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Indicators of Drug Abuse In Western Australia

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Contents

Preface

This publication contains a variety of indicators of drug abuse to identify trends in the use of licit and illicit drugs in Western Australia (WA).

The analysis does not include a comprehensive analysis of social, economic, demographic and other factors that may be related to the occurrence of drug problems in the community.

Indicators of drug abuse were previously published on a regular basis by the WA Drug Data Collection Unit (WADDCU) up to 1995, when the WADDCU ceased to operate.

More recent time series data for most of these indicators has been published in official reports by the *Task Force on Drug Abuse* in 1995 and by the *Select Committee Into the Misuse of Drugs Act 1981* in 1997 and 1998.

Depending on availability, data in this report has been broken down to provide regional comparisons. This report updates time series information up to the year 2000 that involves:

- law enforcement data;
- admissions to general and psychiatric hospitals;
- utilisation of programs to prevent the transmission of blood borne viruses (BBVs);
- drug related deaths;
- drug related telephone calls;
- prevalence surveys of adults and young people;
- consumption of alcohol and other licit drugs; and
- attendances at treatment services.

1. Crime statistics and law enforcement

State overview

Analysis of police arrest and seizure data over the three years up to 2000 shows a marked increase in the use of psychostimulants, especially methylamphetamine compared to heroin.

The results of testing arrestees held at the East Perth lockup supports this conclusion, with the proportion of persons who tested positive for amphetamines increasing from 12% in 1999 to 49% in 2001.

Regional trends

Marked increases in the rate of drug offences were identified Regional Development Commission regions from 1994 to 1998, in the Goldfields (+32%), Midwest (+36%), Peel (+42%), Kimberley (+184%) and Gascoyne (+23%) regions.

Similar trends were found in the number of arrests by the West Australian Police Service for drug offences outside the metropolitan area, in the Kalgoorlie (+65%), Kimberley (+54%), Narrogin (+47%) and Geraldton (+28%) police districts.

Overall, rates of drug offences well above the State average occurred in the Kalgoorlie (1.8 times), Northam (1.5 times), Kimberley (1.4 times) and Geraldton (1.3 times) regions.

2. Public health measures

State overview

From March 1987 to December 2000 a total of 18.5 million new needles and syringes (N&S) were distributed throughout Western Australia. There has been a pronounced growth in the number of N&S distributed per year, with a total of 3.2 million distributed in the year 2000.

Regional trends

Whilst the metropolitan area accounts for the majority of N&S that have been distributed, the proportion of all N&S provided outside the Perth metropolitan area grew from 7% in 1991 to 15% by 2000.

There were marked increases in the number of N&S distributed in a number of towns over the period 1993 to 2000, especially in the Port Hedland, Bunbury, Albany, Esperance, Busselton, Margaret River and Kalgoorlie-Boulder and Mandurah areas.

From 1993 to 2000 the majority of N&S were distributed in the Kalgoorlie-Boulder (667,000), Mandurah (352,000), Bunbury (255,000) and Geraldton (220,000) regions.

3. Morbidity

Psychiatric hospitals

State overview

Over the 13 year period from 1988 to 2000 there were 21,606 drug related admissions to psychiatric hospitals, an average of 1,660 per year.

Just under half of these admissions were self inflicted injury, nearly one third involved mental disorders due to alcohol abuse and the remaining 20% of admissions were due to the abuse of drugs other than alcohol.

Based on data for the groups of mental disorders (drug dependence and non dependent abuse) it was found that opioids and the 'other drug' group were responsible for 37% and 34% of admissions, respectively, involving drugs other than alcohol.

From 1998 to 2000 marked increases occurred in the number of admissions per year due to the abuse of opioids and amphetamines. Opioid admissions increased from 17 in 1988 and peaked in 1998 (220 admissions), then declined to 117 admissions in 2000. Amphetamine admissions increased from 3 in 1988 to 56 in 1994, dropped to 9 in 1996, and then increased, reaching 67 in 2000.

General hospitals

State overview

Over the seven year period from 1994 to 2000 there was a total of 172,065 hospital admissions for all drug related conditions in Western Australia, an average of 24,580 per year.

Just under half of these were due to tobacco, just over a third were due to alcohol and 15% were due to other drugs.

Cost

The total cost of drug related hospitalisation in WA was $586 million, of which $347 million (59%) was due to tobacco, $185 million (32%) was due to alcohol and $54 million (9%) was due to other drugs.

The mean cost per year of all drug related hospitalisation was $84 million, involving $50 million per year for tobacco related illnesses, $26 million per year for alcohol related illnesses and $8 million per year for illnesses due to other drugs.

The per capita cost of dug related hospitalisation was $49 per capita for all drugs and by type of drug was:

- $30 per capita for tobacco;
- $15 per capita for alcohol; and
- $4 per capita for other drugs.

Regional trends

The mean cost of all drug related hospitalisation by Health Zone (HZ) ranged from $19.5 million per year in the North Metro HZ to $1.7 million per year in the Pilbara HZ.

The total cost by Health Zone ranged from $56.25 per capita in the Kimberley HZ to $38.61 per capita in the Pilbara HZ. Rates above the State rate occurred in the Kimberley (14% higher), Great Southern (12% higher) and the South West Metro (9% higher) Health Zones .

Rates just slightly above the State rate occurred in the East Metro and the South East Metro Health Zones.

The Pilbara HZ had a rate which was 78% below the State rate and the North Metro HZ was 91% of the State rate. Both the South West and the Midwest Health Zones were 97% of the State rate.

Alcohol

The cost of hospitalisation due to alcohol was between $15 to $18 per capita for most Health Zones. The highest rate was $29 per capita in the Kimberley HZ and the lowest rate was $14 per capita in the North Metro HZ.

Tobacco

The cost of tobacco related hospitalisation varied markedly between Health Zones, with the highest rate of $35 per capita in the South West Metro HZ and the lowest rate of $17 per capita in the Pilbara HZ.

Other drugs

The highest rate of hospitalisation due to drugs other than tobacco or alcohol, $5 per capita, occurred in the East Metro and the Goldfields Health Zones.

A rate of $4 per capita occurred in the Great Southern, South West Metro and South East Metro Health Zones.

There was a rate of $3 per capita in the North Metro, Kimberley, South West, Pilbara and Midlands Health Zones. The lowest rate of $2 per capita occurred in the Midwest HZ.

4. Mortality

All drug related deaths

State overview

From 1989 to 1991 the total number of all drug related deaths decreased slightly, from 1,948 to 1,794, then gradually increased and reached 1,980 by 1998.

As the majority of deaths involved alcohol and tobacco, deaths attributable to these two groups of drugs followed a similar pattern dropping slightly from 1989 to the early 1990s and then increasing gradually.

In comparison to the trends in alcohol and tobacco related deaths, deaths classified as 'other drug' related deaths increased by 237% from 53 in 1989 to 126 in 1998. A major factor in the growth in these deaths has been the increase in opioid related deaths that has occurred since 1994.

Heroin related deaths

State overview

Western Australia has experienced a similar increase in the rate of opioid deaths that has occurred in other States and Territories. Overall, there has been an Australia wide increase of 373% in opioid overdose deaths, from a rate of 30.1 per million (population aged 15 to 44 years) in 1991 to a rate of 112.5 in 1999.

In 1999 there was a total of 958 opioid overdose deaths, of which 42% occurred in New South Wales, 36% in Victoria, 8% in WA and 7% in Queensland.

There was a significant rise in heroin related deaths (HRDs) in this State since 1993, with a pattern of short term increases and decreases each quarter. The number of HRDs more than doubled from 12 in the March quarter 1995 to 28 in the June quarter 2000, then fell to 14 in the June quarter 2001.

There was an average of about 50 HRDs from 1995 to 1996 in WA, with an increase to about 80 deaths per year from 1997 to 2000.

Regional trends

Over the six and a half year period from 1995 to June 2001 there was a total of 459 HRDs in this State, of which 398 (86.7%) occurred in the Perth metropolitan area and 61 (13.3%) occurred in country areas.

The proportion of deaths occurring in country areas has generally followed the quarterly fluctuations in the State total of HRDs.

5. Drug related telephone calls

State overview

Over the 15 year period from March 1986 to March 2001 there was a total of 152,783 drug related calls received by the Alcohol and Drug Information Service (ADIS), of which 74,779 (48.9%) involved licit drugs (ie tobacco, alcohol and prescription drugs) and 78,004 (51.1%) involved illicit drugs.

From 1986 until mid 1991 most illicit calls each quarter were concerned with cannabis and since then most calls have involved psychostimulants (eg amphetamines) and opioids (eg heroin).

Psychostimulant related calls steadily increased from 1986 to mid 1994 and then dropped sharply and remained

relatively constant until mid 1997. Psychostimulant calls then increased by more than four and a half times from the June quarter 1997 to the December quarter 2000.

Opioid calls remained relatively constant from 1986 to the June quarter 1994. This was followed by a marked increase in opioid calls, reaching more than 800 calls in the September quarter 1999, then sharply declined. Since the September quarter 2000 the number of opioid clls have remained relatively constant, with about 350 calls per quarter.

Compared to the overall upward trend in the number of cannabis, psychostimulants and opioids calls that has occurred from 1986 to the present, there have been fewer calls concerned with designer drugs (eg LSD, hallucinogens and ecstasy). Designer drug calls peaked in the latter part of 1992 and then moderately declined, with about 50 calls received per quarter since mid 1997.

Regional trends

A regional breakdown of ADIS calls received from persons living in each of the State's Community Drug Serivce Team (CDST) zones was available from the December quarter 1999 to the June quarter 2001.

This data found that of the total of 16,781 calls received, just under three quarters (74%) were from the metropolitan area, 13% were from country regions with the place of residence not available for the remaining calls.

It was found that there was a high proportion of calls from country compared to metropolitan callers for alcohol (28% vs 20%) and tobacco related calls (23% vs 13%).

In all five metropolitan CDST zones there was a greater number of illicit drug related calls. There was a consistent pattern of a greater number of illicit calls received each quarter from persons living in the Goldfields and South West CDST zones.

In the Great Southern and Pilbara CDST zones there was a pattern of a greater proportion of licit calls each quarter until about mid 2000. From mid 2000 to mid 2001 there was a greater number of illicit calls each quarter in these CDST zones.

In the Kimberley CDST zone there was a greater number of illicit calls in the first two quarters and since the June quarter 2000 licit calls have exceeded illicit calls for most quarters.

There was a similar number of licit and illicit calls each quarter in the Midwest and Wheatbelt CDST zones, with a slightly greater number of illicit than licit calls received in some quarters.

6. Licit drugs

Prescription drugs

Data from the *1995 National Health Survey*, found 63.6% of the total WA population aged 15 years and over had used medications (excluding vitamins, minerals, herbal or natural medications) in the two weeks prior to interview. This is higher than the proportion for Australia (59.1%).

Overall, WA had the highest proportion taking medications of all states (second highest was ACT (62.9%) and lowest was NT (53.9%).

While there was a higher rate of the use of pain relievers by West Australians (26.3%) compared to the national average (23.6%), there was a similar rate (3.7%) of the use of tranquillisers, sedatives and sleeping medications for West Australians compared to the national average.

A number of factors associated with the increase of psychoactive drugs are identified by this survey, including age and marital status. Increased levels of use were found among people who were widowed, divorced or separated compared to other groups.

The proportion of people using psychoactive drugs increased with age, from 0.5% of 15-24 year olds, 3.2% of 25-44 year olds, 5.9% of 45-64 year olds to 10.3% of persons aged 65 years an older.

An analysis of data obtained in the *1995 National Survey of Mental Health and Wellbeing* indicated that overall 7.7% of Australians aged 18 years and older had a substance use disorder. (A substance use disorder was defined as having impaired control over the use of alcohol or other drugs, including harmful use or dependence, in the previous 12 months.)

Males were more likely to have a substance use disorder than females (11.1% vs 4.5%) and that substance use disorders declined steeply with age for both males and females. One in six 18 to 24 year olds had a substance use disorder compared to one in 90 Australians aged 65 years and older.

There were only small differences in the rate of substance use disorders between people who lived in the city and country.

Alcohol use disorders were about three times as common as drug use disorders, with 6.5% of Australians having an alcohol use disorder (9.4% males vs 3.7% females), based on their alcohol use in the past week.

Broken down by level of alcohol use, the survey found that 4.3% of males consumed alcohol at harmful levels and 5.1% at a level of dependence and that 1.8% of females consumed alcohol at harmful levels and 1.9% at a level of dependence.

Alcohol consumption

State overview

Over the 11 year period from 1988/1989 to 1998/1999 the per capita consumption of all alcohol in WA (as litres of absolute alcohol) declined by 6%, from 11.2 litres per capita in 1988/1989 to 10.4 litres per capita in 1998/1999.

The major reason for the gradual decline in the per capita consumption of all alcohol has been the marked decrease in the consumption of regular strength beer, which has decreased by 21%, from 7.2 litres per capita in 1988/1989 to 5.7 litres per capita in 1998/1999.

There was a decline of 29% over this 11 year period in the consumption of regular beer, which fell from 5.6 litres per capita in 1988/1989 to 4.0 litres per capita in 1998/1999.

Consumption of low alcohol beer increased by 8%, from 1.5 litres per capita in 1988/1989 to 1.7 litres per capita in 1998/1999. Compared to the overall decline in beer consumption, there has been a shift in preferences towards the increased consumption of wine and spirits. There was an increase in per capita consumption for wine of 16% and for spirits of 25% over the 11 years.

Regional trends

A profile of regional differences, based on the 1998/1999 data, shows that the North Metropolitan, South East Metropolitan and South West Metropolitan Health Zones had per capita rates of alcohol consumption below the State rate.

The East Metropolitan HZ had a rate slightly higher than the State rate and the Midlands and Great Southern Health Zones were 20% higher than the State rate. Regions with patterns of alcohol consumption well above the State rate occurred in the Kimberley (72% higher), Goldfields (57% higher), Pilbara (55% higher), Midwest (43% higher) and South West (34% higher) Health Zones.

From 1988/1989 to 1998/1999 the Kimberley, Goldfields and Midwest Health Zones consistently had rates that were at least between one and two thirds higher than the overall State rate of per capita consumption of alcohol.

Whereas at the beginning of the period the South West HZ was just above the State rate, by 1998/1999 it increased to 13.4 litres per capita, 28% higher than the State rate.

In 1988/1989 the Great Southern HZ had a rate of 9.7 litres per capita which was 14% below the State rate and by 1998/1999 had increased to 11.8 litres per capita which was 14% above the State rate.

Alcohol prevalence

Adults

The *1997 Tobacco, Alcohol and Illicit Drug Consumption Survey* (TAICS) involved West Australians aged 18 years and older.

Overall there were lower female than male rates, with 78% of males aged 18 to 64 years and 72% of females aged 18 to 24 years who were regular drinkers.

Alcohol use decreased with age for both males and females, with 66% of males and 38% of females aged 65 years and older being regular drinkers.

On the heaviest drinking day in the previous week it was found that 44% of regular drinkers drank at harmful levels, 22% drank at hazardous levels and 34% drank at low risk levels. Overall 24% of all persons aged 18 years and older drank alcohol at a hazardous or harmful level at least once in the previous week (26% males vs 22% females).

Harmful drinking by regular drinkers decreased with age, from 62% of 18 to 24 year olds to 17% of those aged 65 years and older.

For all age groups regular female drinkers were more likely than regular male drinkers to consume alcohol at a hazardous level, with the highest level occurring in 45 to 64 year olds.

Youth

The *1999 Australian School Student Alcohol and Drug Survey* (ASSAD) involves West Australian school students from Year 7 to Year 12.

It was found that alcohol was widely used by 12 to 17 year old students, with 90% of all students saying they had ever drunk even part of an alcoholic drink, 51% had consumed alcohol in the past month and 36% had drank alcohol in the past week.

From 1984 (the first ASSAD survey) to 1999 there was a significant rise in ‘at risk’ drinking among 12 to 15 year olds, increasing from 4.7% to 7.3% for males, from 7.0% to 10.8% for females and from 5.8% to 9.0% for all 12 to 15 year olds.

There was also a significant increase from the 1984 survey to the 1999 survey in ‘at risk’ drinking among 16 to 17 year olds, from 20.6% to 32.0% for males and from 21.5% to 30.5% for all 16 to 17 year olds.

Alcohol related injuries

An alcohol related injury surveillance study of 46,000 presentations at emergency departments at seven major regional hospitals found that alcohol related injuries ranged from 11% to 27% of all injuries.

Analysis of the 1,959 alcohol related injury presentations found that two thirds involved males and one third involved females.

Tobacco

Adults

There has been a long term decline in smoking prevalence in Australia, with a very marked drop especially in adult male smoking prevalence since 1945.

Data for the period 1945 to 1998 shows that in 1945 nearly three times as many Australian adult males as adult females who were regular smokers (72% vs 26%) which had dropped for both males and females by 1998 (29% vs 24%).

Over the last 25 years the smoking rate of males has decreased by 29%, from 41% in 1974 to 29% in 1998. Compared to males, female rates increased from 26% in 1945 to 31% in 1981 and then have declined by nearly a quarter, to 24% in 1998.

The 1997 TAICS shows that the highest rate of smoking occurred in the 18-24 year age group for both males and females (35% vs 30%). Smoking then declined with age for both males and females, with 13% of males and 10% of females aged 65 years and over being regular smokers.

It was also found that metropolitan residents were less likely to be current smokers than country residents (24% vs 29%).

Youth

It was found in the 1999 ASSAD survey that more than half (52.0%) of 12 to 17 year old students had ever used tobacco, with just over a third (35.4%) having used tobacco in the past year. Tobacco had been smoked by one in five (20.5%) students in the past month and by 16.6% of students in the past week.

In relation to current smoking (ie in past week), by females aged 12 to 17, the highest rate, 24.8%, occurred in the 15 year old age group. Compared to males, females aged from 13 to 16 years had a higher prevalence than did males of the same age group.

In relation to current smoking (ie in past week) by males aged 12 to 17, the highest rate, 26.9%, occurred in the 17 year old age group. Compared to females, male prevalence gradually increased with age, and by 17 years exceeded the female rate (26.9% vs 17.6%).

In relation to the two most recent ASSAD surveys, while there was a similar rate for 12 to 17 year old students in 1996 (18%) and 1999 (17%), an overall drop of 1%, there were significant shifts within a number of the age groups.

The proportion of current smokers decreased in both the 16 and 17 year age groups - the drop in the 16 year old age was 22% (from 27% in 1996 to 21% in 1999) with a slightly lower drop of 18% for the 17 year age group (from 27% in 1996 to 22% in 1999).

There was also a decrease in the proportion of current smokers in the 12 year age group over the last two surveys, a drop of 50% (from 8% in 1996 to 4% in 1999).

The proportion of current smokers increased in both the 13 and 14 year age groups, with an increase of 17% in the 13 year age group (from 12% in 1996 to 14% in 1999). There was an increase of 10% in the proportion of current smokers aged 14 years (from 20% in 1996 to 22% in 1999).

Regional trends

Overall in the 1999 ASSAD survey, rural students had higher smoking rates than metropolitan students. It was found that rural students were more likely than metropolitan students to have

- ever smoked tobacco (58.2% vs 49.8%);
- smoked in the past year (38.9% vs 34.0%);
- smoked in the past month (22.9% vs 19.5%); and
- smoked in the past week (18.3% vs 15.9%).

7. Illicit drugs

Adults

The *1995 National Mental Health Survey* found that in the past year 2.2% of Australian adults (3.1% males vs 1.3% females) had a substance use disorder involving drugs other than alcohol. Cannabis accounted for more substance use disorders than any other illicit drug, with 1.7% of Australian adults having had a cannabis use disorder (2.5% males vs 0.8% females).

The *1998 National Drug Strategy Household Survey* (NDSHS) involved persons aged 14 years and older. It was found that cannabis was the most prevalent illicit drug ever used by West Australians, being used by 44.8% of persons aged 14 years and older.

This was followed by hallucinogens (11.7%), amphetamines (10.6%), ecstasy (6.9%), cocaine (4.1%) and heroin (3.2%). Overall, 3.1% of persons aged 14 years and older reported having ever injected an illicit drug.

Analysis of patterns of use in the last year indicates that 22.3% of persons aged 14 years and older have used cannabis, followed by amphetamines (6.0%), ecstasy (5.1%) and hallucinogens (3.9%). Cocaine and heroin

were only used by a small number of individuals, with about 1% reporting use of either of these drugs.

Regional trends

Overall, the 1997 TAICS found similar rates of use of illicit drugs for both the metropolitan and country areas.

There was a higher rate of ever use of cannabis in the metropolitan area compared to the country area (42.4% vs 38.1%), whereas there was a slightly lower rate of use in the past year in the metropolitan area than the country area (14.8% vs 16.4%).

Youth

In the 1999 ASSAD survey nearly four in 10 (38%) of school students had ever used cannabis, with one third having used in the past year and one in five having used in the past month.

Amphetamines was the second most prevalent illicit drug having been ever used by 14% of WA school students, with 12% having used in the past year and 6% used in the past month.

The third most prevalent illicit drug used by school students was LSD/hallucinogens, with one in 10 having ever used, 8% having used in the past year and 3% used in the past month.

Regional trends

The 1999 ASSAD survey indicates differences between metropolitan and rural students in lifetime prevalence of the more commonly used drugs, ie alcohol (89% vs 94%), tobacco (50% vs 58%) and cannabis (36% vs 45%).

Metropolitan students also had lower rates of use in the past year than rural students for alcohol (73% vs 79%), tobacco (34% vs 39%) and cannabis (31% vs 39%).

No differences in prevalence were recorded between metropolitan and rural students for the majority of other illicit drugs, including tranquillisers, inhalants, LSD/hallucinogens, ecstasy, amphetamines, heroin, cocaine or steroids.

8. Treatment services

Utilisation of treatment services was based on an analysis of data for the period 1998 to 2000, of attendances at all Next Step Specialist Drug and Alcohol Services' programs, the main non government pharmacotherapy programs and programs provided by non government organisations (NGOs), including CDSTs.

CDSTs and NGOs

State overview

From 1998 to 2000 utilisation of programs provided by CDSTs and NGOs increased by 80.2%, from 6,458 admissions in 1998 to 11,643 admissions in 2000.

In the year 2000 there were 74.9% of admissions to outpatient programs and 15.7% of admissions to residential programs.

Utilisation of Next Step programs increased from 2,793 admissions in 1998 to 3,913 admissions in 2000, an increase of 40.1% .

In the year 2000, of the 3,913 admissions, 1,291 (33.0%) involved outpatient services, 989 (25.3%) involved the methadone program, 969 (24.8%) involved the naltrexone program and 511 (13.1%) involved the inpatient detoxification program.

In the year 2000 there was a total of 4,077 admissions diagnostic related groups (DRG numbers 860 to 863), of which 555 admissions (13.6%) involved the Central Drug Unit (based in metropolitan area), with the remaining 3,522 admissions (86.4%) at other hospitals.

The number of people in community based pharmacotherapies has substantially increased, from the year 1998 to the year 2000, doubling from 719 (in 1998) to 1,427 (in 2000), based on mid year treatment population (Table 8.4).

The number of persons treated by the Perth Naltrexone Clinic conducted by Dr George O'Neil increased by 108% from 624 (in 1998) to 1,301 (in 2000).

There was a total of 10,594 admissions to all programs (ie CDST/NGO programs, Next Step programs and non government pharmacotherapies) in WA in the year 1998. Admissions to all programs increased by 72.6%, with a total of 18,284 admissions in the year 2000.

Admissions to NGOs/CDSTs as a proportion of admissions to all programs increased over the three year period, from 61.0% of all admissions in the year 1998 to 63.7% of all admissions in the year 2000.

Admissions to Next Step programs as a proportion of admissions to all programs decreased over the three year period, from 26.4% of all admissions in the year 1998 to 21.4% of all admissions in the year 2000.

Over the three year period admissions to non government pharmacotherapy programs, as a proportion of admissions to all programs, increased from 12.7% of all admissions in the year 1998 to 14.9% of all admissions in the year 2000. The Perth Naltrexone Clinic accounted for 7.1% of all admissions to all programs in the year 2000.

Regional trends

In the year 1998 admissions to metropolitan CDSTs/NGOs represented 90.3% of all admissions to all CDSTs/NGOs, decreasing to 80.0% in the year 2000.

Metropolitan services compared to country based services, showed a different pattern of utilisation of programs, consistent with availability, with greater utilisation of the more intensive residential and inpatient detoxification programs.

In the year 2000, of the 10,812 episodes of service in the metropolitan area, 12.1% involved inpatient detoxification programs (vs 8.2% of admissions), 19.7% involved residential programs (vs 18.8% of admissions) and 65.0% involved outpatient programs (vs 69.4% of admissions).

Type of drug

There were differences in the proportion of admissions by primary drug problem to metropolitan programs operated by Next Step Specialist Drug and Alcohol Services compared to CDSTs/NGOs, as follows:

- heroin (42.0% vs 13.1%);
- other opioids (11.8% vs 0.6%);
- alcohol (17.3% vs 25.1%);
- amphetamines and other stimulants (5.5% vs 16.2%); and
- cannabis (1.8% vs 16.4%).

The high proportion of heroin related admissions in Next Step admissions reflects their ongoing role in providing methadone and more recently naltrexone as treatments for heroin dependence.

The higher proportion of amphetamine related admissions to CDST/NGOs is probably due to an emphasis of detoxification and counselling for those young adults affected by this group of drugs.

The higher proportion of cannabis related admissions to CDST/NGOs is likely to reflect the expansion in the role of these organisations in the diversion to an educational and brief intervention option that has been developed for first time cannabis offenders in this State. (This scheme commenced on a Statewide basis in March 2000 following an earlier pilot trial.)

1. Crime Statistics and Law Enforcement Data

1.1 Introduction

This section contains data based on activity across a number of law enforcement areas as follows:

- value of assets confiscated under the proceeds of crime legislation from annual reports of the Director of Public Prosecution from 1988/1989 to 1999/2000;
- number of drug offences and seizures by West Australian police from the Offender Information System (OIS) from 1998 to 2000;
- urinalysis of arrestees at the East Perth lock up from the Drug Use Monitoring Australia (DUMA) project from 1999 to 2001;
- results of random urinalysis surveys of prisoners from the Ministry of Justice;
- data from the National Census of Sentenced Prisoners conducted annually by the Australian Institute of Criminology (AIC); and
- diversions by the police, the courts and referrals to the Drug Court from 2000 to 2001.

1.2 Proceeds of crime

The *Crimes (Confiscation of Profits) Act 1988* and the *Misuse of Drugs Act 1981* provided for the confiscation of property that originated from serious drug related crime.

A total of $5.3 million was realised through the forfeiture and pecuniary penalty provisions of the legislation from 1988/1989 to 1999/2000 (Table 1.1). (More comprehensive legislation came into effect in January 2001 through the *Criminal Proceeds Confiscation Act 2000*.)

Table 1.1:
Value realised ($) of seizures under WA proceeds of crime legislation, 1988/1989 - 1999/2000

Year	$
1988/1989	nil
1989/1990	15,916
1990/1991	644,669
1991/1992	303,854
1992/1993	187,611
1993/1994	168,004
1994/1995	427,317
1995/1996	209,914
1996/1997	1,267,723
1997/1998	296,817
1998/1999	1,405,157
1999/2000	415,620
Total	**5,342,602**

1.3 Offences

Over the period 1998 to 2000 there were about 3,000 to 3,500 drug offences per quarter in WA that resulted in charges being laid by the WA Police (Table 1.3, page A1-2; Figure 1.1, page A1-2).

In the year 2000 there was a total of 13,937 drug offences in WA, of which 7,717 (55.4%) were for possession and/or use of drugs, 4,438 (31.8%) concerned possession of implements, 856 (6.1%) involved cultivation of drugs, 808 (5.8%) involved sell/supply of drugs, 63 (0.5%) involved manufacture of drugs and 55 (0.4%) were undetermined offences.

Note:
Due to problems in lack of uniform definitions and unstructured data files, data in the seizure database, which is separate from the OIS, cannot be readily interpreted to identify the type of drug seized by police for the purposes of data analysis. This means that it is not possible to provide a breakdown of type of drug by drug offence.

Possession/use

The most frequent charge involved possession and/or use of drugs, with between about 1,600 and 1,800 charges per quarter, except for the March quarters 1998 and 1999 (2,161 and 1,939 offences, respectively) and in the March and June quarters 2000 (2,055 and 2,113 offences, respectively).

Smoking implements

The second most frequent charge involved the possession of smoking implements, with about 1,000 charges per quarter, except for the March quarters 1998 and 1999 (1,179 and 1,285 offences, respectively).

Age groups

In each year from 1998 to 2000 nearly eight out of 10 offences involved persons aged from 15 to 34 years (Table 1.4, page A1-2). There were similar proportions of

Table 1.2:
Annual proportion (%) of drug offences by age group, Western Australia, 1998-2000

	1998	1999	2000
<15	5.6%	5.1%	4.2%
15-19	29.5%	28.9%	29.8%
20-24	22.1%	21.6%	22.3%
25-34	27.2%	28.3%	28.1%
35-44	12.3%	12.1%	12.3%
45-54	2.9%	9.4%	2.8%
55+	0.4%	0.6%	0.5%

Table 1.3:
Number of quarterly drug offences by type of offence, Western Australia, 1998-2000

	1998				1999				2000			
Type of offence	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
Possess/use	1,608	2,161	1,765	1,585	1,692	1,939	1,835	1,620	1,666	2,055	2,113	1,883
Sell/Supply	162	275	187	172	192	220	217	172	175	223	222	188
Cultivate	370	295	208	263	364	240	197	240	261	211	185	199
Manufacture	2	1	2	5	0	1	10	4	6	31	12	14
Undetermined	8	20	24	21	14	18	17	22	18	15	16	6
Implement	893	1,179	1,103	1,013	1,094	1,082	1,091	950	963	1142	1,285	1,048
Total	**3,043**	**3,931**	**3,289**	**3,059**	**3,356**	**3,500**	**3,367**	**3,008**	**3,089**	**3,677**	**3,833**	**3,338**

Figure 1.1:
Quarterly drug offences by type of offence, Western Australia, 1998-2000

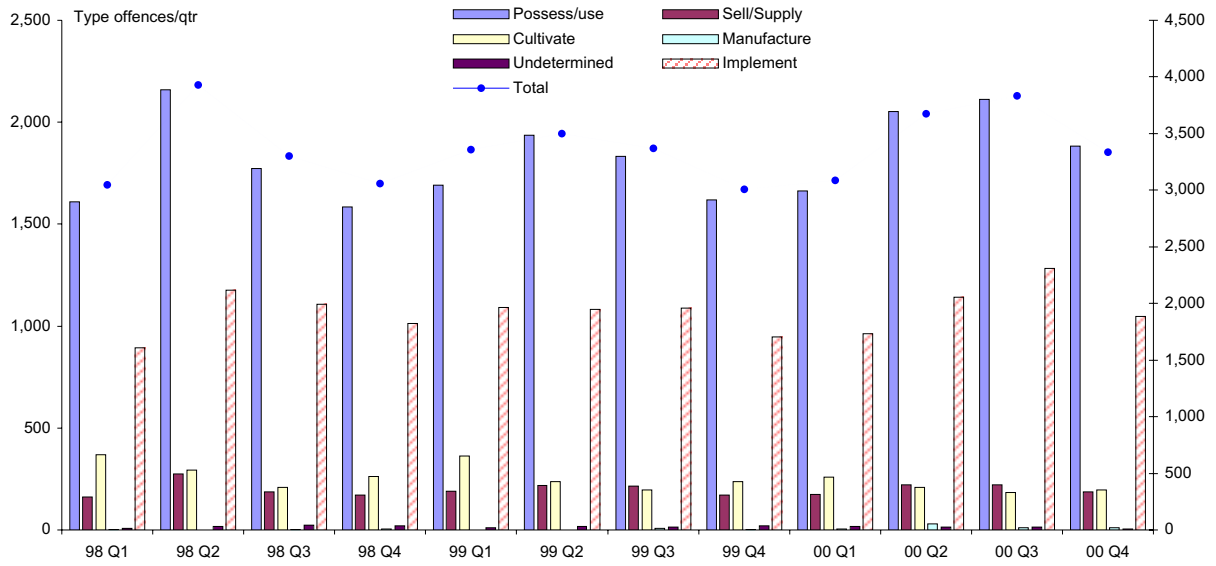


Table 1.4:
Number of quarterly drug offences by age group, Western Australia, 1998-2000

	1998				1999				2000			
Age group	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
<15	147	232	217	149	150	213	186	126	93	174	143	173
15-19	810	1,126	1,062	930	906	1,016	1,035	872	905	1,179	1,135	940
20-24	716	817	702	712	705	751	688	720	715	774	893	726
25-34	835	1,116	870	807	998	996	923	828	859	1,015	1,093	943
35-44	420	513	340	360	446	388	415	346	399	413	461	444
45-54	96	113	87	87	922	110	106	101	97	111	94	85
55+	19	14	11	14	29	26	14	15	21	11	14	27
All ages	**3,043**	**3,931**	**3,289**	**3,059**	**3,356**	**3,500**	**3,367**	**3,008**	**3,089**	**3,677**	**3,833**	**3,338**

offences for each of the seven age groups in each year, except for the 45-54 age group in 1999, as shown in Table 1.2.

Consumers and providers

When broken into two broad groups of consumers (ie possession, use, possession of smoking implements) and providers (ie sell/supply, cultivation and manufacture), 80% to 90% of charges involved the less serious type of consumer offences (Figure 1.2).

Figure 1.2:
Proportion (%) of consumer and provider offences of all drug offences, Western Australia, 1998-2000

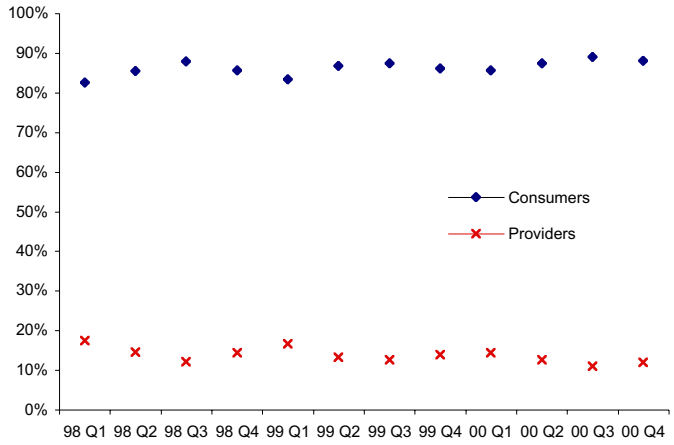


Figure 1.3:
Number of quarterly cannabis seizures, Western Australia, 1998-2000

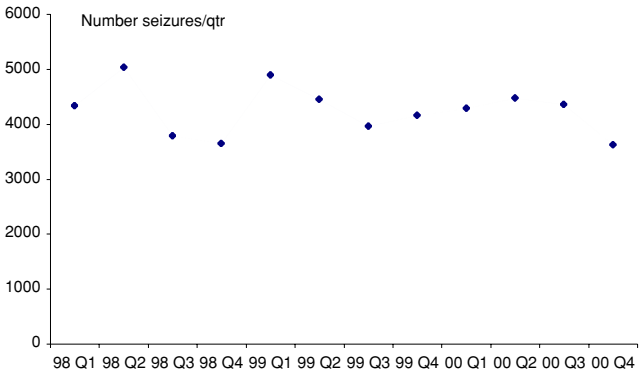
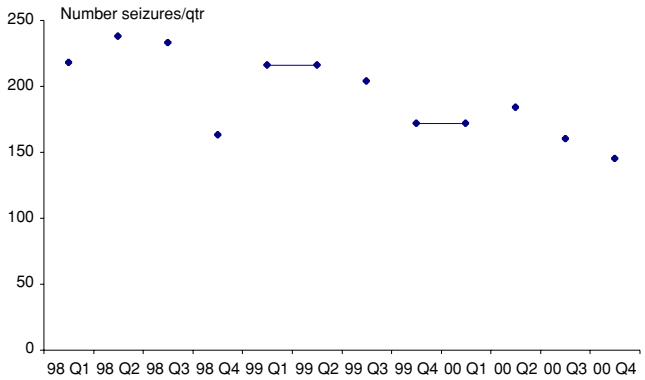


Figure 1.4:
Number of quarterly heroin seizures, Western Australia, 1998-2000



1.4 Seizures

Trends in seizures are a useful indicator of shifts in availability of different drug groups and activity by law enforcement bodies. For instance, at a national level there have been a record seizures of amphetamines as reported in the *1999/2000 Australian Illicit Drug Report* (published by the Australian Bureau of Criminal Intelligence).

Cannabis

There was an overall decline of 0.3% in cannabis seizures from 1998 to 2000 (Figure 1.3).

Heroin

Over the three year period heroin seizures decreased by 22%, from 218 seizures in the March quarter 1998 to 145 seizures in the December quarter 2000 (Figure 1.4).

Amphetamines

Over the three year period there was an increase of 98% in amphetamine seizures (Figure 1.5, page A1-4).

Methylamphetamines

Over the three year period there was an increase of 280% in methylamphetamine seizures (Figure 1.6, page A1-4).

1.5 Arrestees

The DUMA project provides regular snapshots of drug usage by people who have been arrested for any type of offence by the police. There are four sites involved in this national project, one of which is at the East Perth lockup. DUMA is conducted by the AIC in collaboration with police services in participating jurisdictions.

Urinalysis data from the nine quarterly surveys at the East Perth lockup indicate that at least six out of 10 arrestees have used cannabis recently (ie within the last few weeks as cannabis is retained in the body for a period of time) (Figure 1.7, page A1-4).

Between 20% and 30% of arrestees tested positive for opiates over the nine surveys. There was a lower level of arrestees who tested positive for benzodiazepines in the first four surveys (average 18%) compared to the last five surveys (average 29%).

A striking trend from the survey was the increase in the proportion of arrestees who tested positive for amphetamines, increasing four times from 12% in the first quarter 1999 to 49% in the first quarter 2001.

Figure 1.5:
Number of quarterly amphetamine seizures, Western Australia, 1998-2000

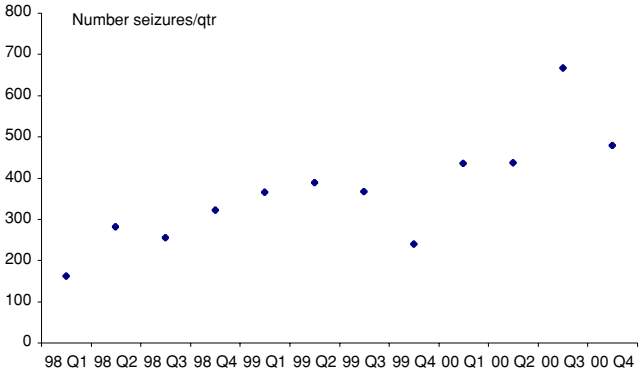


Figure 1.6:
Number of quarterly methylamphetamine seizures, Western Australia, 1998-2000

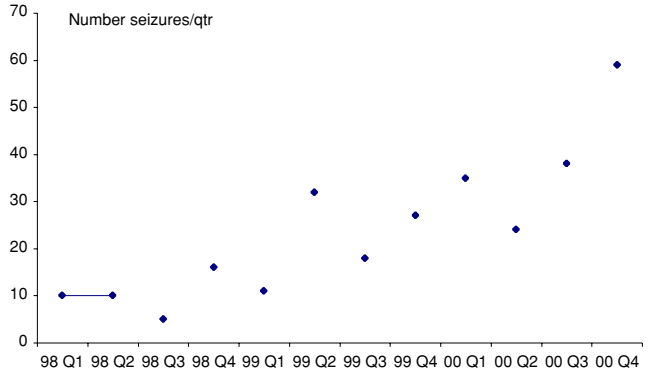
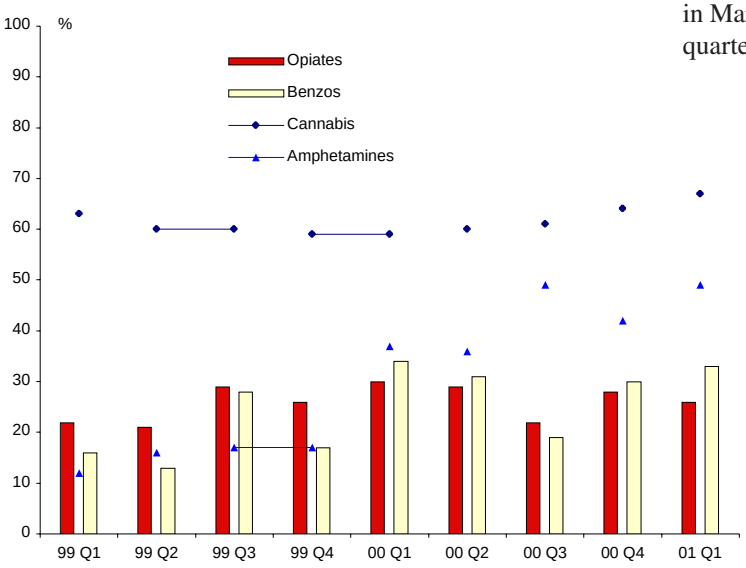


Figure 1.7:
Arrestees (%) testing positive for opiates, benzodiazepines, cannabis and amphetamines, East Perth lockup, 1999 quarter 1 - 2001 quarter 1



1.6 Prisoners

The *National Census of Sentenced Prisoners* is conducted annually by the AIC at 30 June each year. The identified offence is based on the most serious offence.

At 30 June 1999 nearly one in 10 of all prisoners in this State were incarcerated due to a drug offence. It is not known what proportion of property offences (eg burglary and robbery) involved persons who were drug dependent. A breakdown of the most serious offences is as follows:

- offences against the person (33%);
- burglary and theft offences (21%);
- robbery and extortion (15%);
- driving, motor vehicle and other traffic offences (11%);
- drug offences (9%);
- justice procedures and good order offences (8%); and
- property and environmental offences (1%).

The Ministry of Justice commissioned a cohort analysis of the custodial population of Western Australian prisons from 1993 to 1999. This showed that over the seven year period the number of prisoners who have had a drug charge remains relatively constant at around 30% of the overall prison population (Figure 1.8, page A1-5).

This study also considered prisoners who had a "drug alert", indicative of a drug problem. The June 1999 snapshot indicated a majority of prisoners were subject to that alert (Figure 1.9 page A1-5).

A total of 599 random and 3,811 targeted urinalysis tests of prisoners were conducted in 1999/2000. Of the random tests 23.5% were positive for any drug, of which 70% were positive for the cannabis metabolite and 27% were positive for pharmaceutical drugs, mostly benzodiazepines.

1.7 Diversion programs

The Statewide cannabis cautioning system commenced in March 2000 following an earlier trial. From the March quarter 2000 to the March quarter 2001 a total of 894 persons were cautioned and diverted by the police to a mandatory cannabis education session (Table 1.5, page A1-5).

With the inclusion of participants in the earlier trial there was a total of 1,055 persons who had been diverted under the cannabis cautioning system in this State.

A police diversion scheme for first time offenders involving drugs other than cannabis effectively commenced in March 2001 and in that month there was a total of seven diversions.

Figure 1.8:
Number of prisoners who have had a drug charge, Western Australia, 1993 - 1999

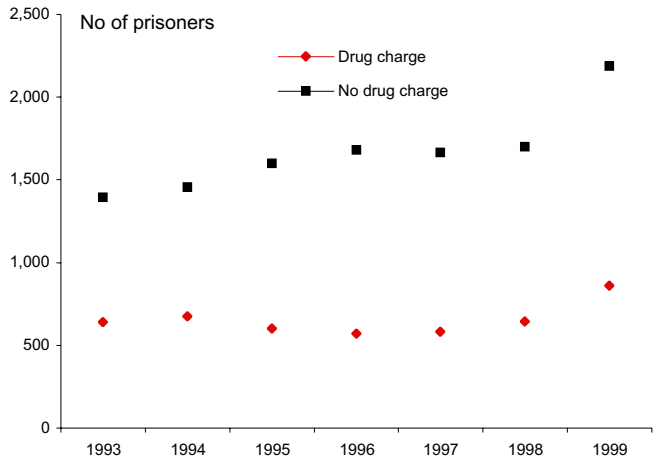
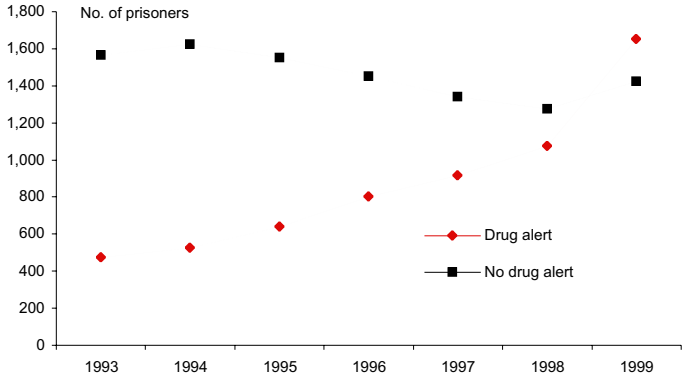


Figure 1.9:
Number of prisoners with a drug alert recorded, Western Australia, 1993 - 1999



A new pilot system of drug courts replaced the previous court diversion service in 2001. In the March quarter 2001 there was a total of 131 court order diversions for people with a drug offence, 17 of whom participated in a brief intervention regime (repeat cannabis), 45 participated in a supervised treatment intervention regime and 69 were dealt with via the Drug Court itself.

1.8 Profiles - RDC regions

This data measures the annual average number of drug offences (based on the total number of offences for the period 1996 to 1998) by Regional Development Commission (RDC) regions.

This information is from the study *Mapping crime offenders and socio-demographic factors* by the Crime Research Centre that was published in December 1999. The relatively small number of cases for localities within RDC regions may be unreliable and therefore subject to error. As this data may be indicative of local issues and trends it has been included to inform community based organisations, such as Local Drug Action Groups.

This is presented in Tables 1.6 to 1.14 (pages A1-6 to A1-9) and includes a breakdown of the annual average number of drug offences for the major towns within each RDC region. It also provides a comparison of town versus the more rural parts within each region.

To account for variations in the size of population of each RDC region, annual average rates per 1,000 population were calculated for each region. Time series data of the annual rate for all drug offences for each RDC region from 1994 to 1998 is also presented in Figures 1.11 to 1.19 (pages A1-6 to A1-9).

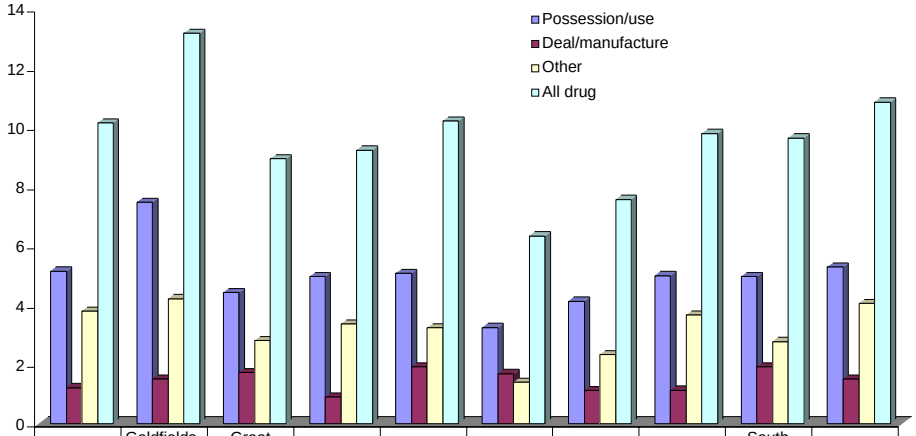
Overview

The annual average State rate for all drug offences was 8.0 per 1,000. Rates above the annual average State rate occurred in all RDCs (Figure 1.10, page A1-6), except in the Peel RDC (6.34 per 1,000) and the Perth metropolitan area (7.6 per 1,000).

Table 1.5:
Number of persons diverted by type of diversion, Western Australia, 2000 quarter 1 - 2001 quarter 1

Type of diversion	2000 Qtr 1	2000 Qtr 2	2000 Qtr 3	2000 Qtr 4	2001 Qtr 1
Police diversion					
Cautioning - cannabis	50	178	245	212	209
Diversion - other drugs	-	-	-	-	7
Court diversion					
Brief intervention	-	-	-	-	17
Supervised treatment intervention	-	-	-	-	45
Drug court	-	-	-	-	69
Total	**50**	**178**	**245**	**212**	**347**

Figure 1.10:
Annual average rate of drug offences, by RDC region and type of drug offence



	Gascoyne	Goldfields-Esperance	Great Southern	Kimberley	Midwest	Peel	Perth	Pilbara	South West	Wheatbelt
Possession/use	5.15	7.47	4.42	4.97	5.08	3.25	4.13	5.00	4.97	5.29
Deal/manufacture	1.21	1.50	1.72	0.90	1.92	1.69	1.11	1.13	1.91	1.51
Other	3.80	4.22	2.80	3.36	3.24	1.40	2.33	3.67	2.77	4.06
All drug	10.16	13.18	8.94	9.24	10.23	6.34	7.57	9.80	9.65	10.86

The highest rate (13.2 per 1,000) was in the Goldfields-Esperance RDC region, 1.64 times higher than the State rate. The second highest rate (10.9 per 1,000) was in the Wheatbelt (10.9), 1.36 times higher than the State rate.

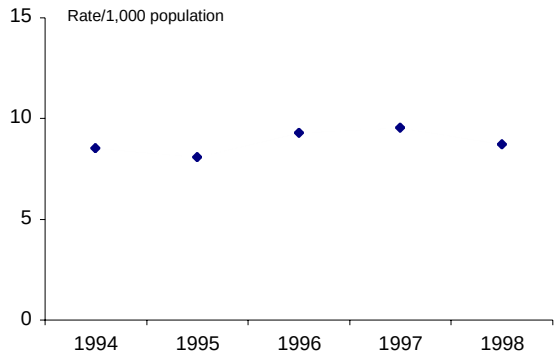
Similar rates occurred in the Midwest RDC region (1.28 per 1,000) and the Gascoyne RDC region (1.27 per 1,000). These rates were 1.28 and 1.27 times higher than the State rate, respectively.

Similar rates were also found in the Pilbara RDC region (9.80 per 1,000) and the South West RDC region (9.65 per 1,000), 1.22 and 1.21 times higher than the State rate, respectively.

South West RDC

In this region there was a total of 1,046 drug offences, of which 539 (51.5%) involved the possession/use of drugs and 207 (19.8%) involved deal/manufacture type offences (Table 1.6).

Figure 1.11:
Annual rate of all drug offences, South West RDC region



The annual rate of all drug offences remained relatively stable over the 5 year period, increasing slightly by 2.4%, from a rate of 8.5 per 1,000 in 1994 to a rate of 8.7 per 1,000 in 1998 (Figure 1.11).

Table 1.6:
Number of annual average drug offences, South West RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Augusta	2	1	2	5
Australind	13	5	10	28
Bridgetown	24	7	14	45
Bunbury	166	40	89	295
Busselton	70	26	28	124
Collie	33	13	22	68
Dunsborough	2	0	3	5
Harvey	16	5	8	29
Manjimup	25	15	21	61
Margaret River	38	13	19	70
Pemberton (L)	4	5	3	12
Rural	146	76	83	304
Total	**539**	**207**	**300**	**1,046**

Goldfields-Esperance RDC region

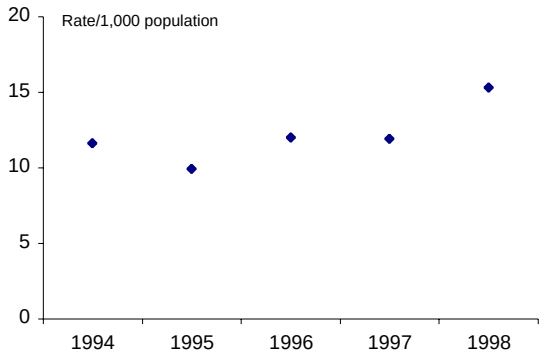
In this region there was a total of 756 drug offences, of which 428 (56.6%) involved the possession/use of drugs and 86 (11.4%) involved deal/manufacture type offences (Table 1.7, page A1-7).

The annual rate of all drug offences increased by 31.9% over the 5 year period, from a rate of 11.6 per 1,000 in 1994 to a rate of 15.3 per 1,000 in 1998 (Figure 1.12, page A1-7).

Table 1.7:
Number of annual average drug offences, Goldfields-Esperance RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Coolgardie	5	2	4	11
Esperance	42	19	32	93
Kalgoorlie-Boulder	163	37	75	275
Kambalda (East)	8	2	11	21
Kambalda West	9	3	9	21
Leinster	4	1	2	6
Leonora	13	2	9	24
Norseman	27	4	18	49
Rural	156	16	83	255
Total	**428**	**86**	**242**	**756**

Figure 1.12:
Annual rate of all drug offences, Goldfields-Esperance RDC region



Wheatbelt RDC region

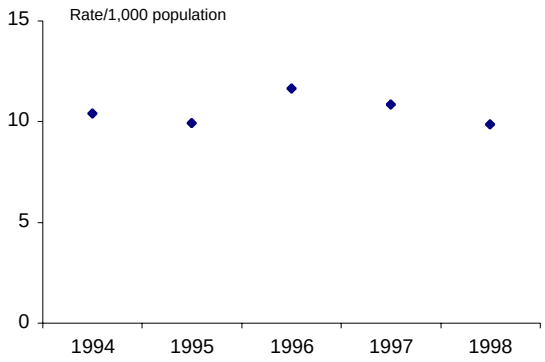
In this region there was a total of 750 drug offences, of which 365 (48.7%) involved the possession/use of drugs and 105 (14.0%) involved deal/manufacture type offences (Table 1.8).

The annual rate of all drug offences decreased by 4.8% over the 5 year period, from a rate of 10.4 per 1,000 in 1994 to a rate of 9.9 per 1,000 in 1998 (Figure 1.13).

Table 1.8:
Number of annual average drug offences, Wheatbelt RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Merredin	15	3	12	31
Moora	14	7	6	28
Narrogin	30	7	25	62
Northam	55	11	38	104
Southern Cross	6	1	7	14
Toodyay (L)	12	5	9	26
Wagin	5	2	6	13
York	10	5	7	21
Rural	217	63	171	451
Total	**365**	**105**	**280**	**750**

Figure 1.13:
Annual rate of all drug offences, Wheatbelt RDC region



Midwest RDC region

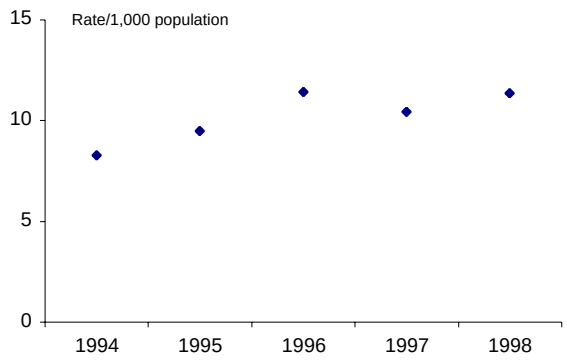
In this region there was a total of 523 drug offences, of which 260 (49.7%) involved the possession/use of drugs and 98 (18.7%) involved deal/manufacture type offences (Table 1.9).

The annual rate of all drug offences grew by just over one third over the 5 year period, from a rate of 8.3 per 1,000 in 1994 to a rate of 11.3 per 1,000 in 1998, an increase of 36.1% (Figure 1.14).

Table 1.9:
Number of annual average drug offences, Midwest RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Geraldton	155	50	82	287
Kalbarri	4	4	3	12
Meekatharra	5	2	8	15
Northampton (L)	6	3	1	10
Rural	90	38	71	198
Total	**260**	**98**	**165**	**523**

Figure 1.14:
Annual rate of all drug offences, Midwest RDC region



Pilbara RDC region

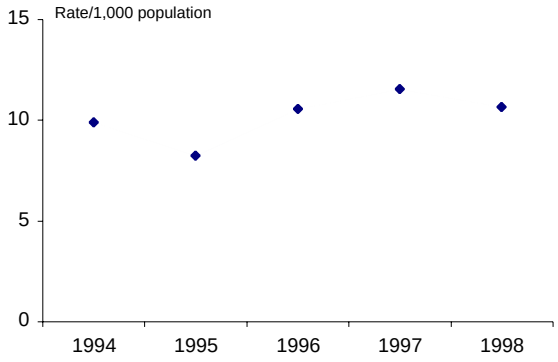
In this region there was a total of 439 drug offences, of which 224 (51.0%) involved the possession/use of drugs and 51 (11.6%) involved deal/manufacture type offences (Table 1.10).

The annual rate of all drug offences grew over the 5 year period, from a rate of 9.9 per 1,000 in 1994 to a rate of 10.7 per 1,000 in 1998, an increase of 8.1% (Figure 1.15).

Table 1.10: Number of annual average drug offences, Pilbara RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Dampier	2	0	1	2
Karratha	70	12	54	136
Newman	20	5	14	39
Pannawonica (L)	0	0	0	0
Paraburdoo	2	1	1	4
Port Hedland	78	19	55	151
Roebourne (L)	7	0	5	12
Rural	20	4	13	37
Tom Price	12	5	10	27
Wickham	14	5	12	31
Total	**224**	**51**	**164**	**439**

Figure 1.15: Annual rate of all drug offences, Pilbara RDC region



Great Southern RDC region

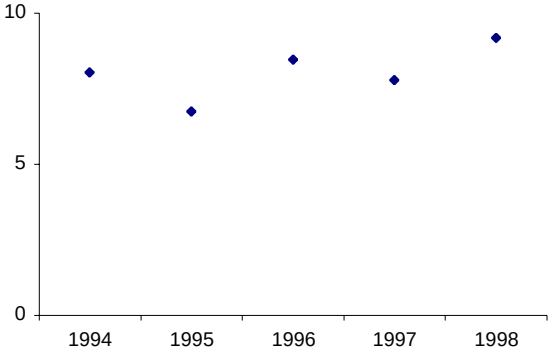
In this region there was a total of 431 drug offences, of which 213 (49.4%) involved the possession/use of drugs and 83 (19.2%) involved deal/manufacture type offences (Table 1.11).

The annual rate of all drug offences grew over the 5 year period, from a rate of 8.0 per 1,000 in 1994 to a rate of 9.2 per 1,000 in 1998, an increase of 15.0% (Figure 1.16).

Table 1.11: Number of annual average drug offences, Great Southern RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Albany	110	35	68	212
Denmark	17	9	8	34
Katanning	30	6	25	61
Kojonup	12	4	8	24
Mount Barker	5	2	3	10
Rural	40	27	24	91
Total	**213**	**83**	**135**	**431**

Figure 1.16: Annual rate of all drug offences, Great Southern RDC region



Peel RDC region

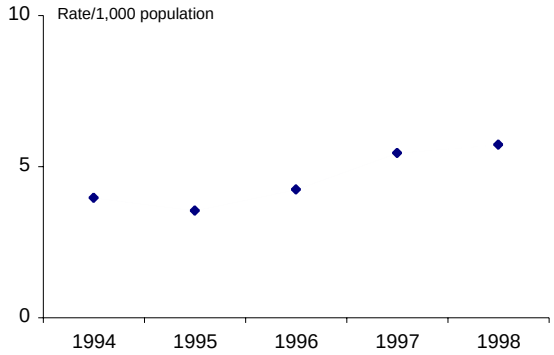
In this region there was a total of 392 drug offences, of which 201 (51.3%) involved the possession/use of drugs and 104 (26.5%) involved deal/manufacture type offences (Table 1.12).

The annual rate of all drug offences grew substantially over the 5 year period, from a rate of 4.0 per 1,000 in 1994 to a rate of 5.7 per 1,000 in 1998, an increase of 42.5% (Figure 1.17, page A1-9).

Table 1.12: Number of annual average drug offences, Peel RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Mandurah	124	58	46	228
North Pinjarra	4	3	2	8
Pinjarra	14	7	4	25
Rural	54	35	31	120
Waroona	5	2	4	10
Total	**201**	**104**	**86**	**392**

Figure 1.17:
Annual rate of all drug offences, Peel RDC region



Kimberley RDC region

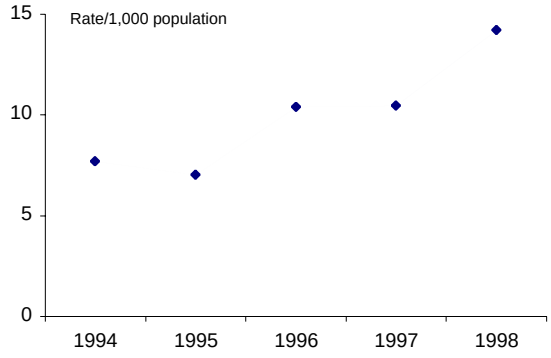
In this region there was a total of 304 drug offences, of which 164 (53.9%) involved the possession/use of drugs and 30 (9.9%) involved deal/manufacture type offences (Table 1.13).

The annual rate of all drug offences nearly doubled over the 5 year period, from a rate of 7.7 per 1,000 in 1994 to a rate of 14.2 per 1,000 in 1998, an increase of 184.4% (Figure 1.18).

Table 1.13
Number of annual average drug offences, Kimberley RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Broome	43	7	22	71
Derby	20	6	10	36
Fitzroy Crossing	3	1	5	9
Halls Creek	9	1	8	18
Kununurra	36	5	25	66
Rural	51	10	37	98
Wyndham (L)	2	1	4	7
Total	**164**	**30**	**111**	**304**

Figure 1.18:
Annual rate of all drug offences, Kimberley RDC region



Gascoyne RDC region

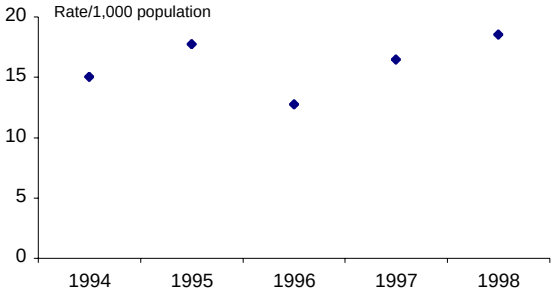
In this region there was a total of 151 drug offences, of which 76 (50.3%) involved the possession/use of drugs and 18 (11.9%) involved deal/manufacture type offences (Table 1.14).

The annual rate of all drug offences grew by nearly a quarter over the 5 year period, from a rate of 15.0 per 1,000 in 1994 to a rate of 18.5 per 1,000 in 1998, an increase of 23.3% (Figure 1.19).

Table 1.14:
Number of annual average drug offences, Gascoyne RDC region

	Possession/ use	Deal/ manufacture	Other	All drug
Carnarvon	50	11	33	94
Denham	3	0	2	5
Exmouth	15	4	14	33
Rural	9	2	7	18
Total	**76**	**18**	**56**	**151**

Figure 1.19:
Annual rate of all drug offences, Gascoyne RDC region



1.9 Profiles - Police Districts

This data is based on information from the OIS and measures the annual number of arrests involving drug offences for the years 1996/1997, 1997/1998 and 1998/1999 by WA police in each the State's 15 Police Service Districts.

It should be noted that only about one in 20 of all charges laid by WA police over this period involved drug offences. This means that a more complete understanding of drug related crime requires knowledge about the occurence of other types of acquisitive offences, such as burglary, theft and robbery.

As information about crime patterns of those dependent on heroin and amphetamines is not presently available this report only deals with drug offences as contained in the *Misuse of Drugs Act 1981*.

Table 1.15:
Number of drug offences by Police District, 1996/1997-1998/1999

	Population (1996 Census)	1996/1997	1997/1998	1998/1999
Albany	49,403	509	460	504
Bunbury	158,343	1,402	1,450	1,334
Cannington	259,883	1,470	1,591	1,805
Fremantle	281,505	1,695	1,957	2,041
Geraldton	54,830	469	593	601
Joondalup	234,295	1,215	1,441	1,315
Kalgoorlie	55,803	531	754	878
Kimberley	32,657	249	403	383
Meekatharra	8,469	60	50	67
Midland	138,507	1,304	991	1,237
Mirrabooka	212,141	1,479	1,734	1,691
Narrogin	23,166	145	181	213
Northam	44,974	670	511	579
Perth	111,253	1,627	1,812	1,686
Pilbara	47,326	549	538	499
Total	**1,712,555**	**13,374**	**14,466**	**14,833**

It should not be assumed that the rate of drug offences are related to the underlying prevalence of drug use in a specific Police District, as the number of drug charges can be determined by resource availability and policies at a local level.

In relation to drug charges over the three year period there was a increase of 10.9% in both the:

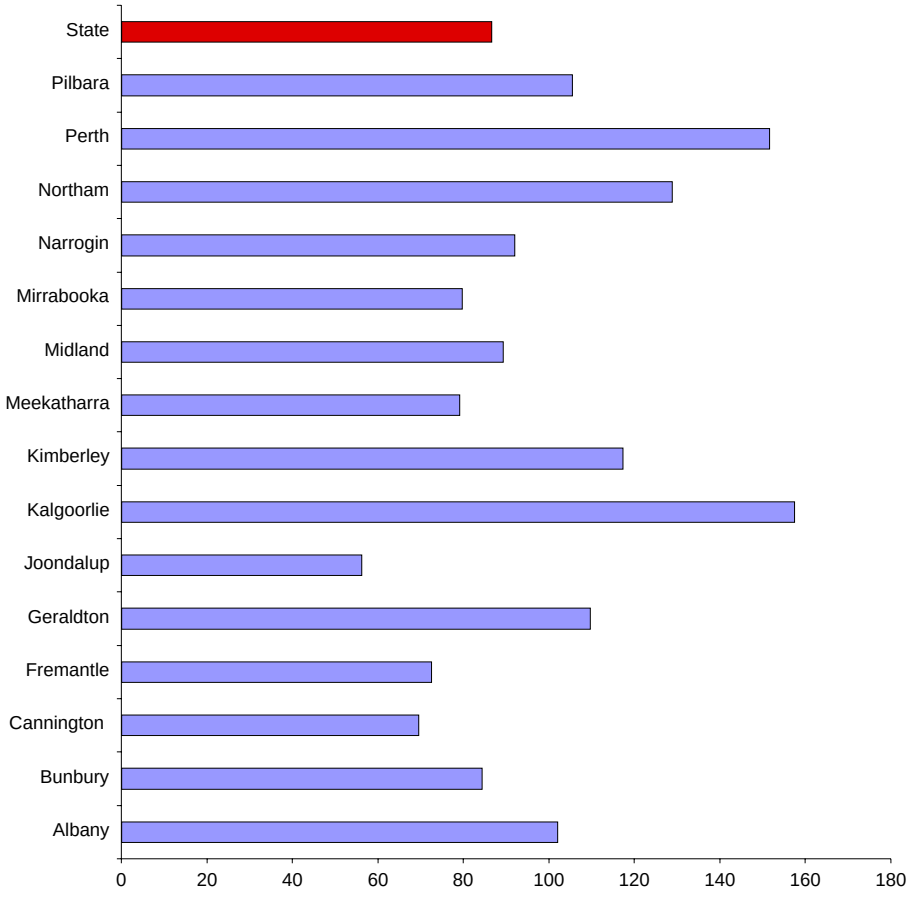
- number of drug charges from 13,374 (in 1996/1997) to 14,833 (in 1998/1999) (Table 1.15); and
- rate of drug charges from 78.1 per 10,000 population in 1996/1997 to 86.6 per 10,000 in 1998/1999 (Table 1.16, page A1-11).

Over the three year period there were consistent regional patterns of drug charges, with rates *above* the State rate in the Albany, Geraldton, Kalgoorlie, Northam, Perth and Pilbara Police Districts and rates *below* the State rate in the Cannington, Fremantle, Joondalup and Meekatharra Police Districts (Table 1.13, page A1-10; Figure 1.20).

From 1996/1997 to 1998/1999 there were marked increases in the rate of drug offences in the:

- Kalgoorlie Police District (up 65.3%);
- Kimberley Police District (up 53.8%);
- Narrogin Police District (up 46.9%);
- Geraldton Police District (up 28.1%); and
- Cannington Police District (up 22.8%).

Figure 1.20:
Rate (per 10,000 population) of all drug offences by Police District, 1998/1999



Over the three year period there were decreases in the rate of drug offences in a number of Police Districts, especially in the:

- Northam Police District (down 13.6%);
- Pilbara Police District (down 9.1%);
- Midland Police District (down 5.1%); and
- Bunbury Police District (down 4.9%).

Table 1.16:
Rate of drug offences (per 10,000) by Police District, 1996/1997-1998/1999

	1996/1997	1997/1998	1998/1999	Diff (96/97-98/99)
Albany	103.03	93.11	102.02	-1.0%
Bunbury	88.54	91.57	84.25	-4.9%
Cannington	56.56	61.22	69.45	+22.8%
Fremantle	60.21	69.52	72.5	+20.4%
Geraldton	85.54	108.15	109.61	+28.1%
Joondalup	51.86	61.5	56.13	+8.2%
Kalgoorlie	95.16	135.12	157.34	+65.3%
Kimberley	76.25	123.4	117.28	+53.8%
Meekatharra	70.85	59.04	79.11	+11.7%
Midland	94.15	71.55	89.31	-5.1%
Mirrabooka	69.72	81.74	79.71	+14.3%
Narrogin	62.59	78.13	91.95	+46.9%
Northam	148.97	113.62	128.74	-13.6%
Perth	146.24	162.87	151.55	+3.6%
Pilbara	116	113.68	105.44	-9.1%
State	78.09	84.47	86.61	+10.9%

An analysis was made of the rates of drug offending for the year 1998/1999 (Table 1.16; Figure 1.21). This indicates that the lowest rates for drug offences were for the Cannington (69.4), Fremantle (72.5), Meekatharra (79.1) and Mirrabooka (79.7) Police Districts.

The highest rates of drug offences were for the Kalgoorlie (157.3), Perth (151.6), Northam (128.7) and Geraldton (109.6) Police Districts.

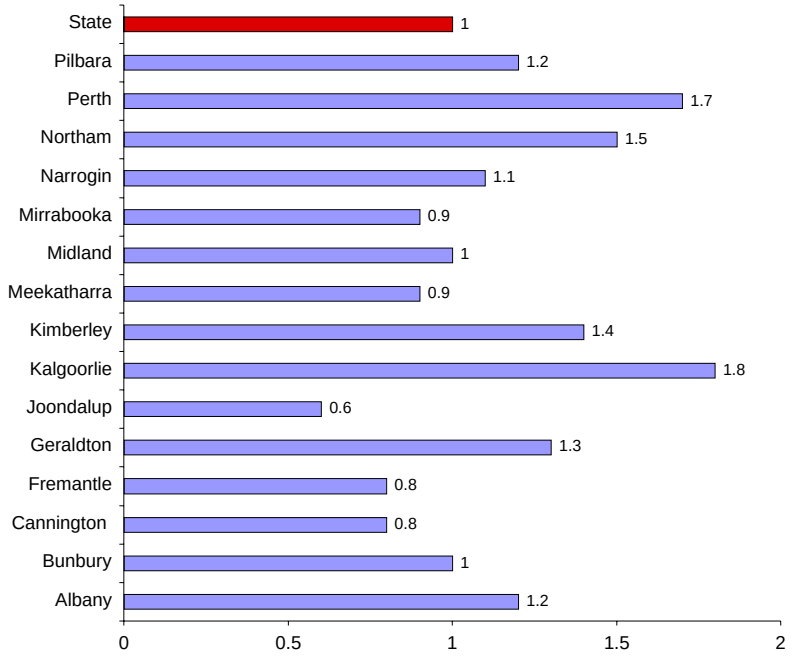
Overall, rates well above the State mean rate (86.6 per 10,000) occurred in the (Figure 1.21):

- Kalgoorlie Police District (82% higher than State rate);
- Perth Police District (75% higher than State rate);
- Northam Police District (49% higher than State rate); and
- Kimberley Police District (35% higher than State rate)

There was a lower rate of drug offences in the metropolitan area (79.0 per 10,000) compared to the non metropolitan area (106.5 per 10,000). The non metropolitan rate was 23% higher than the State rate.

There were variations in the rate of drug offending within the Perth metropolitan area, with rates below the metropolitan rate for the Joondalup (56.1), Cannington (69.5), Fremantle (72.5) Police districts. The Mirrabooka Police District (79.7) had a rate just above the metropolitan rate, whereas the rate for the Perth Police District (151.6), was nearly twice the metropolitan rate.

Figure 1.21
Rate ratio of all drug offences by Police District, 1998/1999



2. Public Health Measures

2.1 Introduction

This section contains data from public health programs which target risk behaviours associated with injecting drug use. These include information provided by the Communicable Disease Control Branch on:

- the distribution of sterile injection equipment through needle and syringe programs (NSPs) from 1987 to 2000; and
- annual notifications of HIV/AIDS from 1983 to 2000.

2.2 Needles and syringes

State overview

A total of 18,532,016 new needles and syringes (N&S) were distributed in this State from March 1987 to December 2000 (Table 2.1). Overall, about nine out of 10 of all N&S distributed were through chemists and needle and syringe exchange programs (NSEPs). The total number of N&S distributed by outlet were:

- pharmacies - 12,1114,254 (65.4%);
- NSEP mobile - 4,308,238 (23.2%);
- NSEP fixed - 1,006,675 (5.4%);
- hospital - 534,980 (2.9%);
- vending machine - 417,211 (2.2%);
- community health centre - 68,605 (0.4%);
- nursing post - 4,230 (0.1%); and
- other - 77,823 (0.4%).

From 1987 to 1991 the number of N&S increased each year reaching a total of 845,190 in 1991. In the following year there was a decrease of 8%, when a total of 779,276 N&S were distributed. From 1992 to 1994 the number of N&S doubled to a total of 1,580,318 in 1994.

From 1994 to 1996 there was a decline of 48,468 (3%) in the number of N&S distributed. Since 1996 there has been a period of steady growth in the number of N&S, with an increase of 1,676,827 distributed by the end of 2000, an overall increase of 209%.

The trends in the number of N&S distributed in this State each quarter show that since the March quarter 1992 an increasing number of N&S were sold through chemists (Figure 2.1, page A2-2).

A breakdown of the annual number of new N&S by service type from 1991 to 2000 is presented in Table 2.2 (page A2-2). A primary service type refers to programs operated by the WA Substance Users' Association (WASUA), a fixed NSEP, WA AIDS Council (WAAC) and the Derbarl Yerrigan Medical Service (DYMS), both of which are mobile NSEPs. (The DYMS program operated from July 1996 to June 1999.)

A secondary service type refers to NSPs provided through hospitals, community health centres, nursing posts and other agencies, such as Phoenix. The vending machine

Continued on page A2-3

Table 2.1: Annual totals of needles and syringes distributed by all types of outlet, 1987-2000

Year	Chemist	NSEP mobile	NSEP fixed	Vending machine	Hospital	Community health centre	Nursing post	Other	Total
1987	23,990	6,000	-	-	-	-	-	-	29,990
1988	59,380	12,000	-	-	-	-	-	-	71,380
1989	120,260	42,648	-	-	-	-	-	-	162,908
1990	340,355	171,031	-	-	-	250	-	-	511,636
1991	394,820	444,225	-	2,385	2,560	1,000	200	-	845,190
1992	420,150	349,806	-	1,920	7,400	-	-	-	779,276
1993	817,025	372,234	-	50,491	3,570	750	30	500	1,244,600
1994	1,132,440	322,983	-	63,535	39,985	6,605	1,250	1,250	1,568,048
1995	1,057,575	369,671	-	61,030	35,940	3,000	500	2,270	1,529,986
1996	955,845	447,750	-	45,960	40,275	4,500	250	4,290	1,498,870
1997	1,239,355	477,507	1,801	83,340	80,180	3,800	-	8,005	1,893,988
1998	1,568,321	462,317	164,565	70,960	82,460	9,500	-	12,065	2,370,188
1999	1,849,047	478,956	320,820	37,590	96,465	15,700	1,500	17,201	2,817,279
2000	2,135,691	351,110	519,489	-	146,145	23,500	500	32,242	3,208,677
Total	**12,114,254**	**4,308,238**	**1,006,675**	**417,211**	**534,980**	**68,605**	**4,230**	**77,823**	**18,532,016**

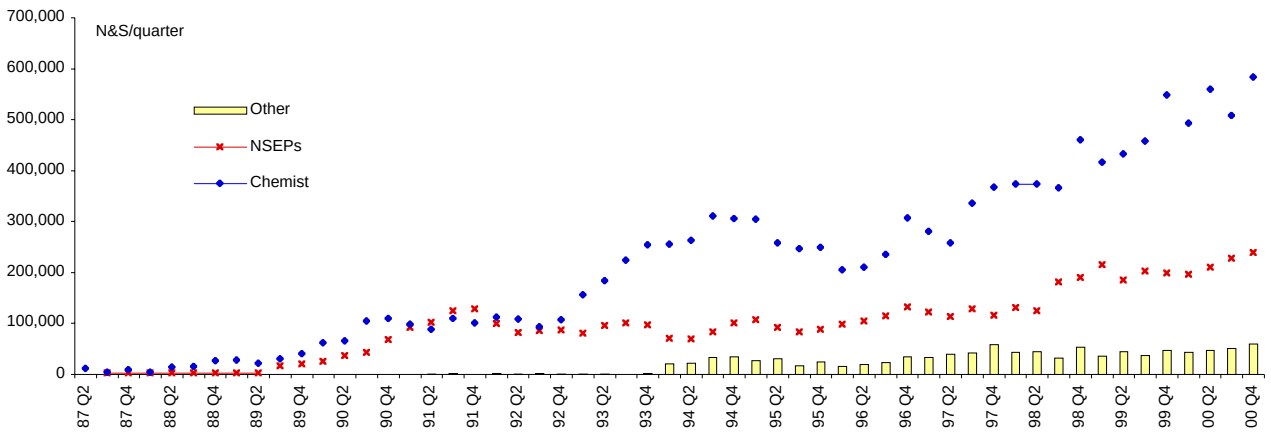
Table 2.2: Annual totals of needles and syringes distributed by service type, 1991-2000

Type of service	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
NSP's (primary)	444,225	349,806	372,234	322,983	369,671	447,750	479,308	626,882	799,776	870,599
NSP's (secondary)	3,760	7,400	4,850	49,090	41,710	49,315	91,385	104,025	130,866	202,387
Community pharmacies	394,820	420,150	817,025	1,132,440	1,057,575	955,845	1,239,355	1,568,321	1,849,047	2,135,691
Vending machines	2,385	1,920	50,491	63,535	61,030	45,960	83,340	70,960	37,590	0
Total number of N&S	**845,190**	**779,276**	**1,244,600**	**1,568,048**	**1,529,986**	**1,498,870**	**1,893,388**	**2,370,188**	**2,817,279**	**3,208,677**
Metropolitan area	786,360	713,341	1,131,250	1,350,493	1,342,711	1,305,035	1,596,388	2,046,925	2,423,601	2,717,284
Country areas	58,830	65,935	113,350	217,555	187,275	193,835	297,600	323,263	393,678	491,393
Total number of N&S	**845,190**	**779,276**	**1,244,600**	**1,568,048**	**1,529,986**	**1,498,870**	**1,893,988**	**2,370,188**	**2,817,279**	**3,208,677**

Table 2.3: Number of outlets distributing needles and syringes by service type, 1991-2000

Number of N&S by service type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
NSP's (primary)	1	1	1	1	2	2	3	3	3	3
NSP's (secondary)	12	7	9	22	27	21	18	20	36	40
Community pharmacies	230	308	370	388	402	427	430	451	465	470
Vending machines	1	1	1	1	1	1	1	1	1	0
Total number of outlets	**244**	**317**	**381**	**412**	**432**	**451**	**452**	**475**	**505**	**513**
Number of outlets by location										
Metropolitan area	187	257	302	312	326	341	349	363	365	372
Country areas	57	60	79	100	106	110	103	112	140	141
Total number of outlets	**244**	**317**	**381**	**412**	**432**	**451**	**452**	**475**	**505**	**513**

Figure 2.1: Quarterly totals of needles and syringes distributed by major outlet, 1987-2000



operated from the Central Drug Unit in East Perth from July 1994 to June 1999 (previously operated by WAAC at its former Northbridge office in Brisbane Street.)

While the majority of N&S have been distributed in the metropolitan area, the proportion of N&S distributed through country areas has gradually increased from 7% of all N&S in 1991 to 15% of all N&S by 2000.

It can be seen that the number of outlets involved in distributing N&S has steadily increased (Table 2.3, page A2-2). The number of outlets more than doubled from 244 in 1991 to 513 in 2000. A greater volume of N&S are distributed by metropolitan outlets compared to country outlets. For example, in the year 2000 there was an average of 7,300 N&S distributed per outlet in the metropolitan area compared to just under 3,500 N&S distributed per outlet in country areas.

Trends in regional centres

An analysis was undertaken of the number of N&S distributed in the 11 major regional centres outside the Perth metropolitan area (Table 2.4). It should be noted in some areas N&S were not readily obtainable at all times.

It is not possible to readily determine whether increases in the distribution of N&S reflects changes in the number of injecting drug users, new patterns of drug use (eg increased use of amphetamines since the late 1990s) or is associated with changes in injecting behaviour. For instance, public health campaigns undertaken in some regional areas may have increased the usage of new N&S by reductions in risk behaviour such as sharing of used N&S.

The number of N&S distributed over the eight year period, was as follows:

- Kalgoorlie-Boulder (postcodes 6430-6432) - 667,675;
- Mandurah (postcode 6210) - 352,613;
- Bunbury (postcode 6230) - 255,502;
- Geraldton (postcode 6530) - 220,137;
- Busselton-Margaret River (postcodes 6280-6285) - 115,037;
- Port Hedland (postcodes 6721-6722) - 99,405;
- Esperance (postcode 6450) - 59,195;
- Albany (postcode 6330) - 58,116;
- Carnarvon (postcode 6701) - 56,330;
- Broome (postcode 6725) - 47,990; and
- Karratha (postcode 6714) - 32,064.

From 1993-2000 the greatest number of N&S were distributed in the Kalgoorlie-Boulder area (postcodes 6430-6432). Over the period 1993 to 2000 there were differences in the rate of increase in the number of N&S distributed in each region as follows:

- 8 fold in the Port Hedland area;
- 6 fold in the Bunbury area;
- 5 fold in the Albany and Esperance area;
- 4 fold in the Busselton-Margaret River area;
- 3 fold in the Kalgoorlie-Boulder, Mandurah, Broome and Karratha areas; and
- 2 fold for the Geraldton and Carnarvon areas.

Kalgoorlie-Boulder

From 1993 to 1996 the number of N&S distributed each quarter increased from just over 7,000 in the March quarter 1993 to about 22,500 in the December quarter 1996 (Figure 2.2). Since early 1997 to the end of 2000 the number of N&S distributed have fluctuated between about 20,000 to 25,000 per quarter.

Figure 2.2: Quarterly needles and syringes, Kalgoorlie-Boulder postcode area, 1993-2000

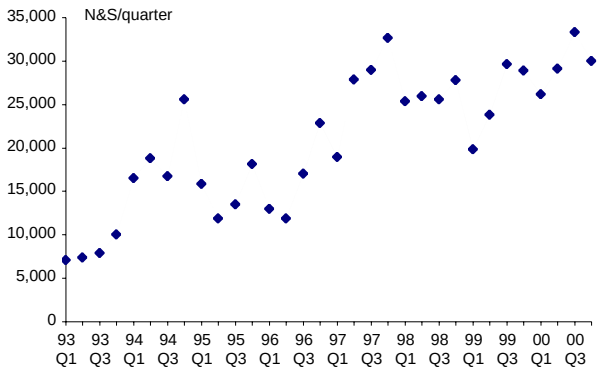


Table 2.4: Annual totals of needles and syringes, selected country areas, 1993-2000

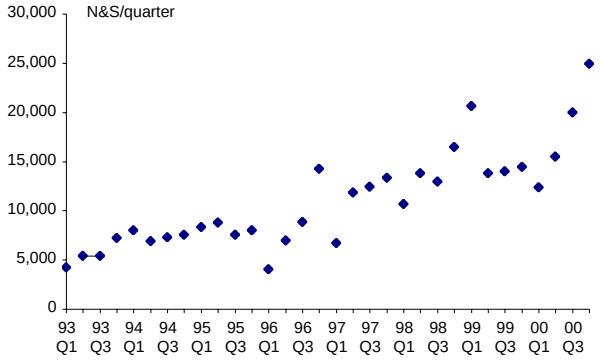
Locality	Postcode	1993	1994	1995	1996	1997	1998	1999	2000
Kalgoorlie-Boulder	6430-6432	32,375	77,590	59,310	64,710	108,415	104,630	102,109	118,536
Geraldton	6530	21,830	30,330	18,745	19,635	18,220	23,498	35,625	52,254
Mandurah	6210	22,215	29,800	32,675	34,095	44,285	53,905	62,900	72,738
Busselton-Margaret River	6280-6285	4,555	10,270	8,820	10,020	15,025	22,920	23,229	20,198
Bunbury	6230	7,085	25,610	18,855	21,450	31,840	45,220	61,769	43,673
Carnarvon	6701	3,700	5,500	2,940	6,080	7,020	11,006	11,139	8,945
Broome	6725	3,270	4,560	3,545	3,740	4,220	6,400	10,540	11,715
Esperance	6450	2,955	3,280	4,950	5,010	6,865	10,915	10,298	14,922
Albany	6330	4,625	7,085	3,900	3,120	2,930	4,719	7,700	24,037
Karratha	6714	1,680	3,140	3,510	4,130	2,110	3,780	7,864	5,850
Port Hedland	6721-6722	2,360	4,970	13,615	12,525	13,105	17,375	15,800	19,655

Mandurah

From 1993 to early 1997 about 4,000 to 5,000 N&S were distributed each quarter (Figure 2.3). The number of N&S distributed in Mandurah nearly doubled from the March quarter 1997, to just under 12,000 N&S in the June quarter 1997.

Distribution of N&S in this region remained relatively stable with about 12,500 distributed each quarter until the March quarter 2000. It can be seen there has been a period of marked growth over the year 2000, reaching 25,000 N&S by the December quarter.

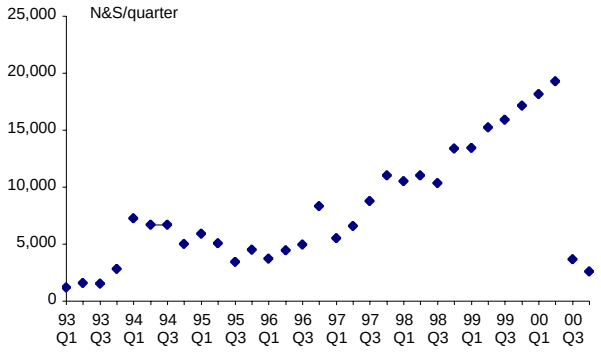
Figure 2.3: Quarterly needles and syringes, Mandurah postcode area, 1993-2000



Bunbury

From 1993 to early 1997 about 4,000 to 5,000 N&S were distributed (Figure 2.4). Since the June quarter 1997 there has been a steady growth in the quarterly total of N&S distributed, reaching just under 20,000 by the June quarter 2000. Further investigation is required to determine whether the drop that has occurred in the last two quarters of 2000 could be due to changes in program activities.

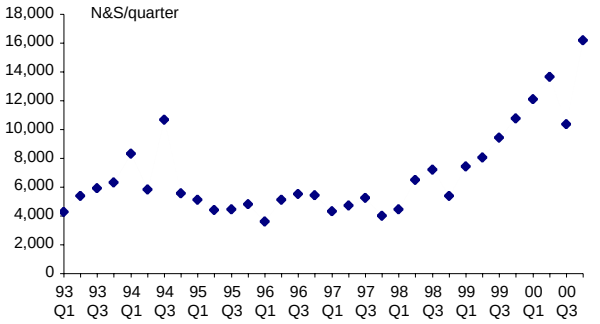
Figure 2.4: Quarterly needles and syringes, Bunbury postcode area, 1993-2000



Geraldton

From 1993 to mid 1998 the number of N&S remained relatively constant with about 4,000 distributed per quarter (Figure 2.5). There has been a growth in the number of N&S distributed each quarter since the beginning of 1999 increasing to more than 16,000 by the December quarter 2000.

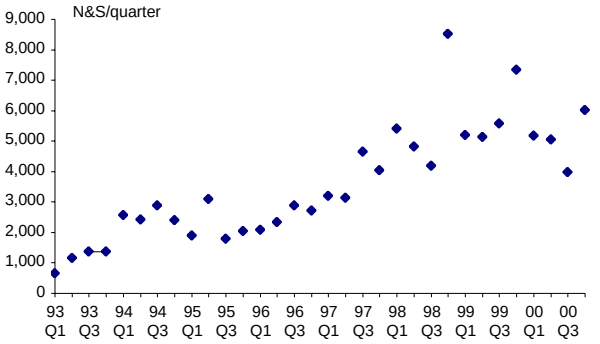
Figure 2.5: Quarterly needles and syringes, Geraldton postcode area, 1993-2000



Busselton-Margaret River

There were low levels of N&S distributed from 1993 to mid 1996, with about 1,500 to 2,000 N&S per quarter (Figure 2.6). Over the two year period up to mid 1998 about 3,500 N&S were distributed each quarter. Since the December quarter 1998 about 5,000 N&S have been distributed each quarter.

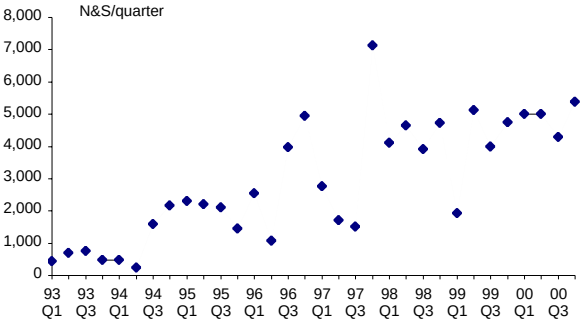
Figure 2.6: Quarterly needles and syringes, Busselton-Margaret River postcode area, 1993-2000



Port Hedland

Relatively few N&S were distributed each quarter from 1993 until mid 1994, increasing to about 1,500 N&S up to the September quarter 1997 (Figued 2.7). A sharp jump occurred in the December quarter 1997, with a total of more than 7,000 N&S distributed. Over the 3 year period from 1998 to 2000 the number of N&S remained relatively stable, with about 4,000 N&S distributed per quarter.

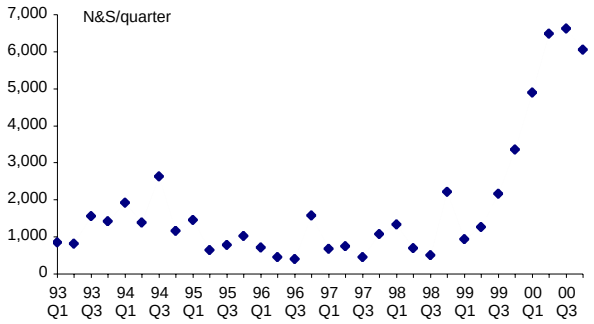
Figure 2.7: Quarterly needles and syringes, Port Hedland postcode area, 1993-2000



Albany

There were relatively few N&S distributed from 1993 to early 1999, fluctuating around 500 to 600 N&S per quarter (Figure 2.8). However, since mid 1999 the number of N&S have increased markedly and reached more than 6,500 in the September quarter 2000.

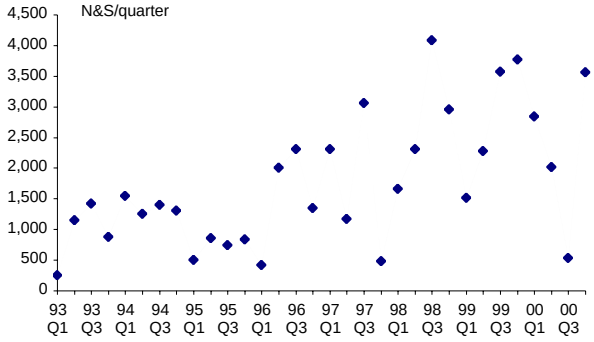
Figure 2.8: Quarterly needles and syringes, Albany postcode area, 1993-2000



Carnarvon

Small numbers of N&S were distributed from 1993 to early 1996, then increased from mid 1996 (Figure 2.9). Overall, between 1993 and 2000 there has been a fluctuating pattern of the number of N&S distributed, which may be related to seasonal factors affecting the size of the injecting drug using population.

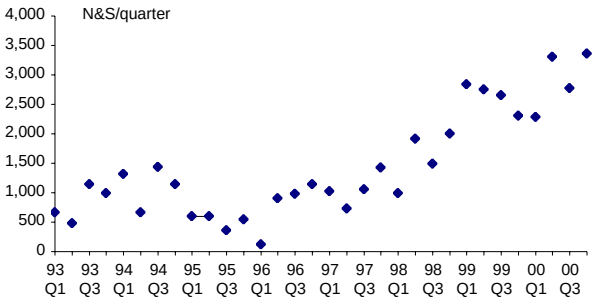
Figure 2.9: Quarterly needles and syringes, Carnarvon postcode area, 1993-2000



Broome

From 1993 to mid 1997 few N&S were distributed, then increased (Figure 2.10). From the September quarter 1997 to the September quarter 1998, about 1,000 N&S were distributed. N&S then increased to about 2,500 per quarter and by the December quarter 2000 reached just under 3,500.

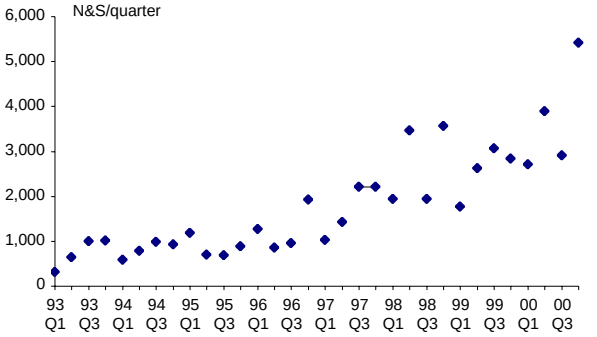
Figure 2.10: Quarterly needles and syringes, Broome postcode area, 1993-2000



Esperance

Very few N&S were distributed from 1993 to mid 1997, then increased slightly (Figure 2.11). About 2,700 were distributed per quarter between mid 1999 and the September quarter 2000, reaching just under 5,500 in the December quarter 2000.

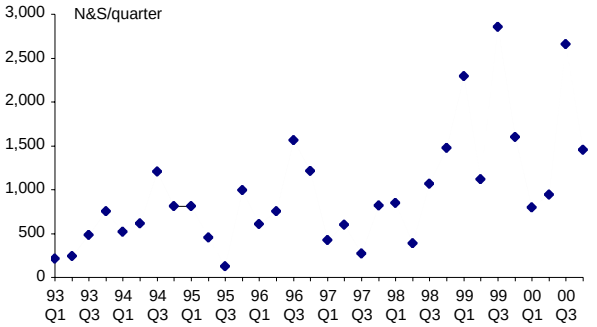
Figure 2.11: Quarterly needles and syringes, Esperance postcode area, 1993-2000



Karratha

Overall, there has been a fluctuating pattern of N&S distributed (Figure 2.12). Few N&S were distributed up to mid 1998, then increased moderately, with peaks occurring in the September quarters 1999 and 2000.

Figure 2.12: Quarterly needles and syringes, Karratha postcode area, 1993-2000



2.3 Blood borne viruses

HIV/AIDS

Since the late 1980s about 5% of all new HIV/AIDS notifications have involved injecting drug use as the sole risk factor (Figure 2.13).

With the inclusion of IDU related multiple risk group notifications (such as male homosexual or bisexual males who are also injecting drug users), IDU related notifications reached 17.8% in 1989. Multiple risk group notifications then decreased to 7% in 1994 and then have increased somewhat and by 2000 were 15.2% of all notifications.

Hepatitis C

Introduction

Health departments undertake surveillance for certain diseases in order to learn about the ongoing pattern of disease occurrence and so that they can be effective in investigating, controlling and preventing disease in the population. For an infectious disease such as hepatitis C (HCV), it is important to follow long term trends and patterns of disease.

To learn more about risk factors for ongoing transmission of disease, it is necessary to distinguish recent infections from those that were acquired some time in the past, often many years ago. A newly acquired infection is termed an "incident" case, while those present for a long time are termed "prevalent", or "unspecified" if time of acquisition is unknown.

In the majority of cases, the acquisition of HCV is not accompanied by clinical illness, and so most cases do not seek medical attention for acute illness. Symptoms most usually associated with acute HCV are anorexia, nausea and vomiting, and abdominal discomfort, with jaundice being relatively uncommon.

In order to accurately classify incident from prevalent cases, is very important to ask newly diagnosed patients with HCV about whether they have had a clinical illness in the last year which could have been hepatitis, and their past testing history.

A diagnosis of incident or recently acquired HCV can be made in two ways:

- by a anti-HCV positive test or HCV PCR positive test ***and*** a clinical illness consistent with acute hepatitis in the last twenty four months where other causes of acute hepatitis can be excluded, or
- the demonstration of documented seroconversion to HCV when the most recent negative specimen was within the last 24 months.

In all Australian states and territories except Western Australia, notifiable diseases legislation requires that laboratories report positive HCV results to the state/territory health department. This supplements the requirement for notification by clinicians, as required in WA and elsewhere.

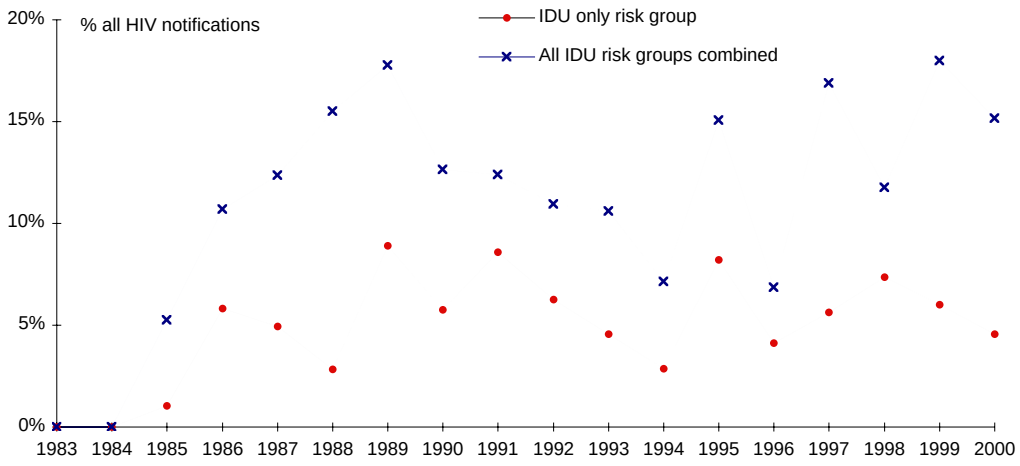
It is recognised that clinicians are generally poor at reporting notifiable diseases for a whole variety of reasons, and there may be selective non-reporting by some doctors, particularly for diseases that are seen as stigmatised or do not have urgent public health action triggered by notification.

Australia

There are an estimated 11,000 new cases of HCV occurring annually in Australia. Hepatitis C is high among injecting drug users, ranging from 30-70% in various serosurveys, and incidence is estimated at 15%.

An Australian study of incident hepatitis C and risk factors for infection found that injecting drug use was the most commonly reported risk factor with 91% of incident cases reported injecting drug use. (Andrews & Curran 1995).

Figure 2.13:
Annual proportion (%) of IDU only risk group & all IDU risk groups for all HIV/AIDS notifications, 1983-2000



Western Australia

HCV became notifiable in Western Australia in 1993. The system of mandatory reporting by clinicians has recently been enhanced by the addition of voluntary laboratory notifications, which were accepted as valid cases from 1 January 2000. Thus the majority (though not all) of WA pathology laboratories now notify the Department of Health of positive test results for notifiable infectious diseases, including HCV.

Consequently, there was a large increase in the number of HCV notifications from 1999 (1,180) to 2000 (1,812) (Table 2.5). This increase can be attributed to the change in the notification system, and although artifactual, it reflects historically poor notification by medical practitioners.

Although the numbers increased substantially, the male:female ratio of notified cases has remained fairly constant at around 1.7 (Figure 2.14).

The diagnosis of HCV in a young person is also much more likely to represent an incident infection, and the number of cases diagnosed in 15-19 year olds can be used as a proxy to measure the effectiveness of measures to reduce disease transmission. The data on number of cases of HCV notified by 5-year age groups from 1993 to 30 June 2001 is shown in Table 2.5.

By annualising the data to 30 June 2001, it is possible to project the number of notifications which might be

Figure 2.14:
Number of HCV notifications by sex, 1993-2000

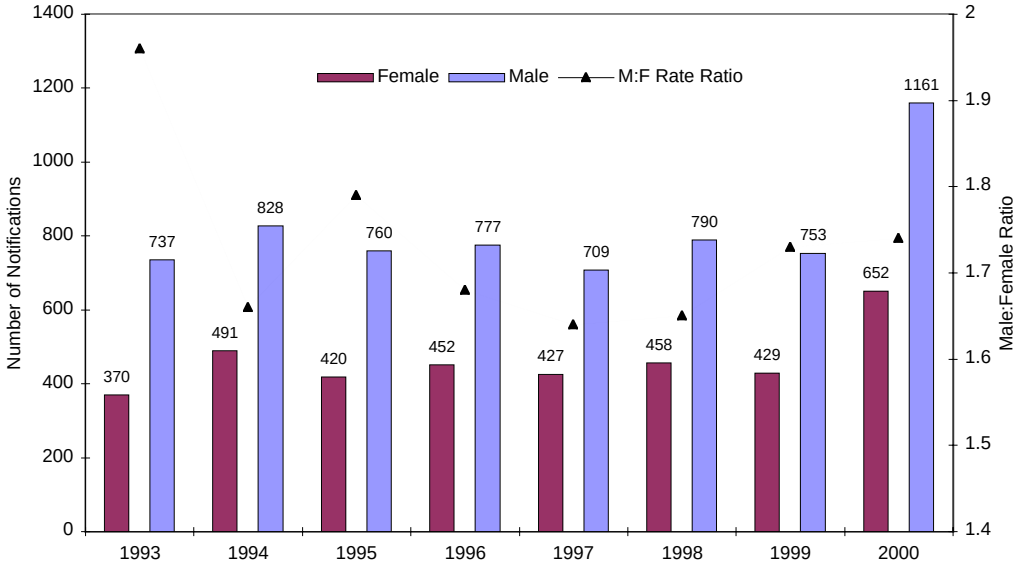
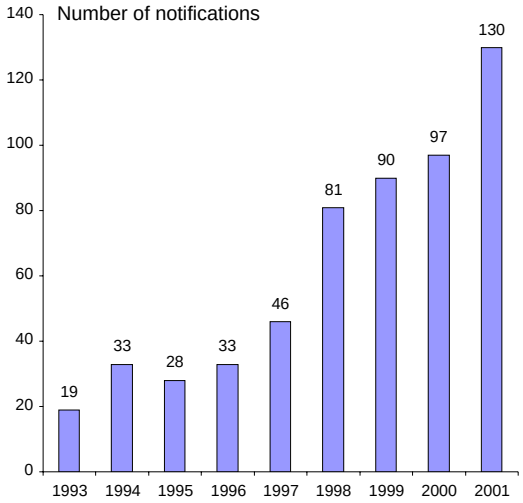


Table 2.5:
Number of HCV notifications by five year age groups, 1993 - 30 June 2001

Age group	1993	1994	1995	1996	1997	1998	1999	2000	2001
0 - 4	9	6	5	8	7	9	7	7	1
5-92	2	0	4	1	1	0	0	0	
10-14	4	2	0	1	2	0	0	0	2
15-19	19	33	28	33	46	81	90	97	65
20-24	103	125	94	106	128	187	190	282	122
25-29	230	241	183	162	146	192	199	305	117
30-34	321	327	273	235	202	208	174	265	140
35-39	268	340	301	289	248	227	198	304	113
40-44	83	133	128	169	196	186	177	277	131
45-49	15	30	36	50	61	70	82	143	83
50-54	12	9	16	24	15	15	18	60	21
55-59	9	9	12	18	12	19	9	15	10
60-64	8	6	14	16	12	12	6	12	6
65-69	7	10	13	12	23	14	5	11	8
70-74	7	4	7	9	15	12	11	10	9
75-79	1	7	2	7	7	7	8	13	4
80-84	1	2	0	1	5	3	0	6	4
85+	1	3	2	1	4	3	2	0	0
Unknown	19	25	32	1	3	15	4	5	2
Total	**1,119**	**1,314**	**1,146**	**1,146**	**1,133**	**1,261**	**1,180**	**1,812**	**838**

Note: 2001 data only includes notifications for the first six months of the year from 1 January to 30 June.
Data for 2001 is preliminary and subject to modification.

Figure 2.15:
Number of HCV notifications of 15 to 19 year olds, 1993 - 30 June 2000



Note: 2001 data was based on 65 notifications for the first six months of the year from 1 January to 30 June and has been projected for the whole year.

expected for the whole year. This shows that notification numbers in 15-19 year olds are continuing to increase in this State (Figure 2.15). A similar pattern has been occurring in the rest of Australia, where there has been a tripling of notified cases of HCV in 15-19 year olds over the last five years.

Regional trends

Overall, the rate of notification in WA in 2000 was 95.6 per 100,000 people, but there was considerable variation in different regions. The eastern metropolitan region had the highest rate of notification, followed by the Pilbara, Kimberley and Gascoyne (Table 2.6).

Overall, rates of notification in Aboriginal people were higher than in non-Aboriginal Western Australians (WA Aboriginal:non-Aboriginal rate ratio = 3.0), although the rate ratio was lower in some regions, such as the Kimberley and Midwest.

In non-Aboriginal people rates were around twice as high in the remote and rural regions compared to the metropolitan area, whereas the reverse was true for Aboriginal people, with rates in the metropolitan area double that of rural and remote regions.

Table 2.6:
Number of HCV notifications by region, 2000

Region	Number of notifications	Population	Rate per 100,000	Rate ratio (Aboriginal: non Aboriginal)
Metro East	572	291,538	196.2	0.9
Pilbara	51	40,807	125.0	1.3
Kimberley	35	30,211	115.9	1.7
Gascoyne	8	9,537	83.9	5.5
Metro South	476	613,648	77.6	0.9
South West	144	185,583	77.6	3.1
Metro North	357	486,452	73.4	6.5
Goldfields	41	60,557	67.7	8.6
Midwest	31	49,955	62.1	0.7
Coastal & Wheatbelt	35	54,294	64.5	2.5
Great Southern	43	72,292	59.5	2.4
Other/unknown	19	N/A	N/A	N/A
State	**1,812**	**1,895,082**	**95.6**	**3.0**

Note: 2000 data is provisional and is subject to revision.

3. Morbidity Data: Admissions to Psychiatric and General Hospitals

3.1 Introduction

This section contains an analysis of admissions to West Australian general and psychiatric hospitals, as follows.

- First ever admissions of unique individuals to all authorised psychiatric hospitals and designated psychiatric units within hospitals for the period 1988 to 2000. This data involves mental disorders wholly attributable to the use of specific drugs collected by the mental health information system (MHIS).

- Admissions to short stay general and private hospitals, excluding psychiatric hospitals, for the period 1994 to 2000. This data is collected by the hospital morbidity data system (HMDS).

The HMDS collects information for each admission to general and private hospitals, the reason(s) for admission, a principal diagnosis and multiple other diagnostic codes, coded according to the ICD system. This data excludes those who may have attended a hospital emergency department but not been admitted as an inpatient.

The ICD9-CM system of classification operated up to July 1999 and then was replaced by the ICD10-AM system. The data in this section therefore uses both ICD9 and ICD10 codes. This analysis utilises the methodology of aetiologic fractions developed by English, Holman et al (1995), which measure the impact of acute and chronic illnesses related to the use of tobacco, alcohol and other drugs.

3.2 Psychiatric hospitals

Overview

This data measure the impact of the abuse of alcohol, barbiturates, cocaine, cannabis, amphetamines, hallucinogens and other drugs which involve a serious episode of mental illness.

The majority of mental disorders were caused by specific drugs involving two diagnostic groups (non dependent drug abuse and drug dependence), with fewer admissions involving drug caused psychoses.

Over the 13 year period from 1988 to 2000 there was a total of 21,606 drug related admissions (a total of 100,197 beddays) to authorised psychiatric hospitals and designated psychiatric units within hospitals (Table 3.1, page A3-2).

Of these 21,606 admissions:

- 10,426 (48.2%) involved self inflicted injury (ie suicide attempt involving a drug);
- 3,344 (15.5%) involved non dependent alcohol abuse;
- 2,158 (10.0%) involved alcohol dependence;
- 1,831 (8.5%) involved drug dependence;
- 1,406 (6.5%) involved drug psychoses;
- 1,261 (5.9%) involved alcholic psychoses; and
- 1,180 (5.5%) involved non dependent abuse of drugs other than alcohol.

Just under one third of admissions, 6,763 (31.3%), involved alcohol related disorders and one in five admissions, 4,417 (20.4%) involved drugs other than alcohol (Table 3.1, page A3-2).

The largest group of admissions, just under half of all admissions, 10,426 (48.2%), involved the self inflicted injury group who had used drugs other than alcohol in conjunction with an attempted suicide (Table 3.1, page A3-2).

Based on the length of stay, the greatest impact on the hospital system involved the treatment of alcoholic and drug psychoses compared to the other causes, (ranked in order of decreasing mean length of stay), as follows:

Alcoholic psychoses
beddays - 13,435
mean length of stay -10.7 beddays

Drug psychoses
beddays - 13,877
mean length of stay - 9.9 beddays

Alcohol dependence
beddays - 18,668
mean length of stay - 8.7 beddays

Drug dependence
beddays - 10,840
mean length of stay - 5.9 beddays

Table 3.3:
First ever admissions of drug related mental disorders due to drug dependence (excluding alcohol) by sex and age group, 1988-2000

Age group	Males	Females	Persons
<10	5	3	8
10-14	68	48	116
15-19	191	104	295
20-24	260	162	422
25-29	246	164	410
30-34	200	106	306
35-39	101	45	146
40-44	44	18	62
45-49	9	12	21
50-54	7	8	15
55-59	4	3	7
60-64	3	4	7
65-69	2	1	3
70-74	2	2	4
75-79	1	3	4
80-84	2	1	3
85+	0	2	2
Total	**1,145**	**686**	**1,831**

Non dependent drug abuse (drugs other than alcohol)
beddays - 5,471
mean length of stay - 4.6 beddays

Self inflicted injury
beddays - 31,049
mean length of stay - 3.0 beddays

Non dependent alcohol abuse
beddays - 6,857
mean length of stay - 2.1 beddays

Alcohol

Alcohol caused mental disorders (ie the three major disorders of alcohol dependence, non dependent alcohol abuse and alcoholic psychoses) represented a significant proportion of total hospitalisation, being responsible for a total of 6,763 admissions (Table 3.1).

From 1998 to 2000 there was a total of 100,197 beddays due to all drug related mental disorders, of which 38,960 (38.9%) were due to alcohol related mental disorders (Table 3.1).

Table 3.1:
First ever admissions of drug related mental disorders by type of drug related cause, 1988-2000

Year	Alcohol related			Other drug related				All drugs
	Alcohol dependence	Non dependent	Alcoholic psychoses	Drug dependence	Non dependent drug abuse	Drug psychoses	Self inflicted injury	
Beddays								
1988	2,293	737	1,436	1,002	188	634	2,886	9,176
1989	2,415	486	1,321	1,019	123	621	2,775	8,760
1990	2,050	331	1,140	1,026	238	626	2,616	8,027
1991	2,364	340	1,185	795	115	1,580	2,467	8,846
1992	2,539	350	1,527	593	447	967	2,606	9,029
1993	1,583	346	1,194	688	397	1,509	2,376	8,093
1994	1,152	736	1,122	554	492	732	2,972	7,760
1995	800	468	907	724	224	1,098	3,091	7,312
1996	755	571	653	1,110	253	1,157	2,625	7,124
1997	550	306	849	557	274	714	1,200	4,450
1998	862	795	747	1,152	870	1,642	607	6,675
1999	829	810	728	993	772	1,305	2,438	7,875
2000	476	581	626	627	1,078	1,292	2,390	7,070
Total	**18,668**	**6,857**	**13,435**	**10,840**	**5,471**	**13,877**	**31,049**	**100,197**
Admissions								
1988	247	231	100	126	41	44	1,032	1,821
1989	233	253	91	124	55	49	1,007	1,812
1990	218	234	66	138	48	54	970	1,728
1991	261	203	91	102	41	73	952	1,723
1992	196	172	112	111	58	69	928	1,646
1993	189	204	98	94	75	95	866	1,621
1994	136	265	128	80	103	78	980	1,770
1995	129	226	122	175	55	88	946	1,741
1996	121	271	105	214	76	107	892	1,786
1997	74	149	61	115	82	73	423	977
1998	145	378	109	219	187	216	116	1,370
1999	131	377	90	201	184	233	516	1,732
2000	78	381	88	132	175	227	798	1,879
Total	**2,158**	**3,344**	**1,261**	**1,831**	**1,180**	**1,406**	**10,426**	**21,606**
Mean stay (beddays)	**8.7**	**2.1**	**10.7**	**5.9**	**4.6**	**9.9**	**3.0**	**4.6**

Table 3.5:
First ever admissions of drug related mental disorders due to non dependent drug abuse (excluding alcohol) by sex and age group, 1988-2000

Age group	Males	Females	Persons
<10	1	1	2
10-14	30	27	57
15-19	203	117	320
20-24	226	99	325
25-29	127	81	208
30-34	75	39	114
35-39	53	20	73
40-44	24	14	38
45-49	11	5	16
50-54	5	1	6
55-59	4	0	4
60-64	3	2	5
65-69	2	1	3
70-74	1	1	2
75-79	0	3	3
80-84	0	3	3
85+	1	0	1
Total	**766**	**414**	**1,180**

Drugs other than alcohol

Mental disorders caused by drugs other than alcohol (ie drug dependence, non dependent drug abuse, drug psychoses and self inflicted injury) accounted for the majority of hospitalisation, being responsible for a total of 14,843 admissions (68.7%) (Table 3.1, page A3-2).

From 1998 to 2000 there was a total of 100,197 beddays due to all drug related mental disorders, of which 61,237 (61.1%) beddays were due to mental disorders due to drugs other than alcohol (Table 3.1, page A3-2).

Of the total of 14,843 admissions for mental disorders caused by drugs other than alcohol, 1,831 (12.3%) were due to drug dependence, 1,180 (7.9%) were due to non dependent drug abuse, 1,406 (9.5%) were due to drug psychoses and 10,426 (70.2%) were due to self inflicted injury (Table 3.1, page A3-2).

Type of drug (other than alcohol)

It is to be noted that the differentiation of groups of drugs other than alcohol was restricted to those admissions which had diagnoses of drug dependence

Table 3.2:
First ever admissions of drug related mental disorders due to drug dependence (excluding alcohol) by type of drug, 1988-2000

Year	Opioids	Barbiturates	Cocaine	Cannabis	Amphetamines	Hallucinogens	Opioid combinations	Other drugs	Total
Beddays									
1988	57	1	-	-	-	-	-	944	1,002
1989	58	76	-	-	1	-	-	884	1,019
1990	6	81	-	2	8	-	19	910	1,026
1991	62	82	-	-	9	-	-	642	795
1992	51	19	-	-	16	-	34	473	593
1993	104	102	-	-	43	-	-	439	688
1994	404	34	-	-	77	-	-	39	554
1995	486	39	8	19	71	-	-	101	724
1996	819	58	-	32	5	2	6	188	1,110
1997	455	59	4	12	16	-	6	5	557
1998	664	71	-	77	68	14	5	253	1,152
1999	697	56	5	56	72	-	73	34	993
2000	453	26	-	34	66	14	-	56	649
Total	**4,316**	**704**	**17**	**232**	**452**	**30**	**143**	**4,968**	**10,862**
Admissions									
1988	14	1	-	-	-	-	-	111	126
1989	10	7	-	-	1	-	-	106	124
1990	3	6	-	1	3	-	1	124	138
1991	9	4	-	-	2	-	-	87	102
1992	8	3	-	-	6	-	2	92	111
1993	17	7	-	-	7	-	-	63	94
1994	49	7	-	-	15	-	-	9	80
1995	126	7	2	5	16	-	-	19	175
1996	177	6	-	7	2	1	1	20	214
1997	94	7	1	2	6	-	1	4	115
1998	159	7	-	13	15	1	2	22	219
1999	142	7	1	12	18	-	4	17	201
2000	95	5	-	4	14	4	-	11	133
Total	**903**	**74**	**4**	**44**	**105**	**6**	**11**	**685**	**1,831**
Mean stay (beddays)	**4.8**	**9.5**	**4.3**	**5.3**	**4.3**	**5.0**	**13.0**	**7.3**	**5.9**

Figure 3.1:
First ever admissions of drug related mental disorders due to drug dependence (excluding alcohol) by sex and age group, 1988-2000

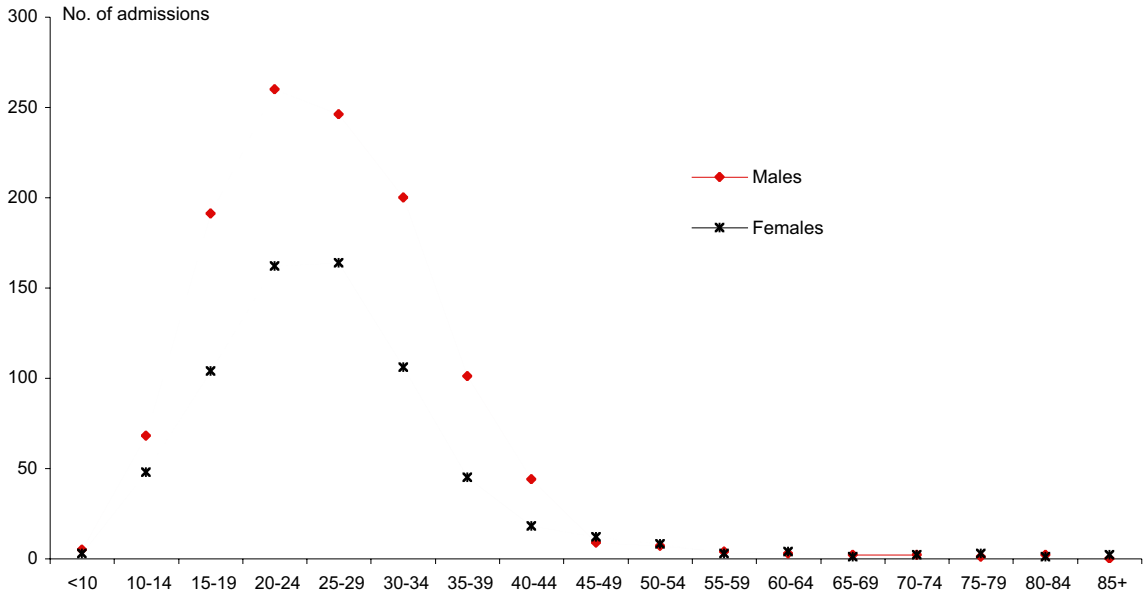


Table 3.4:
First ever admissions of drug related mental disorders due to non dependent drug abuse (excluding alcohol) by type of drug, 1988-2000

Year	Tobacco	Cannabis	Hallucinogens	Barbiturates	Opioids	Amphetamines	Other	Total
Beddays								
1988	12	3	2	13	48	3	107	188
1989	-	13	8	10	-	8	84	123
1990	-	47	8	4	2	23	154	238
1991	6	18	3	6	10	43	29	115
1992	-	80	121	57	11	43	135	447
1993	-	45	23	32	34	137	126	397
1994	-	7	8	3	123	181	170	492
1995	12	14	2	41	54	23	78	224
1996	-	24	5	11	78	25	110	253
1997	6	45	16	2	118	16	71	274
1998	-	169	14	53	209	105	320	870
1999	-	174	3	36	147	152	253	772
2000	-	103	7	13	101	199	666	1,078
Total	**36**	**296**	**196**	**179**	**478**	**502**	**1,064**	**5,471**
Admissions								
1988	2	3	2	5	3	3	23	41
1989	-	7	3	6	-	5	34	55
1990	-	9	6	5	2	11	15	48
1991	1	4	3	6	1	12	14	41
1992	-	6	8	9	4	16	15	58
1993	-	8	5	3	9	30	20	75
1994	-	7	2	2	25	41	26	103
1995	2	9	2	3	11	10	18	55
1996	-	8	5	2	26	7	28	76
1997	1	9	6	2	37	6	21	82
1998	-	34	9	11	61	50	22	187
1999	-	37	3	8	41	38	55	184
2000	-	23	55	4	22	53	68	175
Total	**6**	**164**	**109**	**66**	**242**	**283**	**359**	**1,180**
Mean stay (beddays)	**6.0**	**4.5**	**2.0**	**4.3**	**3.9**	**3.4**	**6.4**	**4.6**

or non dependent drug abuse. (These are separately described below.)

Overall there was a total of 3,060 admissions (combined drug dependence and non dependent drug abuse) due to the use of drugs other than alcohol. Two groups of drugs were responsible for the majority of these admissions, 1,145 opioid admissions (37.4%) and 1,044 admissions for the'other drug' group (34.1%).

There were marked increases in the number opioid and amphetamine admissions from 1988 to 2000. Opioid admissions increased from 17 in 1988 and peaked in 1998 (220 admissions), then declined with 117 admissions in 2000. Amphetamine admissions increased from 3 in 1988 to 56 in 1994, dropped to 9 in 1996, and then increased, reaching 67 in 2000.

There were fewer admissions involving mental disorders due to cannabis and hallucinogens, with a total of 208 and 115 admissions over the 13 year period. Admissions involving these drugs increased in the latter part of the period, with cannabis admissions reaching 49 in 1999 followed by a decrease with 27 admissions in 2000.

Figure 3.2:
First ever admissions of drug related mental disorders due to non dependent drug abuse (excluding alcohol) by sex and age group, 1988-2000

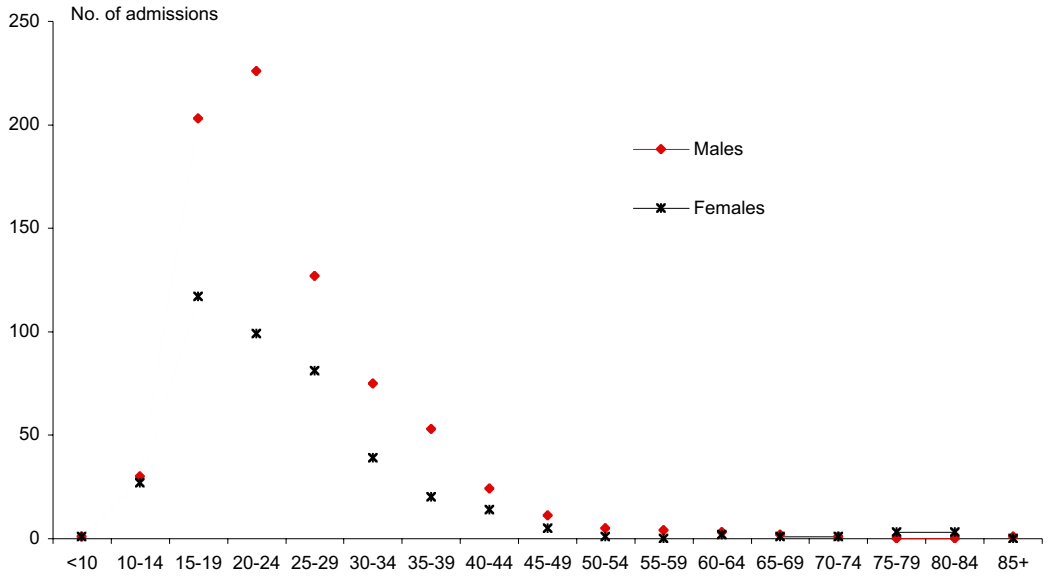


Table 3.6:
First ever admissions of drug related mental disorders due to self inflicted injury (excluding alcohol) by sex and age group, 1988-2000

Age group	Males	Females	Persons
<10	0	35	35
10-14	96	572	668
15-19	800	1,767	2,567
20-24	819	1,052	1,871
25-29	595	708	1,303
30-34	455	596	1,051
35-39	383	574	957
40-44	265	397	662
45-49	170	256	426
50-54	113	141	254
55-59	85	88	173
60-64	67	56	123
65-69	56	45	101
70-74	43	39	82
75-79	29	31	60
80-84	15	29	44
85+	19	30	49
Total	**4,010**	**6,416**	**10,426**

Table 3.7:
First ever admissions of drug related mental disorders due to drug psychoses (excluding alcohol) by sex and age group, 1988-2000

Age group	Males	Females	Persons
<10	3	1	4
10-14	10	14	24
15-19	168	64	232
20-24	260	99	359
25-29	164	59	223
30-34	96	46	142
35-39	60	33	93
40-44	17	17	34
45-49	18	11	29
50-54	11	7	18
55-59	9	10	19
60-64	10	16	26
65-69	16	17	33
70-74	19	18	37
75-79	26	23	49
80-84	13	28	41
85+	14	29	43
Total	**914**	**492**	**1,406**

There were typically about 5 hallucinogen admissions per year, except for 2000, when there was a sharp jump with a total of 59 admissions.

Drug dependence (excluding alcohol)

There was a total of 1,832 admissions in the 13 year period due to drug dependence (excluding alcohol). Three drug groups accounted for the majority of these admissions, with 903 (49.3%) due to opioids, 685 (37.4%) due to 'other drugs' and 105 (5.7%) due to amphetamines.

There were very few admissions for the remaining drug groups, with 74 (4.0%) due to barbiturates, 44 (2.4%) due to cannabis, 11 (0.6%) due to opioid combinations, 6 (0.3%) due to hallucinogens and 4 (0.2%) due to cocaine (Table 3.2, page A3-3).

There were relatively few admissions for drug dependence involving opioids from 1988 to 1993. Admissions then increased and peaked in 1998 (159 admissions) then dropped by about 40%, to 95 admissions by the year 2000 (Table 3.2, page A3-3).

Figure 3.3:
First ever admissions of drug related mental disorders due to self inflicted injury (excluding alcohol) by sex and age group, 1988-1997

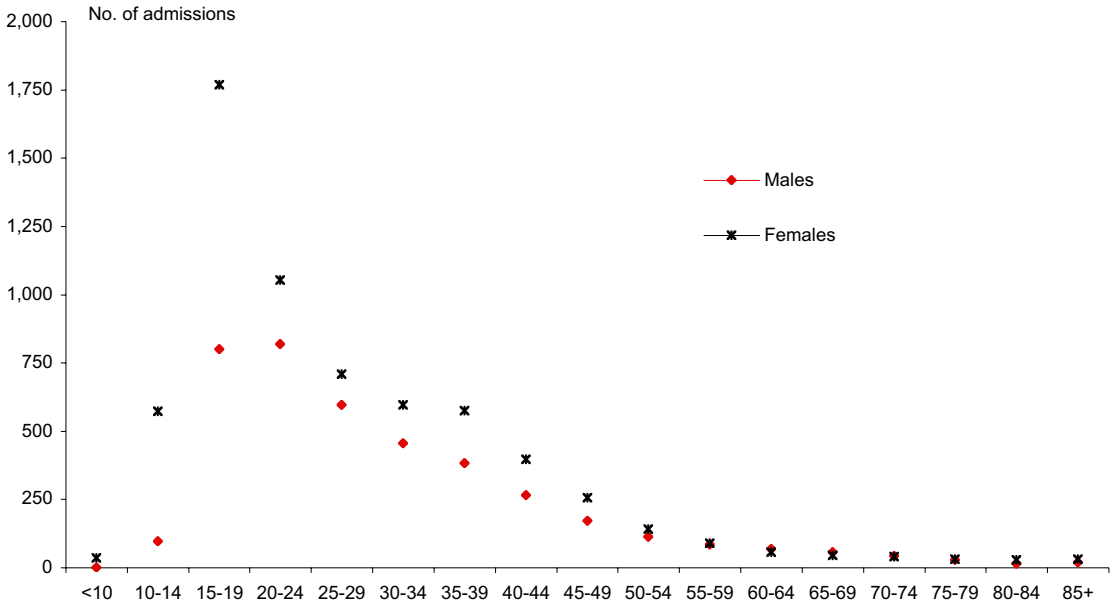
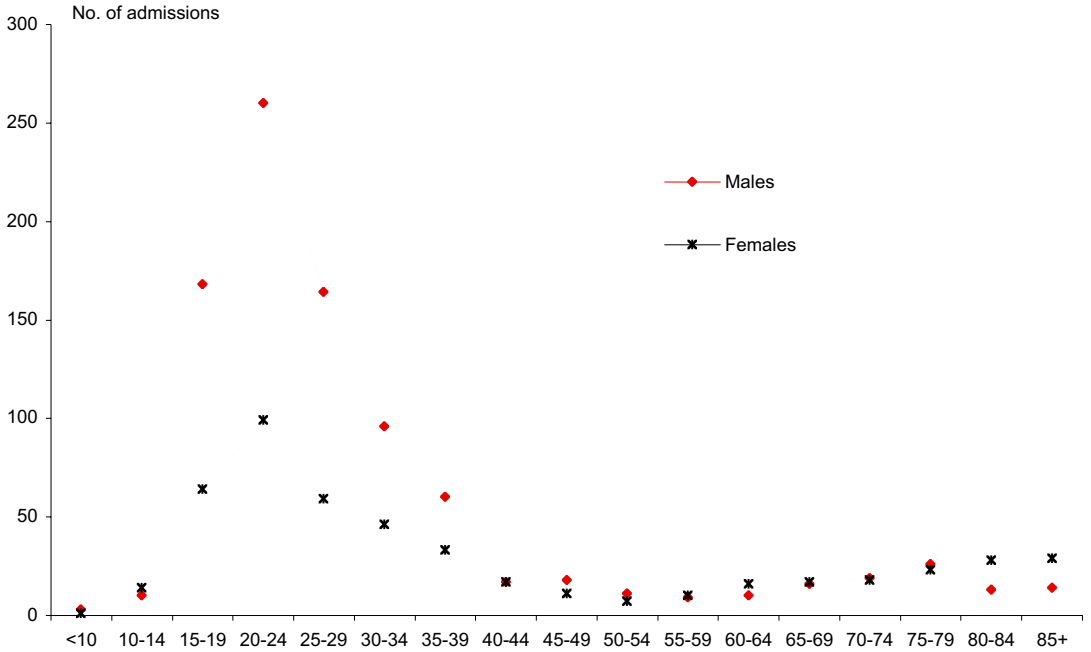


Figure 3.4:
First ever admissions of drug related mental disorders due to drug psychoses (excluding alcohol) by sex and age group, 1988-1997



Very small numbers of admissions were recorded for amphetamines from 1988 to 1993, then increased to about 15 per year in 1994 and 1995. After a drop in admissions in 1996 and 1997 (2 and 6 respectively), amphetamine admissions increased and have fluctuated at about 15 per year since 1998 (Table 3.2, page A3-3).

Overall, about two thirds (62.5%) of all drug dependence admissions have involved males (Table 3.3, page A3-2). Male and female admissions for drug dependence mostly involved the 15 to 34 age group, with very few admissions occurring in the 40 year and older age group (Figure 3.1, page A3-4).

Overall, from 1988 to 2000 there was a total of 295 (16.1%) persons aged 15 to 19 years, 422 (23.0%) persons aged 20 to 24, 410 (22.4%) persons aged 25 to 29 and 306 (16.7%) persons aged 30 to 34 years (Table 3.3, page A3-2).

Non dependent drug abuse (excluding alcohol)

There was a total of 1,180 admissions in the 13 year period due to non dependent drug abuse which involved tobacco, cannabis, hallucinogens, barbiturates, opioids, amphetamines and other drugs (Table 3.4, page A3-4).

There were few opioid admissions from 1988 to 1993, then an increase of nearly two and a half times in the number of admissions, from 25 in 1994 to 61 in 1998, with a decrease to 22 by the year 2000 (Table 3.4, page A3-4).

The number of amphetamine related admissions reached 41 in 1994 and then dropped to 6 admissions in 1997. Over the past 3 years up to the year 2000 the number of amphetamine admissions has fluctuated between 40 and 50 per year (Table 3.4, page A3-4).

Overall, just under two thirds (64.9%) of all non dependent drug abuse admissions involved males. (Table 3.5, page A3-3).

Both male and female admissions for non dependent drug abuse involved a relatively young age group, with most admissions occurring in the 15 to 24 age group and very few admissions occurring in the 40 year and older age group (Figure 3.2, page A3-5).

Overall, from 1988 to 2000 there was a total of 320 (27.1%) persons aged 15 to 19 years, 325 (27.5%) persons aged 20 to 24 years, 208 (17.6%) persons aged 25 to 29 years and 114 (9.7%) persons aged 30 to 34 years.

Self inflicted injury (excluding alcohol)

It was not possible in this analysis to differentiate specific drugs in relation to the large number of drug related admissions recorded for the self inflicted injury group. There was a total of 10,426 admissions and a total of 31,049 beddays from 1988 to 2000 (Table 3.1, page A3-2).

The majority of admissions involved the 15 to 39 year age group (Figure 3.3, page A3-6). Compared to the previous diagnostic groups, there was a higher proportion of females compared to males across all age groups, with females accounting overall for 61.5% of all admissions.

From 1988 to 2000 there was a total of 2,567 (24.6%) persons aged 15 to 19 years, 1,871 (17.9%) persons aged 20 to 24 years, 1,303 (12.5%) persons aged 25 to 29 years, 1,051 (10.1%) persons aged 30 to 34 years and 957 (9.2%) persons aged 35 to 39 years (Table 3.6; page A3-5).

Drug psychoses (excluding alcohol)

With respect to drug psychoses, about two thirds (65.0%) of all admissions involved males (Table 3.7, page A3-5).

This group typically involved a younger age group, with most admissions occurring between the 15 to 34 age group (Figure 3.4, page A3-6). From 1988 to 2000 there was a total of 232 (16.5%) persons aged 15 to 19 years, 359 (25.5%) persons aged 20 to 24 years, 223 (15.9%) persons aged 25 to 29 years and 142 (10.1%) persons aged 30 to 34 years.

It is to be noted that in the 50 and over age group, there was a small increase in the number of admissions.

3.3 General hospitals

This data measures the impact of the use of alcohol, tobacco and other drugs (eg opioids, barbiturates, cocaine, cannabis, amphetamines, hallucinogens and anti depressants) which have resulted in an episode of inpatient to all general and private short stay hospitals.

Summary

Over the seven year period from 1994 to 2000 there was a total of 172,065 hospital admissions for all drug related conditions in Western Australia. Of these, 85,780 (49.8%) were due to tobacco, 60,739 (35.3%) were due to alcohol and 25,547 (14.8%) were due to other drugs (Table 3.11, page A3-8).

Metro vs non metro

Overall, 70.8% of all admissions involved individuals who lived in the Perth metropolitan area and 29.2% who lived in non metropolitan regions of the State.

The four metropolitan regions accounted for a total of 121,916 admissions, which by Health Zone (HZ) were:

- 37,336 (21.7%) - North Metro HZ;
- 31,483 (18.3%) - South West Metro HZ;
- 27,027 (15.7%) - South East Metro HZ; and
- 26,070 (15.2%) - East Metro HZ.

The remaining seven non metropolitan regions accounted for 50,149 admissions, which by HZ were:

- 11,049 (6.4%) - South West HZ;
- 8,023 (4.7%) - Great Southern HZ;
- 7,928 (4.6%) - Midwest HZ;
- 6,658 (3.9%) - Goldfields HZ;
- 5,908 (3.4%) - Kimberley HZ;
- 5,642 (3.3%) - Midlands HZ; and
- 4,941 (2.9%) - Pilbara HZ.

Mean admissions per year

There was a mean of 24,581 drug related admissions per year, ranging from 5,334 admissions per year in the North Metro HZ to 706 admissions per year in the Pilbara HZ (Table 3.11, page A3-8).

Total cost

The total cost of drug related hospitalisation in WA, based on diagnostic related groups (DRGs), was $586.2 million for the seven year period 1994 to 2000 (Table 3.13, page A3-11). The cost of this hospitalisation by drug group was:

- $347.4 million (59.3%) due to tobacco,
- $185.2 million (31.6%) due to alcohol; and
- $53.6 million (9.1%) was due to other drugs.

The mean cost of hospitalisation was $83.7 million per year, ranging from $19.5 million per year in the North Metro HZ to $1.7 million in the Pilbara HZ. The mean cost per year by drug group was as follows (Table 3.13, page A3-11):

- $49.6 million for the treatment of tobacco related conditions;
- $26.4 million for the treatment of alcohol related conditions; and
- $7.6 million for the treatment of conditions due to other drugs.

Per capita cost

The cost to the hospital system was $49.25 per capita for all drug related conditions (based on the year 1997), with costs ranging from $29.84 per capita for tobacco related hospitalisation, $15.39 per capita for alcohol related hospitalisation to $4.01 per capita for other drug related hospitalisation (Table 3.12, page A3-9).

There was a marked variation in the per capita cost of drug caused hospitalisation between Health Zones for each of the three drug groups.

The total cost by Health Zone ranged from $56.25 per capita in the Kimberley Health Zone to $38.61 per capita in the Pilbara Health Zone (Figure 3.5).

Rates above the State rate occurred in the Kimberley HZ (14% higher), Great Southern HZ (12% higher) and the South West Metro HZ (9% higher). Both the East Metro HZ and the South East Metro HZ had rates just above the State rate.

Figure 3.5:
Drug related hospitalisation by Health Zone, cost per capita, all drugs, 1994-2000

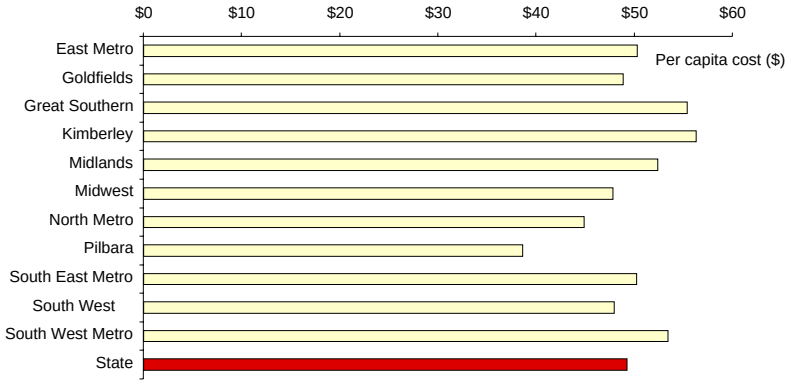


Table 3.11:
Total hospital admissions by Health Zone, 1994-2000

Health Zone	Tobacco	Alcohol	Other drugs	All drugs
Total admissions				
East Metro	12,562	8,534	4,974	26,070
Goldfields	2,694	2,935	1,030	6,658
Great Southern	3,857	3,200	966	8,023
Kimberley	1,663	3,883	362	5,908
Midlands	3,115	2,045	482	5,642
Midwest	3,497	3,581	850	7,928
North Metro	19,172	12,065	6,099	37,336
Pilbara	1,687	2,715	540	4,941
South East Metro	14,287	8,334	4,407	27,027
South West	5,662	4,125	1,262	11,049
South West Metro	17,585	9,323	4,575	31,483
Total	**85,780**	**60,739**	**25,547**	**172,065**
Mean admissions per year				
East Metro	1,795	1,219	711	3,724
Goldfields	385	419	147	951
Great Southern	551	457	138	1,146
Kimberley	238	555	52	844
Midlands	445	292	69	806
Midwest	500	512	122	1,133
North Metro	2,739	1,724	871	5,334
Pilbara	241	388	77	706
South East Metro	2,041	1,191	630	3,861
South West	809	589	180	1,578
South West Metro	2,512	1,332	654	4,498
Total	**12,254**	**8,677**	**3,650**	**24,581**

A rate well below the State rate occurred in the Pilbara HZ which was 78% of the State rate. The North Metro HZ was 91% of the State rate and both the South West and the Midwest HZs were 97% of the State rate.

An analysis of the cost of hospitalisation was undertaken for each of the three major drug groups.

Per capita cost: alcohol

There was some variation in the per capita cost of hospitalisation due to alcohol between Health Zones, with the highest rate of $29.34 in the Kimberley HZ.

Most other Health Zones ranged between $15 to $18, with the lowest rate of $13.57 in the North Metro HZ (Figure 3.6, page A3-10).

Table 3.13:
Drug related hospitalisation by Health Zone, 1994-2000

Health Zone	Tobacco	Alcohol	Other drugs	All drugs
Total cost				
East Metro	$53,522,522	$28,777,703	$10,458,215	$92,758,440
Goldfields	$9,934,405	$6,892,157	$1,751,483	$18,578,045
Great Southern	$13,880,713	$7,975,588	$2,060,708	$23,917,009
Kimberley	$5,642,704	$7,329,745	$712,820	$13,685,269
Midlands	$11,649,773	$5,335,238	$1,030,327	$18,015,338
Midwest	$12,959,541	$8,196,890	$1,620,495	$22,776,926
North Metro	$80,755,068	$42,424,681	$13,395,475	$136,575,224
Pilbara	$5,599,997	$5,391,510	$952,961	$11,944,468
South East Metro	$60,820,950	$30,201,512	$9,181,541	$100,204,003
South West	$21,057,787	$10,953,384	$2,510,041	$34,521,212
South West Metro	$71,594,070	$31,737,707	$9,888,804	$113,220,581
Total	**$347,417,530**	**$185,216,115**	**$53,562,870**	**$586,196,515**
Mean cost per year				
East Metro	$7,646,075	$4,111,100	$1,494,031	$13,251,206
Goldfields	$1,419,201	$984,594	$250,212	$2,654,006
Great Southern	$1,982,959	$1,139,370	$294,387	$3,416,716
Kimberley	$806,101	$1,047,106	$101,831	$1,955,038
Midlands	$1,664,253	$762,177	$147,190	$2,573,620
Midwest	$1,851,363	$1,170,984	$231,499	$3,253,847
North Metro	$11,536,438	$6,060,669	$1,913,639	$19,510,746
Pilbara	$800,000	$770,216	$136,137	$1,706,353
South East Metro	$8,688,707	$4,314,502	$1,311,649	$14,314,858
South West	$3,008,255	$1,564,769	$358,577	$4,931,602
South West Metro	$10,227,724	$4,533,958	$1,412,686	$16,174,369
Total	**$49,631,076**	**$26,459,445**	**$7,651,839**	**$83,742,359**

Per capita cost: tobacco

The per capita cost of hospitalisation due to tobacco varied markedly between Health Zones, with the highest rate of $34.97 in the South West Metro HZ and the lowest rate of $16.90 in the Pilbara HZ (Figure 3.7, page A3-10).

Per capita cost: other drugs

In relation to hospitalisation involving drugs other than tobacco or alcohol, both the East Metro HZ and the Goldfields HZ had the highest rates of $5.37 and $5.31 per capita respectively (Figure 3.8, page A3-10).

The next highest rates occurred in the Great Southern HZ ($4.58) and the South West Metro HZ ($4.40) followed by the South East Metro HZ which had a rate of $4.05.

Rates below the State mean of $4.01 per capita occurred in the North Metro HZ ($3.52), the Kimberley HZ ($2.92), South West HZ ($2.85), Pilbara HZ ($2.79) and the Midlands HZ ($2.77). The lowest rate of $2.49 occurred in the Midwest HZ.

Table 3.12:
Cost per capita of drug related hospital admissions by Health Zone, 1994-2000

Health Zone	Population	Alcohol	Tobacco	Other drugs	All drugs	Rate ratio
East Metro	263,935	$15.82	$29.08	$5.37	$50.26	1.02
Goldfields	57,517	$18.44	$25.01	$5.31	$48.85	0.99
Great Southern	67,444	$18.20	$32.59	$4.58	$55.37	1.12
Kimberley	33,019	$29.34	$23.99	$2.92	$56.25	1.14
Midlands	51,414	$15.05	$34.57	$2.77	$52.39	1.06
Midwest	65,891	$17.20	$28.13	$2.49	$47.82	0.97
North Metro	435,777	$13.57	$27.79	$3.52	$44.88	0.91
Pilbara	44,794	$18.92	$16.90	$2.79	$38.61	0.78
South East Metro	290,175	$15.33	$30.86	$4.05	$50.24	1.02
South West	108,324	$15.56	$29.50	$2.85	$47.91	0.97
South West Metro	304,841	$14.07	$34.97	$4.40	$53.44	1.09
State	**1,723,131**	**$15.39**	**$29.84**	**$4.01**	**$49.25**	**1.00**

Figure 3.6:
Drug related hospitalisation by Health Zone, cost per capita, alcohol, 1994-2000

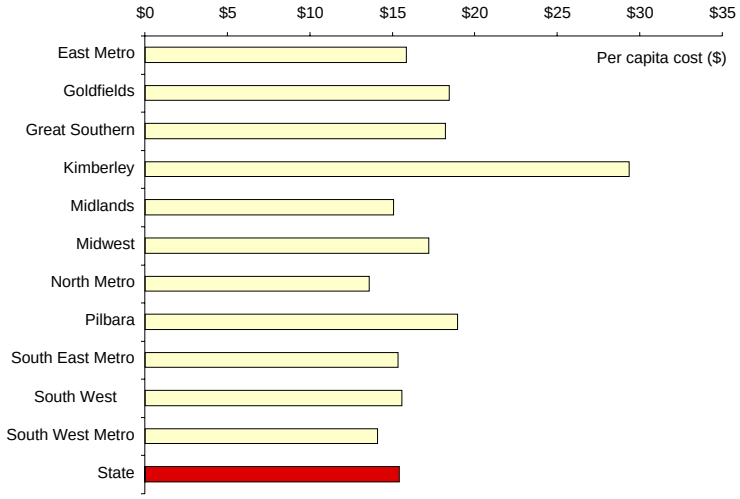


Figure 3.7:
Drug related hospitalisation by Health Zone, cost per capita, tobacco, 1994-2000

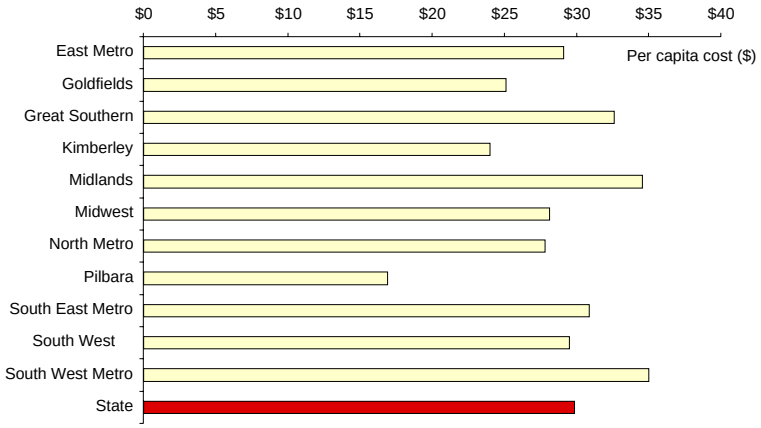
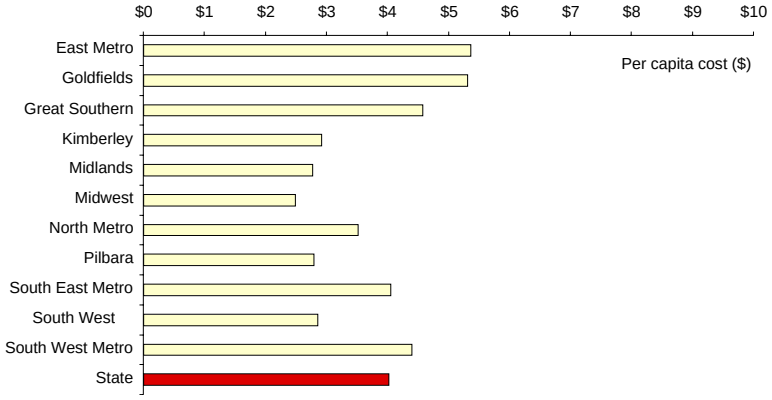


Figure 3.8:
Drug related hospitalisation by Health Zone, cost per capita, other drugs, 1994-2000



4. Mortality Data

4.1 Introduction

This section contains trends in drug related deaths in Western Australia based on information from a number of sources:

- The Coronial Database which is maintained by the WA Drug Abuse Strategy Office in collaboration with the Chemistry Centre of WA and the Coroner's Court and has detailed information from 1995 on heroin related deaths (HRDs) in Western Australia.

- A breakdown of drug related deaths in Western Australia based on cause of death codes using a subset of codes for different drug types, classified by the Australian Bureau of Statistics (ABS) according to the International Classification of Diseases (ICD).

- Statistical analysis of the annual number of accidental opioid deaths in Australia undertaken by the National Drug and Alcohol Research Centre and the ABS.

The level of detail of information presented is shaped by the method of identification of drug related deaths. The Ninth Revision of the ICD codes, referred to as ICD9, was used to code all causes of death in Australia from 1978 to 1999 for year of death.

The ICD9 system uses sub codes to identify deaths caused by specific pharmacological groups of drugs, including morphine type, barbiturate type, cocaine type, cannabis, amphetamine type and hallucinogens. As heroin is not identified by a specific ICD9 sub code, there are likely to be differences between counts based on ICD9 cause of deaths codes and data obtained from the full set of records containing detailed coronial information.

In this State a "suspected" HRD is a case identified by the police as most likely to be an accidental heroin overdose. As this classification is based on information available to the police at the initial stages, all cases remain subject to confirmation following the consideration of all material by the Coroner by a formal inquiry or inquest. Only suspected HRDs are available for the years 1999 and 2000.

A "confirmed" HRD is a case where after an inquiry (or inquest) the Coroner has determined that death was caused accidentally by heroin alone, or by heroin in combination with other drugs. Confirmed HRDs are available from 1995 to 1998. HRDs have been excluded where death was caused intentionally, ie suicide or homicide.

4.2 Australia - opioid deaths

There has been an Australia wide increase in opioid overdose deaths by nearly four fold, from a rate of 30.1 per million (population aged 15 to 44 years) in 1991 to a rate of 112.5 in 1999 (Figure 4.1).

Nationally there was a total of 958 opioid overdose deaths in 1999, of which 42% occurred in New South Wales, 36% in Victoria, 8% in WA and 7% in Queensland.

4.3 WA - heroin related deaths

A detailed picture of accidental heroin related deaths (HRDs) in WA for the six and a half year period from the first quarter 1995 to the June quarter 2001 is shown in Figure 4.2 (page A4-2).

HRDs in WA have averaged 81 per year over the last four years from 1997 to 2000. There were 82 suspected deaths

Figure 4.1:
Rate per million (persons aged 15-44 years), opioid overdoses, Australia, 1988-1999

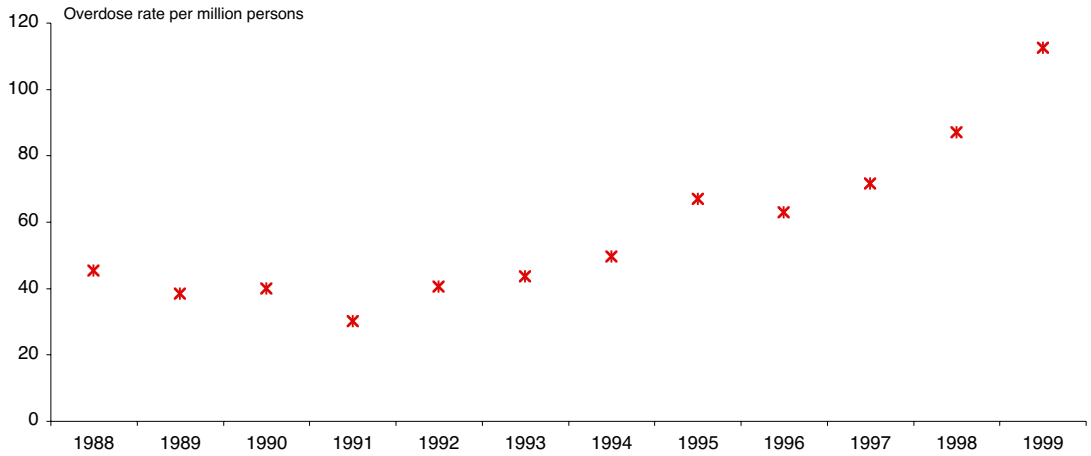


Table 4.1:
Accidental heroin related deaths, Western Australia, March quarter 1995 - June quarter 2001

	Suspected WA Police	Confirmed Coroner		Suspected WA Police	Confirmed Coroner
1995			1999		
Q1	na	12	Q1	23	na
Q2	na	14	Q2	22	na
Q3	na	22	Q3	18	na
Q4	na	18	Q4	26	na
Total	-	66	Total	89	-
1996			2000		
Q1	na	10	Q1	17	na
Q2	na	10	Q2	28	na
Q3	na	13	Q3	16	na
Q4	na	12	Q4	21	na
Total	-	45	Total	82	-
1997			2001		
Q1	21	19	Q1	12	na
Q2	23	22	Q2	14	na
Q3	22	20	Q3		
Q4	18	15	Q4		
Total	83	76	Total		
1998			2002		
Q1	19	17	Q1		
Q2	16	16	Q2		
Q3	15	17	Q3		
Q4	25	25	Q4		
Total	78	75	Total		

in 2000, 89 suspected deaths in 1999, 75 confirmed deaths in 1998 and 76 confirmed deaths in 1997 (Table 4.1, page A4-2).

There has been a significant rise in HRDs in this State since 1993. Over the past six and a half years there has been a pattern of short term increases and decreases in the number of HRDs each quarter, with the number of HRDs more than doubling from 12 in the March quarter 1995 to 28 in the June quarter 2000 and falling to 14 suspected deaths in the June quarter 2001.

Over the six and a half year period there was a total of 459 HRDs in this State, of which 398 (86.7%) occurred in the Perth metropolitan area and 61 (13.3%) occurred in country areas. The proportion of deaths occurring in country areas has generally followed the quarterly fluctuations in the State total of HRDs (Figure 4.2).

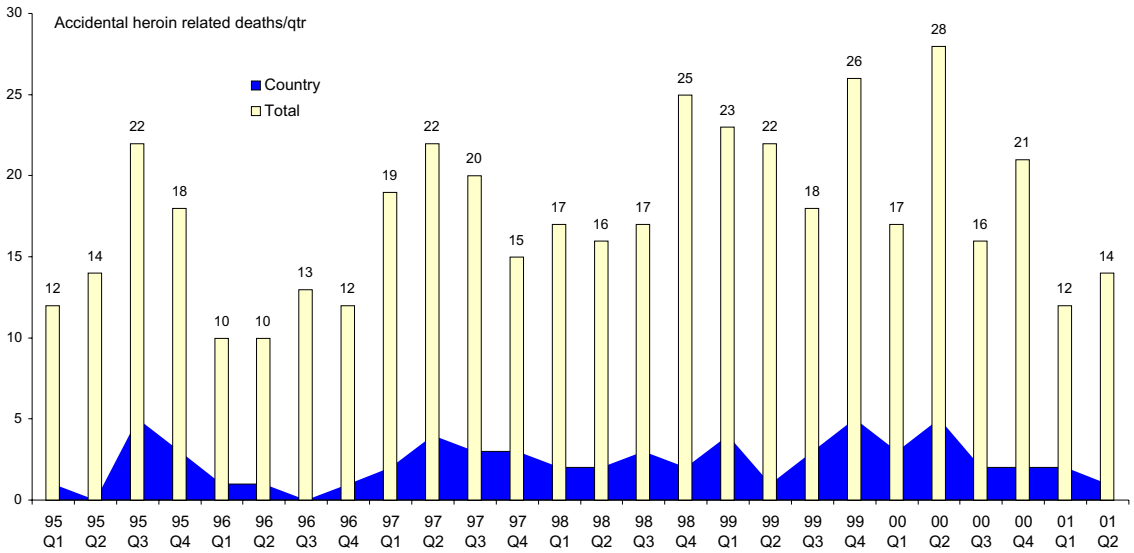
There has been a recent downward trend in HRDs nationally and in this State in 2001, with suspected deaths in WA down by over 40% to the end of June 2001, compared to the same period in recent years.

4.4 WA - all drug related deaths

Data of all drug related deaths (based on all drug related causes) is presented for the period 1989 to 1999 (Table 4.2, page A4-3). These have been calculated by the use of aetiologic fractions developed by English, Holman et al, published in 1995.

It should be noted that the deaths for the year 1999 were coded according to the new set of ICD10 codes and were converted to ICD9 codes to enable comparison with data for prior years.

Figure 4.2:
Accidental heroin related deaths, Western Australia, March quarter 1995 - June quarter 2001



The apparent drop of about 100 deaths from 1998 to 1999 may therefore be due to this coding change as ICD10 has considerable changes in the way deaths are classified especially in relation to injury and poisonings.

Over this 11 year period it was estimated there was a total of 21,031 drug related deaths (for all causes), of which 3,624 (17.2%) were alcohol related, 16,431 (78.1%) were tobacco related and 976 (4.6%) were related to drugs other than alcohol or tobacco.

As the 1999 dataset contains some preliminary data, the year 1999 has not been included in the following analysis.

From 1989 to 1991 the total number of drug related deaths decreased slighly from 1,948 per year to 1,794 per year, then gradually increased up to 1998.

As the majority of deaths involved alcohol and tobacco, deaths attributable to these two groups of drugs followed a similar pattern dropping slightly from 1989 to the early 1990s and then increasing gradually.

In comparison to the trends in alcohol and tobacco related deaths, deaths classified as 'other drug' related deaths increased by 237% from 53 in 1989 to 126 in 1998. A major factor in the growth in these deaths has been the increase in opioid related deaths that has occurred since 1994.

The pattern of increased opioid related mortality that has occurred in this State since 1993 has not been accompanied by similar levels of increases in deaths due to other drug groups (Table 4.3).

It should be noted that these deaths are coded by the ABS according to ICD9 protocols and use a number of cause of death codes including accidental poisoning, suicide, drug dependence, non dependent drug abuse and undetermined.

The 21 deaths in WA in 1999 that were attributed to amphetamines/psychostimulants should be interpreted with caution as it appears that inconsistencies in identification of drug type have occurred due to changes in codes in the shift from the ICD 9 to ICD 10 coding system.

Similarly, the apparent increase in 1999 where 13 deaths occurred due to barbiturates, tranquillisers and sedatives should also be interpreted with caution.

Table 4.2:
All drug related deaths, Western Australia, 1989 - 1999

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Alcohol	348	311	298	318	319	336	336	350	346	341	322
Tobacco	1,547	1,458	1,443	1,466	1,542	1,505	1,490	1,527	1,490	1,513	1,450
Other drugs	53	54	53	62	71	98	114	104	124	126	116
All drugs	1,948	1,823	1,794	1,845	1,932	1,939	1,940	1,981	1,960	1,980	1,888

Note: 1999 data should be considered preliminary

Table 4.3:
Drug related deaths for drugs other than alcohol or tobacco, Western Australia, 1985 - 1999

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Cannabis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Opiates	27	20	16	25	24	21	12	28	28	44	76	64	81	76	50
Amphetamines/ psychostimulants	0	0	0	0	0	1	2	0	1	0	0	0	0	2	21
Cocaine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hallucinogens	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1
Barbiturates/ Tranquillisers/sedatives	14	13	10	2	4	1	3	2	7	10	3	6	2	1	13
Antidepressants	1	2	6	3	3	4	7	3	6	18	7	6	3	2	0
Volatile substances	1	5	4	1	3	4	2	1	3	3	1	2	3	0	1
Unclassified drugs	18	24	26	16	17	21	23	18	21	19	23	21	29	36	19
Other/combination psychotropic agents	0	0	0	0	0	0	2	7	1	1	0	0	0	2	1
Other causes	1	2	1	2	2	2	1	1	3	3	4	5	6	7	10
Total	62	66	63	49	53	54	53	61	71	98	114	104	124	126	116

Note: 1999 data should be considered preliminary and reflects changes due to introduction of ICD-10 coding.

5. Drug Related Telephone Calls

5.1 Introduction

The Alcohol & Drug Information Service (ADIS) is a 24 hour statewide telephone service which provides counselling, information, advice and referral on alcohol and other drug problems for drug users, relatives and friends of those with problematic drug use.

The Parent and Drug Information Service (PDIS) operates in conjunction with ADIS to provide specialist information, support, counselling and referral to key treatment and support services for parents concerned about drug use by their children.

This section contains data about trends in drug related phone calls received by ADIS (which includes PDIS calls) from the March quarter 1986 to the March quarter 2001. This data has been broken down to provide a comparison of trends in the number of:

- licit vs illicit drug calls;
- calls for each of the major group of illicit drugs (cannabis, psychostimulants, illicit opioids and ecstasy/designer drugs); and
- calls by region based on Community Drug Service Team zones (from December quarter 1999 to June quarter 2001).

5.2 Licit vs illicit drugs

In the 15 year period, from the March quarter 1986 to the March quarter 2001, there was a total of 152,783 drug related calls, of which 74,779 (48.9%) involved licit drugs (ie tobacco, alcohol and prescription drugs) and 78,004 (51.1%) involved illicit drugs.

The number of licit drug related calls per quarter increased from 1986 until mid 1995 when there were just under 2,200 calls. Since then the number of licit drug related calls per quarter has gradually declined with just over 1,000 calls in the March quarter 2001.

Quarterly illicit drug related calls steadily grew from 1986 until the third quarter 1995, then dropped, with about 1,500 calls per quarter until mid 1998. From mid 1998 up to the present there has been an upward trend in the number of illicit drug calls each quarter.

Since the December quarter 1996 there has been more illicit drug related calls than licit drug related calls, whereas previously there had typically been more licit calls than illicit calls (Figure 5.2, page A5-2).

5.3 Illicit drugs

Analysis of trends in the number of calls from the March quarter 1986 indicate that until mid 1991 most illicit calls were concerned with cannabis. Over the 10 year period from 1991 to 2000 there have been a number of pronounced cyclical variations in calls related to psychostimulants (eg amphetamines) and opioids (eg heroin) (Figure 5.1).

Continued on page A5-3

Figure 5.1:
Quarterly opioid, amphetamine, cannabis and ecstasy/designer related calls received by ADIS, 1986 quarter 2 - 2001 quarter 1

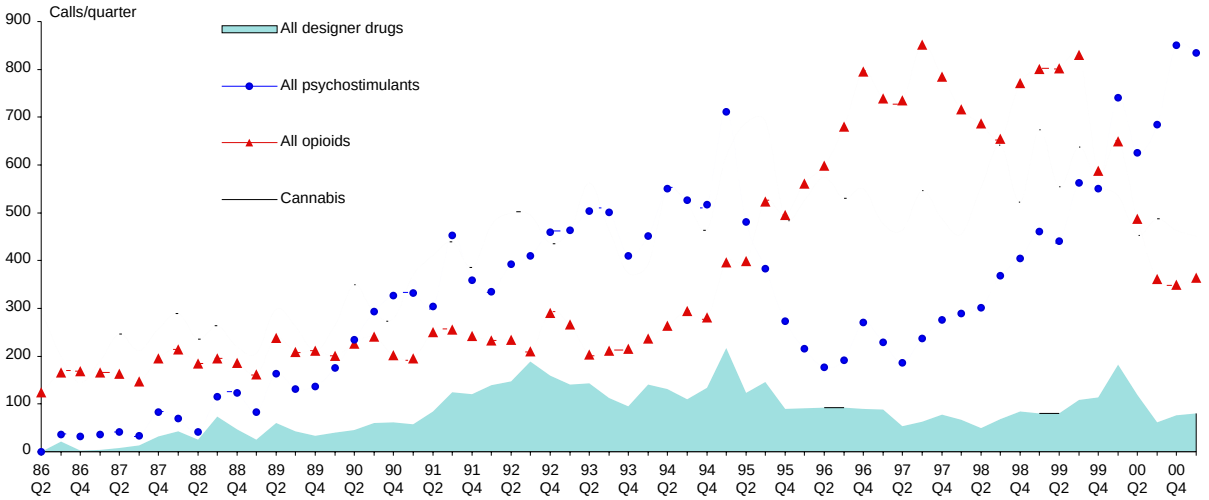


Figure 5.2:
Quarterly licit and illicit drug related calls received by ADIS, 1986 quarter 2 - 2001 quarter 1

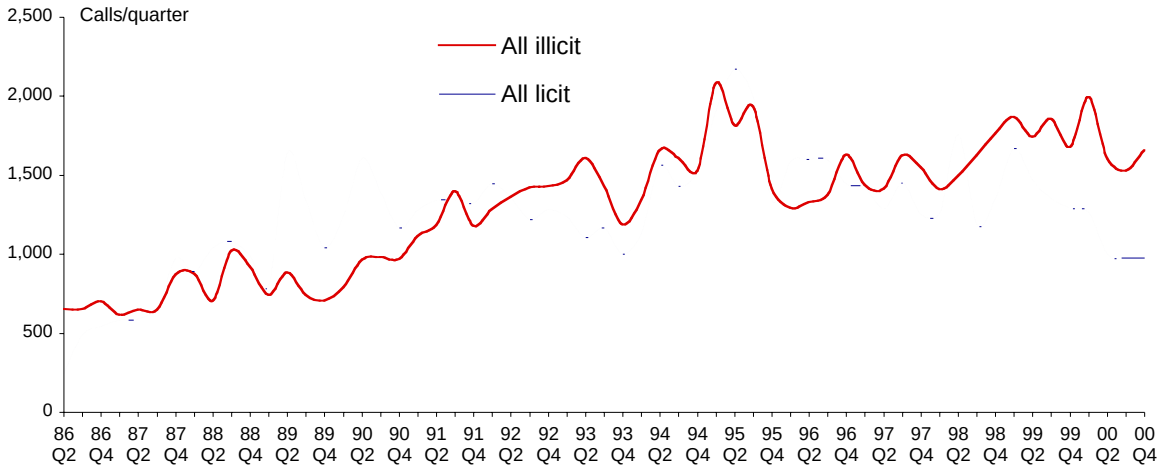


Figure 5.3:
Quarterly cannabis related calls received by ADIS, 1986 quarter 2 - 2001 quarter 1

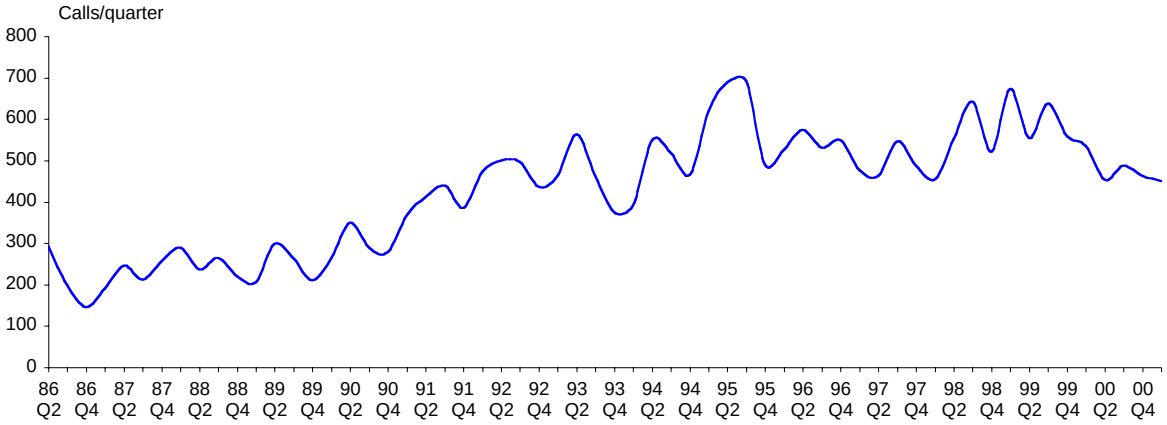
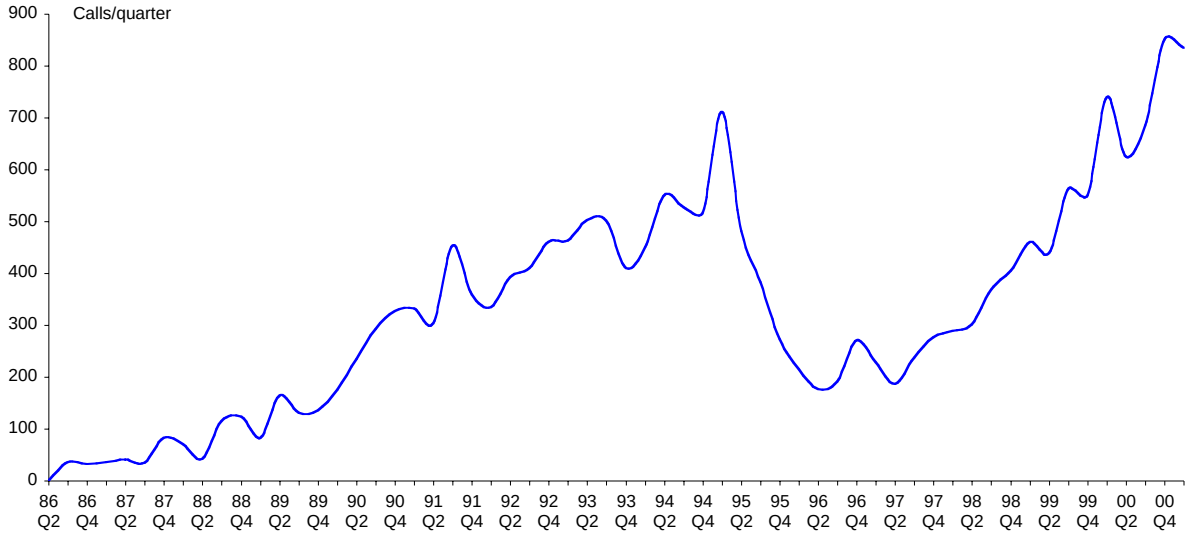


Figure 5.4:
Quarterly psychostimulant related calls received by ADIS, 1986 quarter 2 - 2001 quarter 1



Cannabis

The number of cannabis calls steadily increased from 1986 to the September quarter 1995 (nearly 700 calls), then plateaued, fluctuating between 500 and 600 calls per quarter until the first quarter 2000. Since the March quarter 2000 there have been about 450 cannabis calls per quarter (Figure 5.3, page A5-2).

Psychostimulants

There was a steady increase in psychostimulant calls from 1986 until the March quarter 1995 (711 calls). The number of calls then dropped sharply and remained relatively constant until mid 1997, with about 200 calls per quarter. Calls increased by more than four and a half times, from 186 calls in the June quarter 1997 to 851 calls in the December quarter 2000. (Figure 5.4, page A5-2).

Opioids

Opioid calls remained relatively constant from 1986 to the June quarter 1994 (just over 220 calls). This was followed by a marked increase in opioid calls, which reached more than 800 calls in the September quarter 1999, then sharply declined to about 350 calls by the December quarter 2000 (Figure 5.5).

Ecstasy/designer drugs

Compared to the generally upward trend in the number of cannabis, psychostimulants and opioids calls, calls concerned with designer drugs (eg LSD, hallucinogens and ecstasy) peaked in the latter part of 1992 and then moderately declined, with about 50 calls received per quarter since mid 1997 (Figure 5.1, page A5-1).

Figure 5.5:
Quarterly opioid related calls received by ADIS, 1986 quarter 2 - 2001 quarter 1

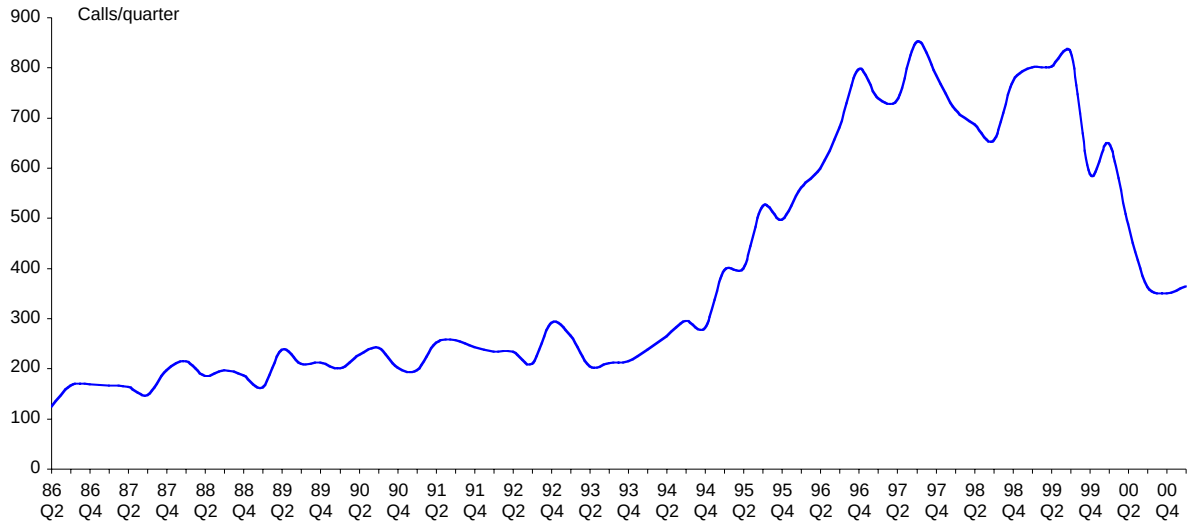


Table 5.1:
Quarterly drug related calls by Community Drug Service Team zone
March quarter 2000 - December quarter 2000

	99 Qtr 4	00 Qtr 1	00 Qtr 2	00 Qtr 3	00 Qtr 4	01 Qtr 1	01 Qtr 2
Metropolitan							
North East Metro	483	485	322	293	263	257	201
North Metro	858	754	564	570	575	595	455
Perth	71	54	37	45	52	38	33
South Metro	518	390	317	327	337	381	341
South East Metro	532	507	390	368	346	355	271
Metro sub total	**2,462**	**2,190**	**1,630**	**1,603**	**1,573**	**1,626**	**1,301**
Country							
Goldfields	57	42	42	42	42	42	34
Great Southern	46	29	34	33	31	32	40
Kimberley	13	8	9	7	5	6	9
Midwest	73	32	45	38	30	45	31
Pilbara	23	23	22	19	16	19	21
South West	141	142	116	116	115	126	106
Wheatbelt	50	15	43	38	32	21	15
Country sub total	**403**	**291**	**311**	**293**	**271**	**291**	**256**
Total	**2,865**	**2,481**	**1,941**	**1,896**	**1,844**	**1,917**	**1,557**

5.4 Regional trends: 1999-2001

A regional breakdown of quarterly calls received by ADIS from persons living in each of the State's 12 Community Drug Service Team (CDST) zones is presented in Table 5.1.

From the December quarter 1999 to the June quarter 2001 the total number of quarterly calls decreased by 45.6%, from 2,865 calls (December quarter 1999) to 1,557 calls (June quarter 2001).

Over this time there was a total of 16,781 calls received, of which a total of 12,385 (73.8%) were from the metropolitan area and 2,124 (12.6%) were from country regions (Table 5.2). (There were 2,372 calls for which the suburb of the caller was not available.)

Metro vs country

In the Perth metropolitan area the greatest number of calls were from persons living in the North Metro CDST zone (4,373 calls). Similar numbers of calls were received for the South Metropolitan, South East Metropolitan and North East Metropolitan CDST zones (Table 5.2).

There were differences between the metropolitan and country areas of calls for different types of drugs, with a higher proportion of alcohol and tobacco related calls from country callers.

Of the total of 2,124 calls from country callers:

- 597 (28.1%) were alcohol related;
- 480 (22.6%) were tobacco related;
- 64 (3.0%) were methadone related;
- 434 (20.4%) were cannabis related;
- 7 (0.3%) were hallucinogen related;
- 480 (22.6%) were amphetamine related; and
- 234 (11.0%) were heroin related.

Of the total of 12,385 calls from metropolitan callers:

- 2,464 (19.9%) were alcohol related;
- 1,597 (12.9%) were tobacco related;
- 265 (2.2%) were methadone related;
- 2,713 (21.9%) were cannabis related;
- 98 (0.8%) were hallucinogen related;
- 3,546 (28.6%) were amphetamine related; and
- 1,702 (13.7%) were heroin related.

Table 5.2:
Number of drug related calls by type of drug, Community Drug Service Team zone, 1999 quarter 4 - 2001 quarter 2

	Alcohol	Amphetamines	Cannabis	Hallucinogens	Heroin	Methadone	Tobacco	Total
Metropolitan								
North east metro	402	650	452	20	438	47	297	2,306
North metro	883	1,239	1,009	45	569	77	551	4,373
Perth	58	104	41	5	81	10	33	332
South metro	547	717	604	13	305	68	349	2,603
South east metro	574	836	607	15	309	63	367	2,771
Metro sub total	**2,464**	**3,546**	**2,713**	**98**	**1,702**	**265**	**1,597**	**12,385**
Country								
Goldfields	69	84	50	1	44	5	49	302
Great Southern	67	52	62	0	20	11	35	247
Kimberley	17	7	8	0	6	5	15	58
Midwest	91	64	57	0	36	2	44	294
Pilbara	34	35	17	1	18	1	38	144
South west	255	200	196	2	93	31	87	864
Wheatbelt	64	38	44	3	17	9	40	215
Country sub total	**597**	**480**	**434**	**7**	**234**	**64**	**308**	**2,124**
Other								
Interstate/overseas	30	44	42	6	76	11	4	213
Unknown	367	697	356	15	335	63	226	2,059
State	**3,458**	**4,767**	**3,545**	**126**	**2,347**	**403**	**2,135**	**16,781**

Figure 5.6
Number of drug related calls, North East Metro CDST, 1999 quarter 4 - 2001 quarter 2

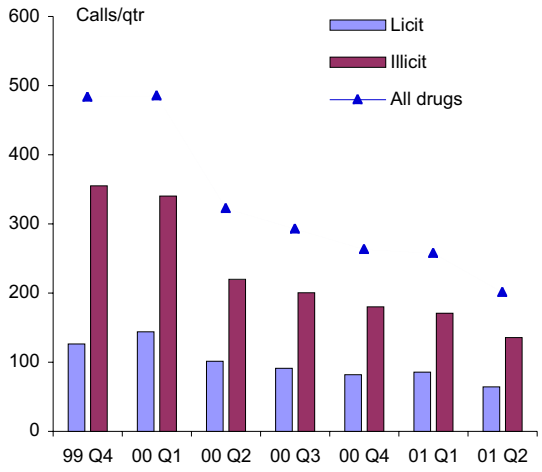


Figure 5.7:
Number of drug related calls, North Metro CDST, 1999 quarter 4 - 2001 quarter 2

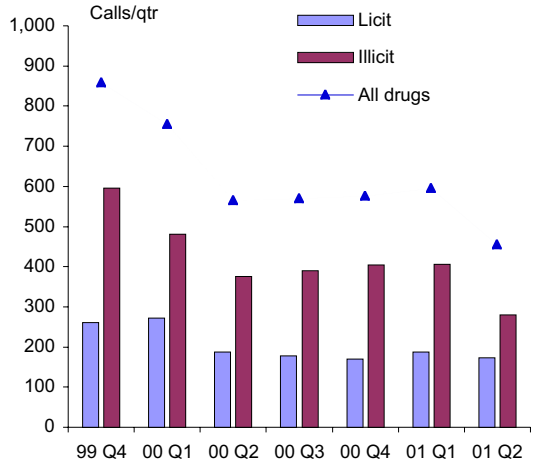
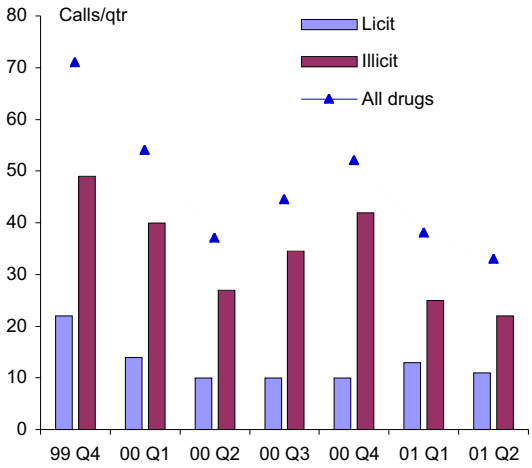


Figure 5.8:
Number of drug related calls, Perth CDST, 1999 quarter 4 - 2001 quarter 2



North East Metro CDST

Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 58.4%, from 483 calls in the December quarter 1999 to 201 calls in the June quarter 2001 (Figure 5.6).

Much of the decline over the seven quarters in the number of drug calls can be attributed to the drop that occurred in illicit drug calls, which decreased by 61.8% compared to a 48.8% reduction in licit drug calls.

North Metro CDST

Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 47.0%, from 858 calls in the December quarter 1999 to 455 calls in the June quarter 2001 (Figure 5.7).

The decline over the seven quarters in the number of drug calls can be attributed to the drop that occurred in illicit drug calls, which decreased by 52.9% compared to a 33.6% reduction in licit drug calls.

Illicit calls decreased from 596 in the December quarter 1999 to 376 in the June quarter 2000, then increased slightly to 407 calls in the March quarter 2001. There was a drop to 281 calls in the June quarter 2001.

Perth Metro CDST

As this CDST is based on the postcode 6000-6004 there are relatively few calls for this area. Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 53.5%, from 71 calls in the December quarter 1999 to 33 calls in the June quarter 2001 (Figure 5.8).

The fluctuations in all drug calls can be attributed to variations in the number of illicit drug calls received each quarter compared to licit drug calls which were more constant.

Illicit calls decreased from 49 in the December quarter 1999 to 27 in the June quarter 2000, then increased slightly to 42 calls in the December quarter 2000 and then have declined to to 22 calls by the June quarter 2001.

South Metro CDST

Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 34.2%, from 518 calls in the December quarter 1999 to 341 calls in the June quarter 2001 (Figure 5.9, page A5-6).

The decline over the first three quarters in the number of drug calls can be attributed to the drop that occurred in both illicit and licit drug calls, which decreased by 36.9% and 42.2% respectively.

Figure 5.9:
Number of drug related calls, South Metro CDST, 1999 quarter 4 - 2001 quarter 2

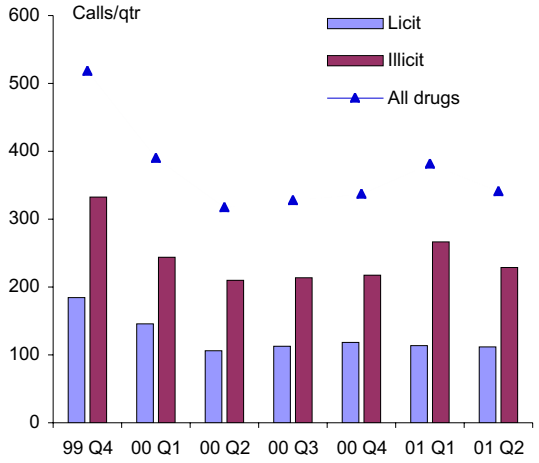


Figure 5.10:
Number of drug related calls, South East Metro CDST, 1999 quarter 4 - 2001 quarter 2

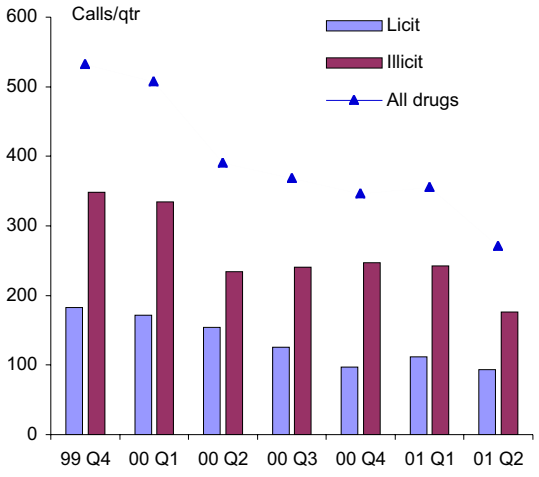
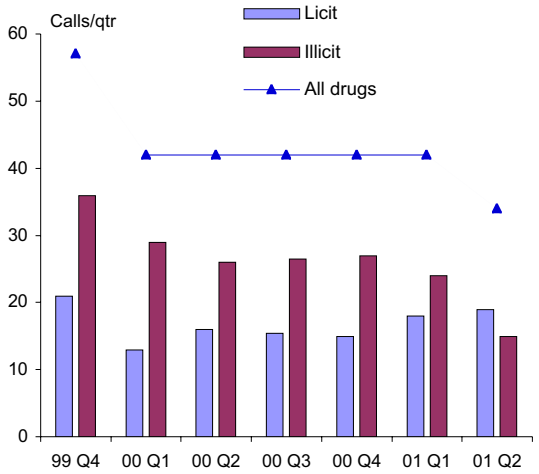


Figure 5.11
Number of drug related calls, Goldfields CDST, 1999 quarter 4 - 2001 quarter 2



The number of illicit drug calls increased from the June quarter 2000 to the March quarter 2001 then dropped slightly in the June quarter 2001. The number of licit drug calls have remained relatively constant since the June quarter 2000 with about 110 calls per quarter.

South East Metro CDST

Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 49.1%, from 532 calls in the December quarter 1999 to 271 calls in the June quarter 2001 (Figure 5.10).

Over the period licit calls gradually declined from 183 in the December quarter 1999 to 94 in the June quarter 2001, a drop of 48.6%.

About 340 illicit calls were received in the first two quarters then dropped and remained relatively constant with about 240 calls per quarter up to the March quarter 2001. There was a drop of 27.2% in illicit calls from the March to June quarters 2001.

Goldfields CDST

Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 40.4%, from 57 calls in the December quarter 1999 to 34 calls in the June quarter 2001 (Figure 5.11).

After a decrease of 38.1% in licit calls from the December quarter 1999 to the March quarter 2001, calls for this group of drugs gradually increased to 19 by the March quarter 2001. It can be seen that there was a greater number of licit drug calls than illicit drug calls in the March quarter 2001.

After a drop from 36 calls in the December quarter 1999, the number of illicit calls remained relatively constant up to the March quarter 2001, then dropped to 15 calls in the June quarter 2001.

Great Southern CDST

The number of all drug calls received per quarter from this CDST zone decreased by 37.0% from 46 in the December quarter 1999 to 29 in the March quarter 2001. Since the first quarter 2000 all drug calls have increased by 38.0% with 40 calls received by the June quarter 2001 (Figure 5.12, Page A5-7).

Illicit drug calls remained relatively constant over the seven quarters with about 20 calls per quarter, except for the March quarter 2000 when there were 12 calls.

The number of licit calls have fluctuated over the seven quarters. There were 24 calls in the December quarter 1999 followed by a decrease of two thirds with eight calls received in the June quarter 2000. Since mid 2000 the number of licit calls have steadily increased and reached 18 by the June quarer 2001.

Figure 5.12:
Number of drug related calls, Great Southern CDST, 1999 quarter 4 - 2001 quarter 2

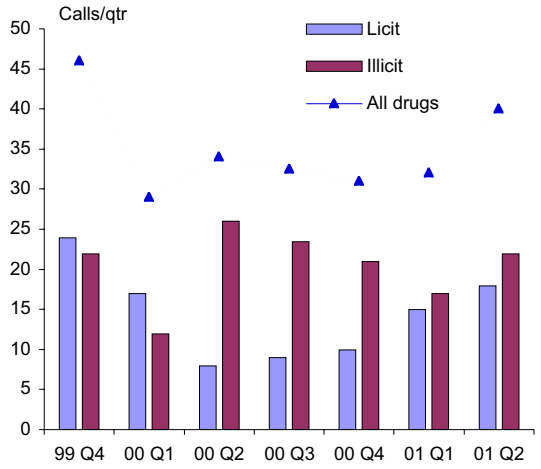


Figure 5.13:
Number of drug related calls, Kimberley CDST, 1999 quarter 4 - 2001 quarter 2

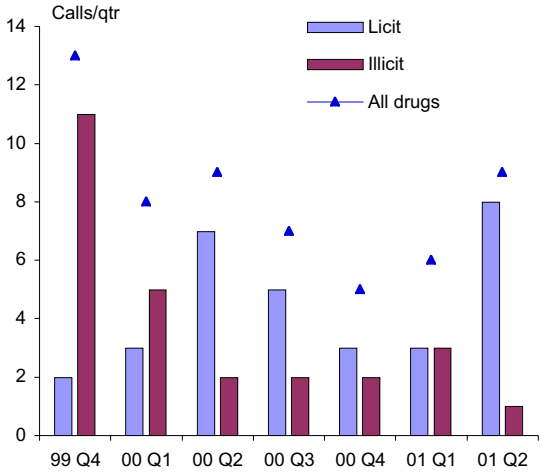
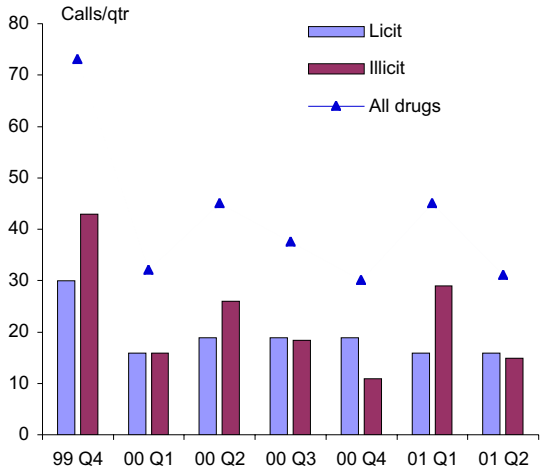


Figure 5.14:
Number of drug related calls, Midwest CDST, 1999 quarter 4 - 2001 quarter 2



Kimberley CDST

Because of the relatively low number of calls it is difficult to determine trends in types of calls received in this CDST zone (Figure 5.13). For most quarters there was a greater number of licit calls than illicit calls, except for the December quarter 1999.

Midwest CDST

The number of all drug calls received per quarter from this CDST zone decreased by 56.2% from 73 in the December quarter 1999 to 32 in the March quarter 2001.

Since the first quarter 2000 all drug calls have fluctuated between about 30 and 45 calls per quarter (Figure 5.14).

There was a similar number of licit and illicit drug calls over the seven quarters except for the December quarter 1999 and the March quarter 2001 when there was a greater number of illicit drug calls.

Pilbara CDST

The number of all drug calls received per quarter from this CDST zone decreased from 23 in the December quarter 1999 to 16 in the December quarter 2000, then increased to 21 in the June quarter 2001 (Figure 5.15).

There was a greater number of licit calls per quarter in the first three quarters. This was follows by a similar number of calls in the September quarter 2000 and in the last three quarters there has been a greater number of illicit calls than licit calls.

Figure 5.15:
Number of drug related calls, Pilbara CDST, 1999 quarter 4 - 2001 quarter 2

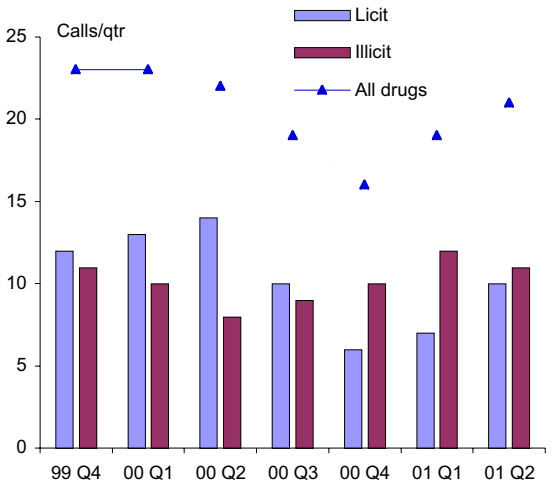


Figure 5.16:
Number of drug related calls, South West CDST, 1999 quarter 4 - 2001 quarter 2

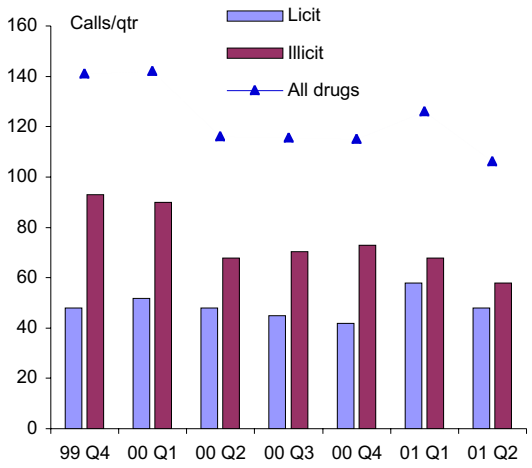
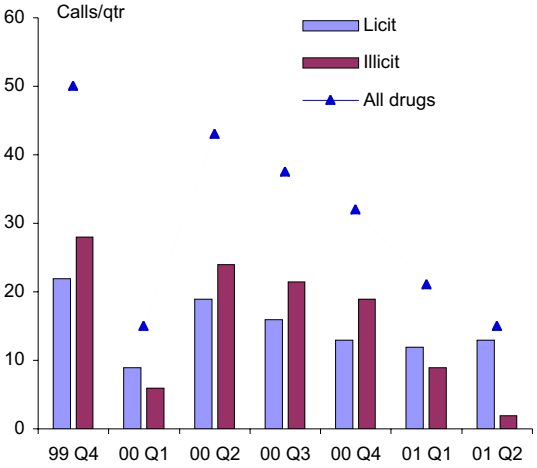


Figure 5.17:
Number of drug related calls, Wheatbelt CDST, 1999 quarter 4 - 2001 quarter 2



South West CDST

There were about 140 calls per quarter in both the December 1999 and the March 2000 quarters. The number of calls then dropped and remained relatively constant throughout the remaining five quarters of the period, with about 115 calls per quarter (Figure 5.16).

There was a stable number of licit drug calls over the seven quarters in this CDST zone, with just under 50 calls per quarter.

There was a greater number of illicit than licit calls per quarter from the December 1999 quarter to the June 2001 quarter. In the December 1999 quarter and the March 2000 quarter there was about 90 illicit calls per quarter with about 70 calls per quarter up to the June 2001 quarter.

Wheatbelt CDST

Over the seven quarters the number of all drug calls received per quarter from this CDST zone decreased by 70.0%, from 50 calls in the December quarter 1999 to 15 calls in the June quarter 2001 (Figure 5.17).

The sharp drop in calls received in the first quarter 2000 may be due to changes in reporting or unusual local factors.

There was a greater number of illicit calls than licit calls per quarter from the December quarter 1999 to the March quarter 2001. There were only two illicit calls recorded in the June quarter 2001.

6. Licit Drugs

6.1 Introduction

This section contains data about trends in the use of licit drugs, (ie prescription drugs), alcohol and tobacco, drawn from a number of data sources, as follows:

- national surveys of adult use of medications, which include information about psychoactive drugs and problems caused by their use;
- trends in alcohol consumption by Health Zone (HZ) for the period 1988/1989 to 1998/1999;
- alcohol prevalence data from recent West Australian surveys of adults and youth;
- research by a number of regional hospitals of presentations at their emergency departments involving alcohol related injuries;
- comparative Australian and international tobacco smoking prevalence data; and
- tobacco prevalence data from recent West Australian surveys of adults and youth.

6.2 Prescription drugs

1995 National Health Survey

A study of the use of medications of persons aged 15 years and over, based on the *1995 National Health Survey*, found 72.3% of the total West Australian population had used medications and/or vitamins, minerals, herbal or natural preparations in the two weeks prior to interview.

This is higher than the proportion for Australia (68.7%) and the second highest proportion among all states – highest was ACT (72.9%) and lowest was NT (64.5%).

Overall 63.6% of the total WA population were using medications excluding vitamins, minerals, herbal or natural medications. This is higher than the proportion for Australia (59.1%). WA had the highest proportion taking medications of all states (second highest was ACT (62.9%) and lowest was NT (53.9%).

While there was a higher rate of the use of pain relievers by West Australians (26.3%) compared to the national average (23.6%), there was a similar rate (3.7%) of the use of tranquillisers, sedatives and sleeping medications for West Australians compared to the national average.

A number of factors associated with the increase of psychoactive drugs are identified by this survey, including age and marital status. Increased levels of use were found among people who were widowed, divorced or separated compared to other groups.

The proportion of people using psychoactive drugs increased with age, from 0.5% of 15-24 year olds, 3.2% of 25-44 year olds, 5.9% of 45-64 year olds to 10.3% of persons aged 65 years an older.

1995 National Mental Health Survey

An analysis of data obtained in the *1995 National Survey of Mental Health and Wellbeing* indicated that overall 7.7% of Australian adults aged 18 years and older had a substance use disorder. A substance use disorder was defined as having impaired control over the use of alcohol or other drugs, including harmful use or dependence, in the previous 12 months.

This data shows males were more likely to have a substance use disorder than females (11.1% vs 4.5%) and that substance use disorders declined steeply with age for both males and females. One in six 18 to 24 year olds had a substance use disorder compared to one in 90 Australians aged 65 years and older.

There were only small differences in the rate of substance use disorders between people who lived in the city and country.

Alcohol use disorders were about three times as common as drug use disorders, with 6.5% of Australian adults having an alcohol use disorder (9.4% males vs 3.7% females), based on their alcohol use in the past week.

Broken down by level of alcohol use, the survey found that 4.3% of males consumed alcohol at harmful levels and 5.1% at a level of dependence and that 1.8% of females consumed alcohol at harmful levels and 1.9% at a level of dependence.

1999-2000 survey of GPs

A survey of GP's conducted between 1999-2000 showed that 8% of all prescriptions were for psychological medications. The most frequently prescribed psychological medications were anti-depressants (3.1% of all prescriptions), followed by anti-anxiety drugs (2.2%) and sedative hypnotics (2.0%). The most common antidepressant was Sertraline (0.7% of all prescriptions), the most common anti-anxiety drugs were Diazepam (1.1%), Oxazepam (0.9%) and Phenothiazine (0.6%) and the most common sedative hypnotic was Temazepam (1.5%).

6.3 Alcohol consumption

State overview

Trends in the consumption of alcohol by type of beverage from 1988/1989 to 1998/1999 are shown in Table 6.1. This data is based on alcohol sales data provided to the Health Information Centre by the Office of Racing,

Gaming and Liquor. The alcohol content of the beverages reported have been converted into litres of absolute alcohol.

Over this 11 year period the per capita consumption of all alcohol (as litres of absolute alcohol) declined by 6.5%, from 11.16 litres per capita in 1988/1989 to 10.43 litres per capita in 1998/1999. (The denominator for the calculation of per capita consumption is based on the population aged 15 years and older.)

The major reason for the gradual decline in the per capita consumption of all alcohol in Western Australia has been the marked decrease in the consumption of regular strength beer. The consumption of all beer decreased by 20.8%, from 7.16 litres per capita in 1988/1989 to 5.68 litres per capita in 1998/1999 (Table 6.1).

There was a decline of 28.6% over this same period in the consumption of regular beer which fell from 5.62 litres per capita in 1988/1989 to 4.01 litres per capita in 1998/1999. Consumption of low alcohol beer increased by 7.7% over the 11 years from 1.55 litres per capita in 1988/1989 to 1.67 litres per capita in 1998/1999.

Against the overall decline in beer consumption there has been a shift in preferences towards the increased consumption of wine and spirits (Figure 6.1). There was an increase in per capita consumption for wine of 15.6% and for spirits of 24.8% over the 11 year period.

Regional trends

The breakdown of total alcohol consumption by Health Zone indicates that some parts of the State have relatively higher levels of alcohol use (Table 6.2, page A6-3).

A profile of regional differences, based on the 1998/1999 data, shows that the North Metropolitan, South East Metropolitan and South West Metropolitan Health Zones had rates below the State rate, the East Metropolitan Health Zone was slightly higher than the State rate and the Midlands and Great Southern Health Zones were 1.12 and 1.18 times higher respectively (Figure 6.2, page A6-3).

Regions with patterns of alcohol consumption well above the State rate were as follows:

- Kimberley (+172%);
- Goldfields (+157%);
- Pilbara (+155%);
- Midwest (+143%); and
- South West (+134%).

From 1988/1989 to 1998/1999 the Kimberley, Goldfields and Midwest regions consistently had rates that were between one and two thirds higher than the overall State rate of per capita consumption of alcohol.

Whereas at the beginning of the period the South West Health Zone was just above the State rate, by 1998/1999 it increased to 13.4 litres per capita which was 29% higher than the State rate.

In 1988/1989 the Great Southern Health Zone had a rate of 9.7 litres per capita which was 14% below the State rate and by 1998/1999 had increased to 11.8 litres per capita which was 14% above the State rate.

Figure 6.1:
Per capita alcohol consumption (litres of absolute alcohol) by type of alcohol, 1988/1989-1998/1999

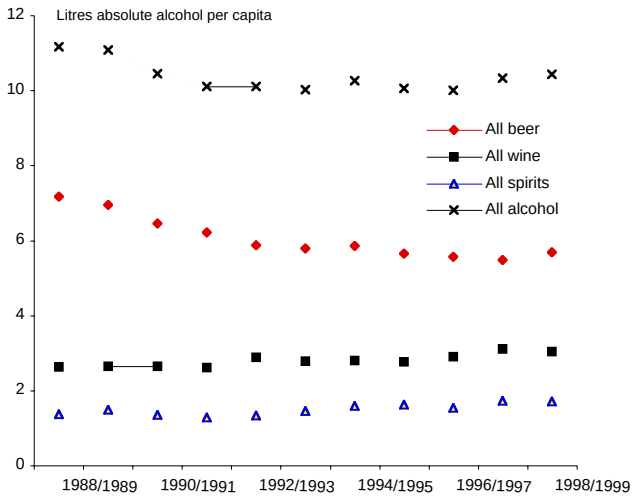


Table 6.1:
Per capita alcohol consumption (litres of absolute alcohol) by alcohol type, 1988/1989-1998/1999

Year	Regular beer	Low alcohol beer	All beer	Wine	Spirits	Total
1988/1989	5.62	1.55	7.16	2.63	1.37	11.16
1989/1990	5.26	1.68	6.94	2.64	1.49	11.07
1990/1991	4.70	1.75	6.45	2.65	1.36	10.45
1991/1992	4.39	1.82	6.21	2.61	1.28	10.01
1992/1993	4.04	1.84	5.88	2.89	1.34	10.11
1993/1994	3.99	1.80	5.78	2.78	1.46	10.01
1994/1995	4.07	1.79	5.86	2.81	1.59	10.25
1995/1996	3.94	1.72	5.66	2.76	1.63	10.05
1996/1997	3.93	1.63	5.56	2.90	1.54	10.00
1997/1998	3.96	1.53	5.49	3.11	1.73	10.32
1998/1999	4.01	1.67	5.68	3.04	1.71	10.43

Figure 6.2:
Per capita alcohol consumption (litres of absolute alcohol) by Health Zone, 1998/1999

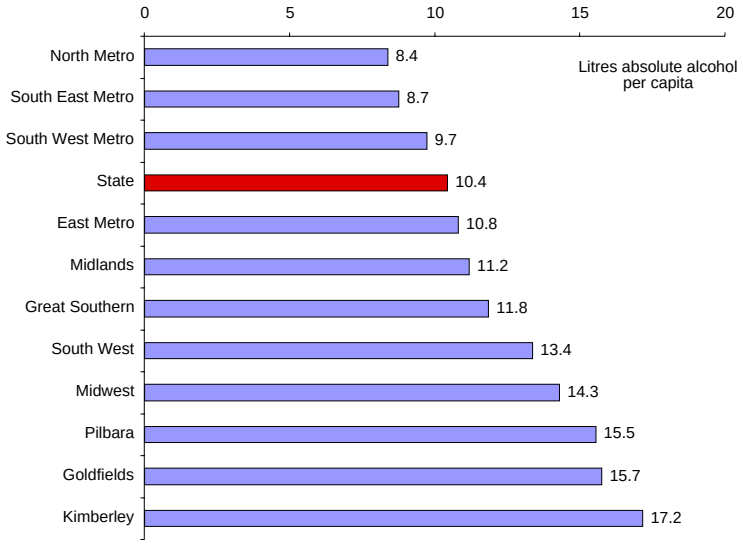


Table 6.2:
Per capita alcohol consumption (litres of absolute alcohol) by Health Zone, 1988/1989-1998/1999

Health Zone	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
North Metro	8.3	8.1	7.9	7.4	7.5	7.4	7.6	7.5	7.6	8.2	8.4
East Metro	14.4	14.5	13.2	12.3	12.6	11.6	12.0	11.6	11.5	11.3	10.8
South East Metro	10.0	9.9	9.3	9.1	9.0	9.1	9.3	8.8	8.9	9.1	8.7
South West Metro	10.5	10.3	9.8	9.4	9.4	9.4	9.8	9.3	9.2	9.6	9.7
Kimberley	18.0	18.1	17.8	18.4	18.9	20.0	18.4	18.4	17.7	17.2	17.2
Pilbara	16.1	15.5	14.4	15.9	15.5	14.5	14.3	15.4	15.3	16.6	15.5
Midwest	15.6	15.3	15.3	15.0	14.6	14.6	15.0	15.4	15.0	14.7	14.3
Midlands	11.9	12.1	10.8	10.9	11.0	11.2	11.1	11.4	10.9	11.0	11.2
Goldfields	17.1	17.1	16.0	15.4	15.5	16.3	16.9	16.0	15.6	15.6	15.7
Great Southern	9.7	10.3	9.6	9.4	9.5	9.5	9.9	10.1	10.0	10.5	11.8
South West	11.4	11.7	10.8	10.8	10.6	10.7	10.9	11.4	11.5	12.0	13.4
Total	**11.2**	**11.1**	**10.5**	**10.1**	**10.1**	**10.0**	**10.3**	**10.1**	**10.0**	**10.3**	**10.4**

6.4 Alcohol prevalence

Adults

The *1997 Tobacco, Alcohol and Illicit Drug Consumption Survey* (TAICS), which was conducted in 1997, contains a breakdown of alcohol prevalence in Western Australia of regular drinkers by age and sex.

Age group	Males	Females
18-24	78	72
25-44	79	64
45-64	78	55
65+	66	38
All ages	77	59

Approximately 78% of males between the ages of 18 and 64 were regular drinkers which decreased to 66% for males 65 years and older.

Regular drinking by females decreased more gradually with age, from 72% (18 to 24 year olds) to 38% (65 years and older).

The survey has information about regular drinkers, aged 18 years and over, who consumed alcohol at levels in excess of the National Health and Medical Research Council recommended limits, ie that they drank at either a hazardous or harmful level.

Hazardous drinking was the consumption by males of between 4 to 6 standard drinks or the consumption by females of 2 to 4 standard drinks on at least one day in the prior week.

Harmful drinking was the consumption by males of more than 6 standard drinks or the consumption by females of more than 4 standard drinks on at least one day in the prior week.

An analysis of the data of the amount of alcohol consumed on the heaviest drinking day in the previous week found that 44% of regular drinkers drank at harmful levels, 22% drank at hazardous levels and 34% drank at low risk levels.

Overall, the highest levels of harmful drinking occurred amongst 18 to 24 year olds, then decreased with age from 62% (18 to 24 year olds) to 17% (65 years and older). Drinking at a hazardous level was highest for 45 to 64 year olds.

For all age groups regular female drinkers were more likely than regular male drinkers to consume alcohol at a hazardous level.

One quarter (24%) of all persons aged 18 years and older drank alcohol at a hazardous or harmful level at least once in the previous week (26% males vs 22% females).

Youth

The *Australian School Student Alcohol and Drug* (ASSAD) was conducted in 1999 and involved West Australian students aged 12 to 17 years.

It was found that alcohol was widely used by students with nine out of ten (90.1%) of all students saying they had ever drunk even part of an alcoholic drink. Just slightly over half (50.7%) of all students had consumed alcohol in the past month and 36.1% had drank alcohol in the past week (Table 6.3).

Table 6.3:
Estimates of prevalence (%) of alcohol use by WA school students aged 12 to 17 years, 1999

	In past week	In past month	In past year	Lifetime
Males	36.6	51.5	74.9	90.6
Females	35.6	49.9	73.7	89.6
Persons	36.1	50.7	74.3	90.1

Patterns of 'at risk' drinking, ie the consumption of five or more drinks by males on one day in the past week or the consumption of three or more drinks by females on one day in the past week, can be identified in the six ASSAD surveys from 1984 to 1999 (Table 6.4). This level of drinking is known to be associated with an increased risk of short term health problems, such as accidents and other injuries and acute pancreatitis.

Comparisons were made between the 1999 survey and all previous surveys on the prevalence of 'at risk' drinking (Table 6.4).

From 1984 (the first ASSAD survey) to 1999 there was a significant rise in 'at risk' drinking among 12 to 15 year olds, increasing from 4.7% to 7.3% for males, from 7.0% to 10.8% for females and from 5.8% to 9.0% for all 12 to 15 year olds.

There was also a significant increase from the 1984 survey to the 1999 survey in 'at risk' drinking among 16 to 17 year olds, from 20.6% to 32.0% for males and from 21.5% to 30.5% for all 16 to 17 year olds.

6.5 Alcohol related injuries

Between July 1998 and December 2000 separate surveys were conducted of presentations to the emergency departments of seven major regional hospitals. The purpose of the research was to identify the contribution of alcohol as a cause of injury in these presentations.

Three of the surveys were 12 month's duration and the remaining four ranged between three and six months in length.

These surveys involved a total of more than 46,000 presentations at emergency departments of which 11,754 (25.4%) involved an injury.

Overall, alcohol was found to be involved in 1,959 (17%) presentations, with alcohol related injuries ranging from 11% to 27% of all injuries at the various regional hospitals as follows.

Total injuries	Alcohol related	% alcohol related
1,748	477	27%
338	82	24%
289	63	22%
489	63	13%
1,571	162	10%
5,780	941	16%
1,539	171	11%

Table 6.4:
At risk drinking of WA school students, 1984-1999

	1984	1987	1990	1993	1996	1999
12-15 year olds						
Males	4.7#	7.4	4.7*	4.7*	5.5	7.3
Females	7.0*	11.7	8.9	5.3*	9.2	10.8
Persons	5.8*	9.5	6.8*	5.0*	7.3	9.0
16-17 year olds						
Males	20.6*	30.5	22.1*	19.2*	27.9	32.0
Females	22.4	27.4	26.0	19.4*	33.9	28.9
Persons	21.5*	28.9	24.1*	19.3*	31.0	30.5

* significantly different from 1999 estimate at p<0.01.
\# significantly different from 1999 estimate at p<0.05.

Analysis of the 1,959 alcohol related injury presentations found that 1,298 (66.3%) involved males and 661 (33.7% involved females. Higher proportions of females were reported at a number of the hospitals which conducted surveys, as follows.

Alcohol related injuries	Males	Females
477	272	205
82	49	33
63	43	20
63	44	19
162	98	64
941	668	273
171	124	47

6.6 Tobacco

In this section data from Australia and other selected jurisdictions is included to provide a broader understanding of tobacco smoking.

As indicated elsewhere in this report, tobacco smoking is the leading cause of drug related deaths in WA, being responsible for 78% of all drug related deaths (with the remaining 17% of deaths due to alcohol and 5% of deaths due to drugs other than tobacco or alcohol).

It should be noted that there are variations in the definition of regular smoking, being defined as smoking daily or most days per week in Australian surveys, at least once per week in European surveys and having smoked in the past month in national surveys in the United States.

Australia vs other jurisdictions: adults

An AIHW study of indices of health found that the rate of regular smoking by Australian adults compared favourably with most other developed countries (Table 6.5). Source: de Looper & Bhatia, 1998.

There is a higher rate of regular smoking by adult males than adult females in all countries except Sweden, where adult females smoke more than adult males. In Denmark men and women have the same rates of smoking.

There are similar male and female rates of regular smoking for adults in most countries except for Spain, Greece, France and Germany and the Asian countries where substantially more males than females are regular smokers (Figure 6.5, page A6-6).

Australia: adult prevalence

Prevalence data for the period 1945 to 1998 shows that in 1945 nearly three times as many Australian adult males as adult females who were regular smokers (72% vs 26%) which had dropped for both males and females by 1998 (29% vs 24%) (Table 6.6). Source: Makkai & McAllister, 1998.

Over the last 25 years the smoking rate of males has decreased by 29%, from 41% in 1974 to 29% in 1998. Compared to males, female rates increased from 26% in 1945 to 31% in 1981 and then have declined by nearly a quarter, to 24% in 1998 (Figure 6.3, page A6-6).

Table 6.5: Prevalence (%) of regular smoking by adults, selected jurisdictions

Country	Year	Age	Males	Females	Country	Year	Age	Males	Females
Australia	1995	14 yrs+	25.9	21.8	Netherlands	1995	15 yrs+	40.9	31.2
Canada	1993	15 yrs+	30.0	28.0	New Zealand	1995	15 yrs+	27.0	26.0
Denmark	1996	15 yrs+	36.0	36.0	Norway	1996	15 yrs+	34.0	33.0
France	1992	15 yrs+	38.0	20.0	Singapore	1992	15 yrs+	29.0	2.0
Germany	1995	15 yrs+	35.6	21.5	Spain	1995	15 yrs+	43.5	24.5
Greece	1994	15 yrs+	46.0	28.0	Sweden	1994	16 yrs+	21.6	23.8
Hong Kong	1990	15 yrs+	29.0	3.0	Switzerland	1992	15 yrs+	30.1	24.1
Ireland	1994	15 yrs+	29.0	28.0	UK	1994	16 yrs+	28.0	26.0
Italy	1994	15 yrs+	38.0	26.0	USA	1992	18 yrs+	28.6	24.6
Japan	1996	20 yrs+	57.5	14.2					

Table 6.6: Prevalence (%) of regular smoking by Australian adults,1945-1998

Year	Males	Females	Year	Males	Females
1945	72	26	1986	33	29
1964	58	28	1988	32	28
1969	45	28	1989	30	27
1974	41	29	1991	30	25
1976	40	31	1993	33	25
1981	40	31	1995	30	25
1983	37	30	1998	29	24
1985	36	30			

Figure 6.3:
Prevalence (%) of regular smoking by Australian adults, 1945-1998

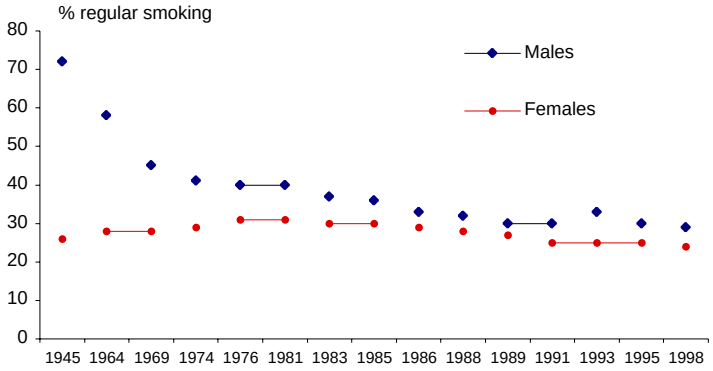
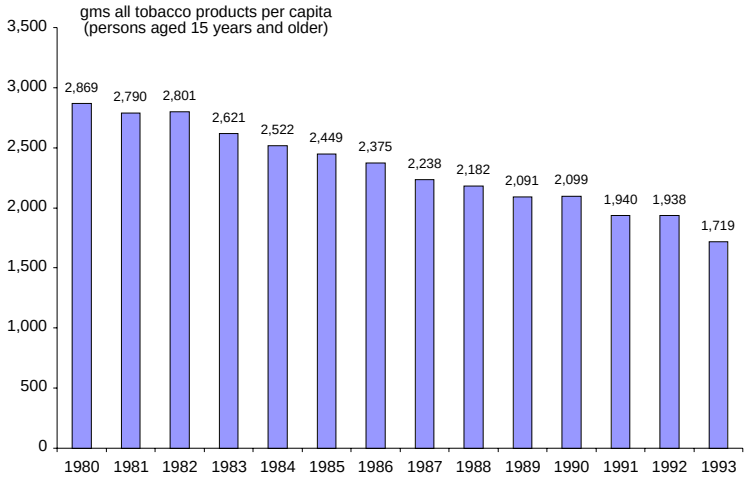


Figure 6.4:
Apparent total adult tobacco consumption (per capita persons aged 15 years and older), Australia, 1980-1993



Australia: adult consumption

Total tobacco consumption in Australia has been declining since the mid 1970s. It has been noted that this coincided with the prohibition of direct tobacco advertising in television and radio in 1976.

From the period 1980 to 1993 consumption declined from 2,869 gms per person aged 15 years and over to 1,719 gms per person, an overall decline of 40% in consumption of tobacco products (Figure 6.4).

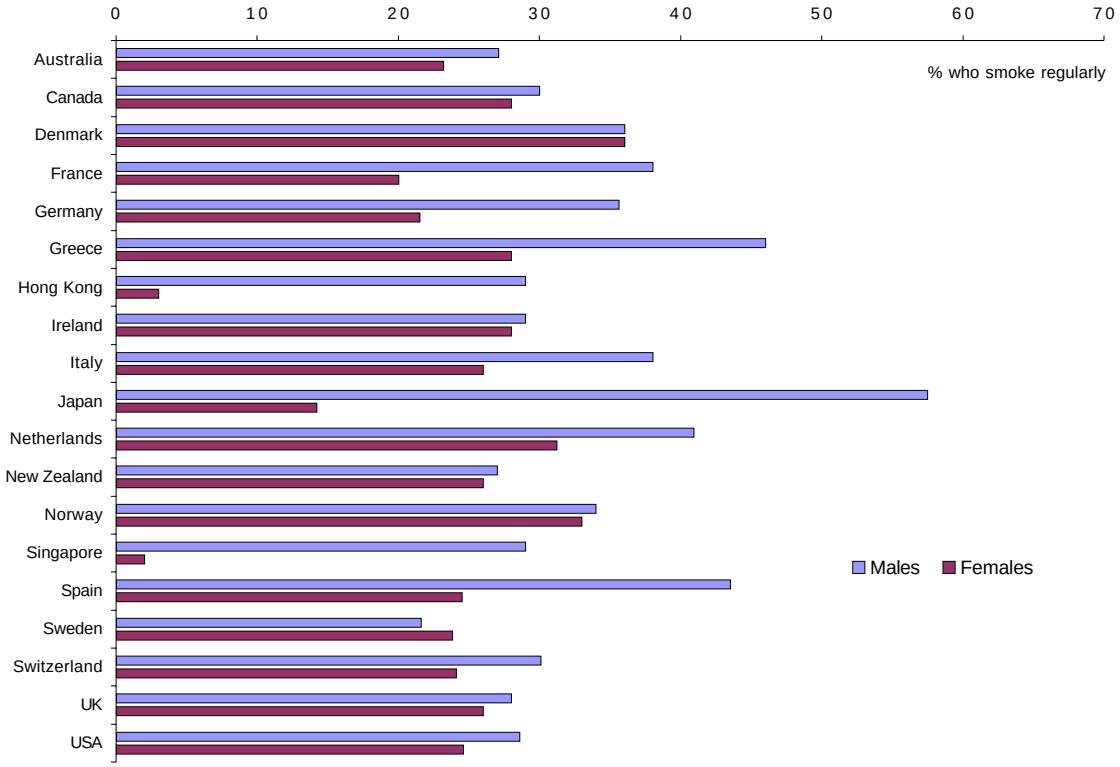
WA: adult prevalence

Recent patterns of prevalence of current West Australian smokers is from the *1997 Tobacco, Alcohol and Illicit Drug Consumption Survey* (TAICS).

The 1997 survey shows that the highest rate of smoking occurred in the 18-24 year age group for both males and females (35% vs 30%). Smoking declined with age for both males and females, as follows.

Age group	Males	Females
18-24	35	30
25-44	33	27
45-64	25	16
65+	13	10
All ages	28	22

Figure 6.5:
Prevalence (%) of regular smoking by adults, Australia & selected jurisdictions



An analysis of smoking status by region in the 1997 TAICS found that metropolitan residents were less likely to be current smokers than country residents (24% vs 29%).

WA: youth prevalence

The *Australian School Student Alcohol and Drug* (ASSAD) was conducted in 1999 and involved West Australian students aged 12 to 17 years.

It was found that more than half (52.0%) of school students aged 12 to 17 had ever used tobacco, with just over a third (35.4%) having used tobacco in the past year. Tobacco had been smoked by one in five (20.5%) students in the past month and by 16.6% of students in the past week (Table 6.7).

Table 6.7: Estimates of prevalence (%) of cigarette smoking by school students aged 12 to 17 years, 1999

	In past week	In past month	In past year	Lifetime
Males	15.9	19.4	32.9	50.6
Females	17.4	21.7	38.0	53.4
Persons	16.6	20.6	35.4	52.0

In relation to current smoking (ie in past week), by females aged 12 to 17, the highest rate, 24.8%, occurred in the 15 year old age group. Compared to males, females aged from 13 to 16 years had a higher prevalence than did males of the same age group (Table 6.8).

Table 6.8: Estimates of prevalence (%) of cigarette smoking in past week by age group of school students aged 12 to 17 years, 1999

	12	13	14	15	16	17
Males	3.9	13.4	19.2	20.0	20.7	26.9
Females	3.4	14.4	24.0	24.8	21.3	17.6
Persons	3.6	13.9	21.5	22.3	21.0	22.2

In relation to current smoking (ie in past week) by males aged 12 to 17, the highest rate, 26.9%, occurred in the 17 year old age group. Compared to females, male prevalence gradually increased with age, and by 17 years exceeded the female rate (26.9% vs 17.6%) (Table 6.8).

An analysis of trends in current smoking (ie past week) from the six ASSAD surveys conducted between 1984 and 1999 is presented in Table 6.9. Over this period decreases in smoking prevalence occurred in all age groups.

In relation to the two most recent surveys, while there was a similar rate for all students aged 12 to 17 years in 1996 (18%) and 1999 (17%), an overall drop of 1%, there were significant shifts within a number of the age groups.

The proportion of current smokers decreased in both the 16 and 17 year age groups - the drop in the 16 year old age was 22% (from 27% in 1996 to 21% in 1999) with a slightly lower drop of 18% for the 17 year age group (from 27% in 1996 to 22% in 1999).

The other decrease in the proportion of current smokers that ocurred over the last two surveys occurred in the 12 year age group, where there was a drop of 50% (from 8% in 1996 to 4% in 1999).

The proportion of current smokers increased in both the 13 and 14 year age groups, with the greatest increase, of 17%, occurring in the 13 year age group (from 12% in 1996 to 14% in 1999). There was an smaller increase, of 10%, in the proportion of current smokers aged 14 years between the last two surveys (from 20% in 1996 to 22% in 1999).

Table 6.9: Estimates of prevalence (%) of cigarette smoking in past week by age group of school students aged 12 to 17 years, 1984-1999

	12	13	14	15	16	17
1984	8	16	27	31	28	25
1987	5	16	26	29	26	25
1990	7	14	21	34	26	25
1993	7	12	21	23	21	23
1996	8	12	20	23	27	27
1999	4	14	22	22	21	22

Regional trends

Overall in the 1999 ASSAD survey, rural students had higher smoking rates than metropolitan students (Table 6.10). It was found that rural students were more likely than metropolitan students to have

- ever smoked tobacco (58.2% vs 49.8%);
- smoked in the past year (38.9% vs 34.0%);
- smoked in the past month (22.9% vs 19.5%); and
- smoked in the past week (18.3% vs 15.9%).

Table 6.10: Estimates of prevalence (%) of cigarette smoking by school students aged 12 to 17 years, metropolitan vs rural, 1999

	Metropolitan	Rural	State
Lifetime	49.8	58.2	52.0
Past year	34.0	38.9	35.4
Past month	19.5	22.9	20.6
Past week	15.9	18.3	16.6

7. Illicit Drugs

7.1 Introduction

This section contains data about trends in the use of illicit drugs from recent national and West Australian surveys involving adults and school students, as follows.

- The *National Mental Health Survey* of use of medications conducted in 1995 (involving persons aged 15 years and over).
- The *National Drug Strategy Household Survey* (NDSHS) conducted in 1998 (involving persons aged 14 years and older).
- The *Tobacco, Alcohol and Illicit Drug Consumption Survey* (TAICS) conducted in February 1997 (involving persons aged 18 years and older).
- The *Australian School Student Alcohol and Drug Survey* (ASSAD) conducted in 1999 (involving students from years 7 to 12).

Table 7.1:
Estimated number of persons aged 14 years and over who have used illicit drugs, 1998

	Lifetime	Last year
Cannabis	643,020	319,115
Steroids	9,810	2,295
Inhalants	62,080	18,805
Heroin	45,435	20,780
Amphetamines	149,870	84,125
Cocaine	59,030	18,395
Hallucinogens	175,510	55,050
Ecstasy/designer drugs	95,970	71,825
Any illicit drug	741,565	364,175
Any illicit drug excluding cannabis	373,225	184,685

7.2 Adults

1995 National Mental Health Survey

This survey found that in the past year 2.2% of Australian adults (3.1% males vs 1.3% females) had a substance use disorder involving drugs other than alcohol. Cannabis accounted for more substance use disorders than any other illicit drug, with 1.7% of Australian adults having had a cannabis use disorder (2.5% males vs 0.8% females).

1998 NDS Household Survey

This survey found that 51.4% of West Australians aged 14 years and older had ever used any illicit drug in their lifetime. If cannabis is excluded, then 26.0% had ever used any other illicit drug in their lifetime (Figure 7.1).

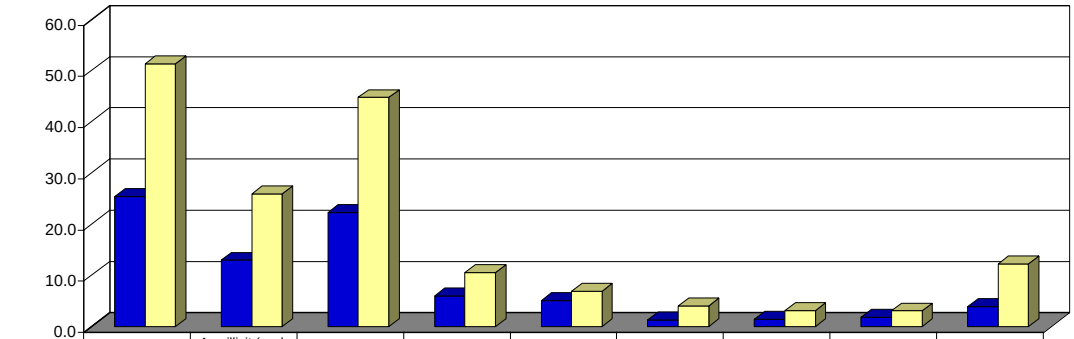
The 1998 NDSHS also found that in the past year 25.4% of West Australians aged 14 years and older had used any illicit drug. If cannabis is excluded then 13.0% had used any other illicit drug in the past year (Figure 7.1).

It was estimated that 741,565 persons aged 14 years and older had used any illicit drug in their lifetime. Of these, a total of 373,225 (50.3%) had used any illicit drug other than cannabis in their lifetime (Table 7.1).

The survey also estimated that there was a total of 364,175 persons aged 14 years and older who had used any illicit drug in the last 12 months. Of these, a total of 184,685 (50.7%) had used any illicit drug other than cannabis in the last year (Table 7.1).

Cannabis is the most prevalent illicit drug ever used, used by 44.8% of persons aged 14 years and older. This is followed by hallucinogens (12.3%), amphetamines (10.6%), ecstasy (6.9%), cocaine (4.1%) and heroin (3.2%). Overall, 3.1% of persons aged 14 years and older reported having ever injected an illicit drug.

Figure 7.1:
Recency of use (%) of illicit drugs by persons aged 14 years and over, 1998



	Any illicit	Any illicit (excl. cannabis)	Cannabis	Amphetamines	Ecstasy	Cocaine	Heroin	Injected drugs	Hallucinogens
Last year	25.4	13.0	22.3	6.0	5.1	1.3	1.5	1.8	3.9
Lifetime	51.4	26.0	44.8	10.6	6.9	4.1	3.2	3.1	12.3

Note:
In the NDSHS illicit drugs were defined as illegal drugs, drugs and volatile substances used illicitly, and pharmaceuticals used for non medical purposes.

Analysis of patterns of use in the last year indicates that 22.3% of persons aged 14 years and older have used cannabis, followed by amphetamines (6.0%), ecstasy (5.1%) and hallucinogens (3.9%). Cocaine and heroin were used by relatively few people, with about 1% of West Australians having used either of these drugs.

Regional trends

Overall, the 1997 TAICS found similar rates for both the metropolitan and the country area (Table 7.2, page A7-2).

There was a higher rate of ever use of cannabis in the metropolitan area compared to the country area (42.4% vs 38.1%) whereas there was a slightly lower rate of use in the past year in the metropolitan area than the country area (14.8% vs 16.4%).

Table 7.2:
Prevalence (%) of illicit drug use by persons aged 18 years and older, 1997

	Lifetime	Past year	Past month	Past week
Metropolitan				
Cannabis	42.4	14.8	10.0	5.7
Amphetamines	9.4	3.1	1.3	0.1
Ecstasy	5.5	2.4	0.7	<0.1
LSD	10.4	3.4	1.0	*
Heroin	2.4	0.5	0.3	0.2
Cocaine	3.9	0.9	0.1	*
Country				
Cannabis	38.1	16.4	9.6	6.0
Amphetamines	7.9	2.6	1.5	0.4
Ecstasy	4.2	1.6	0.2	*
LSD	9.2	3.3	1.3	0.2
Heroin	3.1	1.3	0.2	0.2
Cocaine	3.3	0.2	*	*
State				
Cannabis	41.7	15.1	10.0	5.8
Amphetamines	9.2	3.1	1.4	0.2
Ecstasy	5.3	2.3	0.6	<0.1
LSD	10.2	3.4	1.0	<0.1
Heroin	2.5	0.6	0.4	0.2
Cocaine	3.8	0.8	0.1	0.1

* No users in survey sample.

Table 7.3:
Use of drugs by male and female school students aged 12-17 years, 1999

	Lifetime	Past year	Past month	Past week
Minor analgesics	96.4	93.2	73.1	44.9
Cannabis	38.3	33.2	20.4	12.7
Tranquillisers	20.8	13.2	5.7	3.3
Inhalants	20.3	14.9	8.0	5.0
Amphetamines	14.3	11.9	6.3	3.8
Steroids	3.5	2.3	1.3	0.9
Cocaine	4.0	3.1	1.5	0.9
Ecstasy	6.4	5.3	2.6	1.4
Heroin	4.1	3.1	1.7	1.1
LSD/hallucinogens	10.1	7.6	3.1	1.5
Injected drugs	5.9	4.6	2.8	1.5

7.3 School students

Illicit drugs were defined in the 1999 ASSAD survey as cannabis, tranquillisers, steroids, inhalants, amphetamines, ecstasy, cocaine, heroin and LSD/hallucinogens.

Nearly four in 10 (38.3%) of West Australian school students aged 12 to 17 years had ever used cannabis, with one third (33.2%) having used in the past year and one in five (20.4%) having used in the past month (Table 7.3).

Amphetamines were the second most prevalent illicit drug having been ever used by 14.3% of WA school students, with 11.9% having used in the past year and 6.3% used in the past month.

The third most prevalent illicit drug used by WA school students was LSD/hallucinogens with one in 10 having ever used, 7.6% having used in the past year and 3.1% used in the past month.

Regional trends

In the 1999 ASSAD survey differences were found between metropolitan and country students in the lifetime prevalence for the following more commonly used drugs (Table 7.4, page A7-3):

- minor analgesics (96.1% vs 97.5%);
- alcohol (89.0% vs 93.6%);
- tobacco (49.8% vs 58.2%); and
- cannabis (36.1% vs 44.7%).

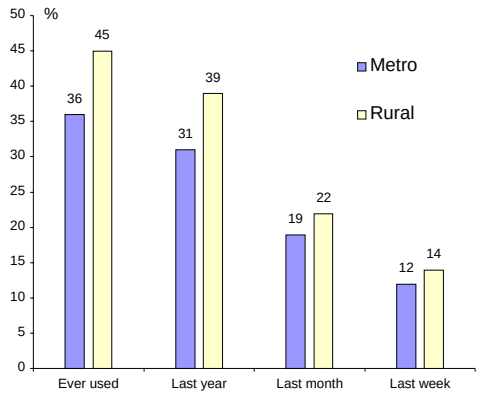
Metropolitan students also had lower rates of use in the past year than country students for (Figure 7.3, page A7-4):

- minor analgesics (92.9% vs 94.3%);
- alcohol (72.9% vs 78.7%);
- tobacco (34.0% vs 38.9%); and
- cannabis (31.3% vs 38.6%).

No differences in prevalence were recorded between metropolitan and country students for the majority of illicit drugs, including tranquillisers, inhalants, LSD/hallucinogens, ecstasy, amphetamines, heroin, cocaine or steroids.

It was found that students living in country areas were more likely than metropolitan students to have experimented with and used cannabis, particularly in the longer term periods (Figure 7.2, page A7-3). Although these differences occurred for both males and females, there were greater differences between metropolitan and country female students.

Figure 7.2:
Use of cannabis by metro vs country-school students 12-17 years, 1999

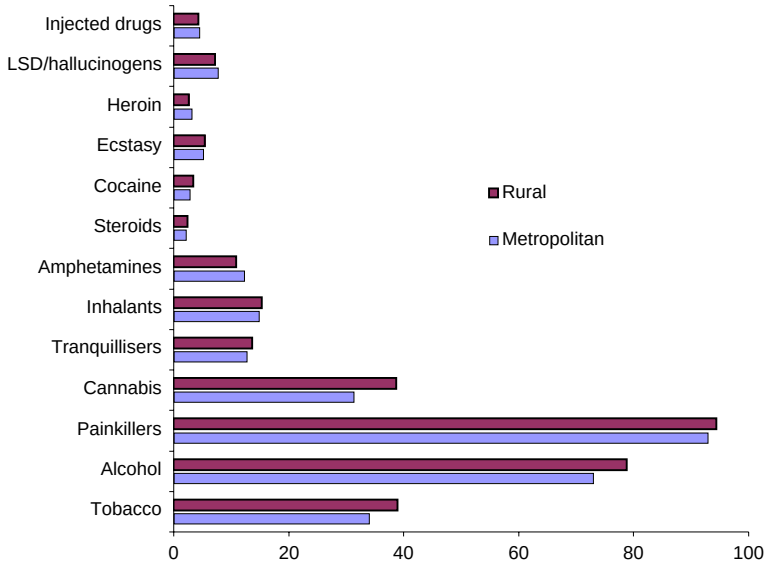


Just under half of country students (45%) compared to just over a third of metropolitan students (36%) had ever used cannabis with nearly four out of ten (39%) country students vs just over three out of 10 (31%) metropolitan students having used in the past year (Figure 7.2, page A7-3).

Table 7.3:
Use of drugs by school students 12-17 years, metropolitan vs country, 1999

	Metropolitan		Rural	
	Lifetime	Past year	Lifetime	Past year
Tobacco	49.8	34.0	58.2	38.9
Alcohol	89.0	72.9	93.6	78.7
Minor analgesics	96.1	92.9	97.5	94.3
Cannabis	36.1	31.3	44.7	38.6
Tranquillisers	20.7	12.7	20.3	13.6
Inhalants	20.1	14.8	21.3	15.3
Amphetamines	14.6	12.2	13.0	10.8
Steroids	3.4	2.1	3.4	2.3
Cocaine	3.9	2.8	3.7	3.3
Ecstasy	6.3	5.1	6.3	5.3
Heroin	4.1	3.1	3.7	2.6
LSD/hallucinogens	10.0	7.7	10.0	7.1
Injected drugs	5.9	4.5	5.7	4.2

Figure 7.3:
Use of drugs in past year (%), school students 12-17 years, metropolitan vs rural, 1999



8. Treatment Services

8. 1 Introduction

This section provides a summary of trends in admissions to treatment services compiled from data on the utilisation of the following programs:

- Community Drug Service Teams (CDSTs) and non government organisations (NGOs);
- Next Step Specialist Drug and Alcohol Services' programs; and
- non government pharmacotherapy programs.

8. 2 Utilisation of services

Service information about CDSTs and NGOs was compiled from the PICASO data system for metropolitan programs and data manually extracted from six monthly activity reports for non metropolitan programs. PICASO is maintained by the WA Drug Abuse Strategy Office.

Metropolitan programs had details for type of service and type of drug problem, whereas non metropolitan programs only had data for type of service. Metropolitan programs had details for the number of admissions and the number of episodes of treatment, whereas non metropolitan programs only had data for admissions.

Table 8.1: Utilisation of treatment services by type of service, number of admissions, 1998-2000

Type of service	1998	1999	2000
Next Step programs			
Detoxification (inpatient)	770	767	511
Outpatient	726	1,776	1,291
Pharmacotherapies			
Methadone	1,289	1,078	989
Naltrexone (alcohol)	1	40	112
Naltrexone (opiates)	0	425	969
Other	7	15	41
Total Next Step	**2,793**	**4,101**	**3,913**
CDSTs/NGO programs			
Metropolitan			
Detoxification (inpatient)	634	692	761
Residential	914	1,372	1,753
Outpatient	3,952	6,092	6,468
Other	335	179	334
Sub total metropolitan	**5,835**	**8,335**	**9,316**
Country			
Residential	100	105	77
Outpatient	523	2,122	2,250
Sub total country	**623**	**2,227**	**2,327**
Total CDST/NGOs	**6,458**	**10,562**	**11,643**
NGO pharmacotherapies			
Community methadone	719	1,203	1,427
Perth Naltrexone Clinic	624	1,027	1,301
Total NGO pharmacotherapies	**1,343**	**2,230**	**2,728**
Total all programs	**10,594**	**16,893**	**18,284**

Overview

There was a total of 10,594 admissions to all programs (ie Next Step programs, CDST/NGO programs and NGO pharmacotherapies) in WA in the year 1998 (Table 8.1). Admissions to all programs in the year 2000 increased by 72.6%, with a total of 18,284 admissions.

Admissions to NGOs/CDSTs as a proportion of admissions to all programs increased over the three year period, from 61.0% of all admissions in the year 1998 to 63.7% of all admissions in the year 2000.

Admissions to Next Step programs as a proportion of admissions to all programs decreased over the three year period, from 26.4% of all admissions in the year 1998 to 21.4% of all admissions in the year 2000.

Over the three year period admissions to non government pharmacotherapy programs, as a proportion of admissions to all programs, increased from 12.7% of all admissions in the year 1998 to 14.9% of all admissions in the year 2000. The Perth Naltrexone Clinic accounted for 7.1% of all admissions to all programs in the year 2000.

The number of persons treated by the Perth Naltrexone Clinic conducted by Dr George O'Neil increased by 108%, from 624 in 1998 to 1,301 in 2000.

CDSTs and NGOs

Utilisation of programs provided by CDSTs and NGOs increased by 80.2%, from 6,458 admissions in 1998 to 11,643 admissions in 2000 (Table 8.1).

In the year 1998 admissions to metropolitan CDSTs/NGOs represented 90.3% of all admissions to all CDSTs/NGOs and decreased to 80.0% in the year 2000.

CDSTs/NGOs provide two major types of service, outpatient programs and residential programs. In the year 2000 there was a total of 11,643 admissions, of which 8,718 (74.9%) admissions involved outpatient programs and 1,830 (15.7%) admissions involved residential programs.

Table 8.2:
Utilisation of services - CDST/NGO programs, number of episodes by type of service, metropolitan area, 1998-2000

Type of service	1998	1999	2000
Detoxification (inpatient)	1,081	1,252	1,307
Residential	1,142	1,679	2,136
Outpatient	4,458	6,690	7,028
Other	340	181	341
Total episodes	**7,021**	**9,802**	**10,812**

Consistent with availability, metropolitan services showed a greater utilisation of the more intensive residential and inpatient detoxification programs (Table 8.2).

In the year 2000, of the 10,812 episodes of service in the metropolitan area, 12.1% involved inpatient detoxification programs (vs 8.2% of admissions), 19.7% involved residential programs (vs 18.8% of admissions) and 65.0% involved outpatient programs (vs 69.4% of admissions).

The number of admissions included in these tables do not reflect metropolitan outreach services which provided harm reduction education and youth support and referral in Perth and outer metropolitan suburbs. Only one Aboriginal program is included, the Noongar Aboriginal Substance Abuse Service.

Next Step

Utilisation of Next Step programs increased by 40.1%, from 2,793 admissions in 1998 to 3,913 admissions in 2000 (Table 8.1, page A8-1).

In the year 2000, of the 3,913 admissions, 1,291 (33.0%) involved outpatient services, 989 (25.3%) involved the methadone program, 969 (24.8%) involved the naltrexone program and 511 (13.1%) involved the inpatient detoxification program.

The drop in admissions to the inpatient detoxification facility that occurred in the year 2000 was due to closure of the Central Drug Unit (CDU) for renovations. The CDU is one of a number of places in the health system where inpatient detoxification can be provided.

Inpatient treatment at hospitals

The total contribution of the health system in detoxifying drug dependent individuals can be more fully understood by analysis of inpatient data based on drug and alcohol specific diagnostic related groups (DRGs).

In the year 2000 there was a total of 4,077 admissions (DRGs numbers 860 to 863), of which 555 admissions (13.6%) involved the CDU with the remaining 3,522 admissions (86.4%) at other hospitals.

Type of drug

A breakdown of admissions by type of drug problem is contained in Table 8.3, page A8-3 covering only admissions to Next Step and programs by metropolitan CDSTs/NGOs.

An analysis of admissions to metropolitan programs shows differences in the proportion of the treatment population at Next Step compared to CDSTs/NGOs, who had a primary drug problem involving:

- heroin (42.0% vs 13.1%);
- other opioids (11.8% vs 0.6%);
- alcohol (17.3% vs 25.1%);
- amphetamines and other stimulants (5.5% vs 16.2%); and
- cannabis (1.8% vs 16.4%).

The high proportion of heroin related admissions in Next Step admissions reflects their ongoing role in providing methadone and more recently naltrexone as treatments for heroin dependence.

Next Step methadone program

Complete data for the treatment population from 1973 to 1977 is unavailable as a number of private GPs also prescribed methadone. From 1978 to mid 1997 all methadone treatment in Western Australia was provided by Next Step Specialist Drug and Alcohol Services (formerly known as the Alcohol and Drug Authority).

There has been a consistent pattern of a greater number of males than females involved in methadone treatment programs in this State since 1978 (Figure 8.1, page A8-4).

The proportion of males attending the Next Step program has been decreasing gradually since the late 1970s. In the March quarter 1978 there were 259 persons who received methadone, of whom 183 (70.7%) were males (Table 8.4, page A8-5). In the March quarter 1997 there was a total of 997 persons who received methadone, of whom 573 (57.5%) were males (Table 8.5, page A8-5).

Since the inception of the community based methadone program about six out of 10 of all those receiving treatment were males. In the March quarter 2001 there was a total of 2,243 persons who received methadone of whom 1,347 (60.1%) were males.

Over the 26 year period from 1973 to 1998 a total of 4,274 distinct heroin dependent individuals were treated with methadone in this State. Since the early 1990s the number of people who attended the Next Step methadone program increased and peaked in 1997 with a total of 1,537 unique individuals in treatment.

Table 8.3:
Utilisation of services - Next Step and metropolitan CDST/NGO programs, number of admissions by type of drug problem, 1998 - 2000

Type of drug	1998	1999	2000
Next Step			
Licit			
Alcohol	287	323	679
Pharmaceuticals - benzodiazepines	49	39	75
Pharmaceuticals - other	6	46	16
Other licit	0	0	4
Illicit			
Heroin	549	959	1,642
Other opioids	78	82	462
Cannabis	32	44	69
Amphetamines & other stimulants	32	59	215
Cocaine	0	1	1
Hallucinogens/designer drugs	0	4	5
Volatile substances	0	0	6
Poly drugs	0	0	3
Other illicit	0	2	10
Other			
Significant other's AOD use	0	0	0
Not stated/other	1,760	2,542	726
Total Next Step	**2,793**	**4,101**	**3,913**
Metropolitan CDSTs/NGOs			
Licit			
Alcohol	1,469	1,874	1,942
Pharmaceuticals - benzodiazepines	51	57	69
Pharmaceuticals - other	16	16	25
Other licit	16	23	36
Illicit			
Heroin	817	1,175	1,018
Other opioids	5	16	44
Cannabis	676	1,017	1,273
Amphetamines & other stimulants	340	742	1,255
Cocaine	15	17	16
Hallucinogens/designer drugs	21	31	38
Volatile substances	57	75	45
Poly drugs	177	267	130
Other illicit	0	0	2
Other			
Significant other's AOD use	1,051	1,428	842
Not stated/other	155	259	1,011
Total metropolitan CDSTs/NGOs	**4,866**	**6,997**	**7,746**
All programs			
Licit			
Alcohol	1,756	2,197	2,621
Pharmaceuticals - benzodiazepines	100	96	144
Pharmaceuticals - other	22	62	41
Other licit	16	23	40
Illicit			
Heroin	1,366	2,134	2,660
Other opioids	83	98	506
Cannabis	708	1,061	1,342
Amphetamines & other stimulants	372	801	1,470
Cocaine	15	18	17
Hallucinogens/designer drugs	21	35	43
Volatile substances	57	75	51
Poly drugs	177	267	133
Other illicit	0	2	12
Other			
Significant other's AOD use	1,051	1,428	842
Not stated/other	1,915	2,801	1,737
Total all programs	**7,659**	**11,098**	**11,659**

Since the expansion of the community based methadone the Next Step treatment population has decreased, with just under 1,300 unique individuals treated in 1998 (Figure 8.2, page A8-4).

A decreasing proportion of the Next Step treatment population has involved first time admissions. In 1990 there were 710 unique individuals who received treatment, of whom 153 (21.5%) were new admissions. In 1998 there were 1,293 unique individuals who received treatment, of whom 141 (10.9%) were new admissions (Table 8.6, page A8-6).

From 1992 to mid 1997 there has been a gradual increase in the number of persons participating in methadone programs in this State each quarter. Much of the growth since 1997 has been due to the availability of community based methadone, whereas the number of people participating in the Next Step methadone program has gradually declined (Figure 8.3, page A8-4).

Data on length of stay is at presently only available for the Next Step methadone program from the first quarter 1986. Two indices of treatment participation are presented in Figure 8.4 (page A8-6), mean length of stay of population remaining in treatment per quarter and mean length of stay of persons who have ceased treatment per quarter.

The mean length of stay of the treatment population has continuously increased from 1986 up to the present. There was a more than threefold increase in duration of treatment, from a mean of 15.3 months in the March quarter 1986 to a mean of 52.5 months in the March quarter 2001 (Figure 8.4, page A8-6).

The mean length of stay of the treatment population who complete treatment each quarter has also steadily increased from 1986 up to the present. Duration of treatment episode increased from a mean of 5.9 months in the March quarter 1986 to a mean of 18.1 months in the March quarter 2001 (Figure 8.4, page A8-6).

Community based methadone

The number of persons in methadone programs in this State has sharply increased due to the introduction of a community based methadone program in mid 1997. This expansion involved trained and accredited general practitioners in the metropolitan area and elsewhere in the State prescribing methadone.

The number of people per year in community based methadone almost doubled from 719 in 1998 to 1,427 in 2000 (Table 8.1 page A8-1).

Figure 8.1:
Number of males and females participating in Next Step methadone program, March quarter 1978 - March quarter 2001

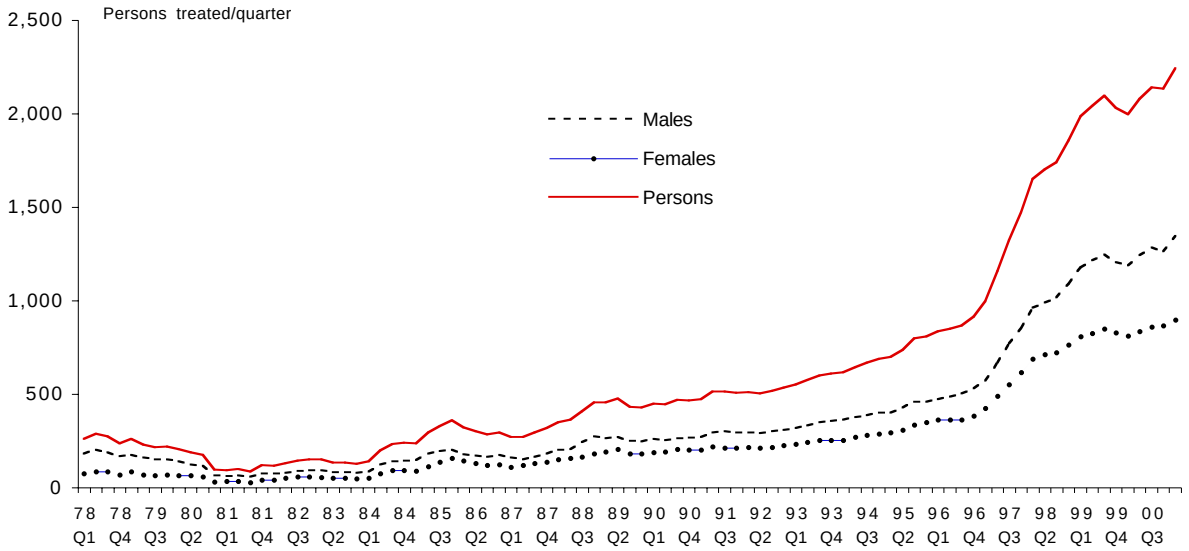


Figure 8.2:
Annual admissions to Next Step methadone program, 1973-1998

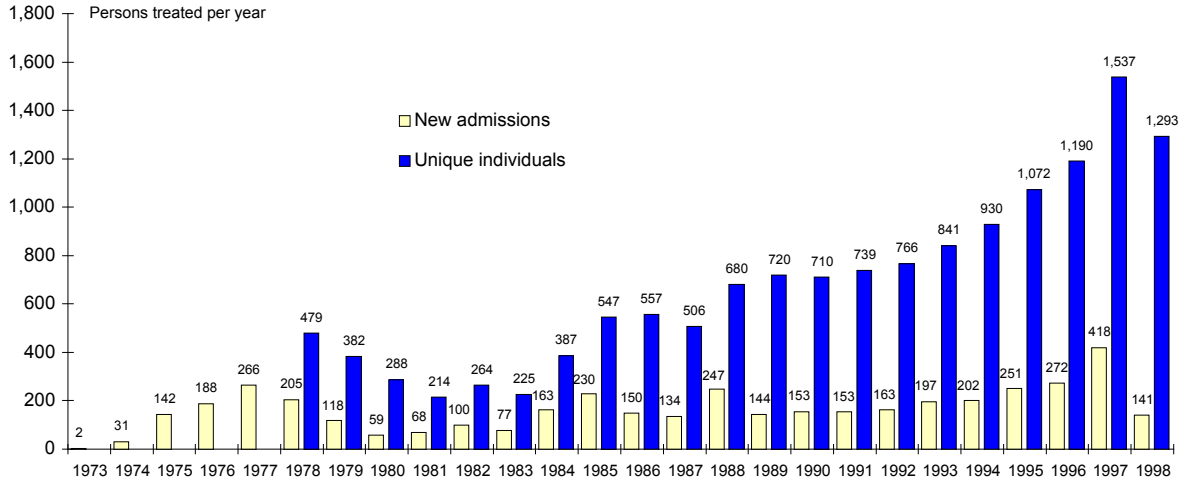


Figure 8.3:
Number of admissions to methadone programs, March quarter 1992 - March quarter 2001

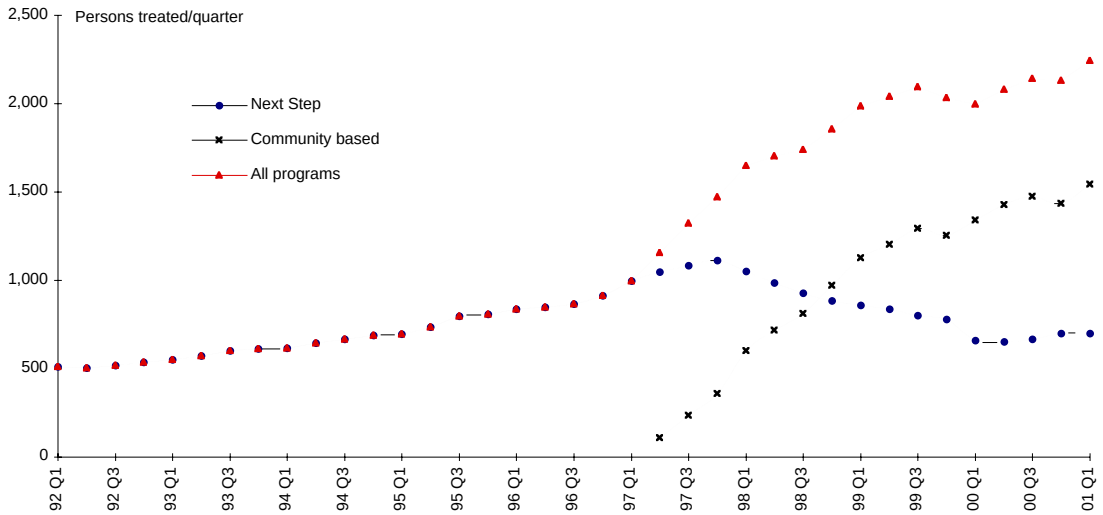


Table 8.4:
Number of males and females participating in Next Step methadone program, March quarter, 1978 - December quarter 1996

Year	Quarter	Males	Females	Persons
1978	January-March	183	76	259
	April-June	201	86	287
	July-September	187	86	273
	October-December	167	70	237
1979	January-March	175	85	260
	April-June	162	68	230
	July-September	152	65	217
	October-December	152	67	219
1980	January-March	141	65	206
	April-June	124	66	190
	July-September	116	59	175
	October-December	65	30	95
1981	January-March	60	34	94
	April-June	65	34	99
	July-September	58	29	87
	October-December	77	42	119
1982	January-March	77	41	118
	April-June	80	50	130
	July-September	88	57	145
	October-December	92	59	151
1983	January-March	93	56	149
	April-June	81	51	132
	July-September	82	52	134
	October-December	78	48	126
1984	January-March	87	52	139
	April-June	124	76	200
	July-September	141	92	233
	October-December	145	94	239
1985	January-March	148	90	238
	April-June	182	113	295
	July-September	194	136	330
	October-December	202	156	358
1986	January-March	179	144	323
	April-June	171	129	300
	July-September	163	121	284
	October-December	174	122	296
1987	January-March	160	110	270
	April-June	150	119	269
	July-September	166	130	296
	October-December	181	137	318
1988	January-March	201	149	350
	April-June	207	157	364
	July-September	243	165	408
	October-December	274	183	457
1989	January-March	262	193	455
	April-June	271	204	475
	July-September	250	182	432
	October-December	246	183	429
1990	January-March	259	188	447
	April-June	254	192	446
	July-September	265	204	469
	October-December	266	201	467
1991	January-March	270	202	472
	April-June	294	220	514
	July-September	303	212	515
	October-December	294	214	508
1992	January-March	295	215	510
	April-June	292	213	505
	July-September	301	216	517
	October-December	308	227	535
1993	January-March	320	232	552
	April-June	331	243	574
	July-September	348	253	601
	October-December	356	255	611
1994	January-March	362	255	617
	April-June	376	269	645
	July-September	386	281	667
	October-December	401	288	689
1995	January-March	402	295	697
	April-June	428	307	735
	July-September	460	337	797
	October-December	459	350	809
1996	January-March	473	363	836
	April-June	486	363	849
	July-September	502	363	865
	October-December	531	382	913

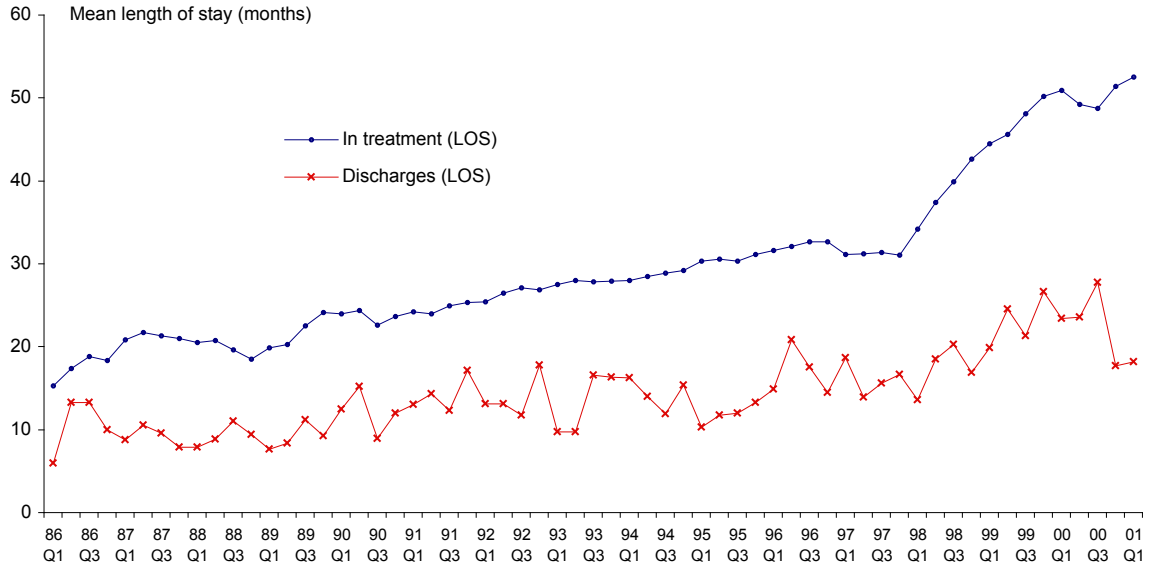
Table 8.5:
Number of males and females participating in all methadone programs, March quarter, 1997 - March quarter 2001

		Next Step			Community			All programs		
		Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1997	January-March	573	424	997				573	424	997
	April-June	600	448	1,048	67	41	108	667	489	1,156
	July-September	629	455	1,084	141	96	237	770	551	1,321
	October-December	638	476	1,114	216	141	357	854	617	1,471
1998	January-March	606	444	1,050	356	244	600	962	688	1,650
	April-June	561	423	984	430	289	719	991	712	1,703
	July-September	525	403	928	493	318	811	1,018	721	1,739
	October-December	487	397	884	603	368	971	1,090	765	1,855
1999	January-March	478	382	860	700	427	1,127	1,178	809	1,987
	April-June	477	361	838	738	465	1,203	1,215	826	2,041
	July-September	457	344	801	791	504	1,295	1,248	848	2,096
	October-December	445	334	779	759	494	1,253	1,204	828	2,032
2000	January-March	376	283	659	812	527	1,339	1,188	810	1,998
	April-June	368	283	651	876	551	1,427	1,244	834	2,078
	July-September	373	293	666	910	565	1,475	1,283	858	2,141
	October-December	383	315	698	882	552	1,434	1,265	867	2,132
2001	January-March	398	301	699	949	595	1,544	1,347	896	2,243

Table 8.6:
Annual admissions to Next Step methadone program 1973-1998

Year	Unique individuals	New	% new	Cumulative new
1973	na	2	-	2
1974	na	31	-	33
1975	na	142	-	175
1976	na	188	-	363
1977	na	266	-	629
1978	479	205	42.8	834
1979	382	118	30.9	952
1980	288	59	20.5	1,011
1981	214	68	31.8	1,079
1982	264	100	37.9	1,179
1983	225	77	34.2	1,256
1984	387	163	42.1	1,419
1985	547	230	42.1	1,649
1986	557	150	26.9	1,799
1987	506	134	26.5	1,933
1988	680	247	36.3	2,180
1989	720	144	20.0	2,324
1990	710	153	21.6	2,477
1991	739	153	20.7	2,630
1992	766	163	21.3	2,793
1993	841	197	23.4	2,990
1994	930	202	21.7	3,192
1995	1,072	251	23.4	3,443
1996	1,190	272	22.9	3,715
1997	1,537	418	27.2	4,133
1998	1,293	141	10.9	4,274

Figure 8.4:
Mean length of stay of Next Step methadone treatment population March quarter 1986 - March quarter 2001



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