and by 3 per cent for females (from 16.8 to 16.3) (Figure 4; Table B1, page 23). In contrast to the changes in rates for conditions caused by tobacco smoking and alcohol use, age standardised death rates for conditions caused by other drugs increased over the period 1981-1991 - by 23 per cent for males (from 3.0 to 3.7) and by 21 per cent for females (from 1.9 to 2.3) (Figure 5; Table B1, page 23).

**Table 3**  
Estimated age standardised death rates (per 100,000 person years) by type of drug,  
Western Australia, 1981-1991

Type of drug	Year										
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Tobacco	87.0	87.7	85.9	84.6	78.9	84.3	75.2	77.4	74.8	69.4	67.3
Alcohol	24.0	26.6	23.7	24.7	26.2	26.4	23.4	25.8	25.4	22.6	21.9
Other drugs	2.5	2.7	3.3	4.2	4.1	4.1	4.0	3.0	2.8	3.0	3.0
All drugs	113.4	117.0	112.9	113.5	109.1	114.8	102.6	106.1	103.0	95.0	92.3

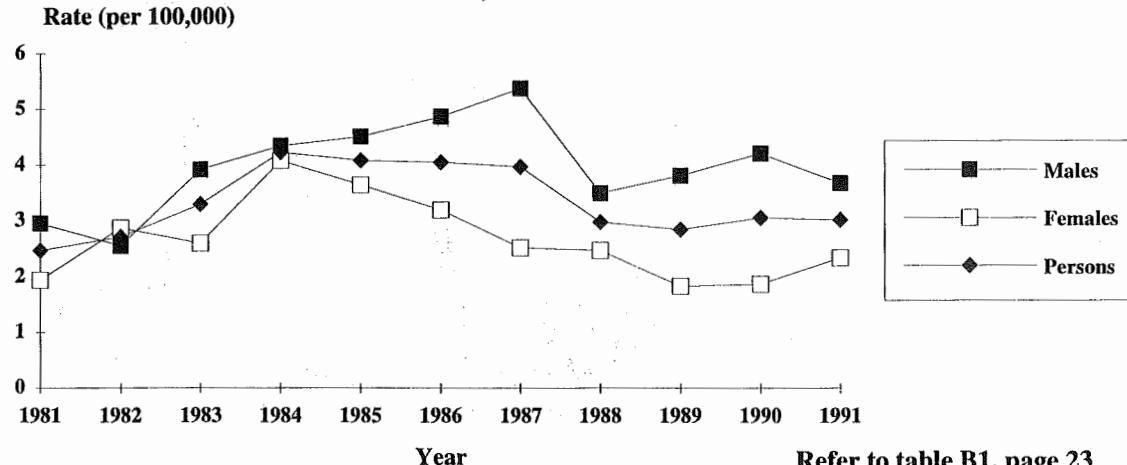


**Figure 4**  
**Estimated age standardised death rates for alcohol use by sex**  
**Western Australia, 1981-1991**



Refer to table B1, page 23

**Figure 5**  
**Estimated age standardised death rates for other drugs by sex**  
**Western Australia, 1981-1991**



Refer to table B1, page 23

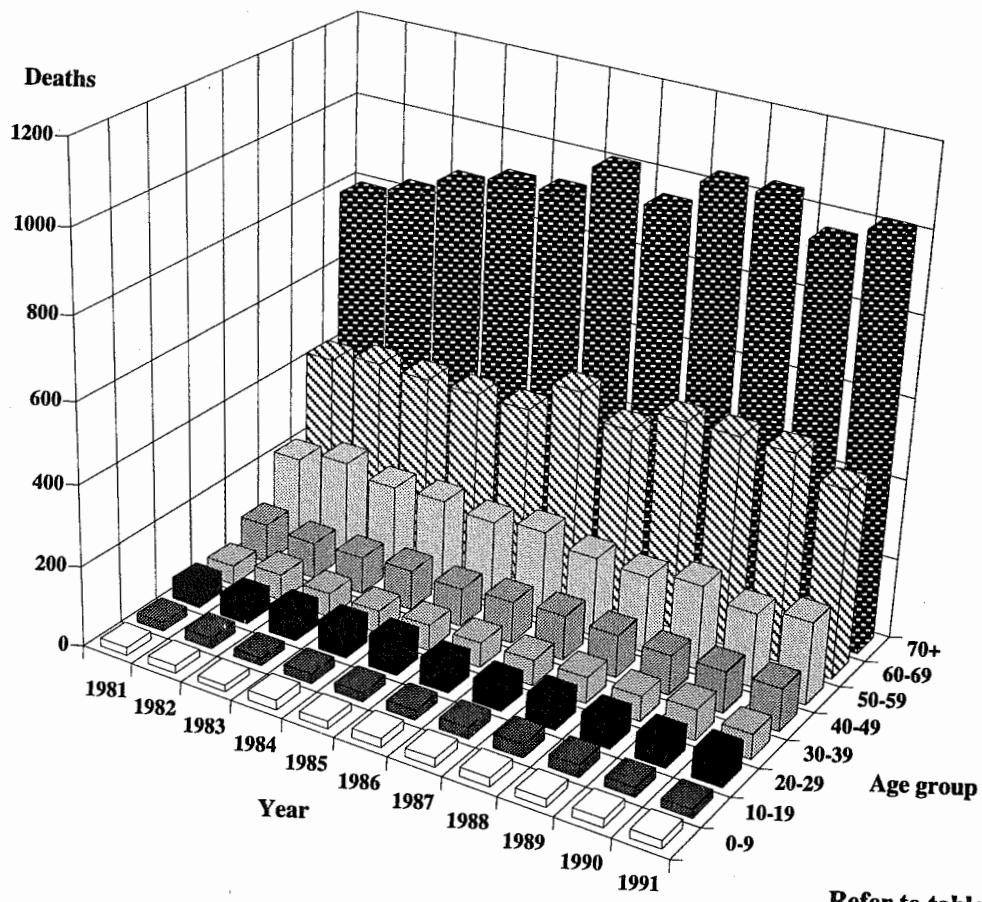
## Age pattern of deaths

Around half of all deaths caused by drug use occurred among people aged 70 years or older (Table 4), with the proportion of deaths in that age group increasing slightly over the period 1981-1991 (see also Figure 6). Relatively very few of the deaths caused by drugs occur among people less than 50 years of age.

The age pattern of drug-caused deaths differs markedly between tobacco smoking and the use of alcohol and other drugs (Table 5 and Table 6 for details of estimated deaths for drug type by age group). Death rates from tobacco smoking increase steadily with age, and those from alcohol use reach a minor peak for the 20 to 24 year age group then are fairly steady until age group 60 to 64 years from which they increase rapidly with age. The pattern for other drugs is quite different - death rates are highest for age groups between 20 and 34 years, then are fairly steady before decreasing among the oldest age groups.

These differences reflect the preponderance of deaths from chronic conditions (for example, cancers) that are related to long-term tobacco smoking or alcohol use (or long latent periods in the development of these conditions), and the consequences of short-term abuse of drugs by young adults (manifested in deaths due to causes such as drug dependence, injuries and suicide).

**Figure 6**  
**Estimated numbers of deaths caused by all drugs, by age group**  
**Western Australia, 1981-1991**



Refer to table 4

**Table 4**  
**Estimated number of deaths caused by all drugs by age group, Western Australia, 1981-1991**

Age group	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
0-9	19	19	16	24	17	21	21	22	20	21	20
10-19	22	26	19	24	22	23	27	32	31	25	20
20-29	54	57	68	73	81	66	58	68	65	62	72
30-39	49	66	59	56	63	62	62	65	62	75	61
40-49	96	89	92	99	94	102	110	105	99	102	105
50-59	214	242	217	220	206	222	197	190	210	177	203
60-69	423	446	443	441	440	520	463	520	521	518	468
70+	790	826	879	914	919	1003	945	1028	1034	958	1011
All ages	1668	1773	1793	1850	1843	2020	1884	2030	2041	1939	1959

Note: Column totals may vary because of rounding for presentation.

**Table 5**  
**Estimated age-specific death rates (per 100,000 person-years) by type of drug,  
Western Australia, 1981-1991**

<b>Age group</b>	<b>Tobacco</b>	<b>Alcohol</b>	<b>Other drugs</b>	<b>All drugs</b>
<b>0-4</b>	13.0	2.5	0.2	15.6
<b>5-9</b>	0.0	1.6	-	1.7
<b>10-14</b>	0.0	1.9	0.2	2.1
<b>15-19</b>	0.4	14.9	2.6	17.8
<b>20-24</b>	0.9	20.6	6.0	27.5
<b>25-29</b>	2.6	14.8	7.2	24.4
<b>30-34</b>	3.7	13.2	6.1	23.0
<b>35-39</b>	10.2	12.9	5.4	28.4
<b>40-44</b>	22.6	16.9	4.3	43.7
<b>45-49</b>	50.4	18.0	3.8	72.0
<b>50-54</b>	118.0	19.3	4.0	141.1
<b>55-59</b>	167.1	13.2	3.9	183.9
<b>60-64</b>	306.1	83.3	4.9	393.9
<b>65-69</b>	450.8	97.9	4.2	552.4
<b>70-74</b>	681.5	133.1	4.2	818.3
<b>75-79</b>	757.0	185.8	4.5	946.9
<b>80-84</b>	991.2	273.8	3.0	1267.4
<b>85+</b>	1411.1	472.9	0.9	1884.9

**Table 6**  
**Estimated number of deaths caused by type of drug, Western Australia, 1981-1991**

Age group	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1981-1991
Tobacco												
0-9	14	15	12	18	13	14	17	18	14	18	15	167
10-19	-	-	1	1	-	-	-	-	1	1	1	5
20-29	3	2	5	3	8	2	5	3	6	5	6	49
30-39	12	19	17	15	11	21	19	16	16	20	15	180
40-49	59	52	65	63	54	60	68	68	66	63	60	679
50-59	208	210	202	190	182	186	171	166	173	152	172	2011
60-69	351	362	356	359	343	414	364	412	407	411	373	4153
70+	635	674	706	740	732	800	747	807	812	753	802	8208
All ages	1282	1335	1364	1388	1343	1498	1391	1489	1495	1424	1444	15453
Alcohol												
0-9	5	4	4	6	4	7	5	4	6	3	4	53
10-19	21	26	17	17	20	21	19	27	25	21	17	231
20-29	41	45	46	46	47	44	37	49	47	47	45	494
30-39	28	35	32	30	37	21	33	34	30	35	31	346
40-49	34	30	23	26	31	35	29	32	29	27	40	336
50-59	-	1	28	13	26	21	33	18	21	31	25	24
60-69	69	79	79	80	93	102	95	103	108	102	92	1002
70+	152	152	168	168	184	197	194	221	221	204	205	2066
All ages	352	399	382	399	437	460	430	491	497	464	458	4769
Other drugs												
0-9	-	-	-	-	-	-	-	-	-	-	-	3
10-19	1	-	2	6	2	3	8	5	5	3	2	37
20-29	10	10	18	24	25	21	17	16	12	10	20	184
30-39	9	11	10	11	15	20	10	15	16	20	15	153
40-49	3	7	4	10	9	8	13	5	3	12	4	79
50-59	6	5	2	5	4	3	8	3	6	6	7	56
60-69	4	5	9	2	5	5	3	5	6	5	3	51
70+	3	-	5	5	4	6	5	-	2	1	4	36
All ages	36	39	50	64	64	67	65	51	51	51	58	602

Note: Column totals may vary because of rounding for presentation.

## 2.2 Deaths caused by tobacco smoking

The number of deaths estimated to have been caused by tobacco smoking increased with age, with the male:female ratio of deaths being around 3:1 for each age group (Table 7). The mortality impact of tobacco smoking among older people is substantial - almost four-fifths of deaths caused by tobacco smoking (12,361 deaths out of a total of 15,453 deaths) occurred among people aged 60 years and over, and more than a half of the deaths (8,208 deaths) among those aged 70 years and over.

As noted above, the age standardised death rate for each sex decreased over the period 1981-1991: the rate for males decreased by 26 per cent and that for females by 12 per cent (Figure 3). Reflecting these decreases, the male:female standardised death rate ratio decreased from 4.3:1 in 1981 to 3.6:1 in 1991.

Though not studied in this report, it is very likely that the decrease in mortality is closely related to the decline in both smoking prevalence and reduced tar levels in cigarettes smoked by Australian adults.<sup>8</sup>

**Table 7**

**Estimated number of deaths caused by tobacco smoking, by sex and age group,  
Western Australia, 1981-1991**

Age group	Males		Females		Persons	
	No.	Per cent	No.	Per cent	No.	Per cent
<b>0-9</b>	96	0.8	70	1.9	167	1.1
<b>10-19</b>	4	-	1	-	5	-
<b>20-29</b>	34	0.3	15	0.4	49	0.3
<b>30-39</b>	132	1.1	48	1.3	180	1.1
<b>40-49</b>	533	4.5	146	3.9	679	4.4
<b>50-59</b>	1,623	13.8	388	10.4	2,011	13.0
<b>60-69</b>	3,248	27.7	906	24.3	4,153	26.9
<b>70+</b>	6,061	51.7	2,146	57.7	8,208	53.1
All ages	<b>11,732</b>	<b>100.0</b>	<b>3,721</b>	<b>100.0</b>	<b>15,453</b>	<b>100.0</b>

**Note:** Column totals may vary because of rounding for presentation..

<sup>8</sup> Australian Institute of Health and Welfare (1992) *Australia's health 1992: the third biennial report of the Australian Institute of Health and Welfare*. Canberra: Australian Government Publishing Service

## 2.3 Deaths caused by alcohol use

More than two-fifths of the deaths estimated to have been caused by alcohol use occurred among people aged 70 years and over. The proportion of the female deaths that occurred in that age group (54 per cent) was higher than that of male deaths (37 per cent) (Table 8). The numbers of female deaths increased fairly steadily with age but the age distribution of male deaths was bi-modal with 14 per cent of all male deaths occurring in the 20-29 year age group. Almost three-tenths of the male deaths estimated to have been caused by alcohol use occurred in the 10 to 39 year age group. In contrast, less than 14 per cent of female deaths occurred in that age group. The proportion of the male deaths in this age group attributable to deaths classified in the ICD group *External causes of injury and poisoning* (which includes motor vehicle road accidents, suicide, etc.) was higher than that of the female deaths.

**Table 8**

**Estimated numbers of deaths caused by alcohol use, by sex and age group,  
Western Australia, 1981-1991**

Age group	Males		Females		Persons	
	No.	Per cent	No.	Per cent	No.	Per cent
0 - 9	33	1.1	20	1.1	53	1.1
10 - 19	175	6.0	56	3.0	231	4.8
20 - 29	401	13.7	93	5.0	494	10.4
30 - 39	247	8.4	99	5.4	346	7.2
40 - 49	198	6.8	138	7.5	336	7.1
50 - 59	79	2.7	162	8.8	241	5.0
60 - 69	716	24.4	287	15.6	1,002	21.0
70 +	1,079	36.8	987	53.6	2,066	43.3
All ages	<b>2,927</b>	<b>100.0</b>	<b>1,842</b>	<b>100.0</b>	<b>4,769</b>	<b>100.0</b>

**Note:** Column totals may vary because of rounding for presentation.

## 2.4 Deaths caused by the use of other drugs

In contrast to deaths caused by tobacco smoking and alcohol use, deaths resulting from the use of other drugs largely involved people in their 20s and 30s. Of the 602 deaths caused by the use of other drugs, 337 (56 per cent) were of people in the 20-39 age group (Table 9). Only 87 deaths (14 per cent) were of people aged 60 years or older.

The changes in male and female age standardised death rates differed over the period 1981-1991. The rate for males increased sharply from 3.0 deaths per 100,000 person-years in 1981 to 5.4 in 1987 (82 per cent), then declined to a level around 4 - still about a third higher than the 1981 level (Figure 5; Table B1, page 23). The rate for females more than doubled between 1981 and 1984 (from 1.9 to 4.1), then declined to a rate similar to that for the beginning of the period.

Almost two-thirds of the male deaths caused by the use of other drugs involved men aged 20-39 years (234 deaths), whereas only 103 (44 per cent) of the female deaths involved women in that age group. The differences between the age patterns of male and female mortality from the use of other drugs is largely attributable to the differences in age of death for the various drugs. The use of opiates (particularly heroin) was responsible for the high number of male deaths in the 20-39 years age group. Deaths from the use of tranquillisers, sedatives and anti-depressants tended to be more common among older women.

**Table 9**

**Estimated numbers of deaths caused by the use of other drugs, by sex and age group,  
Western Australia, 1981-1991**

Age group	Males		Females		Persons	
	No.	Per cent	No.	Per cent	No.	Per cent
0-9	2	0.6	1	0.4	3	0.5
10-19	31	8.4	6	2.6	37	6.2
20-29	129	35.1	55	23.8	184	30.8
30-39	105	28.7	48	20.6	153	25.6
40-49	35	9.6	44	18.8	79	13.2
50-59	25	6.9	31	13.1	56	9.3
60-69	23	6.3	28	12.1	51	8.6
70+	16	4.4	20	8.5	36	6.0
All ages	<b>369</b>	<b>100.0</b>	<b>233</b>	<b>100.0</b>	<b>602</b>	<b>100.0</b>

**Note:** Column totals may vary because of rounding for presentation.

## **Appendix A**

### **Tables of aetiological fractions**

TABLE A1 : ESTIMATED AGE-SPECIFIC AETIOLOGIC FRACTIONS OF CONDITIONS IN AUSTRALIAN MALES CAUSED OR PREVENTED BY TOBACCO

ICD9 CODES	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	CAUSE OF DEATH
<b>010-012</b>			0.2	0.25	0.27	0.28	0.3	0.27	0.3	0.32	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	RESPIRATORY TB
140			0.2	0.25	0.26	0.27	0.27	0.28	0.26	0.29	0.28	0.3	0.3	0.28	0.28	0.28	0.28	0.28	LIP CANCER
<b>141,143-145</b>			0.54	0.61	0.63	0.64	0.65	0.66	0.63	0.67	0.66	0.68	0.68	0.66	0.66	0.66	0.66	0.66	ORAL CANCER
<b>146-149</b>			0.66	0.72	0.74	0.75	0.75	0.77	0.74	0.77	0.76	0.78	0.78	0.76	0.76	0.76	0.76	0.76	PHARYNGEAL CANCER
<b>150</b>			0.51	0.58	0.6	0.62	0.62	0.64	0.61	0.64	0.66	0.66	0.66	0.64	0.64	0.64	0.64	0.64	OESEOPHAGEAL CANCER
<b>151</b>			0.08	0.11	0.11	0.12	0.12	0.13	0.12	0.13	0.13	0.14	0.14	0.13	0.13	0.13	0.13	0.13	GASTRIC CANCER
<b>157</b>			0.2	0.25	0.26	0.28	0.28	0.3	0.27	0.3	0.3	0.31	0.31	0.29	0.29	0.29	0.29	0.29	PANCREATIC CANCER
<b>161</b>			0.76	0.81	0.82	0.83	0.83	0.84	0.82	0.85	0.84	0.85	0.85	0.84	0.84	0.84	0.84	0.84	LARYNGEAL CANCER
<b>162</b>			0.7	0.75	0.77	0.78	0.78	0.77	0.77	0.78	0.77	0.8	0.8	0.81	0.81	0.8	0.8	0.8	LUNG CANCER
<b>188</b>			0.31	0.37	0.39	0.41	0.41	0.43	0.4	0.44	0.43	0.45	0.45	0.45	0.43	0.43	0.43	0.43	BLADDER CANCER
<b>189</b>			0.14	0.17	0.19	0.2	0.2	0.21	0.19	0.21	0.21	0.23	0.23	0.21	0.21	0.21	0.21	0.21	RENAL PARENCHYMAL CANCER
<b>189.1</b>			0.62	0.68	0.7	0.71	0.72	0.73	0.7	0.74	0.73	0.75	0.75	0.73	0.73	0.73	0.73	0.73	RENAL PELVIC CANCER
<b>231</b>			0.7	0.75	0.77	0.78	0.78	0.77	0.8	0.77	0.8	0.81	0.81	0.8	0.8	0.8	0.8	0.8	RESPIRATORY CARCINOMA-IN-SITU
<b>305.1</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	TOBACCO ABUSE
<b>332</b>			-0.21	-0.3	-0.33	-0.36	-0.37	-0.41	-0.34	-0.42	-0.41	-0.46	-0.46	-0.41	-0.41	-0.41	-0.41	-0.41	PARKINSON'S DISEASE
<b>410-414</b>			0.48	0.55	0.57	0.58	0.59	0.61	0.52	0.56	0.56	0.29	0.29	0.25	0.25	0.25	0.25	0.25	ISCHAEMIC HEART DISEASE
<b>415-417</b>			0.63	0.69	0.71	0.72	0.73	0.74	0.71	0.74	0.74	0.76	0.76	0.74	0.74	0.74	0.74	0.74	PULMONARY CIRCULATORY DISEASE
<b>426-427</b>			0.48	0.55	0.57	0.58	0.59	0.61	0.52	0.56	0.56	0.29	0.29	0.25	0.25	0.25	0.25	0.25	CARDIAC DYSRHYTHMIAS
<b>428-429</b>			0.03	0.14	0.15	0.36	0.5	0.54	0.46	0.49	0.26	0.26	0.23	0.23	0.23	0.23	0.23	0.23	HEART FAILURE
<b>430-438</b>			0.15	0.18	0.2	0.21	0.21	0.22	0.2	0.23	0.24	0.24	0.24	0.15	0.15	0.07	0.07	0.07	STROKE
<b>440</b>			0.13	0.17	0.18	0.19	0.19	0.21	0.18	0.21	0.21	0.22	0.22	0.2	0.2	0.2	0.2	0.2	ATHEROSCLEROSIS
<b>441-444</b>			0.57	0.64	0.66	0.67	0.68	0.69	0.66	0.7	0.69	0.71	0.69	0.69	0.69	0.69	0.69	0.69	PERIPHERAL VASCULAR DISEASE
<b>480-487</b>			0.13	0.16	0.17	0.18	0.18	0.19	0.17	0.2	0.19	0.21	0.21	0.19	0.19	0.19	0.19	0.19	PNEUMONIA
<b>490-492,496</b>			0.63	0.69	0.71	0.72	0.73	0.74	0.71	0.74	0.74	0.76	0.76	0.74	0.74	0.74	0.74	0.74	CHRONIC BRONCHITIS
<b>531-534</b>			0.26	0.32	0.34	0.35	0.35	0.37	0.34	0.38	0.37	0.39	0.39	0.37	0.37	0.37	0.37	0.37	PEPTIC ULCER
<b>556</b>			-0.22	-0.31	-0.34	-0.37	-0.38	-0.43	-0.35	-0.44	-0.43	-0.49	-0.49	-0.42	-0.42	-0.42	-0.42	-0.42	ULCERATIVE COLITIS
<b>764,765</b>			0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	LOW BIRTHWEIGHT
<b>798</b>			0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	SUDDEN INFANT DEATH SYNDROME
<b>E890-E899</b>			0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	FIRE INJURIES

TABLE A2: ESTIMATED AGE-SPECIFIC AETIOLOGIC FRACTIONS OF CONDITIONS IN AUSTRALIAN FEMALES CAUSED OR PREVENTED BY TOBACCO

ICD9 CODES	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	CAUSE OF DEATH	
<b>Mortality attributable to drug use, Western Australia, 1981-1991</b>																				
<b>010-012</b>																				RESPIRATORY TB
140																				LIP CANCER
141-143-145																				ORAL CANCER
146-149																				PHARYNGEAL CANCER
150																				OEOPHAGEAL CANCER
151																				GASTRIC CANCER
157																				PANCREATIC CANCER
161																				LARYNGEAL CANCER
162																				LUNG CANCER
179-182																				ENDOMETRIAL CANCER
180																				CERVICAL CANCER
188																				BLADDER CANCER
189																				RENAL PARENCHYMAL CANCER
189.1																				RENAL PELVIC CANCER
231																				RESPIRATORY CARCINOMA-IN-SITU
305.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	TOBACCO ABUSE	
332																				PARKINSON'S DISEASE
410-414																				ISCHAEMIC HEART DISEASE
415-417																				PULMONARY CIRCULATORY DISEASE
426-427																				CARDIAC DYSRHYTHMIAS
428-429																				HEART FAILURE
430-438																				STROKE
440																				ATHEROSCLEROSIS
441-444																				PERIPHERAL VASCULAR DISEASE
480-487																				PEPTIC ULCER
490-492,496																				ULCERATIVE COLITIS
531-534																				SPONTANEOUS ABORTION
556																				ANTEPARTUM HAEMORRHAGE
634																				HYPERTENSION OF PREGNANCY
640-641																				LOW BIRTHWEIGHT
764,765	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	SUDDEN INFANT DEATH SYNDROME	
798	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	FIRE INJURIES	

TABLE A3: ESTIMATED AGE-SPECIFIC AETIOLOGICAL FRACTIONS OF CONDITIONS IN AUSTRALIAN MALES CAUSED OR PREVENTED BY ALCOHOL

ICD9 CODES	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	CAUSE OF DEATH	
E810-E819	0.3	0.3	0.3	0.36	0.36	0.31	0.31	0.31	0.31	0.31	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	ROAD INJURIES	
E860.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ALCOHOL POISONING	
E860.1-E860.2																			ETHANOL POISONING	
E880-E888																			FALL INJURIES	
E890-E899																			FIRE INJURIES	
E910																			DROWNING	
E911																			ASPIRATION	
E919-E920																			MACHINE INJURIES	
E950-E959																			SUICIDE	
E960,E965,E966,E968,E969	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	ASSAULT	
E967	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	CHILD ABUSE	
140																			LIP CANCER	
141,143-145																			ORAL CANCER	
146-149	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.65	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	PHARYNGEAL CANCER	
150	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.49	0.49	0.49	0.48	0.48	0.48	0.48	0.48	0.48	0.48	OESOPHAGEAL CANCER	
153	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	COLON CANCER	
154	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	RECTAL CANCER	
155	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	HEPATIC CANCER	
157	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	PANCREATIC CANCER	
161	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.56	0.55	0.55	0.55	0.54	0.54	0.54	0.54	0.54	0.54	0.54	LARYNGEAL CANCER	
174-175	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	BREAST CANCER	
265.2	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	PELLAGRA	
291	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ALCOHOLIC PSYCHOSIS	
303	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ALCOHOL DEFENDENCE	
305	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ALCOHOL ABUSE	
401-405																			HYPERTENSION	
410-414																			ISCHAEMIC HEART DISEASE	
425.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ALCOHOLIC CARDIOMYOPATHY	
426-427																			CARDIAC DYSRHYTHMIAS	
428-429	-0.03	-0.11	0.02	-0.16	-0.24	-0.22	-0.23	-0.21	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	HEART FAILURE	
430-438	0.15	0.15	0.15	0.16	0.16	0.15	0.15	0.15	0.14	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	STROKE	
456.0-456.2	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	OESOPHAGEAL VARICES	
530.7	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	GASTRO - OESOPHAGEAL HAEMORRHAGE	
535.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ALCOHOLIC GASTRITIS	
571.0-571.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	UNSPECIFIED LIVER CIRRHOSIS	
571.5-571.9																			CHOLELITHIASIS	
574	-0.34	-0.34	-0.34	-0.35	-0.35	-0.32	-0.32	-0.31	-0.32	-0.32	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	ACUTE PANCREATITIS
577	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	ACUTE PANCREATITIS
577.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	CHRONIC PANCREATITIS	
764-765	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	LOW BIRTHWEIGHT	

TABLE A4: ESTIMATED AGE-SPECIFIC AETIOLOGICAL FRACTIONS OF CONDITIONS IN AUSTRALIAN FEMALES CAUSED OR PREVENTED BY ALCOHOL

ICD 9 CODE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	CAUSE OF DEATH
E810-E819	0.3	0.3	0.3	0.36	0.36	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.16	0.16	0.16	0.16	0.16	0.16	0.16
E860.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.16
E860.1-E860.2																			1 ALCOHOL POISONING
E880-E888																			1 ETHANOL POISONING
E890-E899																			0.16 FALL INJURIES
E910																			0.4 FIRE INJURIES
E911																			0.04 DROWNING
E919-E920																			1 ASPIRATION
E950-E959																			0.13 MACHINE INJURIES
E960,E965,E966,E966,E968,E969	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.13 SUICIDE
E967	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15 CHILD ABUSE
140																			0.17 LIP CANCER
141,143-145																			0.15 ORAL CANCER
146-149																			0.58 PHARYNGEAL CANCER
150																			0.58 OESOPHAGEAL CANCER
153																			0.42 OESOPHAGEAL CANCER
154																			0.11 COLON CANCER
155																			0.04 RECTAL CANCER
157																			0.28 HEPATIC CANCER
161																			0.13 PANCREATIC CANCER
174-175																			0.48 LARYNGEAL CANCER
265.2																			0.16 BREAST CANCER
291	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.83 PELLAGRA
303	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.83 ISCHAEMIC HEART DISEASE
305	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.83 ALCOHOLIC CARDIOMYOPATHY
401-405																			CARDIAC DYSRHYTHMIAS
410-414	1	1	-0.26	-0.26	-0.26	-0.25	-0.25	-0.23	-0.23	-0.23	-0.23	-0.23	-0.2	-0.18					0.47 OESOPHAGEAL VARICES
425.5																			0.47 GASTRO - OESOPHAGEAL HAEMORRHAGE
426-427																			0.47 HEART FAILURE
428-429																			0.47 STROKE
430-438																			0.47 ISCHAEMIC HEART DISEASE
456.0-456.2																			0.47 ALCOHOLIC CARDIOMYOPATHY
530.7	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47 OESOPHAGEAL VARICES
535.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.47 GASTRO - OESOPHAGEAL HAEMORRHAGE
571.0-571.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.47 HEART FAILURE
571.5-571.9																			0.47 ISCHAEMIC HEART DISEASE
574	-0.31	-0.31	-0.31	-0.3	-0.3	-0.27	-0.27	-0.24	-0.24	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22 CHOLELITHIASIS
577	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36 ACUTE PANCREATITIS
577.1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03 CHRONIC PANCREATITIS
764-765																			0.03 LOW BIRTHWEIGHT

TABLE A5 : ESTIMATED AGE-SPECIFIC AETIOLOGIC FRACTIONS OF CONDITIONS IN AUSTRALIAN MALES AND FEMALES CAUSED BY OTHER DRUGS AND OTHER CAUSES

ICD9 CODES	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	TYPE OF DRUG
304.0, 304.7, 305.5, E850.0-E850.3, E850.8, E850.9, E950.0, E980.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	OPIATES
304.1, 305.4, E851, E950.1, E980.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	BARBITURATES
305.4, 305.8, E852, E853, E854.0, E950.2, E950.3, E980.2-E980.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	TRANQUILLISERS/SEDATIVES/ANTI-DEPRESSANTS
304.2, 305.6, E855.2, E950.3, E980.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	COCAINE
304.4, 305.7, E854.2, E950.3, E980.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	PSYCHOSTIMULANTS
304.5, 305.3, E854.1, E950.3, E980.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	HALLUCINOGENS
304.3, 305.2, E854.1, E950.3, E980.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	CANNABIS
304.6, E862.0, E862.1, E862.9, E866.6, E951.1, E981.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	VOLATILE SUBSTANCES
304.8, 304.9, 305.9, E962.0, E850.4-E850.7, E950.4, E950.5, E980.4, E980.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	OTHER & UNSPECIFIED DRUGS
<b>OTHER DRUG-RELATED CAUSES</b>																			
070																			VIRAL HEPATITIS
292	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	DRUG PSYCHOSES
421																			INFECTIVE ENDOCARDITIS
648.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	MATERNAL DRUG DEPENDENCE
760.7, 779.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	NEWBORN DRUG TOXICITY
764, 765	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	LOW BIRTHWEIGHT

## **Appendix B**

### **Figure tables**

**Age standardised death rates by sex by type of drug, Western Australia, 1981-1991**  
 (Rate per 100,000 person years)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
<b>Tobacco</b>											
Males	149.4	154.6	147.1	146.2	135.2	143.0	128.0	129.3	124.2	113.2	110.7
Females	35.4	33.6	37.1	35.1	34.2	37.3	32.4	35.0	34.7	33.0	31.3
Persons	87.0	87.7	85.9	84.6	78.9	84.3	75.2	77.4	74.8	69.4	67.3
<b>Alcohol</b>											
Males	32.0	34.9	30.6	33.4	35.5	35.2	32.3	36.0	36.0	29.4	28.0
Females	16.8	19.2	17.6	16.8	17.8	18.6	15.4	16.7	15.4	16.7	16.3
Persons	24.0	26.6	23.7	24.6	26.2	26.4	23.4	25.8	25.4	22.6	21.9
<b>Other drugs</b>											
Males	3.0	2.6	3.9	4.4	4.5	4.9	5.4	3.5	3.8	4.2	3.7
Females	1.9	2.9	2.6	4.1	3.6	3.2	2.55	2.5	1.8	1.9	2.3
Persons	2.5	2.7	3.3	4.2	4.1	4.1	4.0	3.0	2.8	3.0	3.0
<b>All Drugs</b>											
Males	184.3	192.1	181.7	184.0	175.2	183.0	165.6	168.8	164.0	146.8	142.4
Females	54.2	55.7	57.3	56.0	55.6	59.1	50.4	54.1	51.9	51.6	49.9
Persons	113.4	117.0	112.9	113.5	109.1	114.8	102.6	106.1	103.0	95.0	92.3

**Note:** Column totals may vary because of rounding for presentation.

## **Appendix C**

### **Tables of cause specific mortality by sex and drug group**

**Table C1**  
**Estimated number of deaths caused by tobacco, Western Australia, 1981-1991**

ICD CODES	CAUSES OF DEATH									
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
010-012	1	-	1	1	1	2	1	1	1	2
140	-	-	-	1	1	-	1	-	-	-
141,143-145	11	11	11	17	16	19	13	17	17	16
146-149	9	15	14	17	19	17	23	17	19	16
150	18	22	24	21	23	40	27	36	36	29
151	12	15	15	12	15	13	12	14	11	13
157	20	20	21	23	23	25	23	25	25	27
161	13	12	11	12	12	8	14	20	15	11
162	329	339	386	369	344	409	372	409	415	394
179,182	-1	-2	-2	-1	-2	-2	-2	-2	-2	-2
180	6	6	6	6	6	6	5	6	7	7
188	20	14	18	18	26	23	20	19	24	20
189	4	7	7	7	7	10	7	8	8	8
189.1	-	2	1	1	1	-	1	1	2	1
231	-	-	-	-	-	-	-	-	9	-
305.1	-	-	-	-	-	-	-	-	-	-
332	-11	-8	-8	-13	-11	-11	-11	-11	-10	-8
410-414	399	384	392	386	381	413	391	388	384	366
415-417	1	1	1	4	2	5	3	4	1	7
426-427	4	4	8	6	9	7	5	7	6	6
428-429	23	27	18	18	17	18	16	17	16	19
430-438	69	74	69	65	70	71	67	71	64	61
440	13	17	18	17	14	13	12	12	10	8
441-444	60	66	79	82	80	103	96	89	88	91
480-487	25	30	20	26	21	22	19	26	31	22
490-492,496	227	244	224	263	236	255	236	283	284	260
531-534	15	19	15	13	25	19	19	20	17	21
556	-	-	-	-	-1	-	-	-	-1	-
634	-	-	-	-	-	-	-	-	-	-
640-641	-	-	-	-	-	-	-	-	-	-
642	-	-	-	-	-	-	-	-	-	-
764,765	4	4	3	5	4	2	4	5	4	4
798	10	10	8	12	9	12.10	12	13	10	13
E890-E899	1	3	4	4	2	2	1	1	2	1
<b>TOTAL</b>	<b>1282</b>	<b>1335</b>	<b>1364</b>	<b>1388</b>	<b>1343</b>	<b>1498</b>	<b>1391</b>	<b>1489</b>	<b>1424</b>	<b>1444</b>

Table C2  
Estimated number of male deaths caused by tobacco, Western Australia, 1981-1991

*Mortality attributable to drug use, 1981-1991 Page: 26*

Table C3  
Estimated number of female deaths caused by tobacco, Western Australia, 1981-1991

ICD CODES	CAUSES OF DEATH										
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
010-012	-	-	-	-	-	-	-	-	-	-	-
140	-	-	-	-	-	-	-	-	-	-	-
141,143-145	4	2	1	3	4	3	4	4	5	2	4
146-149	3	4	2	2	2	5	6	2	2	2	6
150	3	4	10	5	8	10	6	9	10	5	8
151	2	3	3	3	3	3	3	3	3	3	2
157	5	5	7	6	8	8	7	7	8	8	10
161	1	1	1	2	2	1	1	2	2	-	4
162	50	55	80	67	63	88	79	100	103	98	102
179,182	-1	-2	-2	-1	-2	-2	-2	-2	-2	-2	-2
180	6	6	6	6	6	6	5	6	7	7	6
188	3	4	3	4	4	4	4	4	4	4	2
189	1	1	2	1	2	3	2	3	3	2	3
189.1	-	-	-	-	1	-	-	-	1	1	1
231	-	-	-	-	-	-	-	-	-	9	-
305.1	-	-	-	-	-	-	-	-	-	-	-
332	-2	-2	-2	-2	-2	-2	-3	-4	-3	-	-3
410-414	82	88	86	81	94	86	87	85	80	83	83
415-417	-	-	-	-	-	-	-	-	-	-	-
426-427	2	2	1	2	3	3	3	1	1	2	3
428-429	7	7	6	6	6	6	5	2	2	3	4
430-438	24	27	23	24	24	26	22	25	25	25	24
440	6	9	8	9	8	7	5	5	4	4	5
441-444	15	19	25	24	27	27	30	28	25	35	28
480-487	6	9	5	7	5	6	7	9	9	9	7
490-492,496	53	34	40	45	45	55	40	66	69	62	57
531-534	3	6	5	5	10	5	10	8	6	7	7
556	-	-	-	-	-	-	-	-	-	-	-
634	-	-	-	-	-	-	-	-	-	-	-
640-641	-	-	-	-	-	-	-	-	-	-	-
642	-	-	-	-	-	-	-	-	-	-	-
764,765	2	1	1	2	1	2	2	2	2	2	2
798	3	3	3	6	4	5	5	4	7	5	5
E890-E899	-	1	2	-	1	1	-	1	-	1	1
<b>TOTAL</b>	<b>282</b>	<b>280</b>	<b>319</b>	<b>313</b>	<b>318</b>	<b>363</b>	<b>329</b>	<b>376</b>	<b>384</b>	<b>381</b>	<b>376</b>

Note: Column totals may vary because of rounding for presentation.

**Table C4**  
**Estimated number of deaths caused by alcohol, Western Australia, 1981-1991**

ICD CODES	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	CAUSES OF DEATH
E810-E819	74	71	63	62	68	73	62	72	72	63	63	ROAD INJURIES
E860.0	2	-	-	1	5	3	1	1	1	8	-	ALCOHOL POISONING
E860.1-E860.2	1	1	-	-	-	-	-	-	-	-	-	ETHANOL POISONING
E860-E868	17	19	13	12	15	12	12	17	16	21	13	FALL INJURIES
E890-E899	2	4	7	5	2	4	2	2	2	4	2	FIRE INJURIES
E910	6	6	6	4	3	3	6	3	4	3	5	DROWNING
E911	12	10	12	7	8	13	6	5	16	12	10	ASPIRATION
E919-E920	2	2	1	1	1	1	1	1	1	1	1	MACHINE INJURIES
E950-E959	31	38	33	40	40	38	47	48	42	49	49	SUICIDE
E960,E965,E966,E968,E969	12	10	9	11	14	10	10	10	12	14	13	ASSAULT
E967	-	-	-	-	-	-	-	-	-	-	-	CHILD ABUSE
140	-	-	-	-	-	-	-	-	-	-	-	LIP CANCER
141,143-145	7	8	9	12	11	14	9	12	11	12	8	ORAL CANCER
146-149	8	13	12	14	16	14	20	15	16	14	11	PHARYNGEAL CANCER
150	14	17	19	17	18	32	21	29	29	22	31	OEOPHAGEAL CANCER
153	20	23	29	24	28	35	33	30	30	27	32	COLON CANCER
154	4	3	5	4	4	4	4	4	4	4	5	RECTAL CANCER
155	6	5	8	7	10	7	9	8	10	12	12	HEPATIC CANCER
157	12	12	13	13	14	14	15	14	16	17	16	PANCREATIC CANCER
161	9	8	7	8	8	5	9	13	10	7	12	LARYNGEAL CANCER
174-175	22	26	27	29	31	33	29	35	35	33	33	BREAST CANCER
265.2	-	2	-	-	1	-	-	2	-	-	-	PELLAGRA
291	1	7	2	3	3	1	2	2	5	1	2	ALCOHOLIC PSYCHOSIS
303	9	10	11	11	14	19	12	19	9	15	21	ALCOHOL DEPENDENCE
305	-	-	-	1	-	-	-	1	1	-	2	ALCOHOL ABUSE
401-405	7	7	7	8	9	7	9	9	6	9	6	HYPERTENSION
410-414	-82	-70	-74	-73	-67	-71	-73	-64	-65	-59	-59	ISCHAEMIC HEART DISEASE
425.5	10	7	8	9	15	16	8	16	11	8	11	ALCOHOLIC CARDIOMYOPATHY
426-427	-1	-	-2	-1	-1	-1	-1	-1	-1	-2	-1	CARDIAC DYSRHYTHMIA
428-429	-3	-4	-2	-1	-1	-2	-1	-2	-1	-3	-1	HEART FAILURE
430-438	101	103	98	103	110	107	113	117	117	109	105	STROKE
456.0-456.2	1	-	-	-	1	-	1	1	0.51	-	-	OESOPHAGEAL VARICES
530.7	-	-	-	-	-	-	-	1	-	-	-	GASTRO - OESOPHAGEAL HAEM.
535.3	-	-	-	-	1	-	-	-	-	-	-	ALCOHOLIC GASTRITIS
571.0-571.3	42	59	50	70	61	57	71	71	84	54	54	ALCOHOLIC LIVER CIRRHOSIS
571.5-571.9	-	-	-	-	-	-	-	-	-	-	-	UNSPECIFIED LIVER CIRRHOSIS
574	-3	-2	-3	-2	-1	-3	-4	-2	-2	-2	-2	CHOLELIHTIASIS
577	7	3	6	3	6	5	5	6	3	3	3	ACUTE PANCREATITIS
577.1	1	3	1	1	-	2	-	1	2	1	1	CHRONIC PANCREATITIS
764-765	1	1	1	1	1	1	-	1	1	1	1	LOW BIRTHWEIGHT
TOTAL	352	401	381	399	438	458	430	492	497	459	460	

Note: Column totals may vary because of rounding for presentation.

**Table C5**  
**Estimated number of male deaths caused by alcohol, Western Australia, 1981-1991**

ICD CODES	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	CAUSES OF DEATH
E810-E819	58	53	-	-	47	50	51	46	57	54	47	ROAD INJURIES
E860.0	2	-	1	-	1	4	3	1	1	-	7	ALCOHOL POISONING
E860.1-E860.2	-	-	1	-	-	-	-	-	-	-	-	ETHANOL POISONING
E880-E888	11	13	9	7	10	7	6	10	10	14	14	FALL INJURIES
E890-E899	1	3	5	4	1	3	1	1	2	2	2	FIRE INJURIES
E910	5	6	6	4	3	3	6	3	4	3	4	DROWNING
E911	10	7	7	6	7	13	4	2	11	7	4	ASPIRATION
E919-E920	2	2	1	1	1	1	1	1	1	1	1	MACHINE INJURIES
E950-E959	25	30	25	32	31	31	37	39	36	38	39	SUICIDE
E960-E965,E966,E968,E969	8	8	5	8	7	7	6	4	9	7	6	ASSAULT
E967	-	-	-	-	-	-	-	-	-	-	-	CHILD ABUSE
140	-	-	-	-	-	-	-	-	-	-	-	LIP CANCER
141,143-145	5	7	8	11	9	13	8	10	10	11	7	ORAL CANCER
146-149	5	9	10	12	14	10	14	13	14	12	6	PHARYNGEAL CANCER
150	11	13	11	12	12	22	16	20	19	17	24	OESOPHAGEAL CANCER
153	11	12	16	13	15	20	19	15	17	14	18	COLON CANCER
154	3	2	3	2	2	3	3	3	2	2	2	RECTAL CANCER
155	6	3	6	4	8	7	8	6	7	8	9	HEPATIC CANCER
157	8	8	7	8	8	9	9	9	9	10	8	PANCREATIC CANCER
161	8	7	7	6	7	5	9	11	9	7	10	LARYNGEAL CANCER
174-175	-	-	-	-	-	-	1	1	-	-	1	BREAST CANCER
265.2	-	-	-	-	-	-	-	-	-	-	-	PELLAGRA
291	1	3	2	2	3	1	2	2	4	1	1	ALCOHOLIC PSYCHOSIS
303	8	10	7	10	13	15	8	18	7	12	14	ALCOHOL DEPENDENCE
305	-	-	-	-	-	-	-	-	1	-	1	ALCOHOL ABUSE
401-405	7	7	7	8	9	7	9	6	9	6	6	HYPERTENSION
410-414	-73	-60	-62	-63	-59	-60	-64	-55	-54	-52	-52	ISCHAEMIC HEART DISEASE
425.5	9	4	7	8	15	14	8	13	10	7	10	ALCOHOLIC CARDIOMYOPATHY
426-427	-1	-	-2	-	-1	-1	-1	-1	-	-1	-1	CARDIAC DYSRHYTHMIA
428-429	-2	-3	-2	-1	-1	-1	-1	-2	-1	-2	-2	HEART FAILURE
430-438	51	52	53	47	49	53	58	54	58	50	49	STROKE
456.0-456.2	1	-	-	-	-	1	-	1	1	-	-	oesophageal varices
530.7	-	-	-	-	-	-	-	1	-	-	-	GASTRO-OESOPHAGEAL HAEM.
535.3	-	-	-	-	-	1	-	-	-	-	-	ALCOHOLIC GASTRITIS
571.0-571.3	30	45	38	54	51	38	56	59	70	37	43	ALCOHOLIC LIVER CIRRHOSIS
571.5-571.9	-	-	-	-	-	-	-	-	-	-	-	UNSPECIFIED LIVER CIRRHOSIS
574	-2	-2	-1	-1	-	-1	-1	-2	-1	-1	-1	cholelithiasis
577	5	1	3	2	2	3	3	4	1	1	2	ACUTE PANCREATITIS
577.1	1	3	1	-	-	1	-	1	1	1	1	CHRONIC PANCREATITIS
764-765	-	-	-	-	-	-	-	1	-	-	-	LOW BIRTHWEIGHT
TOTAL	216	244	227	248	272	277	269	310	319	272	268	

**Table C6**  
**Estimated number of female deaths caused by alcohol, Western Australia, 1981-1991**

ICD CODES	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	CAUSES OF DEATH
E810-E819	16	18	13	15	17	22	16	15	17	17	16	16	ROAD INJURIES
E860.0	-	-	-	-	1	-	-	-	1	1	1	-	ALCOHOL POISONING
E860.1-E860.2	1	-	-	-	-	-	-	-	-	-	-	-	ETHANOL POISONING
E880-E888	7	7	4	5	4	5	6	6	6	7	7	5	FALL INJURIES
E890-E899	1	1	2	1	2	1	1	1	-	1	1	2	FIRE INJURIES
E910	-	-	-	-	-	-	-	-	-	-	-	-	DROWNING
E911	2	3	5	1	1	-	-	2	3	5	5	6	ASPIRATION
E919-E920	-	-	-	-	-	-	-	-	-	-	-	-	MACHINE INJURIES
E950-E959	6	9	7	9	9	7	10	9	6	10	10	10	SUICIDE
E960-E965-E966-E968-E969	4	2	4	3	7	4	4	6	3	7	7	7	ASSAULT
E967	-	-	-	-	-	-	-	-	-	-	-	-	CHILD ABUSE
140	-	-	-	-	-	-	-	-	-	-	-	-	LIP CANCER
141,143-145	1	1	-	1	1	1	1	1	1	1	1	1	ORAL CANCER
146-149	3	4	2	2	2	5	6	2	2	2	2	2	PHARYNGEAL CANCER
150	3	4	9	5	7	10	5	8	10	5	5	5	OESOPHAGEAL CANCER
153	9	11	12	11	13	15	14	14	13	14	14	14	COLON CANCER
154	1	2	2	2	2	1	1	1	1	2	2	2	RECTAL CANCER
155	1	2	2	2	2	1	1	1	2	2	4	4	HEPATIC CANCER
157	4	4	5	5	6	6	6	5	7	6	6	8	PANCREATIC CANCER
161	1	-	-	1	1	-	-	1	1	-	2	2	LARYNGEAL CANCER
174-175	21	26	27	29	31	33	28	35	35	33	32	32	BREAST CANCER
265,2	-	2	-	-	-	-	-	2	-	-	-	-	PELLAGRA
291	-	4	-	1	-	-	-	1	-	1	1	1	ALCOHOLIC PSYCHOSIS
303	1	-	4	1	1	4	4	1	2	3	7	7	ALCOHOL DEPENDENCE
305	-	-	-	1	1	-	-	1	-	-	1	1	ALCOHOL ABUSE
401-405	-	-	-	-	-	-	-	-	-	-	-	-	HYPERTENSION
410-414	-9	-9	-12	-10	-8	-11	-9	-8	-11	-7	-7	-7	ISCHAEMIC HEART DISEASE
425,5	1	3	1	1	1	2	-	3	1	1	1	1	ALCOHOLIC CARDIOMYOPATHY
426-427	-	-	-	-	-	-	-	-	-	-	-	-	CARDIAC DYSRHYTHMIAS
428-429	-1	-1	-	-	-	-	-1	-	-	-1	-1	-1	HEART FAILURE
430-438	51	51	50	51	54	57	49	59	59	59	56	56	STROKE
456,0-456,2	-	-	-	-	-	-	-	-	-	-	-	-	OESOPHAGEAL VARICES
530,7	-	-	-	-	-	-	-	-	-	-	-	-	GASTRO-OESOPHAGEAL HAEM.
535,3	-	-	-	-	-	-	-	-	-	-	-	-	ALCOHOLIC GASTRITIS
571,0-571,3	12	14	12	16	10	19	15	12	14	17	11	11	UNSPECIFIED LIVER CIRRHOSIS
571,5-571,9	-	-	-	-	-	-	-	-	-	-	-	-	CHOLELITHIASIS
574	-1	-	-2	-1	-2	-2	-1	-1	-1	-2	-1	-1	ACUTE PANCREATITIS
577	2	1	4	1	4	2	2	2	2	2	2	2	CHRONIC PANCREATITIS
577,1	1	-	-	1	-	1	-	1	-	-	-	-	LOW BIRTHWEIGHT
764-765	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	137	157	154	151	166	181	160	182	178	187	192	192	

Note: Column totals may vary because of rounding for presentation.

**Table C7**  
**Estimated number of deaths caused by other drugs, Western Australia, 1981-1991**

Type of Drug	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Opiates	3	12	12	20	27	20	16	25	23	21	16
Barbiturates	15	11	13	13	6	7	5	-	3	-	1
Tranquillisers/Sedatives/Anti-Depressants	10	11	14	24	14	15	28	17	14	22	25
Cocaine	1	-	-	-	-	-	-	-	-	1	-
Psychostimulants	-	-	-	-	-	-	-	-	-	1	3
Volatile Substances	2	-	-	1	1	4	4	2	3	4	4
Other & Unspecified Drugs	3	3	9	5	14	18	10	5	6	7	6
Other Causes	2	2	2	1	2	3	2	2	2	2	2
<b>TOTAL</b>	<b>36</b>	<b>39</b>	<b>50</b>	<b>64</b>	<b>67</b>	<b>65</b>	<b>51</b>	<b>51</b>	<b>58</b>	<b>57</b>	

Note: Column totals may vary because of rounding for presentation.  
 No deaths related to hallucinogens or cannabis (excluded).

Table C8  
Estimated number of male deaths caused by other drugs, Western Australia, 1981-1991

TYPE OF DRUG	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Opiates	3	8	9	12	18	12	13	17	18	19	13
Barbiturates	10	5	5	7	4	4	3	-	2	-	1
Tranquillisers/Sedatives/Anti-Depressants	3	4	8	10	8	7	14	7	7	12	8
Cocaine	1	-	-	-	-	-	-	-	-	-	-
Psychostimulants	-	-	-	-	-	1	-	-	-	-	3
Volatile Substances	2	-	-	1	1	4	4	1	3	4	4
Other & Unspecified Drugs	2	2	7	3	4	12	9	5	4	5	4
Other Causes	1	1	1	1	2	1	1	1	1	1	1
<b>TOTAL</b>	<b>22</b>	<b>20</b>	<b>30</b>	<b>34</b>	<b>36</b>	<b>41</b>	<b>44</b>	<b>31</b>	<b>35</b>	<b>41</b>	<b>34</b>

Note: Column totals may vary because of rounding for presentation.

No deaths related to hallucinogens or cannabis (excluded).

Table C9  
Estimated number of female deaths caused by other drugs, Western Australia, 1981-1991

TYPE OF DRUG	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Opiates	-	4	3	8	9	8	3	8	5	2	3
Barbiturates	5	6	8	6	2	3	2	-	1	-	-
Tranquillisers/Sedatives/Anti-Depressants	7	7	6	14	6	8	14	10	7	10	17
Cocaine	-	-	-	-	-	-	-	-	1	-	-
Psychostimulants	-	-	-	-	-	-	-	-	-	1	-
Volatile Substances	-	-	-	-	-	-	-	1	-	-	-
Other & Unspecified Drugs	1	1	2	2	10	6	1	-	2	2	2
Other Causes	1	1	1	-	1	1	1	1	1	1	1
<b>TOTAL</b>	<b>14</b>	<b>19</b>	<b>20</b>	<b>30</b>	<b>28</b>	<b>26</b>	<b>21</b>	<b>20</b>	<b>16</b>	<b>17</b>	<b>23</b>

Note: Column totals may vary because of rounding for presentation.  
No deaths related to hallucinogens or cannabis (excluded).