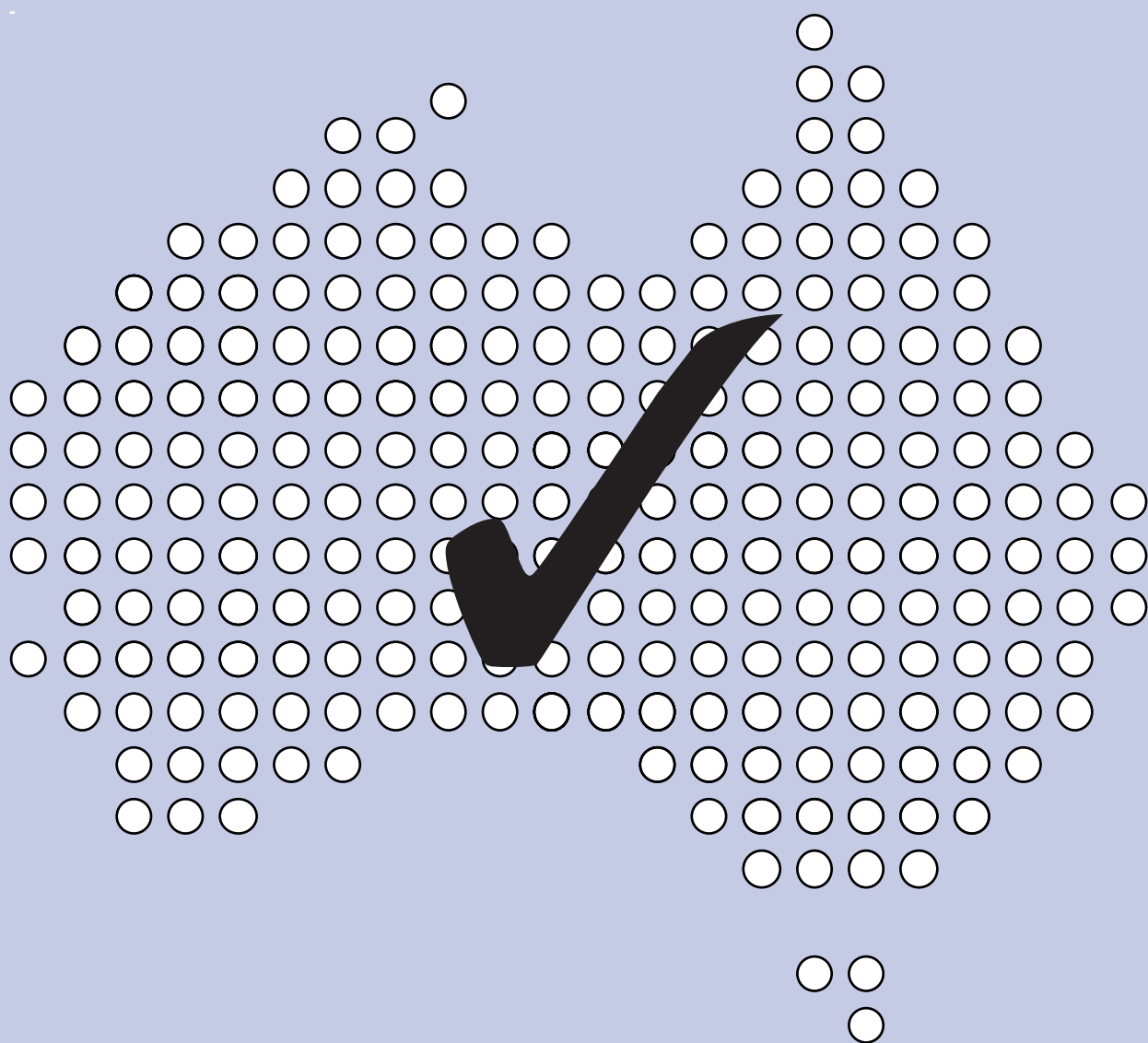


Progress of the National Drug Strategy: Key National Indicators



Evaluation of the National Drug Strategy
1993-1997

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Evaluation of the
National Drug Strategy
1993–1997
Statistical Supplement

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Consultant to the National Drug Strategy Evaluation

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Contents

Acknowledgments		vi
Executive summary		vii
Chapter 1	Introduction	1
	Background	1
	Mission	2
	Key Policy Goals	2
	Key Results Areas	2
	Key Policy Objectives	2
	Limitations of the Key National Indicators	3
Chapter 2	Methods	5
	Data sets	5
	Data definitions	5
	Indicator amendments	5
	A note on illicit drug use	6
Chapter 3	Results	7
	Tobacco	7
	Alcohol	24
	Pharmaceuticals	42
	Illicit drugs	50
	All drugs	76
Chapter 4	Conclusion	89
	Tobacco	89
	Alcohol	90
	Pharmaceuticals	90
	Illicit drugs	91
	All drugs	91
	Future directions	92
Appendix A	Data Set Descriptions	93
Appendix B	Table/figure notes	99
Appendix C	Range of possible other indicators	111
Abbreviations and acronyms		117
References		118

List of Tables

Table 1	Proportion of adults (16 years and over) which currently smokes on a regular basis	8
Table 2	Smoking prevalence among adults in socioeconomically disadvantaged groups	9
Table 3	Proportion of youth (aged 14–17 years) which smoked in the past week	11
Table 4	Proportion of smokers who are taking action to stop	12
Table 5	Proportion of adults from a non-English-speaking background who smoke on a regular basis	13
Table 6	Pregnant women aged 18 years and over: smoker status	14
Table 7	Comparison of prevalence of tobacco consumption, Indigenous and non-Indigenous Australians	15
Table 8	Proportion of adults which has never smoked	17
Table 9	Proportion of youth which has never smoked regularly	18
Table 10	Proportion of employees whose workplace has a non-smoking or restricted smoking policy	19
Table 11	Proportion of children potentially exposed to tobacco smoke in the home	20
Table 12	Deaths due to tobacco using aetiological fractions	22
Table 13	Hospital separations from conditions associated with active smoking	23
Table 14	Deaths due to alcohol using aetiological fractions	26
Table 15	Hospital separations from conditions associated with alcohol use	27
Table 16	Proportion of drinkers who consumed alcohol at hazardous or harmful levels at least one day a week	28
Table 17	Comparison of the frequency of hazardous or harmful drinking, Indigenous and non-Indigenous drinkers	29
Table 18	Alcohol risk level, pregnant women aged 18 years and over	30
Table 19	Proportion of drinkers who usually consume at hazardous or harmful levels	32
Table 20	Proportion of senior school students drinking 5 or more (males) or 3 or more drinks (females) in one session	33
Table 21	Comparison of the proportions of senior school students drinking 5 or more (males) or 3 or more drinks (females) in one session, Indigenous and non-Indigenous persons	34
Table 22	Persons killed in motor vehicle crashes where at least one vehicle operator had a BAC of 0.05+ or refused to be tested	36
Table 23	Fatal road accidents, proportion of which are alcohol related, by year	37
Table 24	Number of random breath checks, total and proportion positive	39
Table 25	Alcohol related physical and verbal assaults, property loss or damage, by gender	41
Table 26	Proportion of hospital drug poisoning admissions which are related to the use of tranquillisers, antidepressants, analgesics, hypnotics, sedatives	43
Table 27	Proportion of young people who use prescribed drugs for non-medical reasons	44
Table 28	Proportion of older people who use prescribed drugs for non-medical reasons	46

Table 29	Persons aged 65 years+ by number of pain relievers, sleeping medications and tranquillisers	47
Table 30	Persons receiving prescriptions for benzodiazepines, by duration of usage	49
Table 31	Prevalence of marijuana use in the past 12 months	51
Table 32	Prevalence of inhalant use in the past 12 months	52
Table 33	Prevalence of hallucinogen use in the past 12 months	53
Table 34	Prevalence of ecstasy (or other designer drug) use in the past 12 months	55
Table 35	Prevalence of amphetamine use in the past 12 months	56
Table 36	Prevalence of cocaine use in the past 12 months	57
Table 37	Prevalence of heroin use in the past 12 months	59
Table 38	Prevalence of any hard drug use in the past 12 months	60
Table 39	Prevalence of at least one illicit drug use in the past 12 months	61
Table 40	Proportion of 14–19 year olds which has never used illicit drugs	63
Table 41	Deaths due to illicit drugs using aetiological fractions	64
Table 42	Hospital separations from conditions associated with illicit drug use	67
Table 43	Number and proportion of all motor vehicle deaths which are drug related (excluding alcohol)	68
Table 44	Incidence of IDU related HIV diagnoses	69
Table 45	Sharing of needles and syringes in the preceding month, by gender	71
Table 46	Cleaning of shared needles and syringes in preceding month, by gender	72
Table 47	Number of criminal offenders where most serious offence is drug related	74
Table 48	Proportion of criminal offenders where most serious offence is drug related	75
Table 49	Absenteeism from work or study in previous 3 months due to alcohol or other drug use	77
Table 50	Proportion of youth who report not having used alcohol, tobacco or marijuana	78
Table 51	Number of performance-enhancing drug test and proportion positive	81
Table 52	Elite athletes and testing for performance-enhancing drugs	82
Table 53	Proportion of persons who have used anabolic steroids for non-medical reasons	83
Table 54	Proportion of transport workers who use selected drugs	85
Table 55	Prevalence of injecting drug use among injecting drug users while in prison	85
Table 56	Prevalence of needle sharing among injecting drug users while in prison	87
Table 57	Proportion of injecting drug users who used bleach when sharing in prison	88

List of Figures

Figure 1	Proportion of adults (16 years and over) which currently smokes on a regular basis	8
Figure 2	Smoking prevalence among adults in socioeconomically disadvantaged groups	10
Figure 3	Proportion of youth (aged 14–17 years) which smoked in the past week	11
Figure 4	Proportion of smokers who are taking action to stop	12
Figure 5	Proportion of adults from a non-English-speaking background who smoke on a regular basis	13
Figure 6	Pregnant women aged 18 years and over: smoker status	14
Figure 7	Comparison of prevalence of tobacco consumption, Indigenous and non-Indigenous Australians	15
Figure 8	Proportion of adults which has never smoked	16
Figure 9	Proportion of youth which has never smoked regularly	18
Figure 10	Proportion of employees whose workplace has a non-smoking or restricted smoking policy	20
Figure 11	Proportion of children potentially exposed to tobacco smoke in the home	21
Figure 12	Deaths due to tobacco using aetiological fractions	22
Figure 13	Hospital separations from conditions associated with active smoking	24
Figure 14	Deaths due to alcohol using aetiological fractions	25
Figure 15	Hospital separations from conditions associated with alcohol use	27
Figure 16	Proportion of drinkers who consumed alcohol at hazardous or harmful levels at least one day a week	28
Figure 17	Comparison of the frequency of hazardous or harmful drinking, Indigenous and non-Indigenous drinkers	30
Figure 18	Alcohol risk level, pregnant women aged 18 years and over	31
Figure 19	Proportion of drinkers who usually consume at hazardous or harmful levels	32
Figure 20	Proportion of senior school students drinking 5 or more (males) or 3 or more drinks (females) in one session	34
Figure 21	Comparison of the proportions of senior school students drinking 5 or more (males) or 3 or more drinks (females) in one session, Indigenous and non-Indigenous persons	35
Figure 22	Persons killed in motor vehicle crashes where at least one vehicle operator had a BAC of 0.05+ or refused to be tested	37
Figure 23	Fatal road accidents, proportion of which are alcohol related, by year	38
Figure 24	Number of random breath checks, total and proportion positive	40
Figure 25a	Victims of alcohol related physical and verbal assaults	41
Figure 25b	Perpetrators of alcohol related physical and verbal assaults	41
Figure 26	Proportion of hospital drug poisoning admissions which are related to the use of tranquillisers, antidepressants, analgesics, hypnotics, sedatives	43
Figure 27	Proportion of young people who use prescribed drugs for non-medical reasons	45

Figure 28	Proportion of older people who use prescribed drugs for non-medical reasons	46
Figure 29	Persons aged 65 years+ by number of pain relievers, sleeping medications and tranquillisers	47
Figure 30	Persons receiving prescriptions for benzodiazepines, by duration of usage	49
Figure 31	Prevalence of marijuana use in the past 12 months	51
Figure 32	Prevalence of inhalant use in the past 12 months	52
Figure 33	Prevalence of hallucinogen use in the past 12 months	54
Figure 34	Prevalence of ecstasy (or other designer drug) use in the past 12 months	55
Figure 35	Prevalence of amphetamine use in the past 12 months	56
Figure 36	Prevalence of cocaine use in the past 12 months	58
Figure 37	Prevalence of heroin use in the past 12 months	59
Figure 38	Prevalence of any hard drug use in the past 12 months	60
Figure 39	Prevalence of at least one illicit drug use in the past 12 months	61
Figure 40	Proportion of 14–19 year olds which has never used illicit drugs	63
Figure 41	Deaths due to illicit drugs using aetiological fractions	65
Figure 42	Hospital separations from conditions associated with illicit drug use	67
Figure 43	Number and proportion of all motor vehicle deaths which are drug related (excluding alcohol)	68
Figure 44	Incidence of IDU related HIV diagnoses	70
Figure 45	Sharing of needles and syringes in the preceding month, by gender	71
Figure 46	Cleaning of shared needles and syringes in preceding month, by gender	72
Figure 47	Number of criminal offenders where most serious offence is drug related	75
Figure 48	Proportion of criminal offenders where most serious offence is drug related	76
Figure 49	Absenteeism from work or study in previous 3 months due to alcohol or other drug use	77
Figure 50	Proportion of youth who report not having used alcohol, tobacco or marijuana	79
Figure 51	Number of performance-enhancing drug test and proportion positive	81
Figure 52	Elite athletes and testing for performance-enhancing drugs	82
Figure 53	Proportion of persons who have used anabolic steroids for non-medical reasons	83
Figure 54	Proportion of transport workers who use selected drugs	84
Figure 55	Prevalence of injecting drug use among injecting drug users while in prison	86
Figure 56	Prevalence of needle sharing among injecting drug users while in prison	87
Figure 57	Proportion of injecting drug users who used bleach when sharing in prison	88

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Executive summary

In 1993 the Ministerial Council on Drug Strategy (MCDS), which comprises health and law enforcement ministers from the Commonwealth and State and Territory jurisdictions, adopted 20 Key National Policy Objectives for the National Drug Strategy (NDS). The NDS and its forerunner, the National Campaign Against Drug Abuse (NCADA) have been in place since 1985. Attached to the objectives adopted in 1993, were 52 Key National Indicators.

Unfortunately, the indicators were characterised by limitations in utility and definitional consistency. Additionally indicators which were foreshadowed to be developed, were not developed and some indicators were insufficiently tracked. Notwithstanding these limitations, and *if it can be accepted that changes in consumption and behaviours are attributable to initiatives of the Strategy*, the trends revealed by the indicators demonstrate that the NDS has been a successful joint venture between the Commonwealth, States and Territories, non-government organisations and the Australian community, in reducing the harm associated with the consumption and consequences of drugs. Greater success was achieved in the areas of tobacco and alcohol, less for pharmaceuticals, and results were poor, relative to the successes in other areas, for illicit drugs.

Tobacco

The major achievement in the last ten years has been the decline in the proportion of the population and sub-groups within the population, which currently and regularly smokes, and declines in proportions of non-smokers which are exposed to passive smoking:

- The proportion of the population which smoked on a regular basis declined by 6%; the proportion of socio-economically disadvantaged (lower blue-collar workers) which currently smoked declined by 8%; the proportion of youth aged 14–17 years which smoked in the past week halved to 12%;
- the proportion of people from non-English speaking backgrounds who smoked on a regular basis declined by 16%; and the proportion of pregnant women who smoked declined by 11%.

At the same time, the proportion of the population which had never smoked regularly, increased:

- the proportion of adults which had never smoked regularly increased by 5%; and the proportion of youth aged 14–17 years which had never smoked regularly increased by 17% (however there is some evidence that tobacco consumption among the very young was trending upwards in the latter part of this period).

In the period of the NDS/NCADA, the proportion of employees where a smoking ban applied remained stable at relatively high levels. The number of children potentially exposed to tobacco smoke in the home declined:

- around four out of every five employees working in indoor environments now work in situations where a smoking ban or restriction applies; and
- the proportion of children potentially exposed to tobacco smoke in the home declined by 7%.

Health consequences of tobacco consumption were still evident in the number of deaths and hospital separations at the end of the ten year period, however as many of these were related to earlier consumption patterns, it can be anticipated

Executive summary

that the trend will turn around once the effects of recent lower consumption patterns filter through:

- between 1990 and 1995 the annual number of deaths attributable to tobacco declined slightly, but remained above 18,000; and
- in the three years to 1994–95 the annual number of hospital admissions from conditions associated with active smoking increased by 16,000, to 141, 261 separations.

Alcohol

The achievement of NDS goals in tobacco-related matters was matched by similar results in relation to alcohol. The average drinker adopted a more responsible approach to consumption. Drinkers who habitually consumed at high risk levels however, were resistant to change:

- the proportion of the population which consumed alcohol at hazardous or harmful levels at least one day a week declined by 5%;
- the proportion of pregnant women who consumed alcohol declined by 12%;
- the proportion of drinkers who *usually* consumed at hazardous levels when they drank remained stable at 29% of all drinkers; and
- the proportion of senior school students (who had consumed alcohol), who consumed at hazardous or harmful levels almost doubled to 67%.

Adverse consequences of alcohol consumption at the population level also appear to have lessened, with both health and social effects trending towards fewer impacts on the daily lives of Australians.

- the annual number of deaths due to alcohol declined from 3,863 in 1990 to 3,642 in 1995;
- the annual number of hospital

separations from conditions associated with alcohol use declined from 98,778 in 1992–93 to 86,137 in 1994–95;

- the annual number of alcohol-related motor vehicle deaths declined from 571 deaths in 1990 to 459 deaths in 1995, however the more recent trend is towards more, rather than fewer deaths;
- the proportion of all fatal road accidents which are alcohol-related declined by 2% between 1990 and 1995;
- concomitant with an increase in total roadside breath tests the proportion of random breath tests which proved positive almost halved to 0.8% in the last six years; and
- the proportion of the population who were victims of alcohol-related physical and verbal assaults declined by 5% between 1993 and 1995.

Pharmaceuticals

There were very few indicators attached to pharmaceuticals, reflecting the limited role of the NDS in this area of drug use. Three indicators involved measuring the prevalence of inappropriate use:

- the proportion of drug poisoning admissions due to (selected) pharmaceuticals increased marginally to 8% by 1994–95;
- the proportion of youth aged 14–19 using prescribed medications for non-health reasons declined marginally to 3% between 1993 and 1995; and
- the proportion of older persons aged 55 years or more using prescribed medications for non-health reasons increased marginally to 2% in the same period.

Two indicators merely required the determination of baseline levels of usage and this was achieved. Of the levels

measured, one was satisfactory and one was disappointingly high:

- over half of persons aged 65 years or more were taking one or no prescribed medications, and one in five took two or more; and
- four out of every five persons prescribed benzodiazepines had been using them for six months or more.

Illicit drugs

The proportions of the population using 'hard' drugs such as heroin, cocaine and amphetamines stabilised during the period of the NDS, however the trend was towards more rather than fewer persons using 'soft' drugs, particularly marijuana.

Consequences of illicit drug abuse continued to affect health and social aspects of Australian lives:

- the proportion of the population which had used drugs illicitly in the previous 12 months increased marginally to 4% for 'hard' drugs and by 6% to 17% for selected 'soft' drugs, between 1988 and 1995; and
- the proportion of youth aged 14–17 years using illicit drugs also increased marginally to 8% for 'hard' and by 10% to 32% for selected 'soft' drugs, principally marijuana, between 1988 and 1995.

At the same time, the proportion of youth which had never used illicit drugs declined and the number of deaths and hospital separations attributable to illicit drugs increased:

- the proportion of youth who had never used illicit drugs declined from 67% to 55% between 1988 and 1995;
- the annual number of deaths due to illicit drug use increased from 463 deaths in 1990 to 777 deaths in 1995. The great majority of these deaths were attributable to opiates; and
- the annual number of hospital

separations from conditions associated with illicit drug use also increased from 7,097 in 1992–93 to 8,491 in 1994–95.

In the ten years to 1995, the annual number of prisoners whose most serious offence was drug-related increased from 1,118 to 1,694. Most of the offences were cannabis-related rather than 'hard' drug-related. Both manufacture and trafficking offences doubled, and using and possession offences halved, in this period.

One area of success was that encompassing transmissible diseases. Most of the initiatives in this area were implemented under the related HIV/AIDS Strategy:

- the annual number of HIV diagnoses among injecting drug users declined from 97 in 1989–90 to 68 in 1995–96;
- the annual number of HIV diagnoses where injecting drug use was the only risk factor also declined in this period from 58 to 29; and
- the proportion of injecting drug users who used shared needles or syringes declined by 70%.

The balance of the illicit drug-specific indicators required either their initial development or alternatively, the determination of baseline prevalence rates in specific populations. A baseline was established for the proportion of fatal road accidents which were (non-alcohol) drug-related (10%). Unfortunately, indicators intended for hepatitis B and hepatitis C were not developed.

All drugs

This category is really a misnomer and could be more accurately termed as cross drug or non-specific. It includes indicators which are applicable to more than one drug group. The NDS objectives of decreasing the prevalence of consumption and limiting the social consequences of drugs covered in the category, were generally met:

Executive summary

- the proportion of youth who had never used tobacco and alcohol increased by 18% and 24% respectively between 1985 and 1995;
- the proportion of youth who had never used marijuana declined by 5% over the same period; and
- absenteeism from work and study due to alcohol increased marginally to 3% of all employees/students.

In the same period, safer injecting behaviour in prisons improved or stabilised and elite athletes responded to initiatives on performance-enhancing drugs:

- the proportion of injecting drug users who continued to inject while in prison declined by 8% between 1987 and 1994; and
- the proportion of IDU prisoners engaging in risky injecting behaviours remained stable at around 70%;
- the proportion of elite athletes who

believed the drug testing program acts as a deterrent increased to 85%; and

- the proportion of performance-enhancing drug tests which proved positive declined from 4% to less than 1% of all tests

Indicators which were intended to be developed for professional groups (e.g. bouncers, transport workers), and the prevalence of unsafe sexual behaviour while intoxicated, were not developed.

Conclusion

Accordingly, it is possible to measure the overall progress in achievement of the objectives of the National Drug Strategy as positive but fragmented. More goals were met in the licit areas (alcohol, tobacco and to a lesser extent, pharmaceuticals), however fewer were achieved with illicit drug use and behaviours.

Chapter 1

Introduction

Background

The National Drug Strategy (NDS) is a cooperative effort between the Commonwealth, States and Territories, non-government organisations and the community to minimise the harmful effects of drug use on Australian society. The NDS and its predecessor, the National Campaign Against Drug Abuse (NCADA) have operated since 1985.

In 1996 the Ministerial Council on Drug Strategy (MCDS) commissioned an evaluation of the NDS. Professors Eric Single and Timothy Rohl completed the evaluation in April 1997. Their report, *The National Drug Strategy: mapping the future*, which concentrated on the years 1993–97 was presented to MCDS in July 1997. The terms of reference for the report were to:

- evaluate the concept/policy underlying the NDS, including harm minimisation and the public health paradigm;
- examine and report on the appropriateness of the processes, mechanisms and structure of the NDS; and
- review and make recommendations on Australia's capacity to measure the impact and outcomes of drug harm minimisation policy.

Concerning the third term of reference, Professors Single and Rohl reported

‘The data development activities of the NDS which are used to monitor the performance of the Strategy should continue to be supported and enhanced, including the national surveys and

statistical databases. Summaries should be provided in a non-technical manner and analyses should be conducted in each State and Territory. Insofar as possible, key indicators should be reported at the community level (p. 88).’

Concerning attribution of changes in drug consumption and drug related behaviours, the evaluation reported

‘Data are collected and reported on broad performance indicators on a global scale, such as trends in drug use, public attitudes and harm indices. Without an adequate inventory of all of the programs and program characteristics, *it is difficult to monitor progress and assess the extent to which changes in the broad performance indicators are due to NDS activities rather than other factors* (p. 74).’

This report is intended to provide, in a non-technical manner, national time series data (where available) from the inception of the NDS, against the set of Key National Indicators which were adopted by the MCDS in 1993 to monitor progress in meeting the Key Policy Objectives.

The data are descriptive, however the more technically minded reader will find additional material in the appendices.

They highlight both the usefulness of national trend indicators in gaining a broad picture of drug use, and the difficulties in attribution, to which Professors Single and Rohl refer. Descriptive data such as these presented in this report do not permit the level of analysis which would be necessary to determine linkages beyond temporal correlation.

The Key National Indicators were derived from the Key Result Areas identified for

achievement in the National Drug Strategic Plan 1993–97 (DHHLG&CS, 1993). Their provenance is illustrated below.

Mission

(N = 1)

Key Policy Goals

(N = 3)

Key Result Areas

(N = 7)

Key Policy Objectives

(N = 20)

Key National Indicators

(N = 52)

Mission

The mission of the National Drug Strategy is to minimise the harmful effects of drugs and drug use on Australian society.

Key policy goals

- To minimise the level of illness, disease, injury and premature death associated with the use of alcohol, tobacco, pharmaceutical and illicit drugs.
- To minimise the level and impact of criminal drug offences and other drug related crime, violence and antisocial behaviour within the community.
- To minimise the level of personal and social disruption, loss of quality of life, loss of productivity and other economic costs associated with the inappropriate use of alcohol and other drugs.

Key Result Areas

- A reduction in injury, violence and loss of productivity associated with excessive drinking or intoxication in hazardous situations, particularly on the roads, in the workplace and in drinking environments.
- A further reduction in the prevalence and uptake of regular smoking, with particular emphasis on socio-economically disadvantaged groups and young people.
- A reduction in the inappropriate use of alcohol and other drugs by young people.
- A reduction in the inappropriate consumption of commonly misused prescription drugs, with emphasis on at-risk groups including older people and polydrug users.
- A reduction in the prevalence of, and the crime and social disruption associated with, the trafficking and use of illicit drugs.
- The prevention of the spread of hepatitis, HIV/AIDS and other infectious diseases associated with unsafe injecting of illicit drugs and unsafe sex associated with intoxication.

Key National Policy objectives

Tobacco

- Reduce the proportion of the population who smoke on a regular basis.
- Increase the proportion of the population who have never smoked regularly.
- Reduce exposure to tobacco smoke

(passive smoking) throughout the community.

- Reduce premature death and illness associated with tobacco use.

Alcohol

- Reduce premature death, illness and injury associated with alcohol use.
- Reduce the proportion of the population who drink regularly at levels above those identified by the National Health and Medical Research Council (NHMRC) as low risk.
- Reduce the incidence and consequences of heavy or binge drinking, particularly unlawful supply and consumption among young people.
- Reduce the rate of road crashes involving drivers who have consumed alcohol beyond prescribed blood alcohol content levels.
- Reduce the rate of alcohol-related crime, including criminal assaults, domestic violence, public order and summary offences.

Pharmaceuticals

- Reduce the number of people who inappropriately consume pharmaceutical drugs.
- Reduce the prevalence of inappropriate long-term use of pharmaceutical drugs that carry a risk of dependency.

Illicit drugs

- Reduce the use and consequences of use of the major illicit drugs, including marijuana, amphetamines, heroin and cocaine.
- Limit the spread of hepatitis, HIV/AIDS and other infectious diseases associated

with drug use, in particular among injecting drug users.

- Reduce the violence and crime associated with the manufacture, trafficking and use of illicit drugs, including property crime and crimes against the person.

All drugs

- Reduce loss of productivity in the workplace linked to the use of alcohol and other drugs.
- Reduce the non-medical use of drugs by young people, particularly to delay or prevent the initiation or uptake of regular use of alcohol, tobacco and marijuana.
- Reduce the use of prescribed performance-enhancing drugs by sports participants and bodybuilders.
- Reduce the risk of transmission of HIV/AIDS through unsafe sex associated with intoxication resulting from alcohol or other drug use.
- Reduce drug use by occupational groups where use can impact upon the community, for example professional drivers, bouncers.
- Reduce non-medical use of drugs by prisoners, particularly use with risk of transmission of HIV/AIDS and other infectious diseases.

Limitations of the Key National Indicators

Utility

Adoption of most of the indicators selected in 1993 appears to have been made partly due to availability of data, rather than

suitability for purpose. Documentation on their derivation, alternatives and rationales for selection in general were not available. A small number appear to have been chosen with the knowledge that they would be unlikely to be measurable. Selection in these instances was apparently on the basis that the presence of an indicator alone might be sufficient to encourage change. Following discussions with Commonwealth program officers and the consultant who had been engaged to develop the indicators, possible rationales for inclusion of indicators in the final set were determined and they are provided for information. The set of indicators do not address treatment, law enforcement, research or intersectoral initiatives.

There is inconsistency in some terms, (for example, youth is variously defined as 12–17 years, under 16 years and 14–19 years; adult is defined as 14 years and over, 16 years and over, and over 19 years).

Baselines were sometimes inadequately documented, regional in nature, drawn from anecdotal evidence, and in at least one instance, erroneous. A few indicators have become redundant.

Reference has already briefly been made to attribution difficulties. Consumption patterns in particular, are sensitive to a range of factors external to the potential influence of activities initiated under the NDS (eg. macro-economic climate, price movements and availability of substances). Similarly, trends which might reasonably be attributed to specific NDS policies, may not become evident for a number of years following implementation and hence, be undetectable at the present time.

Tracking

A number of indicators were inadequately tracked. Also, indicators that were absent in 1993 but intended to be developed, were not developed.

Currency

Due to the usual delays associated with collation, data entry and reporting of large surveys, data presented in this report are generally to 1995 only.

Chapter 2

Methods

Data sets

The Key National Indicators are quantitative incidence and prevalence measures. They are intended to be nationally representative. With few exceptions, only national data sets which contained adequate quantitative data have been selected for use in this report. Regional differences are therefore obscured. Where possible, continuing baseline studies were retained for comparability. Data for most indicators were obtained primarily from:

- NCADA/NDS Household Surveys, 1985, 1988, 1991, 1993, 1995
- NDS Aboriginal and Torres Strait Islander Household Supplement Survey 1994
- Victorian Anti-Cancer Council National Surveys, 1989, 1992
- Victorian Anti-Cancer Council National Secondary School Surveys, 1990, 1993
- Australian Bureau of Statistics (ABS) National Health Surveys, 1989–90, 1995; National Prison Censuses, 1993–1995
- Australian Institute of Health and Welfare (AIHW) national morbidity and mortality data sets, 1985–1995
- Federal Office of Road Safety (FORS) Serious Injury database 1990–96
- The Australian Sports Drugs Agency (ASDA) Register of Notifiable Events; Surveys of Elite Athletes, 1993, 1994, 1995.

Full data set descriptions are shown in Appendix A.

Data definitions

Many of the indicators are self descriptive (for example the proportion of youth (aged 12–17) who smoked in the past week). A number require further explanation (for example, smoke *currently*, smoke *regularly*). Where clarification is necessary, definitions are provided below relevant tables and figures. Comprehensive definitions for all data are provided in Appendix B.

Indicator amendments

As reported in chapter 1, a number of indicators that were intended to be developed, were not developed; and a small number of indicators, in light of further research since their adoption, are considered redundant. In both these circumstances, data are presented for information only. In a very few instances, indicators were amended slightly to afford higher congruence with the measure intended at the time of adoption.

For example, the objective

- Reduce the risk of the transmission of HIV/AIDS through unsafe sex associated with intoxication resulting from alcohol or other drug use.

This was amended by replacing the words “HIV/AIDS” with the words “sexually transmissible diseases, including HIV/AIDS”.

A note on illicit drugs

By its very nature of being illegal, consumption of illicit drugs is difficult to measure. Notwithstanding the techniques used to elicit accurate information from study subjects (for example sealed, self-completion questionnaire), the population who use illicit drugs, and particularly so for hard or injectable drugs, comprises in part,

marginalised persons not readily identifiable, or unable or unwilling to participate. Accordingly, it is recognised (for example, Crofts et al. 1996) that the prevalences revealed from national population surveys are likely to be underestimates of consumption rates.

As an example, prevalence of heroin use for persons aged 30 years and older (Table 37) is shown as 0%. This result is obviously not a true indication of likely prevalence.

Chapter 3

Results

Tobacco

Tobacco smoke is a mixture of many chemical compounds, including tar and nicotine, and gases such as carbon monoxide. Tobacco is mainly ingested through smoking cigarettes.

Nicotine is a stimulant that restricts the flow of blood throughout the body, while tar stimulates the growth of some cancers, particularly in the mouth, lungs and throat. In addition to various neoplasms, the long-term health effects of smoking can include heart disease and respiratory problems (DHS&H 1994).

Key National Policy Objective

Reduce the proportion of the population which smokes on a regular basis.

There is no safe level of tobacco consumption. The potential for adverse health risks from smoking is though, thought to be dose-frequency related. The more nicotine, tar and other associated chemicals and particulates ingested, and the more often they are ingested, the higher the adverse health risk.

Regular smoking presents higher risks than does abstinence or infrequent use of tobacco. Regular smokers are more likely to develop tobacco-related illnesses. If more

people smoke on a regular basis, more non-smokers are also affected by the passive ingestion of the smoke and chemicals.

Key National Indicator

Proportion of adults (16 years and over) which currently smokes on a regular basis.

(Baseline: Anti-Cancer Council of Victoria National Survey 1989, Males 30.2%, Females 27.0)%.)

Rationale: The indicator appears to be strongly linked to the legislative and regulatory conditions governing the age at which tobacco products could be sold, which were in operation at the time of its selection. In all Australian jurisdictions, the age at which persons can legally purchase tobacco products has been altered to 18 years and over. The expectation was that the proportion of adults who currently smoke on a regular basis would decline.

Note: The Indicator was framed with baseline data from the 1989 Anti-Cancer Council of Victoria National Survey in mind. The survey was repeated in 1992 and 1995. As data from the 1995 survey were not available, results from the NDS Household Surveys are presented instead.

Between 1985 and 1995, the proportion of the population aged 16 years and over which currently smokes on a regular basis declined from one in three (33.5%) to just over one in four persons (27.6%). Males were more likely than females to smoke

regularly in each year (a trend that has been consistent for the past 50 years) and the difference between genders fluctuated between 6% and 7% in the past decade.

In 1945 the difference in the male:female ratio was 46% (males 72%, females 26%) (Makkai & McAllister in press). The prevalence of regular smoking among males declined by between 3% and 7% per decade in the past 50 years. In contrast, the prevalence of females who smoke regularly increased by between 1% and 2% to the early 1980s, before returning to the levels which prevailed at the end of the Second World War. It appears to have levelled off at about one in four women in recent years.

The apparent 1988 departure from the general downward trend in proportions of the population aged 16 years and over who smoke regularly as shown in table 1, is almost entirely due to the wording of the

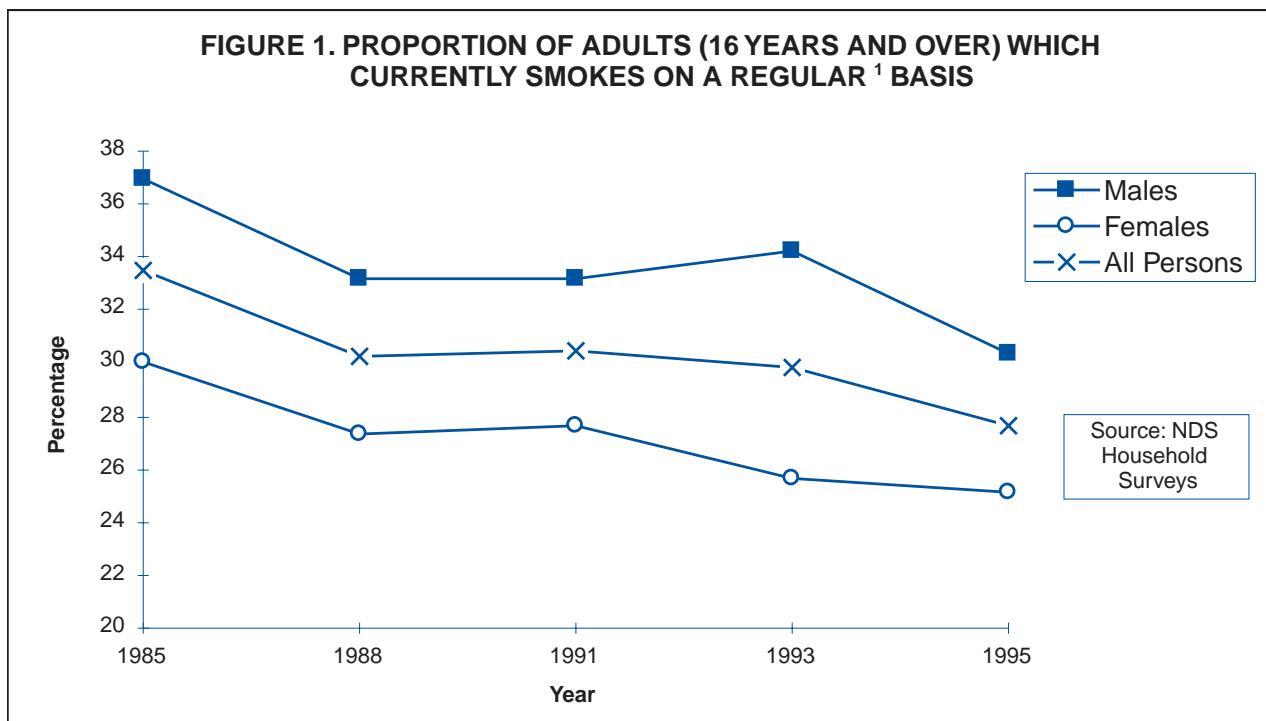
relevant question in that particular survey. Estimates of rates consistent with the definition in the other NDS surveys have been included in their place in figure 1 (see Appendix B).

Table 1. PROPORTION OF ADULTS (16 YEARS AND OVER) WHICH CURRENTLY SMOKES ON A REGULAR¹ BASIS (PER CENT)

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>All Persons</i>
1985	37.0	30.1	33.5
1988	41.5	34.1	37.8
1991	33.2	27.7	30.4
1993	34.2	25.7	29.9
1995	30.4	25.1	27.6

Source: NDS Household Surveys

Note: 1. Regular = 'at least daily'



Key National Indicator

Smoking prevalence among adults in socio-economically disadvantaged groups.

(Baseline: Anti-Cancer Council of Victoria National Survey 1989; lower blue-collar M 43%, F 31%; upper white-collar M 20%, F 22%.)

Rationale: Correlates of tobacco consumption include levels of income and education—the lower the income and education, the higher the likelihood of smoking. The National Drug Strategic Plan 1993–97 identified social justice principles as underlying the strategy. The indicator allows a comparison of advantaged with disadvantaged groups to permit development of targeted prevention and treatment activities. The expectation was that the prevalence of smoking among the socio-economically disadvantaged would decline and hence, the differential between the two groups would also decline.

Note: The indicator was framed with the baseline data obtained from the 1989 Anti-Cancer Council of Victoria National Survey in mind. The survey was repeated in 1992 and 1995. As the results for the 1995 survey were not complete, data from the NDS Household Surveys are included here in their place.

In 1985, almost twice as many lower blue collar workers as higher white collar workers were current smokers. The prevalence of smoking declined in both groups in the next ten years. By 1995 the difference in prevalence of smoking between males in the two groups declined to just over 17% (lower blue collar workers 42.3%, upper white collar workers 25.7%). The trend is less evident for females, where the prevalence of smoking among lower blue collar workers returned to levels of ten years earlier (40.3%).

If the extremes of socio-economic (dis)advantage represented by upper-blue and lower-blue collar groups are broadened

Table 2. SMOKING¹ PREVALENCE AMONG ADULTS² IN SOCIOECONOMICALLY DISADVANTAGED GROUPS (PER CENT)

Year	Lower Blue Collar		Upper White Collar	
	Males	Females	Males	Females
1985	56.4	40.6	27.6	25.1
1988	58.8	27.6	36.7	35.8
1991	50.8	35.8	25.8	22.7
1993	45.9	40.8	21.4	21.6
1995	42.3	40.3	25.7	22.2

Source: NDS Household Surveys.

Notes: 1. Includes regular and occasional.

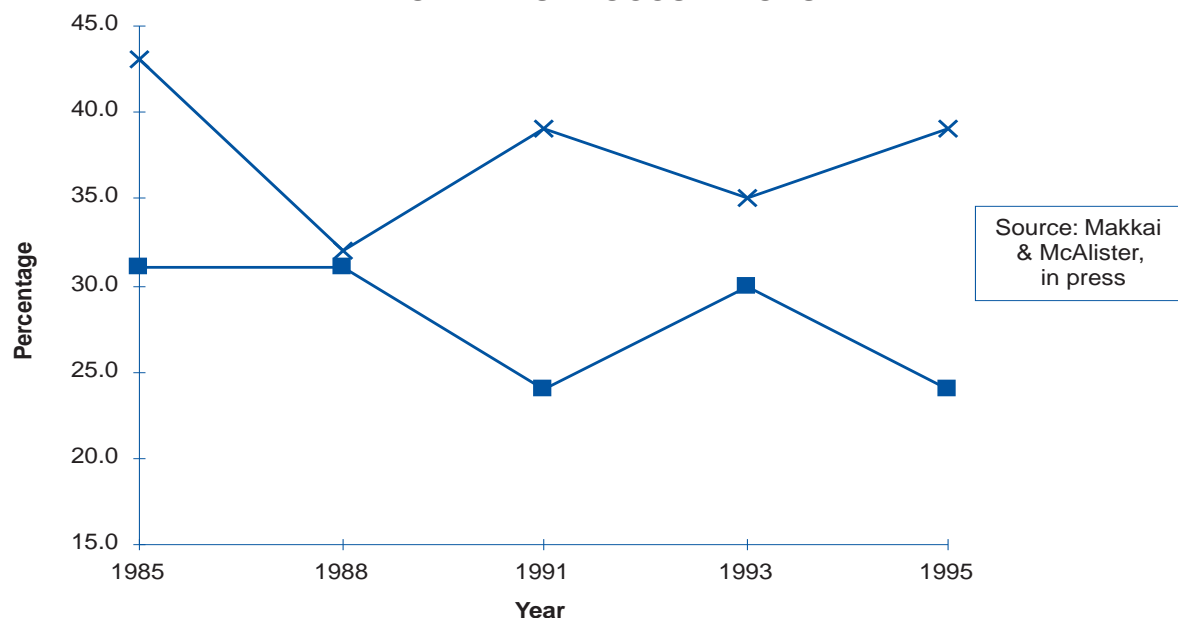
2. Aged 20+

to manual and non-manual classifications, improvements are less evident (figure 2).

Between 1985 and 1995 while rates of smoking by persons in both manual and non-manual occupational groups declined,

the difference between the two groups in 1995 was higher than ten years earlier. In 1985 the difference in proportions was 12%; in 1995 it was 15%.

FIGURE 2. PREVALENCE OF SMOKING, MANUAL AND NON-MANUAL OCCUPATIONS



Key National Indicator

Proportion of youth (aged 12–17 years) which smoked in the past week.

(Baseline: Anti-Cancer Council of Victoria National Secondary Schools Survey 1990; 12 years, M 6% F 5%; 13 yrs, M 11% F 13%; 14 yrs, M 17% F 20%; 15 yrs, M 22% F 29%; 16 yrs, M 25% F 28%; 17 yrs, M 24% F 28%.)

Rationale: The earlier the age at which persons are initiated into tobacco smoking, the more likely they are to become regular smokers. This age group largely comprises school students who were outside the age at which they could legally purchase tobacco products. The indicator attempts to measure the effectiveness of programs (including NDS initiatives) aimed at younger persons. The expectation was that the proportion of youth who smoked would decline.

Note: The indicator was framed with baseline data obtained from the 1990 Anti-Cancer Council of Victoria National Secondary Schools Survey in mind. The survey was repeated in 1993 and 1996. Due to unavailability of results from the 1996 survey, data for the ages 14–17 years only, are presented from the NDS Household Surveys for currency and comparability reasons. A consequence of using NDS Household Survey data is that sampling variability for single years of age is too high for most practical purposes. They are included for trend indication only.

Between 1985 and 1995, the prevalence of smoking (in the previous week) by youths aged 14–17 years almost halved from one in four (25.2%) to about one in eight (12.2) persons. It has been speculated that the legislative and regulatory changes to restrict both advertising and availability (withdrawal of smaller size packaging, and increase in legal ages), may have reduced the visibility and attractiveness of cigarettes (Makkai & McAllister in press).

Similar declines are evident for both genders. By 1995, the rates for males and females were similar (males 12.3%, females 12.1%).

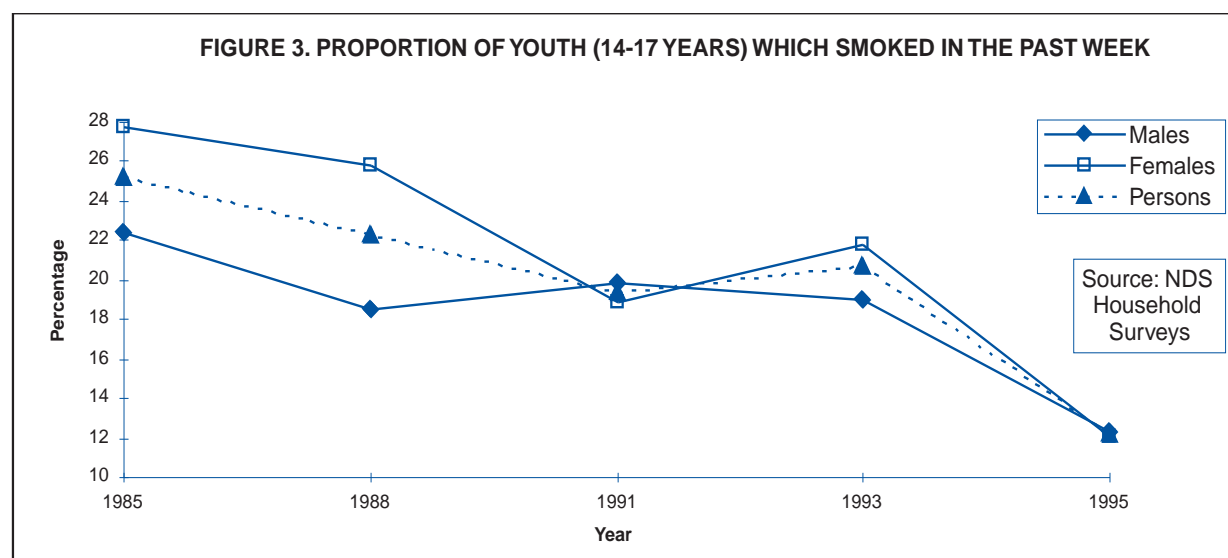
At the individual year of age level, trends

are towards declines in prevalence, with the exception of 14 year old males, where the pattern is towards more, rather than fewer, smoking in the previous week.

Table 3. PROPORTION OF YOUTH (AGED 14–17 YEARS) WHICH SMOKED IN THE PAST WEEK (PER CENT)

Year	14	15	16	17	Combined
<i>Males</i>					
1985	3.2	22.2	18.5	56.2	22.5
1988	10.0	18.2	25.0	20.0	18.5
1991	15.8	16.7	25.6	21.2	19.9
1993	n/a	n/a	n/a	n/a	19.0
1995	17.8	6.3	10.5	15.9	12.3
<i>Females</i>					
1985	13.5	22.7	36.9	38.7	27.8
1988	9.1	23.5	29.4	38.5	25.9
1991	2.3	20.8	25.5	27.0	18.9
1993	n/a	n/a	n/a	n/a	21.8
1995	0.0	22.1	8.8	14.0	12.1
<i>Persons</i>					
1985	8.2	22.5	27.3	45.9	25.2
1988	9.5	20.5	27.6	30.4	22.3
1991	8.6	18.9	25.6	23.6	19.4
1993	n/a	n/a	n/a	n/a	20.8
1995	12.3	12.2	9.4	14.9	12.2

Source: NDS Household Surveys. n/a = not available. Sampling variability for individual years of age too high for other than trend indication only.



Key National Indicator

Proportion of smokers who are taking definite action to stop smoking.

(Baselines: NHF Community Attitudes Survey 1991; 10.9%; Anti-Cancer Council of Victoria Survey of Smoking and Health 1992; 11.4%.)

Rationale: The indicator attempts to measure the success of educational messages designed to encourage people to give up smoking. The expectation was that the proportion of smokers taking action to stop would increase.

Note: Two measures are presented. The first reflects the intended indicator. Further data from the Victorian Anti-Cancer Council (Victorian) Survey of Smoking and Health beyond 1992 are unavailable. Accordingly, data incorporating any action to give up smoking are presented from the 1993 and 1995 NDS Household Surveys.

The different methodologies reveal different trends. Proportions of people taking definite action to give up smoking increased only slightly between 1990 and 1992. Between 1993 and 1995, proportions taking some action to give up smoking declined from slightly less than nine in ten (87.3%) to about three-quarters (75.3%) of all

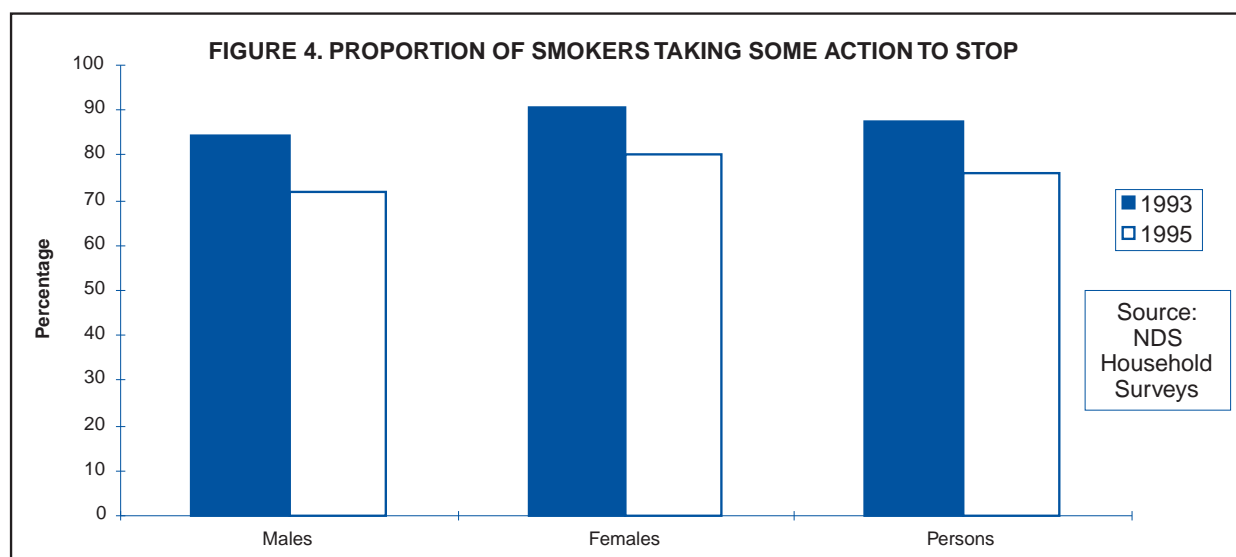


TABLE 4. PROPORTION OF SMOKERS WHO ARE TAKING ACTION TO STOP (PER CENT)

Year	Study	Males	Females	Persons
<i>Definite action</i>				
1990	National Heart Foundation	n/a	n/a	10.9
1992	Anti-Cancer Council of Victoria	n/a	n/a	11.4
<i>Some action</i>				
1993	NDS Household Survey	84.2	90.5	87.3
1995	NDS Household Survey	71.8	80.3	75.8

Source: NDS Household Surveys. Ages = 20+ years. Definitions: "Definite action"—1990, 1992 defined according to Prochaska and De Clemente's stages of change model (refer to Appendix B). n/a = not available.

current smokers. Females were more likely than males to take some action to give up smoking.

The apparent decline in proportions of people who were taking some action to give up smoking between 1993 and 1995 may have been due to the relatively recent introduction of low nicotine/low tar cigarettes. This has resulted in a group of people who changed to smoking cigarettes of this type, but who were unwilling to reduce consumption any further. As they had reduced their intake of nicotine and tar to the lowest level by 1993, the option of reducing further in 1995 was therefore no longer available to them.

Rationale: The indicator appears to be linked to the reasonable assumption that persons from non-English speaking backgrounds have difficulty in accessing educational and other material which promotes reducing tobacco consumption. When combined with possible cultural factors affecting the likelihood of smoking, the indicator attempts to measure the effectiveness of programs aimed at these groups. The expectation was that the proportion of persons from non-English speaking backgrounds who smoked would decline.

**Key National Indicator
priority group—persons
from Non-English
speaking backgrounds**

Proportion of adults (16 years and over) from non-English speaking backgrounds which smokes on a regular basis.

(Baseline: Not set.)

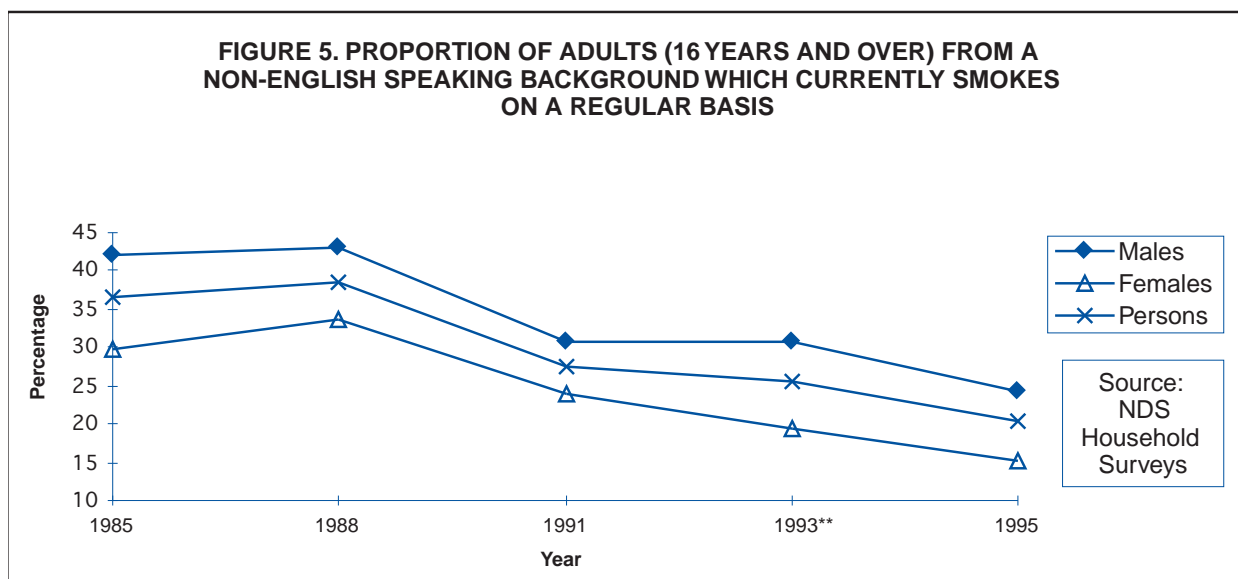
TABLE 5. PROPORTION OF ADULTS (16 YEARS AND OVER) FROM A NON-ENGLISH SPEAKING BACKGROUND, WHO SMOKE ON A REGULAR¹ BASIS (PER CENT)

Year	Males	Females	Persons
1985	42.1	29.8	36.4
1988	43.0	33.6	38.4
1991	30.8	24.0	27.6
1993*	30.6	19.3	25.5
1995	24.2	15.1	20.3

Source: NDS Household Surveys.

Note: 1. Regular defined as "at least daily".

* Age range = 20+



Between 1985 and 1995, the prevalence of regular smoking among persons from non-English speaking backgrounds declined from over one in three (36.4%) to just over one in five (20.2%). Prevalence of regular smoking among males declined from 42.1% to 24.2%, and from 29.8% to 15.1% for females, in this period.

The apparent 1988 departure from the general downward trend in regular smoking by persons from non-English speaking backgrounds is almost entirely due to the wording of the survey question in that year.

foetus, including low birth weight, spontaneous abortion and stillbirth. The indicator attempts to measure the effectiveness of educational and other programs targeted to this priority group. The expectation was that the proportion of pregnant women who smoked would decline.

Between 1989–90 and 1995, the prevalence of smoking among pregnant women declined from one in four (25.1%) to just over one in seven (13.7%). Approximately 10,400 pregnant women in 1995 continued to smoke. In the same period, the proportion of pregnant women who were ex-smokers increased from 29.2% to 38.3%.

Key National Indicator
Priority Group—
pregnant females

Proportion of pregnant women who smoke.

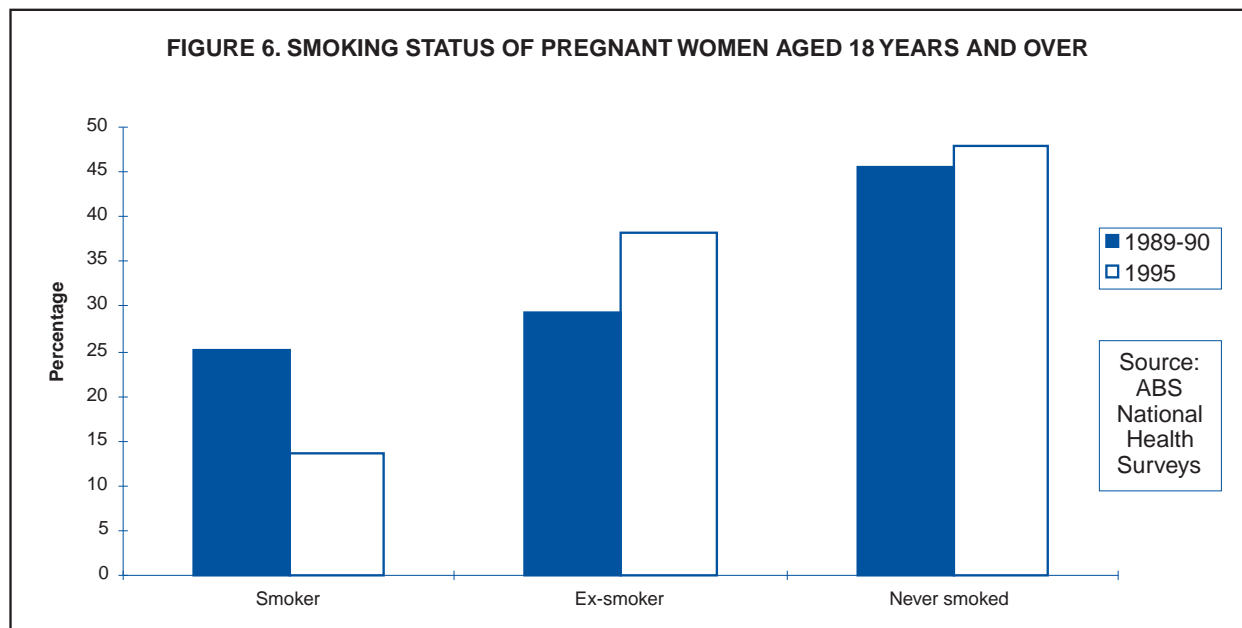
(Baseline: Not set.)

Rationale: In addition to potential adverse health impacts on the mother, smoking during pregnancy causes ill effects to the

TABLE 6. PREGNANT WOMEN AGED 18 YEARS AND OVER: SMOKER STATUS, 1989–90, 1995 (PER CENT)

<i>Smoker Status</i>	<i>1989–90</i>	<i>1995</i>
Smoker	25.1	13.7
Ex-smoker	29.2	38.3
Never smoked	45.6	47.9

Source: 1989–90 ABS National Health Survey; 1995 ABS National Health Survey (preliminary data).



Key National Indicator Priority Group— Indigenous Australians

Prevalence of smoking by Indigenous Australians

(Baseline: Not set.)

Rationale: Prevalence of smoking among Indigenous peoples is much higher than in the general community. The indicator attempts to measure the effectiveness of programs aimed

at this group. The expectations were that proportions of Indigenous persons who smoked would fall and that the differential between Indigenous and non-Indigenous Australians would also decline.

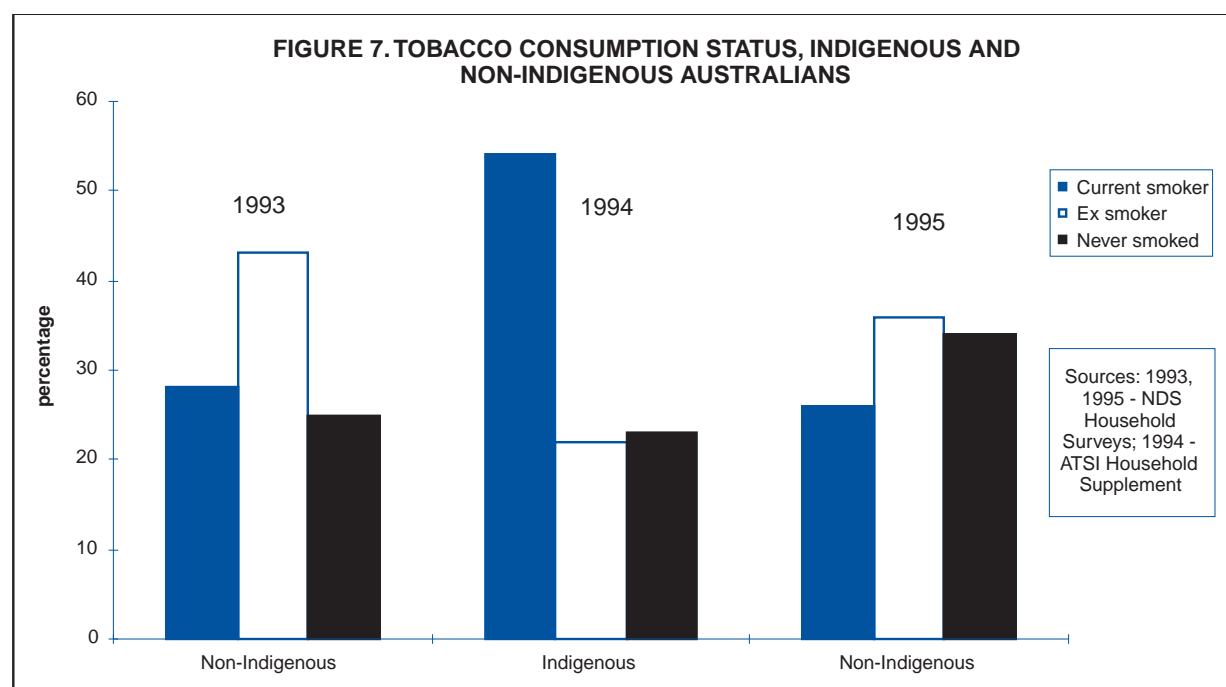
Compared with persons in the general community in 1993 and 1995, Indigenous people were more likely in 1994 to have smoked and to be current smokers, and were less likely to be ex-smokers. The prevalence of regular smoking among Indigenous people (47%) in 1994 was twice that in the general community (23%) in 1995.

Over half (54%) of Indigenous people were current smokers in 1994, which compares

TABLE 7. COMPARISON OF PREVALENCE OF TOBACCO CONSUMPTION, INDIGENOUS AND NON-INDIGENOUS AUSTRALIANS

Consumption classification	Community		
	Non-Indigenous 1993	Indigenous 1994 (PER CENT)	Non-Indigenous 1995
Ever tried	71	77	62
Current regular user	24	47	23
Current occasional user	4	7	3
Ex-smoker	43	22	36
Never smoked	25	23	34

Sources: NDS Household Surveys, 1993,1995; NDS ATSI supplement, 1994. Ages = 14 + years.



with about one in four (26%) non-Indigenous persons in 1995. Over half of all non-Indigenous persons in 1995 who had ever tried smoking were ex-smokers, compared with about one in four Indigenous peoples who had ever smoked.

Key National Policy Objective

Increase the proportion of the population which has never smoked regularly.

Just as the age at which persons are initiated into smoking is related to their likelihood of becoming regular smokers, the progression from infrequent to regular smoking is related to the likelihood of becoming addicted to nicotine and becoming long-term smokers. The addictive threshold for tobacco consumption has been estimated to be between five and ten cigarettes per day (Collins & Lapsley 1996). The proportion of the population which has never smoked regularly includes two

groups; one which has never smoked, and one which has smoked, but only infrequently. The objective is to prevent the adverse health effects of nicotine addiction and long-term tobacco use, by attempting to prevent the uptake of smoking and to reduce the proportion who do smoke progressing from occasional to regular use.

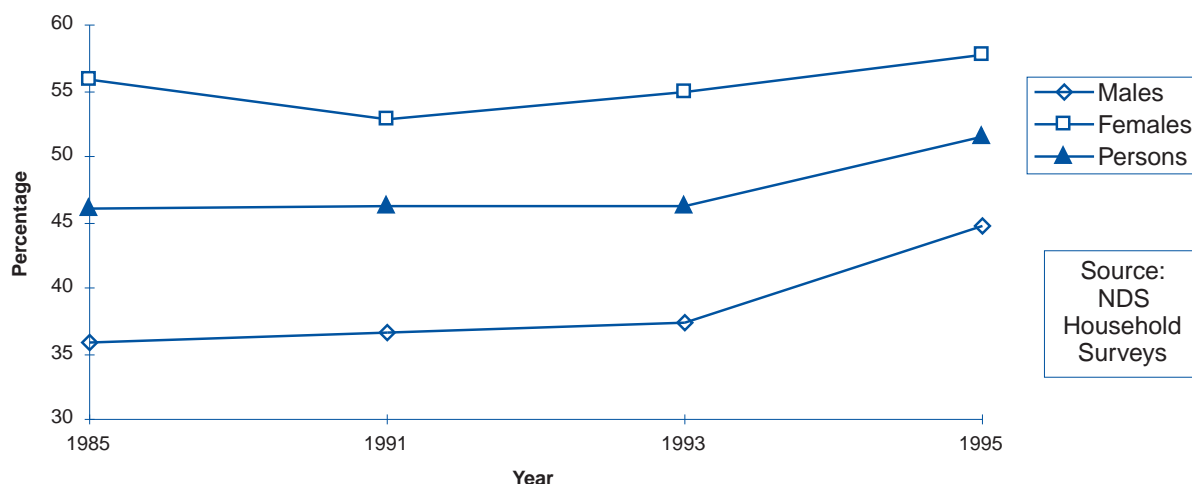
Key National Indicator

Proportion of adults (aged 16+ years) which has never smoked regularly.

(Baselines: Anti-Cancer Council of Victoria National Survey 1989, males 38%, females 52%.)

Rationale: In addition to the aims of the Key Policy Objective, the indicator is linked to the legislative and regulative arrangements which were in operation at the time of its selection, which prohibited the sale of tobacco products to persons aged less than 16 years of age. The expectation was that the proportion of adults who had never smoked regularly would increase.

FIGURE 8. PROPORTION OF ADULTS (16+ YEARS) WHICH HAS NEVER SMOKED REGULARLY



Notes: Baseline data were derived from the Anti-Cancer Council of Victoria National Survey 1989. The survey was repeated in 1992 and 1995. As results from the 1995 survey were unavailable, data from the NDS Household Survey are presented instead.

The anomalous result in 1988 as indicated in table 8, was largely due to different wording of the survey question in that year (refer to Appendix B). Data for that year have been excluded from the corresponding figure for comparability purposes.

Between 1985 and 1995, the proportion of the adult population which had never smoked regularly increased from 46.0% to 51.4%. The proportion of males who never smoked regularly increased from 35.9% to 44.7%, with the greatest increase occurring after 1993. In contrast, the proportion of females who never smoked regularly declined between 1985 and 1991, before increasing to the present level of 57.7%.

TABLE 8. PROPORTION OF ADULTS (16+ YEARS) WHICH HAS NEVER SMOKED REGULARLY¹ (PER CENT)

Year	Males	Females	Persons
1985	35.9	55.8	46.0
1988*	14.1	27.7	20.9
1991	36.7	52.8	46.2
1993	37.3	54.9	46.2
1995	44.7	57.7	51.4

Source: NDS Household Surveys. Note: 1. Regularly = at least daily

* Category = "never smoked at all".

Key National Indicator

Proportion of youths aged 12–17 years which has never smoked regularly.

(Baseline: Anti-Cancer Council of Victoria National Secondary Schools Survey 1990; 12 yrs M 93% F 96%; 13 yrs, M 84% F 87%; 14 yrs, M 78% F 73%; 15 yrs, M 68% F 62%; 16 yrs, M 63% F 59%; 17 yrs, M 63% F 57%.)

Rationale: This age group largely comprises school students who were outside the age at which they could legally purchase tobacco products. A corollary to the proposition that the earlier the age at which persons are initiated into tobacco smoking, the more likely they are to become regular smokers, is that the longer a person does not become a

regular smoker, the lower the likelihood that addiction and long-term use will occur. The indicator attempts to measure the effectiveness of programs aimed at younger persons. The expectation was that the proportion of youth who had never smoked regularly would increase.

Notes: The indicator originally included the additional words (not more than 10 cigarettes in total). It was closely linked to the baseline data drawn from the 1990 Anti-Cancer Council of Victoria National Secondary Schools Survey, which included not more than 10 cigarettes in total as part of the "regular" definition. The survey was repeated in 1993 and 1996. Due to unavailability of 1996 results, for completeness, data presented here are drawn from the NDS Household Surveys, 1985–1995. The not more than 10

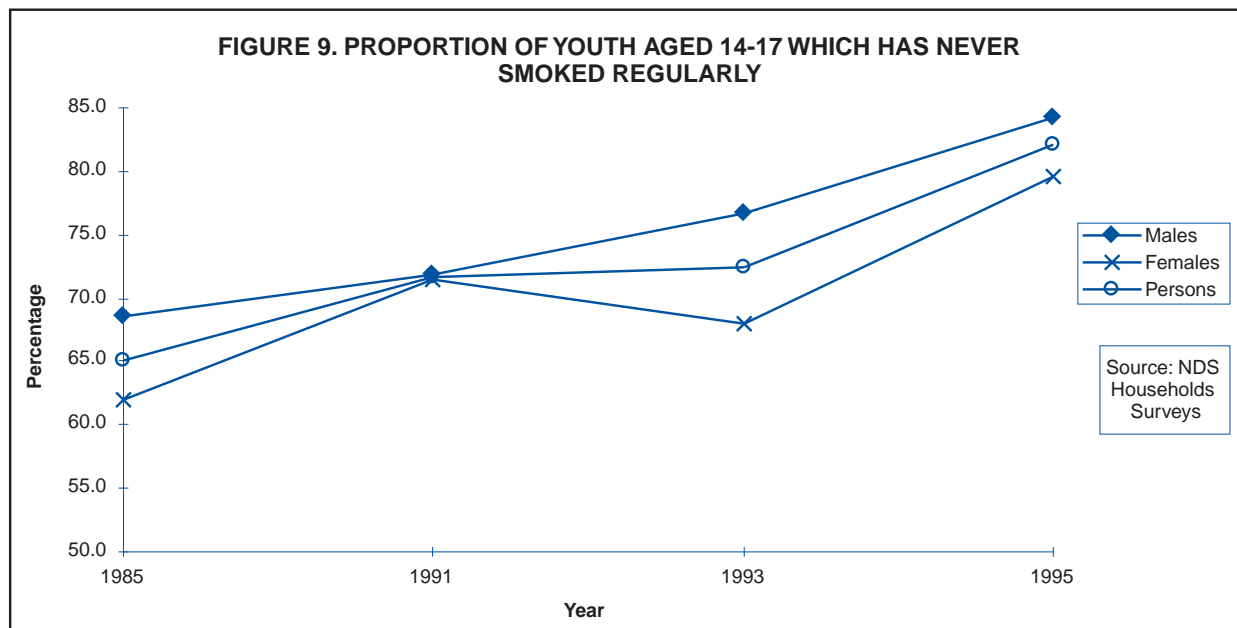


TABLE 9. PROPORTION OF YOUTH (AGED 14-17 YEARS) WHICH HAS NEVER SMOKED REGULARLY (PER CENT)

Year	14	15	16	17	Combined
<i>Males</i>					
1985	90.3	64.0	70.4	41.4	68.5
1988*	70.0	45.5	33.3	40.0	46.3
1991	81.6	71.4	69.2	67.3	71.9
1993	n/a	n/a	n/a	n/a	76.7
1995	73.0	92.7	87.7	82.7	84.3
<i>Females</i>					
1985	74.3	65.0	52.0	56.0	61.9
1988*	36.4	64.7	35.3	15.4	39.7
1991	95.3	70.8	61.7	56.8	71.4
1993	n/a	n/a	n/a	n/a	67.9
1995	98.5	66.1	80.9	79.7	79.6
<i>Persons</i>					
1985	82.4	64.6	61.6	50.0	65.1
1988*	52.4	53.8	34.5	26.1	42.9
1991	88.9	71.1	65.1	62.9	71.7
1993	n/a	n/a	n/a	n/a	72.4
1995	80.8	82.7	83.3	81.1	82.1

Source: NDS Household Surveys. ** Category = "never smoked at all". n/a = not available.
 Sampling variability for individual years of age too high for other than trend indication only.

cigarettes qualification is not included. Once again, a consequence of the use of NDS Household Survey data is that individual year of age sampling variabilities are too high for most practical purposes. They are included for indication of trend patterns only.

The anomalous result in 1988 as indicated in table 9, was largely due to different wording of the survey question in that year (refer to Appendix B). Data for 1988 have been excluded from the corresponding figure for comparability purposes.

Between 1985 and 1995 the proportion of youths aged 14–17 years which had never smoked regularly increased from about two-thirds (65.1%) to over four-fifths (82.1%). Females were less likely than males to have never smoked regularly. Between 1985 and 1995, the proportion of males which had never smoked regularly increased from 68.5% to 84.3%, while the proportion of females increased from 61.9% to 79.6% over the same period. An exception to this trend were males aged 14 years. In 1985, over nine in every ten 14 year old males had never smoked regularly. By 1995, this had declined to less than three-quarters (73.0%).

Key National Policy Objective

Reduce exposure to tobacco smoke (passive smoking) throughout the community.

Passive smoking is the inhalation of other peoples tobacco smoke, whether it is exhaled smoke or sidestream smoke, which drifts from a lit cigarette. Health effects of passive smoking, sometimes referred to as environmental tobacco risk, include cancer, cardiovascular disease, an increased risk of bronchitis and pneumonia, irritation of the upper respiratory tract, and increased frequency and severity of asthma symptoms (DHS&H 1994). It is a risk factor for new cases of asthma in children. The Key National Policy Objective is aimed at reducing the proportion of the population exposed to these risks.

Key National Indicator

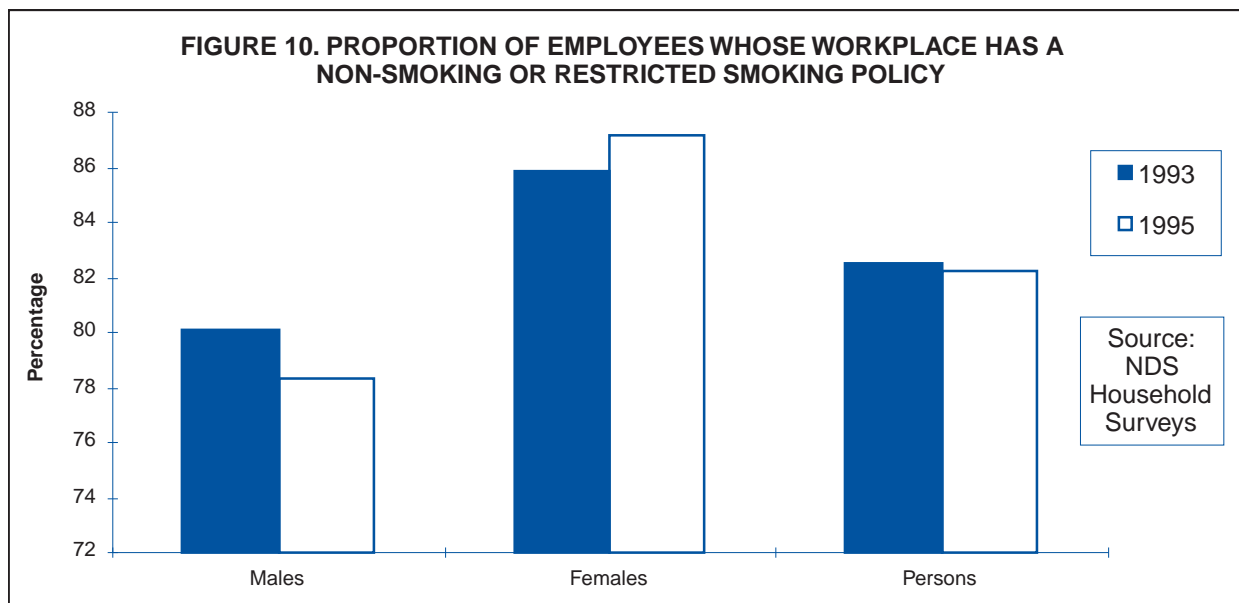
Proportion of employees working in an indoor environment where a smoking ban applies.

(Baselines: Anti-Cancer Council of Victoria Survey 1991, 48%; NCADA Household Survey 1993, data pending.)

Rationale: Members of the community can exercise varying degrees of control over exposure to tobacco smoke in their homes and the public places they frequent. Without the assistance of employers (voluntarily or in response to regulations), they have little direct control over potential exposure in the workplace. The indicator attempts to measure the degree to which employees are protected from workplace exposure. The expectation was that the proportion of employees working in a smoke-free environment would increase.

TABLE 10. PROPORTION OF EMPLOYEES WHOSE WORKPLACE HAS A NON-SMOKING OR RESTRICTED SMOKING POLICY (PER CENT)

Year	Males	Females	Persons
1993	80.1	85.9	82.6
1995	78.3	87.2	82.2



Note: Two baselines, (1991 Anti-Cancer Council of Victoria Survey, and the 1993 NDS Household Survey), were selected. Due to the unavailability of more recent data from the Anti-Cancer Council, the latter has been chosen for this report. Data distinguishing between indoor and outdoor environments were not collected.

Key National Indicator

Proportion of children potentially exposed to tobacco smoke in the home.

(Baselines: ABS 1989–90, 46% of children aged 0–4; NCADA data pending.)

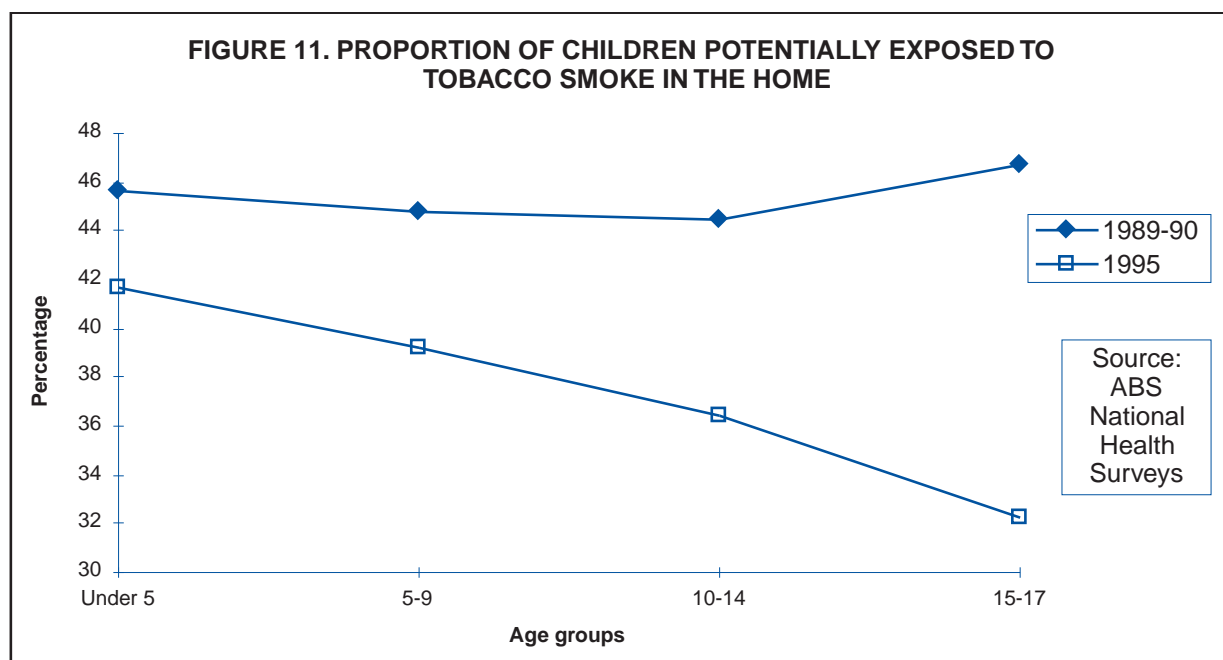
Between 1993 and 1995, the proportion of employees whose workplace had a non-smoking policy remained at about four in every five employees. A slight increase in the proportion of female employees whose workplace had a non-smoking policy was offset by a decline of a similar amount in the proportion of male employees with similar employment conditions.

Rationale: Children who are exposed to tobacco smoke are at increased risk of disease compared with children who are not exposed. While adults are able to exercise control over whether smoking occurs in the home, children cannot. The indicator attempts to measure the extent to which changes in tobacco consumption patterns by adults are reflected in smoking patterns in the home. The expectation was that the proportion of children potentially exposed to tobacco smoke in the home would decline.

TABLE 11. PROPORTION OF CHILDREN POTENTIALLY EXPOSED¹ TO TOBACCO SMOKE IN THE HOME (PER CENT)

Year	Under 5	5–9	10–14	15–17	Combined
1989–90	45.7	44.8	44.5	46.7	45.3
1995*	41.7	39.3	36.4	32.3	38.2

Source: ABS National Health Surveys. Baseline = 1989–90. * Preliminary data. Note: 1. potentially exposed = “at least one smoker in the home”.



Between 1989–90 and 1995, the proportion of persons under 18 years of age potentially exposed to tobacco smoke in the home declined from 45.3% to 38.2%. Declines were evident for all age groups. In 1995 approximately 1.7 million children aged 0–17 years were potentially exposed to tobacco smoke in the home.

A noteworthy trend in 1995 was that the likelihood of exposure to tobacco smoke decreased by age. Children under five years of age were most likely (41.7%) to be exposed, while those aged 15–17 years were least likely to be exposed to tobacco smoke (32.3%). A similar trend was evident in 1989–90, with the exception that the oldest age group (15–17 years) was most likely of all age groups, to be exposed.

Key National Policy Objective

Reduce premature death and illness associated with tobacco use.

(Baseline: NCADA 1990, males 13,329, females 4782.)

In addition to social (and particularly familial) disruption, premature death and

illness adversely affects the Australian society through increased costs associated with lost productivity, health and welfare, research, education and treatment. Between 1988 and 1992, the total avoidable costs (at current prices) associated with tobacco consumption increased from \$4.5 billion to \$5.7 billion (Collins & Lapsley 1996).

Key National Indicator

Deaths due to tobacco using aetiological fractions

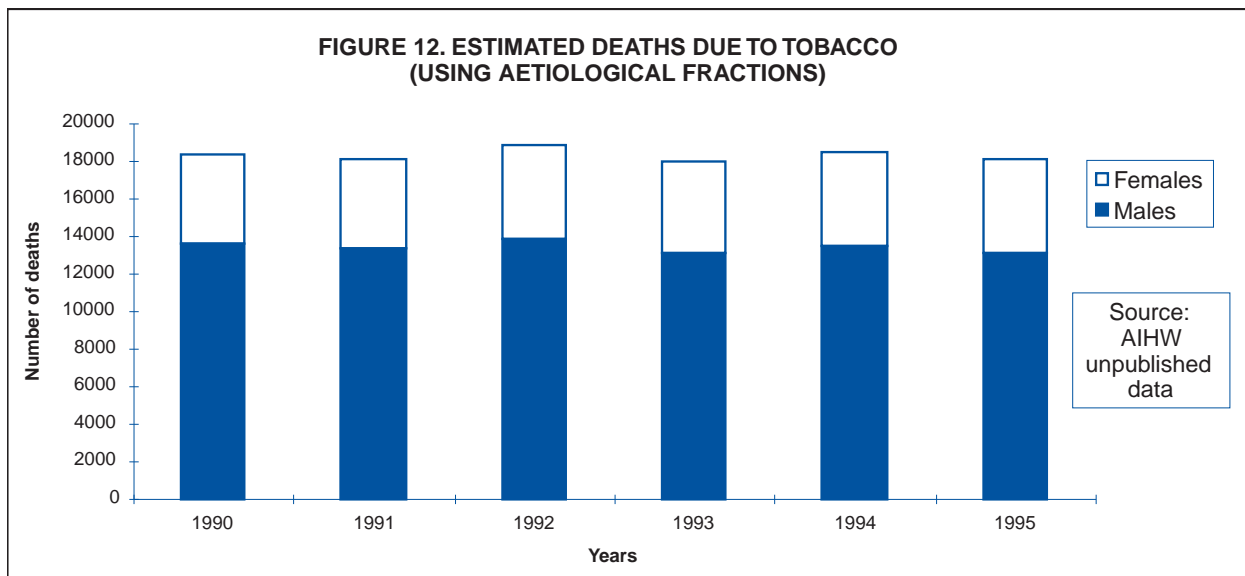
Rationale: Tobacco-related deaths are totally avoidable. In the absence of tobacco consumption, it is estimated that an additional 320,500 persons (216,400 males and 104,100 females) would have been alive in 1991 (Collins & Lapsley 1992). The indicator measures the annual tobacco-related mortality toll. The expectation was that over time (longer than that covered by these data) the number of deaths would decline.

Notes: The 1990 baseline deaths of 13,329 males and 4,782 females were estimated according to the Holman and Armstrong et al. (1990) aetiological model. The data presented here are estimated using the

TABLE 12. DEATHS DUE TO TOBACCO USING AETIOLOGICAL FRACTIONS¹ (NUMBER)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
<i>Males</i>									
1990	4917	3457	2229	1260	1068	442	81	146	13601
1991	4687	3469	2212	1262	1098	421	93	139	13380
1992	5092	3439	2373	1269	1066	408	85	126	13857
1993	4603	3309	2287	1198	1136	402	82	138	13154
1994	4661	3372	2443	1256	1130	448	102	129	13541
1995	4714	3387	2206	1141	1100	399	100	115	13163
<i>Females</i>									
1990	1775	1228	730	431	377	179	30	56	4807
1991	1732	1261	726	418	380	159	41	47	4766
1992	1866	1297	812	432	395	170	39	55	5066
1993	1776	1266	777	420	411	166	39	47	4902
1994	1804	1325	812	423	381	158	35	60	4998
1995	1837	1285	774	421	392	169	34	48	4961
<i>Persons</i>									
1990	6692	4685	2959	1691	1446	621	111	203	18408
1991	6419	4730	2938	1680	1479	581	134	186	18146
1992	6958	4736	3185	1700	1461	577	124	181	18923
1993	6379	4575	3064	1618	1546	568	121	185	18056
1994	6465	4697	3254	1679	1512	606	137	189	18539
1995	6551	4672	2980	1563	1492	568	134	164	18124

Source: AIHW unpublished data. Note: 1. See English et al. 1995.



revised English and Holman et al. (1995) model. Accordingly, the baseline numbers for 1990 have altered.

The indicator is a crude measure only. While indicating in absolute terms the extent of tobacco related mortality, standardised rates by age and gender might provide a more relevant measure of trends.

Between 1990 and 1995, a total of 110,196 deaths are estimated to have occurred due to tobacco consumption. The annual number of deaths of males due to tobacco use was almost three times that of deaths of females. The male:female ratio of deaths from tobacco-related causes declined only slightly from 2.8:1 to 2.6:1 in this period. Similar patterns are evident at the State and Territory level.

Rationale: The indicator is a de facto measure of the number of persons requiring hospital admission due to conditions associated with active smoking. In addition to the predominance of active smoking over passive smoking in tobacco-related deaths (and hence perhaps more relevant), the active qualification in the indicator appears to be linked to an inability to account for conditions associated with passive smoking. The expectation was that over time (longer than that covered by these data) the number of separations would fall.

Notes: The 1989–90 baseline number of separations (38,536) related only to one State (New South Wales). As documentation on its derivation was not retained, 1992–93 separations have been substituted.

The indicator is a crude measure only. While indicating in absolute terms the extent of tobacco related separations, standardised rates by age and gender might provide a more relevant measure of trends.

Key National Indicator

Hospital separations from conditions associated with active smoking.

(Baseline: NSW Health Dept 1989–90, 38,536.)

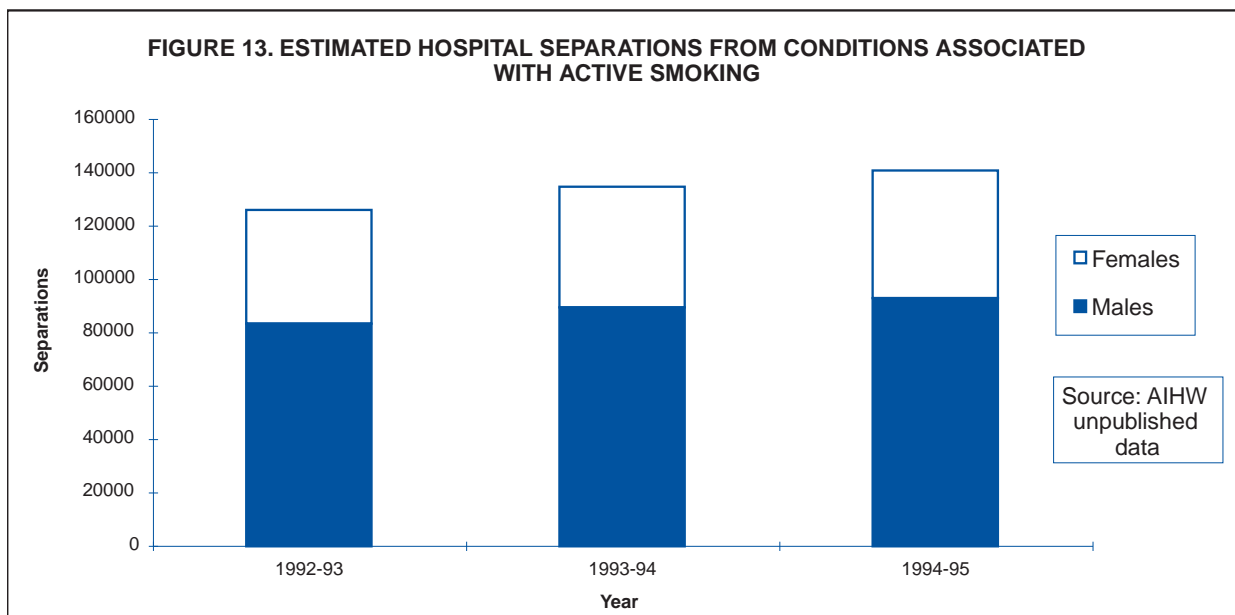
TABLE 13. HOSPITAL SEPARATIONS FROM CONDITIONS ASSOCIATED WITH ACTIVE SMOKING (NUMBER)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
<i>Males</i>									
1992–93	31450	15656	15688	8586	7723	2422	423	1218	83167
1993–94	32786	20476	16505	8124	7763	2210	554	1027	89444
1994–95	32852	22133	17531	8832	7871	2380	590	1200	93389
<i>Females</i>									
1992–93	16302	8210	7958	4103	3790	1240	299	688	42590
1993–94	16279	10739	8300	4184	3673	1182	338	641	45335
1994–95	16486	11704	8838	4562	3884	1264	437	699	47873
<i>Persons</i>									
1992–93	47753	23866	23646	12689	11512	3662	722	1906	125757
1993–94	49065	31214	24805	12308	11436	3391	892	1668	134779
1994–95	49337	33837	26369	13394	11755	3644	1027	1898	141261

Chapter 3

Between 1992–93 and 1994–95, there were 400,000 hospital separations from conditions associated with active smoking. Hospital separations were approximately twice as likely to involve male active

smokers than female active smokers, and this trend did not alter over the three years. The annual number of separations increased from 125,757 to 141,261 over the same period.



Alcohol

Alcohol is produced by fermentation in which water and yeast act on sugars of various types of grains, vegetables and fruits. The fermentation produces ethyl alcohol (ethanol), a drug that depresses or slows down the activity of the central nervous system. Alcohol is classed as a sedative-hypnotic together with barbiturates and minor tranquillisers (DHS&H 1994).

Alcohol is absorbed directly into the bloodstream through the walls of the stomach and the small intestine. It is rapidly distributed to all parts of the body, including the brain, but not fatty tissue. The female body typically contains a higher percentage of fat and a lower percentage of water. Similar amounts of alcohol produce higher blood alcohol levels in females than in males.

Immediate effects of alcohol include decreases in motor coordination, visual

ability and respiration, which can increase the risk of accidents. Short-term effects of alcohol abuse include aggression, vomiting and blackouts, while long-term effects include liver, brain and pancreas damage, heart and blood disorders, ulcers and loss of memory.

Key National Policy Objective

Reduce premature death, illness and injury associated with alcohol use.

Between 1988 and 1992, the estimated avoidable costs associated with alcohol consumption increased from \$3.3 billion to \$3.8 billion (at current prices) (Collins & Lapsley, 1996). In 1991, almost 82% of the avoidable costs (\$3.1 billion) were due to lost productivity, health care and road accidents, and 18% (\$0.7 billion) was due to years of life lost, and pain and suffering.

Key National Indicator

Deaths due to alcohol using aetiological fractions.

(Baseline: NCADA 1990, males 4140, females 2465.)

Rationale: It has been estimated that in 1991 there would have been an additional 122,900 Australians alive (75,900 males and 47,000 females) in the absence of alcohol consumption (Collins & Lapsley 1992). More than 80,000 Australians are admitted to hospital annually for alcohol-related injuries and illnesses. The indicator measures the annual mortality toll due to alcohol (mis)use

The expectation was that over time the number of deaths would decline.

Notes: The 1990 baseline deaths of 4,140 males and 2,465 females were estimated according to the Holman and Armstrong et al. (1990) aetiological model. The data presented here are estimated using the revised English and Holman et al. (1995) model. Accordingly, the baseline number of deaths have altered.

The indicator is a crude measure only. While indicating in absolute terms the extent of alcohol related mortality, standardised rates by age and gender might provide a more relevant measure of trends.

Between 1990 and 1995, the number of deaths due to alcohol use decreased from 3863 to 3642 persons. There were twice as many deaths of males as females from alcohol-related causes, and the male:female ratio declined slightly from 2.2:1 to 2:1. Similar patterns are evident at the State and Territory level.

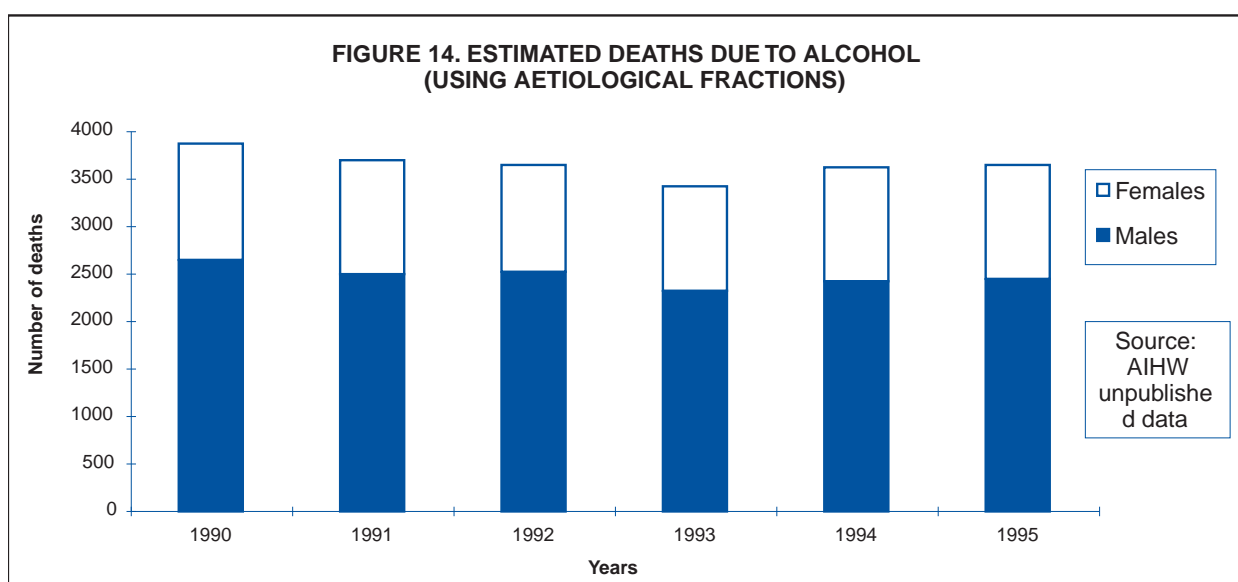


TABLE 14. DEATHS DUE TO ALCOHOL (USING AETIOLOGICAL FRACTIONS) (NUMBER)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
<i>Males</i>									
1990	980	643	446	219	211	63	58	27	2647
1991	862	640	436	210	207	77	43	35	2510
1992	861	643	440	216	223	63	48	28	2521
1993	831	510	404	217	217	68	44	22	2313
1994	846	571	440	214	223	65	42	30	2431
1995	872	534	425	221	239	68	58	24	2441
<i>Females</i>									
1990	448	304	200	98	104	31	18	12	1216
1991	416	301	192	106	100	39	17	10	1183
1992	425	268	198	90	101	34	15	10	1140
1993	415	262	179	104	101	33	16	10	1120
1994	429	271	208	109	117	34	17	15	1199
1995	445	271	211	99	106	36	20	12	1202
<i>Persons</i>									
1990	1429	947	646	317	314	95	76	39	3863
1991	1278	942	628	316	308	116	61	45	3693
1992	1285	910	638	306	324	96	63	38	3661
1993	1246	771	583	321	318	101	59	32	3432
1994	1276	841	649	323	339	98	58	46	3630
1995	1317	805	636	320	346	104	78	36	3642

Source: AIHW unpublished data.

Key National Indicator

Hospital separations from conditions associated with alcohol use.

(Baseline: NSW Health Dept 1989–90 30,875.)

Rationale: The indicator is a de facto measure of the number of persons requiring hospital admission due to conditions associated with alcohol consumption (some persons would have had multiple admissions). The expectation was that over time, the number of separations would decline.

Notes: Because of the 1989–90 baseline number of separations (30,875) related to only one State (New South Wales), and as documentation on its derivation was not retained, 1992–95 separations have been substituted.

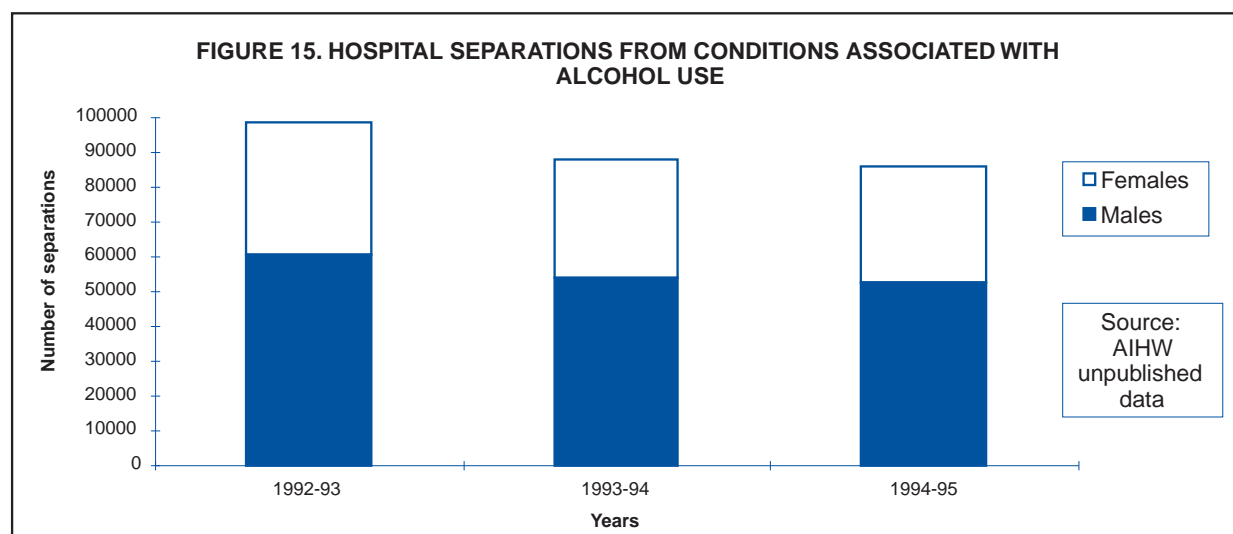
The indicator is a crude measure only. While indicating in absolute terms the extent of alcohol related separations, standardised rates by age and gender might provide a more relevant measure of trends.

Between 1992–93 and 1994–95, there were 273, 229 hospital separations for conditions associated with alcohol consumption. The annual number of separations declined from 98,778 to 86,137 over the same period. The male:female ratio of separations remained stable at 1.6:1 for the three years.

TABLE 15. HOSPITAL SEPARATIONS FROM CONDITIONS ASSOCIATED WITH ALCOHOL USE (NUMBER)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
<i>Males</i>									
1992–93	22318	9661	14217	5430	6084	1295	847	572	60425
1993–94	19989	9923	12747	4273	5201	1002	744	407	54286
1994–95	19421	10667	13159	1900	5491	1011	722	520	52890
<i>Females</i>									
1992–93	14918	6455	7570	3819	3790	920	468	415	38354
1993–94	12430	7074	6804	2974	3431	612	429	274	34028
1994–95	12178	7769	7354	953	3571	652	441	329	33246
<i>Persons</i>									
1992–93	37237	16116	21786	9248	9874	2215	1315	987	99778
1993–94	32419	16997	19551	7247	8632	1614	1173	681	88314
1994–95	31599	18436	20512	2853	9062	1663	1162	848	86137

Sources: AIHW unpublished data.



Key National Policy Objective

Reduce the proportion of the population which drinks regularly at levels above that identified by the National Health and Medical Research Council as low risk.

The National Health and Medical Research Council (NHMRC) recommends that the consumption of alcohol by adult males should not exceed 40 grams of absolute alcohol (four standard drinks) per day or 28 standard drinks per week on a regular basis, and for adult females, alcohol consumption should not exceed two standard drinks per day or 14 standard drinks per week. The NHMRC also recommends that all persons should have at least two alcohol-free days per week, and that pregnant women and persons driving or operating machinery should abstain from alcohol.

Key National Indicator

Proportion of drinkers who, over the past 12 months, consumed alcohol at hazardous or harmful levels at least one day a week.

(Baseline: NCADA 1991, males 44%, females 30%.)

Rationale: The indicator is a measure of the prevalence of regular hazardous and harmful drinking in the population. The expectation was that the proportion of drinkers consuming at hazardous or harmful levels, would decline.

Between 1985 and 1995, the proportion of adult drinkers who consumed alcohol at hazardous or harmful levels declined from about one in three (31.6%) to about one in four persons (27.4%). Males were more likely than females to consume at these levels. For the period 1991 to 1995, consumption at hazardous or harmful levels by males declined by 13%, and for females by 9%.

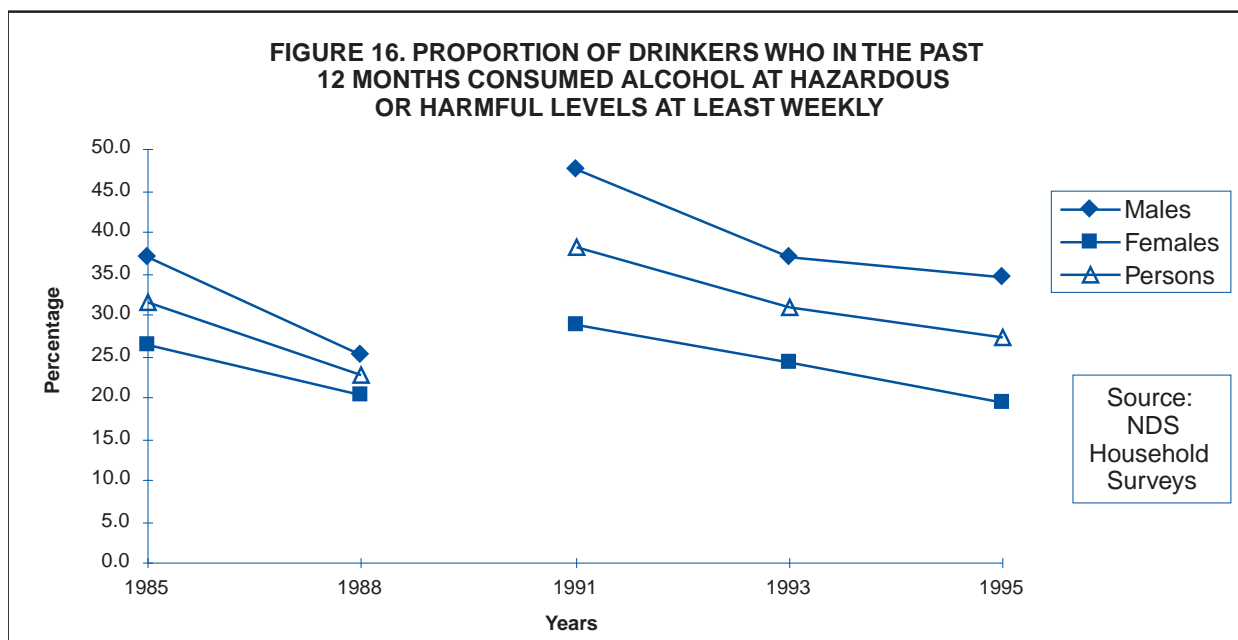
Due to the different wording of survey questions in 1985, 1988, and in 1991, 1993, 1995, it is more appropriate to view the

data separately. The earlier surveys referred to usual, that is, every occasion when drinking, while the later surveys referred more particularly to at least one day per week. Accordingly, rates are higher for the later years. In both instances, trends are towards fewer persons drinking at hazardous or harmful levels.

TABLE 16. PROPORTION OF DRINKERS WHO OVER THE PAST 12 MONTHS CONSUMED ALCOHOL AT HAZARDOUS OR HARMFUL LEVELS AT LEAST ONE DAY A WEEK (PER CENT)

Year	Males	Females	Persons
1985*	37.0	26.3	31.6
1988*	25.0	20.5	22.8
1991	47.6	28.7	38.3
1993	37.0	24.4	31.1
1995	34.6	19.5	27.4

Source: NDS Household Surveys. Age range = 20+; Hazardous or Harmful defined as 5+ standard drinks (m) and 3+ standard drinks (f). * 1985 and 1988 Survey question wording slightly different—refer to Appendix B



Key National Indicator priority group— Indigenous Australians

Proportion of Indigenous Australians drinking at hazardous or harmful levels.

(Baseline: Not set.)

Rationale: Indigenous Australians are more likely than non-Indigenous Australians to abstain from alcohol. Of those persons who do consume alcohol though, Indigenous Australians are more likely than non-Indigenous Australians to consume at hazardous or harmful levels. The indicator is a measure of the extent of such consumption and it becomes a baseline for future surveys. The expectations were that over time, prevalence rates would decline and the differential between Indigenous and non-Indigenous Australians would also decline.

Compared with non-Indigenous drinkers in 1993 and 1995, Indigenous drinkers were less likely in 1994 to drink at NHMRC low-risk levels. In 1995 over one in four (26%) non-Indigenous male drinkers and slightly less than one in three (30%) non-Indigenous female drinkers never consumed at hazardous or harmful levels. This compares with less than one in ten Indigenous drinkers (7% males, 9% females).

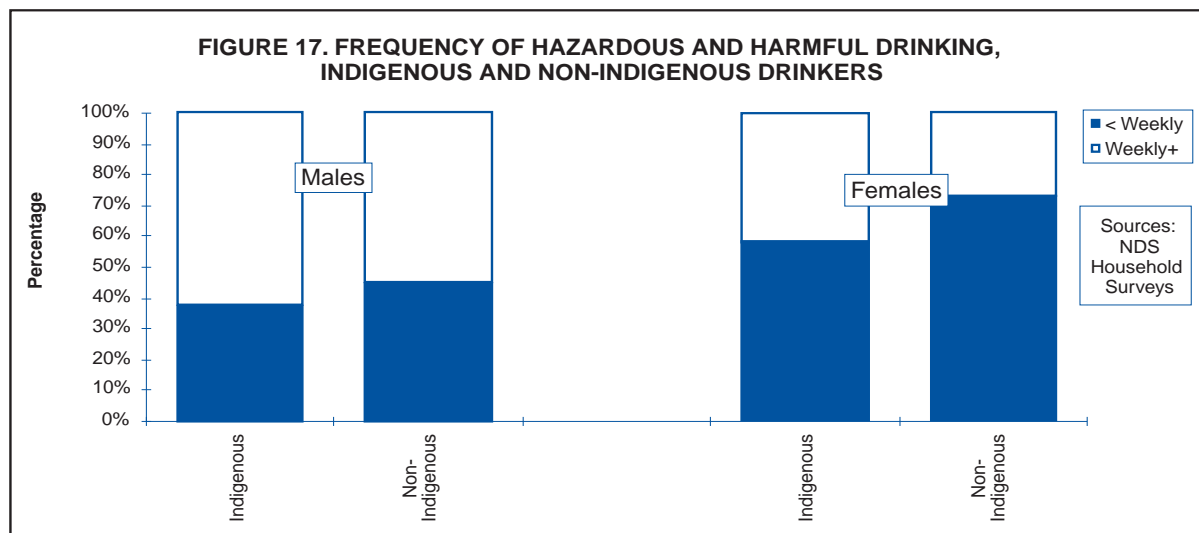
Indigenous drinkers were more likely to consume at hazardous or harmful levels more frequently than non-Indigenous drinkers.

Of the drinkers who consume alcohol at hazardous and harmful levels, Indigenous persons are far more likely than non-Indigenous persons to drink at these levels at least weekly. In 1994, nearly two-thirds (62%) of Indigenous males and almost half (45%) of Indigenous females who consumed at high levels, did so weekly or more often. Corresponding rates in 1995 for non-Indigenous drinkers who drank at high levels were 42% (males) and 27% (females).

TABLE 17. COMPARISON OF THE FREQUENCY OF HAZARDOUS OR HARMFUL DRINKING, INDIGENOUS AND NON-INDIGENOUS DRINKERS

Frequency	Gender					
	Males			Females		
	Non-Indig.	Indig.	Non-Indig.	Non-Indig.	Indig.	Non-Indig.
	Community					
	Year					
	1993	1994	1995	1993	1994	1995
	per cent					
Daily	4	10	2	2	3	1
Weekly+	32	48	31	23	35	18
Monthly+	24	21	21	24	29	22
Once yearly	23	13	19	31	24	27
Never	17	7	26	21	9	30

Sources: NDS Household Surveys, 1993,1995; NDS ATSI Supplement, 1994; Current drinkers aged 20+; Hazardous or harmful defined as 5+ standard drinks (male) and 3+ standard drinks (female).Daily = every day; Weekly = 1-6 days each week; Monthly = less than weekly.



Key National Indicator
 —priority group—
Pregnant females

Proportion of pregnant women who consume alcohol.

(Baseline: Not set.)

Rationale: The NHMRC recommends that pregnant women should abstain from consuming alcohol. Alcohol readily passes through the mother’s blood supply to the developing foetus, resulting in immediate foetal reactions including increased heart rate and dilation of the small blood vessels.

Exposure to high alcohol consumption by the mother can result in foetal alcohol syndrome, a condition which is characterised by neurological and physical damage, and malformation. The indicator attempts to measure the success of education programs targeted to this group. The expectation was that the proportion of pregnant women who consumed alcohol would decline.

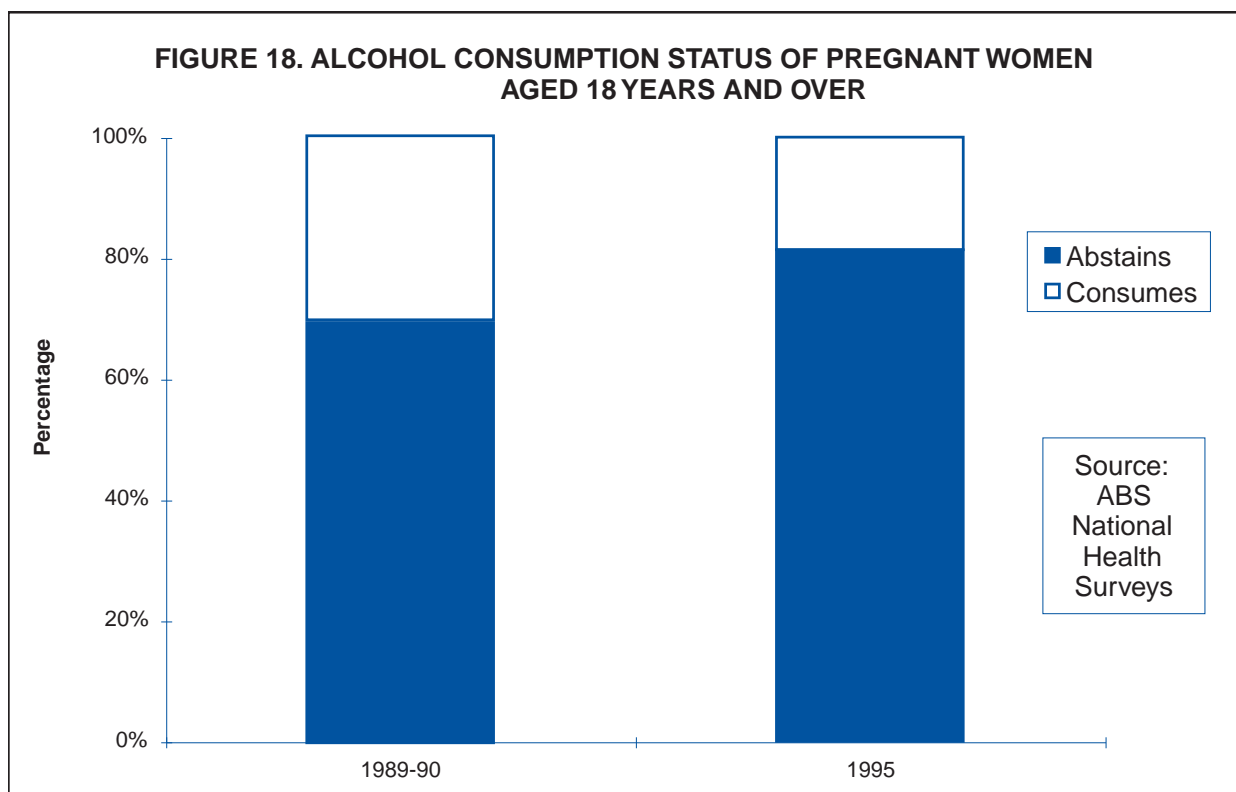
Between 1989–90 and 1995, the proportion of pregnant women who abstained from consuming alcohol increased from two-thirds (69.5%) to over four in every five (81.4%). In the same period, the number of pregnant women who consumed alcohol at NHMRC low risk levels (for non-pregnant women) declined from about one in three (30.1%) to less than one in five (18.6%).

TABLE 18. ALCOHOL RISK LEVEL, PREGNANT WOMEN AGED 18 YEARS AND OVER, 1989–90, 1995, AUSTRALIA (PER CENT)

Alcohol risk level	1989–90	1995
Abstain from alcohol	69.5	81.4
Low	30.1	18.6
Hazardous*	0.2	0.0
Harmful*	0.2	0.0
Total who consume alcohol	30.5	18.6

Source: ABS National Health Surveys; 1995 NHS preliminary data.

** Note: subject to sampling variability too high for most practical purposes.



Key National Policy Objective

Reduce the incidence and consequences of heavy or binge drinking, particularly the unlawful supply and consumption among young people.

Binge drinking involves the consumption of hazardous or harmful levels of alcohol in a relatively short period, typically a number of hours. At these levels, the physical effects of alcohol are more pronounced (DHS&H 1994). Motor coordination, visual ability and respiration decrease, which heightens the risk of accidents and injuries. At a blood alcohol level of 0.15%, the effects usually include disorientation and confusion, slurred speech,

blurred vision, poor muscle control, nausea and vomiting. In higher blood alcohol concentrations, there are risks of unconsciousness, alcohol poisoning and death.

In contrast to binge drinking, heavy drinking is a concept which incorporates the frequency at which NHMRC low risk levels are breached. Makkai and McAllister (*in press*) define heavy consumption for (adult) males as consuming five or more drinks on seven days a week, or seven or more drinks on four to six days a week, or more than 12 drinks on two to three days a week. For (adult) females, it comprises consuming three or more drinks at least four days a week, or five or more drinks on two to three days a week, or more than six drinks at least twice a week. Heavy drinking behaviours can lead to addiction to alcohol and the higher risks of long-term alcohol-related chronic illnesses.

Key National Indicator

Proportion of drinkers who, when they drink, usually consume at hazardous or harmful levels.

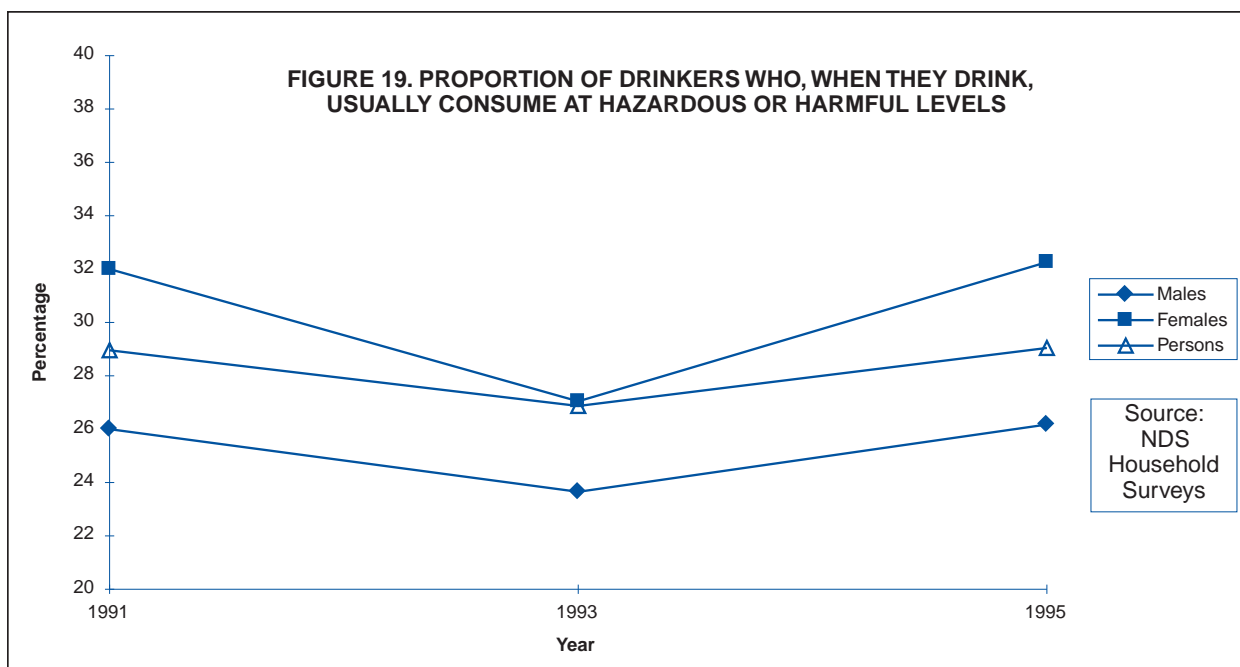
(Baseline: NCADA 1991, males 26%, females 32%.)

Rationale: The indicator is an obvious measure of the prevalence of regular hazardous and harmful drinking in Australia. The expectation was that the proportion of drinkers who consumed at hazardous or harmful levels when they drink, would decline.

TABLE 19. PROPORTION OF DRINKERS WHO, WHEN THEY DRINK, USUALLY CONSUME AT HAZARDOUS OR HARMFUL LEVELS (PER CENT)

Year	Males	Females	Persons
1991*	26.0	32.0	29.0
1993	23.6	27.1	26.9
1995	26.2	32.2	29.1

Source: NDS Household Surveys. * Subject to rounding errors. Hazardous or harmful defined as 5+ standard drinks (male) and 3+ standard drinks (female), age range 14+.



After small declines in 1993 in the proportion of drinkers who, when they consumed alcohol, drank at hazardous or harmful levels, rates in 1995 for both genders returned to levels evident in 1991. Female drinkers were more likely than male drinkers to drink at hazardous or harmful levels in each of the years.

Key National Indicator

Proportion of senior school students drinking five or more drinks (males) or three or more drinks (females) in one session.

(Baseline: Anti-Cancer Council of Victoria National Secondary Schools Survey 1990, 12 yrs, M 1% F 1%; 13 yrs, M 2% F 3%; 14 yrs, M 5% F 7%; 15 yrs, M 12% F 17%; 16 yrs, M 20% F 21%; 17 yrs, M 28% F 25%.)

TABLE 20. PROPORTION OF SENIOR SCHOOL STUDENTS¹ DRINKING 5 OR MORE DRINKS (MALES) OR 3 OR MORE DRINKS (FEMALES), IN ONE SESSION (PER CENT)

Year	14	15	16	17	Combined
<i>Males</i>					
1985	21.5	51.0	35.6	58.6	38.3
1988	40.0	21.4	42.9	40.0	32.3
1991	50.0	52.2	82.6	65.2	62.9
1993*	n/a	n/a	n/a	n/a	78.6
1995	65.2	29.1	61.8	80.7	60.6
<i>Females</i>					
1985	24.0	36.6	46.0	40.7	35.5
1988	55.6	37.5	66.7	100.0	62.5
1991	55.6	81.6	64.7	88.9	73.1
1993*	n/a	n/a	n/a	n/a	82.7
1995	0.0	63.9	67.1	91.5	75.7
<i>Persons</i>					
1985	22.7	43.1	40.3	49.1	36.9
1988	50.0	27.3	56.3	72.7	47.6
1991	52.6	70.5	71.9	75.6	68.5
1993*	n/a	n/a	n/a	n/a	80.5
1995	58.1	41.4	65.0	85.9	67.5

Source: NDS Household Surveys. Hazardous or harmful = 5+ standard drinks (males) or 3+ standard drinks (females).

Note: 1. % of those who had consumed alcohol in previous 12 months. Sampling variability for individual years of age too high for other than trend indication only. *14–19 applies.

Rationale: The risks already identified for adults who consume at these levels are amplified for young persons who would, for the most part, be unaccustomed to consuming alcohol in large quantities. Students under 18 years of age are unable to legally purchase alcohol products. The expectation was that the proportion of senior school students (who drank) consuming at high levels would decline.

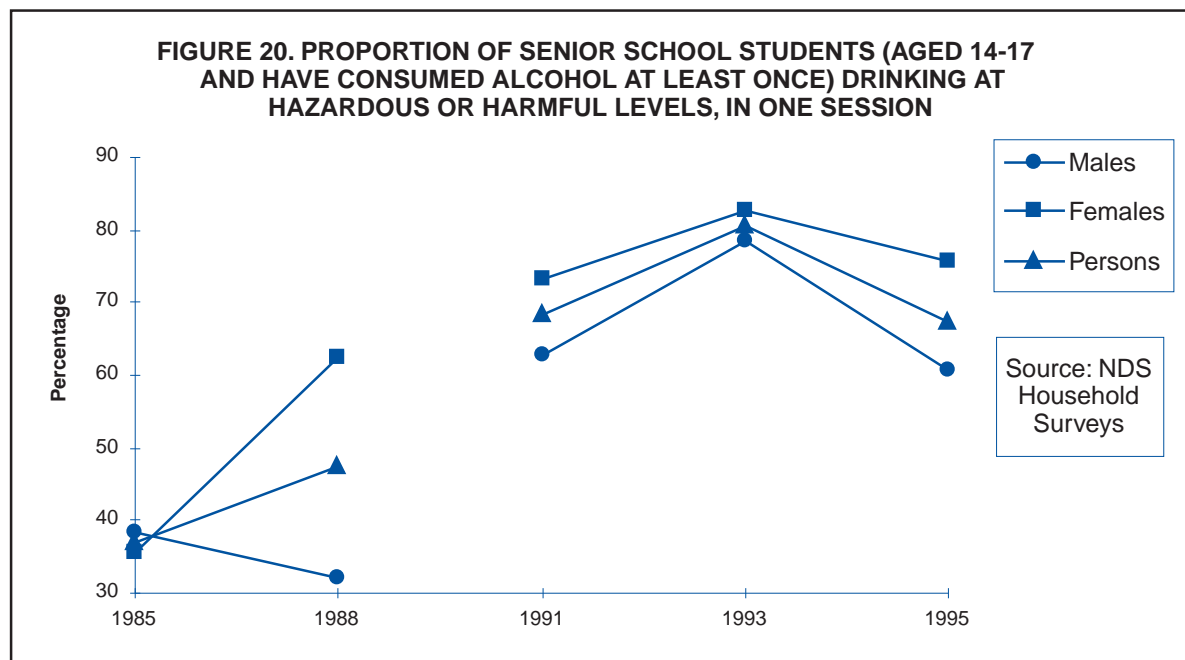
Notes: Baseline data were drawn from the Anti-Cancer Council of Victoria 1990 National Secondary Schools Survey. The survey was repeated in 1993 and 1996. As data from the 1996 survey were unavailable, results from the NDS Household Survey are presented in their place.

The baseline data also related to all school students, regardless of whether they had ever tried alcohol, whereas data presented here refer only to those students who had consumed alcohol.

Due to different wording of survey questions in 1985 and 1988, and in 1991, 1993, 1995, it is more appropriate to view data separately. The earlier surveys refer to 'usual' (that is on most occasions), while the latter refer to 'at least once in the previous 12 months'.

The anomalous result in 1993 may be due to the different age range of this survey (14–19).

Since 1988, female senior school students who had consumed alcohol were more likely than their male counterparts to drink at hazardous or harmful levels.



Key National Indicator
 —priority group—
Indigenous senior school students

Proportion of indigenous senior school students drinking at hazardous or harmful levels.

(Baseline: Not set.)

Rationale: Indigenous adult drinkers are more likely to consume alcohol at hazardous or harmful levels than non-Indigenous adult drinkers. The indicator measures

TABLE 21. COMPARISON OF THE PROPORTIONS OF SENIOR SCHOOL STUDENTS DRINKING 5+ DRINKS (MALE) OR 3+ DRINKS (FEMALE), IN ONE SESSION, INDIGENOUS AND NON-INDIGENOUS, IN PAST 12 MONTHS¹ (PER CENT)

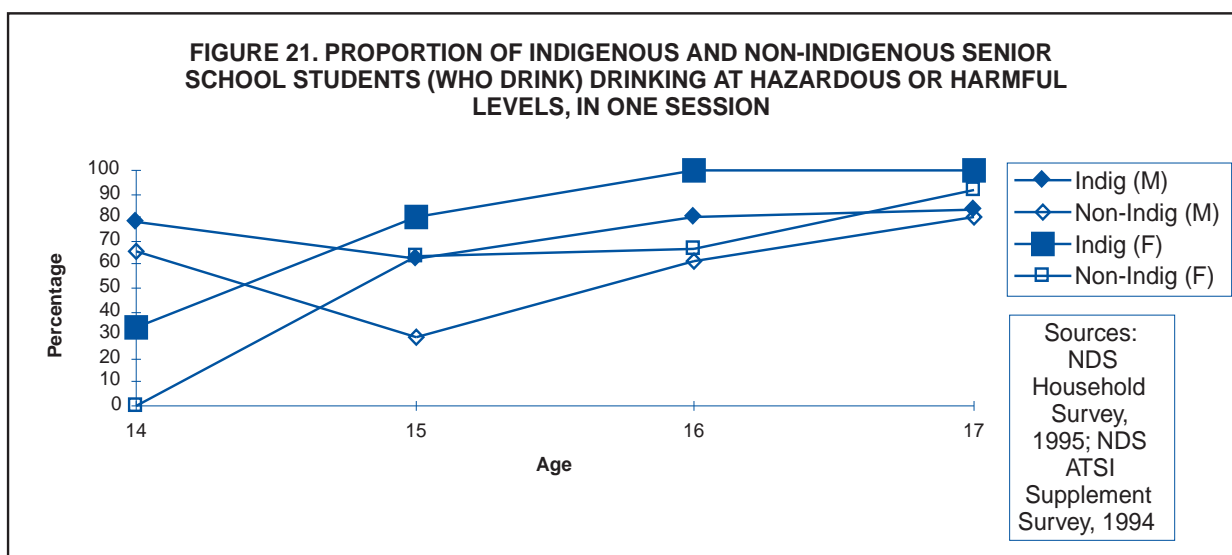
Age	Males			Females			Persons		
	Community								
	non-Indig.	Indig. ²	non-Indig.	non-Indig.	Indig. ²	non-Indig.	non-Indig.	Indig. ²	non-Indig.
	Year								
	1991	1994	1995	1991	1994	1995	1991	1994	1995
14	50.0	78.0	65.2	55.6	33.0	0.0	52.6	67.0	58.1
15	52.2	63.0	29.1	81.6	80.0	63.9	70.5	72.0	41.4
16	82.6	80.0	61.8	64.7	100.0	67.1	71.9	85.0	65.0
17	65.2	83.0	80.7	88.9	100.0	91.5	75.6	90.0	85.9
14-17	62.9	76.0	60.6	73.1	80.0	75.7	68.5	77.0	67.5

Sources: NDS Household surveys, 1991, 1995; NDS ATSI Supplement, 1994. Notes: 1. as a % of respondents who had consumed at least one glass of alcohol in previous 12 months. 2. Subject to rounding errors.

corresponding rates of hazardous or harmful levels in younger Indigenous drinkers with a view to determine if patterns are established in youth. It will inform the development of programs targeted to this group.

Note: The Strategic Plan identifies Indigenous adults as the priority group. Data on hazardous or harmful drinking in this group were presented in table 17 and figure 17.

Compared with non-Indigenous senior school students who consume alcohol, Indigenous senior school students who drink are more likely to consume alcohol at hazardous or harmful levels. In 1994 over three-quarters of Indigenous senior school students who had consumed alcohol, did so at hazardous or harmful levels at least once in the previous 12 months. In common with non-Indigenous senior school students, female Indigenous senior school students who had consumed alcohol were more likely to do so at hazardous or harmful levels than males.



Key National Policy Objective

Reduce the rate of road crashes involving drivers who have consumed alcohol beyond prescribed blood alcohol content levels.

Not all alcohol-related road accidents are avoidable, however a high proportion are, or their severity limited.

Collins and Lapsley (1996) estimated the cost of alcohol-related road accidents to be approximately \$1.1 billion annually.

The adverse effects of alcohol consumption (for example, decreases in motor-sensory coordination) affect the ability to operate a motor vehicle, in particular anticipation, reaction and avoidance behaviours. Slightly less than one-third of all fatal road accidents are alcohol related.

Key National Indicator

Number of alcohol-related motor vehicle deaths, particularly among males aged 15–34.

(Baseline: NCADA 1990, males 15–35 (sic) = 330, persons all ages = 711.)

Rationale: The indicator attempts to measure the extent to which “don’t drink and drive” education messages have been successful. Males aged 15–34 are a high risk priority group. The expectation was that the number of alcohol-related motor vehicle deaths, particularly among males aged 15–34, would decline.

Note: The indicator is inadequate. The link between age of those killed in motor vehicle accidents and the age of those responsible for the accident (usually the driver) is not established.

Between 1990 and 1995, the trend for the number of persons killed in alcohol-related motor vehicle accidents has generally been towards fewer persons. In 1990, 571 persons were killed in motor vehicle accidents where at least one operator recorded a blood alcohol content (BAC) of 0.05% or above (or where an operator refused to be tested). After declining to 379 deaths in 1994, the number rose to 459 in 1995. Of all deaths where at least one operator recorded a BAC of 0.05% or above, males were five times as likely to be killed than females.

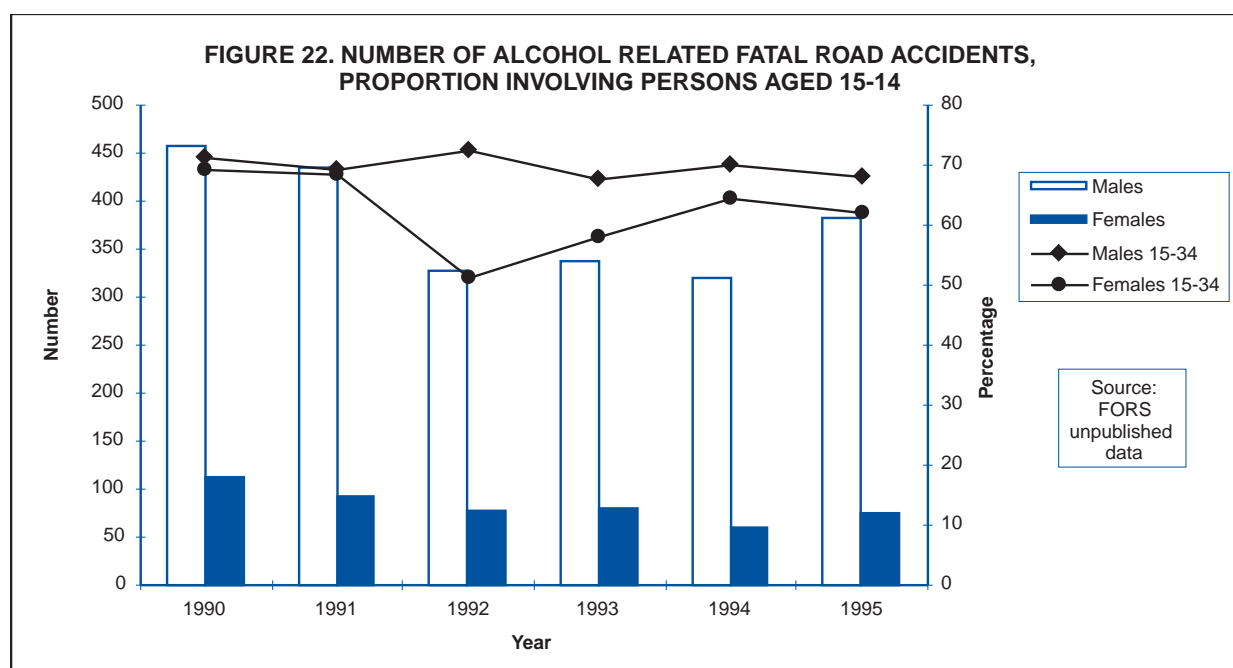
Deaths involving persons aged 15–34 years followed the pattern for all deaths. After a steady decline from 404 deaths in 1990 to 262 deaths in 1994, the number of 15–34 year olds increased to 307 in 1995. On average, this age group accounted for approximately seven out of every ten alcohol-related motor vehicle deaths. There were between four and six times more males killed than females over the period.

When addressing the particular risks of males aged 15–34 years as a proportion of all male deaths, there has been a modest decline where at least one operator recorded a BAC of 0.05% or higher. In 1990 over seven in ten (71%) deaths of males were in this age group. In 1995, 67% of deaths of males were aged 15–34 years. Perhaps surprisingly, with the exception of 1992, deaths involving females followed the male trend. Of all motor vehicle deaths of females where at least one operator recorded a BAC of 0.05% or higher, females aged 15–34 years accounted for slightly less than seven in ten. In 1990 69% of alcohol-related motor vehicle deaths involved females. In 1995, the corresponding proportion was 62%.

TABLE 22. PERSONS KILLED IN MOTOR VEHICLE CRASHES WHERE AT LEAST ONE VEHICLE OPERATOR HAD A BAC¹ OF 0.05+ OR REFUSED TO BE TESTED

<i>Age group</i>	1990	1991	1992	1993	1994	1995
<i>Males</i>						
0–14	10	5	4	6	5	2
15–34	326	300	237	229	224	260
35+	122	129	87	103	91	121
Total	458	434	328	338	320	383
<i>Females</i>						
0–14	7	4	1	8	0	0
15–34	78	63	40	47	38	47
35+	28	25	37	26	21	29
Total	113	92	78	81	59	76
<i>Persons</i>						
0–14	17	9	5	14	5	2
15–34	404	363	277	276	262	307
35+	150	154	124	129	112	150
Grand Total	571	527*	406	419	379	459

Source: FORS unpublished data; * age/gender unknown for one person. Note: 1. BAC = blood alcohol content



Key National Indicator

Proportion of all fatal road accidents which are alcohol-related.

(Baseline: FORS 1991, Australia 31%.)

Rationale: The indicator attempts to measure the extent of success of “don’t drink and drive” education programs, but at the broader community level, not just those aged 15–34 years. The expectation was that the proportion of all fatal road accidents which are alcohol-related would fall.

Between 1990 and 1994 there was a steady decline in the total number of fatal motor vehicle accidents. In 1990 there were 2,054 fatal accidents and in 1994 there were just 1,710. In 1995 the number of fatal road accidents rose to 1,819. As a proportion of fatal road accidents where a BAC analysis was undertaken, the proportion where a BAC of 0.05% or above was recorded declined from over three out of every ten (31.3%) in 1990 to one in ever four in 1992 (25.5%).

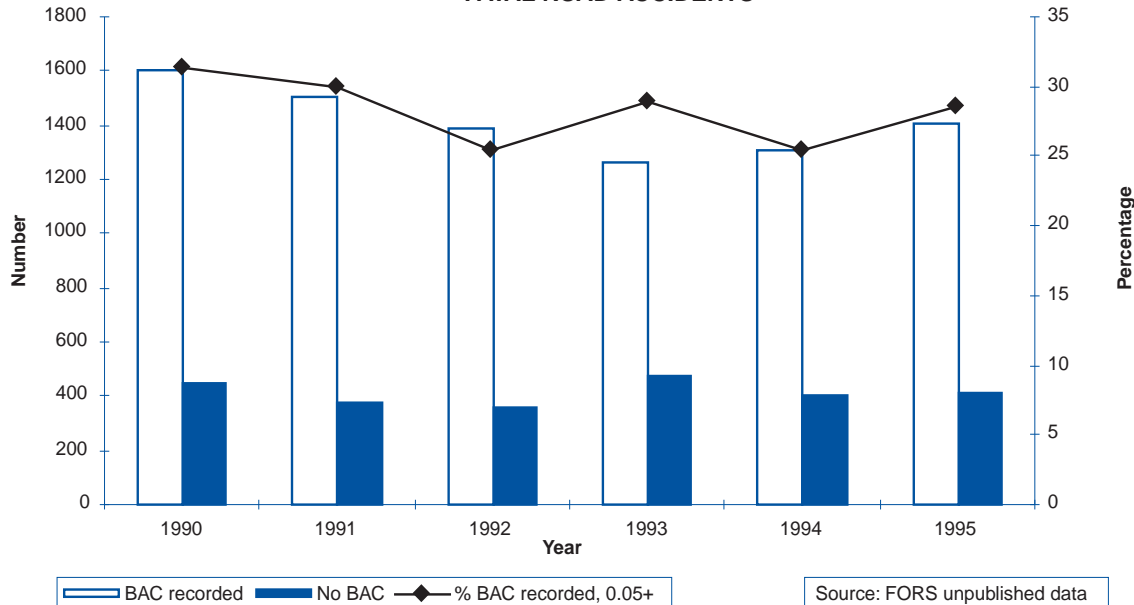
Since 1992, there appears to have been a trend towards more fatal road accidents to be alcohol related. In 1995, the proportion was again approaching three in every ten (28.5%) fatal road accidents being alcohol related.

TABLE 23. FATAL ROAD ACCIDENTS, PROPORTION WHICH ARE ALCOHOL RELATED, BY YEAR, 1990–95

	1990	1991	1992	1993	1994	1995
	Number					
BAC recorded	1605	1503	1386	1265	1304	1407
BAC not recorded	449	376	354	472	406	412
Total fatal accidents	2054	1879	1740	1737	1710	1819
BAC 0.05+	502	451	353	365	331	401
Percentage						
BAC 0.05+	31.28	30.01	25.47	28.85	25.38	28.50

Source: FORS unpublished data

FIGURE 23. NUMBER AND PROPORTION OF ALCOHOL-RELATED FATAL ROAD ACCIDENTS



Key National Indicator

Proportion of drivers who exceed prescribed BAC levels at random breath checks.

(Baseline: NSW 1991 0.4%; Vic 1992 0.2%; Qld 1992 1.8%; WA 1992 0.8%; SA 1991–92 0.7%; Tas 1991–82 1%; NT 1992 0.1%; ACT 1992 0.7%.)

Rationale: The indicator attempts to measure of the effectiveness of “don’t drink and drive” education messages. The expectation would be that over time, fewer drivers randomly checked for breath analysis would record a positive result.

Notes: In addition to the absolute numbers of drivers who drive with blood alcohol concentrations which exceed prescribed levels, the proportion of drivers testing positive depends on the time of day and location of testing facilities. As random targeting moves outside “prime” locations and times, diminishing returns can be expected. Accordingly, results are subject to alternative interpretations to those which

might suggest more drivers observing drink and drive messages.

Baseline data differ from corresponding years presented in the table due to inclusion of late notifications subsequent to their publication in the Strategic Plan and a refinement of the category definition. Where possible, jurisdictions have confined data to dedicated roadside random breath testing placements only. Breath analyses subsequent to other events (eg. following traffic infringements) are generally excluded.

In the six-year period 1989 to 1995, the number of random breath checks administered annually increased from 3.9 million to 5.9 million, a rise of 50%. In the same period, the proportion of drivers testing positive declined from 1.4% to 0.8%. At the State and Territory level, Queensland drivers were most likely, and Victorian drivers least likely, to test positive.

In a study of drivers in Western Australia (Handry, Allotey and Ryan, in press), the proportion indicating their perception of the likelihood of being stopped in the next month for a RBT decreased from 40% in 1988 to 31% in 1996.

TABLE 24. NUMBER OF RANDOM BREATH CHECKS, TOTAL AND PROPORTION POSITIVE, BY STATE/TERRITORY AND YEAR

Year	NSW	Vic*	Qld	SA*	WA#	Tas*	NT**	ACT	AUST
<i>Number of tests</i>									
1989	1695715	696818	771483	281697	242584	191841	19023	41999	3941160
1990	1916203	1093485	662741	294111	330790	202000	17053	91884	4608267
1991	2239576	1182887	791431	272791	338434	207610	38818	82556	5154103
1992	2326654	1332709	918448	245535	387028	194694	26537	106447	5538052
1993	2397883	1641384	802139	236165	477104	173512	16284	92755	5837226
1994	2291655	1673921	773059	230345	561240	197768	11336	105120	5844444
1995	2523876	1647546	696601	228359	524726	191080	14994	94947	5922129
<i>Number confirmed positive¹</i>									
1989	23696	1787	18912	1408	4884	2455	247	284	53673
1990	26116	2724	16507	1343	5065	1983	266	558	54562
1991	25409	3193	15747	1909	5318	1941	484	674	54675
1992	23059	2403	16293	1640	7259	1477	277	722	53130
1993	19878	2474	15458	1566	6148	1368	203	886	47981
1994	15904	2514	15418	1660	7322	1886	116	1181	46001
1995	18369	2845	14985	1532	6155	1775	140	1403	47204
<i>Proportion positive (%)</i>									
1989	1.40	0.26	2.45	0.50	2.01	1.28	1.30	0.68	1.36
1990	1.36	0.25	2.49	0.46	1.53	0.98	1.56	0.61	1.18
1991	1.13	0.27	1.99	0.70	1.57	0.93	1.25	0.82	1.06
1992	0.99	0.18	1.77	0.67	1.88	0.76	1.04	0.68	0.96
1993	0.83	0.15	1.93	0.66	1.29	0.79	1.25	0.96	0.82
1994	0.69	0.15	1.99	0.70	1.30	0.95	1.02	1.12	0.79
1995	0.73	0.17	2.15	0.67	1.17	0.93	0.93	1.48	0.80

Source: State and Territory Police Departments, unpublished data. * Financial year commencing from ...

** financial years commencing 1990 onwards. # Car based fixed location only.

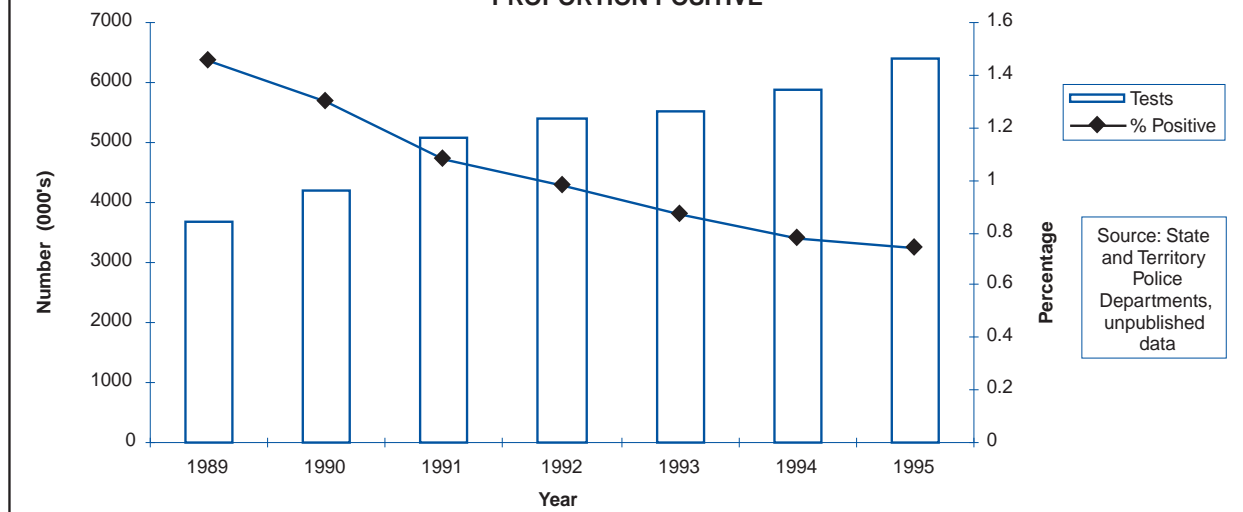
Note: 1. Confirmed by full breath analysis.

The actual proportion stopped by police for a RBT in the six months increased from 11% in 1992 to 30% in 1996. Almost half of all drivers aged 17–24 years were stopped for a RBT in 1995 (48%) and in 1996 (46%).

The proportion of drivers who reported refraining from driving when they thought

they had exceeded 0.05 BAC increased from 77% in 1992 to 85% in 1995. The proportion of drivers correctly identifying the proscribed BAC level increased from one in three (33%) in 1992 to over two in every three (68%) in 1996.

FIGURE 24. NUMBER OF RANDOM BREATH CHECKS,
PROPORTION POSITIVE



Key National Policy Objective

Reduce the rate of alcohol-related crime including criminal assaults, domestic violence, and public order and summary offences.

The National Symposium on Alcohol Abuse and Violence (Keys Young 1993) reported results from an analysis of the National Prison Censuses for 1986–1991

- One-fifth of all prisoners committed the offences for which they were in prison, while under the influence of alcohol, and
- Almost one-half of the alcohol-related crime prisoners were aged 20–24 years.

In a study of incidents attended by police in 1991 (an extract from which, forms the baseline), Ireland (1993) reported seven in every ten incidents for offensive behaviour (70%), offensive language (70%), street offences (77%) and assaults (73%), were alcohol related. Approximately three in every five noise complaints (59%) and malicious damage incidents (58%), were alcohol related, as were two in every five (40%) domestic violence reports.

Key National Indicator

Proportion of assaults that are alcohol related.

(Baseline: NSW Police Services 1991, 73% of assaults.)

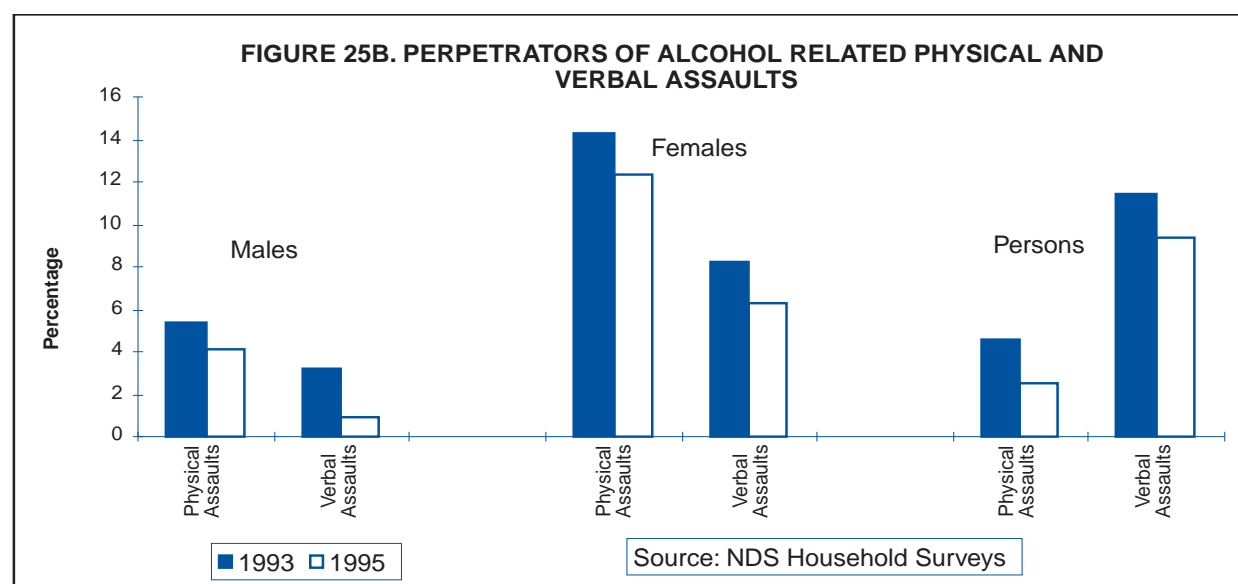
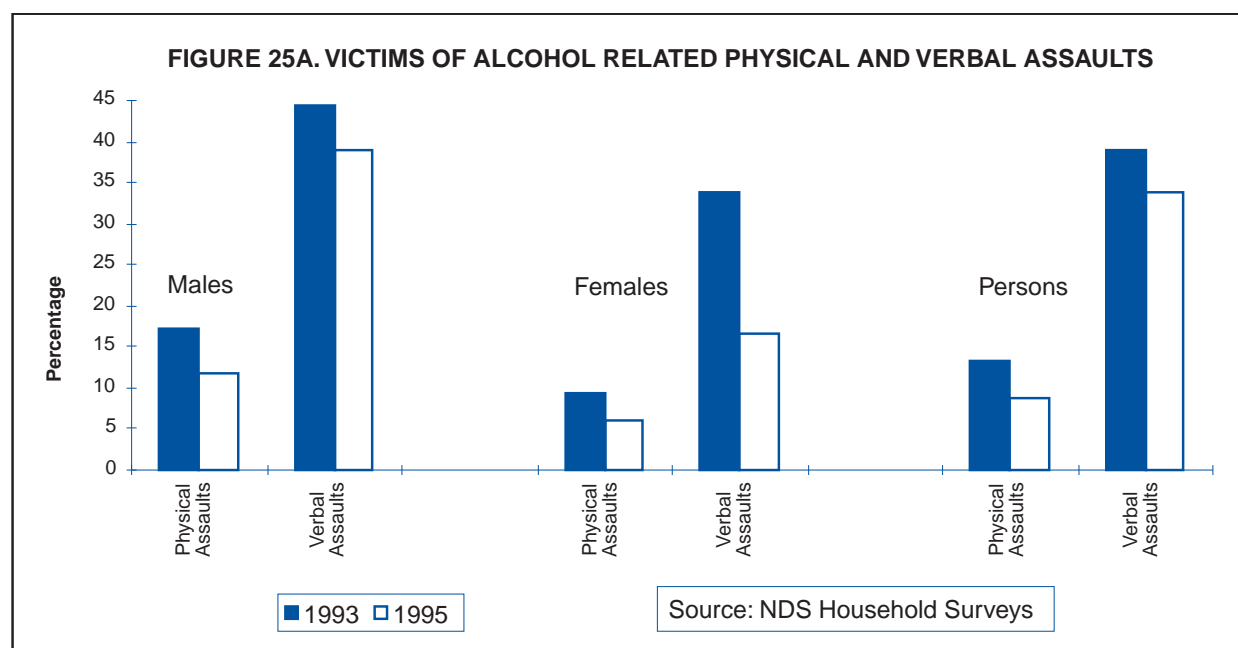
Rationale: The indicator is an attempt to measure the extent to which educational and other activities (for example, policing practices and licensing laws) affect violent behaviour. The expectation was that the proportion of assaults that are alcohol-related would decline.

Note: The indicator is inadequate for the purpose for which it is intended. At a purely statistical level for instance, an increase in non-alcohol-related assaults would decrease the proportion of total assaults that are alcohol related. Similarly, absolute numbers of all forms of assault (including alcohol-related assaults) could rise or fall with little change in proportions that are alcohol related. Two alternative indicators which more directly address the Key National Policy Objective have been substituted for that which appears in the Strategy:

TABLE 25. ALCOHOL RELATED PHYSICAL AND VERBAL ASSAULTS, PROPERTY LOSS OR DAMAGE, BY GENDER, 1993, 1995 (PER CENT)

Classification and offence	1993	1995	1993	1995	1993	1995
	Males		Females		Persons	
<i>Victim</i>						
Physical assault	17.2	11.7	9.4	6.0	13.3	8.8
Verbal assault	44.3	39.0	33.9	29.1	39.1	34.0
Property loss/damage	20.6	18.9	16.5	10.6	18.5	14.7
<i>Perpetrator</i>						
Physical assault	5.7	4.1	3.2	0.9	4.5	2.6
Verbal assault	14.3	12.3	8.2	6.3	11.4	9.4
Property loss/damage	6.9	5.0	1.4	1.8	4.3	3.4

Source: NDS Household Surveys.



- The proportion of persons who are victims of alcohol-related assaults; and
- The proportion of persons who are perpetrators of alcohol-related assaults.

Both males and females were more likely to suffer from alcohol-related verbal assaults or property loss or damage, than alcohol-related physical assaults. In 1993 almost four in every ten (39.1%) persons had experienced alcohol-related verbal assault, and almost two in ten (18.5%) persons had experienced alcohol-related property loss or damage. In contrast, less than one in eight (13.2%) persons had experienced alcohol-related physical assaults. Males were more likely than females to experience alcohol-related assaults or property loss or damage. By 1995, rates of alcohol-related assaults and property loss or damage for both males and females had declined.

Perhaps not surprisingly, given the reported victim results, alcohol-affected persons were more likely to commit verbal than physical assaults. In 1993, about one in ten persons (11.4%) committed alcohol-related verbal assaults and approximately one in twenty-five persons (4.3%) committed alcohol-related property theft or damage. Less than one in twenty persons (4.5%) committed alcohol-related physical assaults. Rates of committing alcohol-related assaults or property theft or damage declined in 1995 for males and females.

One interpretation of the data is that most perpetrators commit alcohol-related assaults and offences involving property against more than one victim. Another interpretation is that the number of perpetrators is similar to the number of victims, but they are less willing to report or recognise that they have committed such offences.

Pharmaceuticals

While the NDS concentrates more on alcohol, tobacco and illicit drugs, the

strategy recognises that inappropriate use of pharmaceuticals is also a major cause of ill health, accidents and injuries. In 1995–96, the per capita number of prescriptions for drugs that came under the Pharmaceutical Benefits Scheme (PBS) was 6.8. This was a slight increase over the rate of 6.6 in the previous year. Non-PBS prescriptions increase the per capita number to over seven prescriptions in each year.

Key National Policy Objective

Reduce the proportion of people who inappropriately consume pharmaceutical drugs.

Inappropriate consumption of pharmaceuticals arises from a variety of practices, including inappropriate prescribing, non-health-related use and failure to follow prescribing regimes. Poisoning and dependence are common manifestations of inappropriate consumption.

Key National Indicator

The proportion of hospital drug poisoning admissions which are related to the use of tranquillisers, antidepressants, analgesics, hypnotics and sedatives.

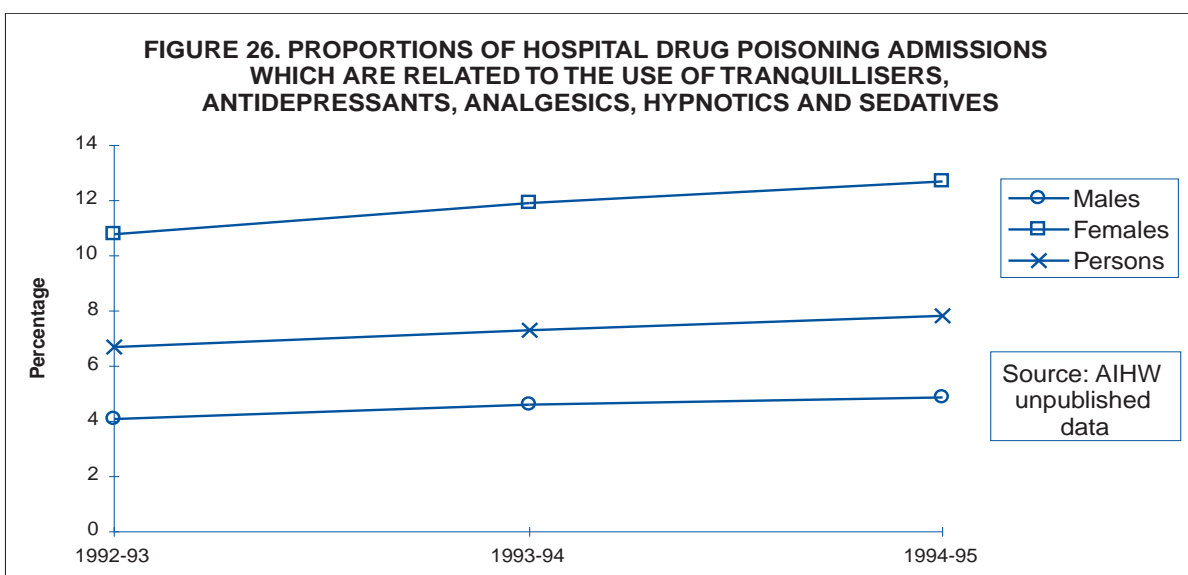
(Baseline: 1987, 40%.)

Rationale: The indicator attempts to measure the impact of educational programs that are designed to reduce the inappropriate (including accidental) ingestion of these classes of drugs. The expectation was that the proportion of hospital drug poisoning admissions which are related to this group of drugs would decline.

TABLE 26. PROPORTIONS OF HOSPITAL DRUG POISONING ADMISSIONS WHICH ARE RELATED TO THE USE OF TRANQUILLISERS, ANTIDEPRESSANTS, ANALGESICS, HYPNOTICS AND SEDATIVES (PER CENT)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
<i>Males</i>									
1992–93	3.82	4.67	4.05	4.23	4.27	3.88	3.49	3.99	4.10
1993–94	4.01	4.97	4.90	4.98	4.72	4.65	3.55	5.76	4.57
1994–95	4.25	5.18	5.09	6.64	4.59	5.12	4.42	5.21	4.87
<i>Females</i>									
1992–93	9.59	12.37	11.33	10.95	11.77	10.27	8.16	12.20	10.82
1993–94	10.73	12.72	13.01	11.71	12.05	11.98	7.70	14.48	11.87
1994–95	11.29	13.90	12.73	16.55	12.93	9.53	8.04	12.60	12.67
<i>Persons</i>									
1992–93	6.04	7.67	6.69	6.79	7.09	6.35	5.29	7.31	6.66
1993–94	6.52	8.02	7.85	7.57	7.47	7.41	5.12	9.38	7.33
1994–95	6.89	8.66	7.90	10.30	7.79	6.77	5.90	8.12	7.84

Source: AIHW unpublished data



Notes: Documentation on the derivation of baseline data attached to the indicator was unavailable. Accordingly, the baseline has been discarded.

The indicator is inadequate for the purpose for which it was intended. Changes in the numbers of other classes of hospital drug poisoning admissions directly affect the proportion which are due to the selected pharmaceuticals, regardless of corresponding, inverse or no change, in the selected classes of indicator drugs.

About one in 14 hospital drug poisoning admissions are related to the use of tranquilisers, antidepressants, analgesics, hypnotics or sedatives. On a State and Territory basis, drug poisonings involving this group of drugs (as a proportion of all drugs) were more prevalent in South Australia and the Australian Capital Territory, than in other States. In 1994–95, one in ten (10.3%) drug poisoning admissions in South Australia involved this group of drugs. In that year, one in six (16.6%) drug poisoning admissions

involving females and one in 15 (6.6%) involving males were due to the misuse of these drugs.

Drug poisonings of females were more likely to involve the use of this group of

drugs than were drug poisonings of males. Between 1992–93 and 1994–95, the proportion of all drug poisoning admissions that involved these drugs increased from 6.7% to 7.8%.

Key National Indicator

Proportion of young people who use prescribed drugs for non-health reasons.

(Baseline: Vic. Health Department 1992, 8% of Year 11 students had ever used sleeping tablets, tranquillisers or sedatives for non-health reasons.)

Rationale: Young persons are subject to the same health risks from inappropriate use of prescribed drugs as older persons. They are more likely than adults however, to consume prescribed drugs as part of a range of experimental drug behaviours. In most instances, the acquisition by young persons of prescribed drugs which are then consumed for non-health reasons, is also less likely to be as a result of direct medical practitioner-to-user prescribing. The indicator attempts to measure the extent to which young people use drugs prescribed for other persons; how non-health related use of

prescribed drugs by young persons compares with such use by adults; and the extent to which preventive and other measures targeted to this group have been successful. The expectation was that the proportion of young people using prescribed drugs for non-health reasons would decline.

Note: The baseline data relate only to year 11 Victorian students and are considered unsuitable to be representative of national youth aged 14–19. Accordingly, they have been discarded.

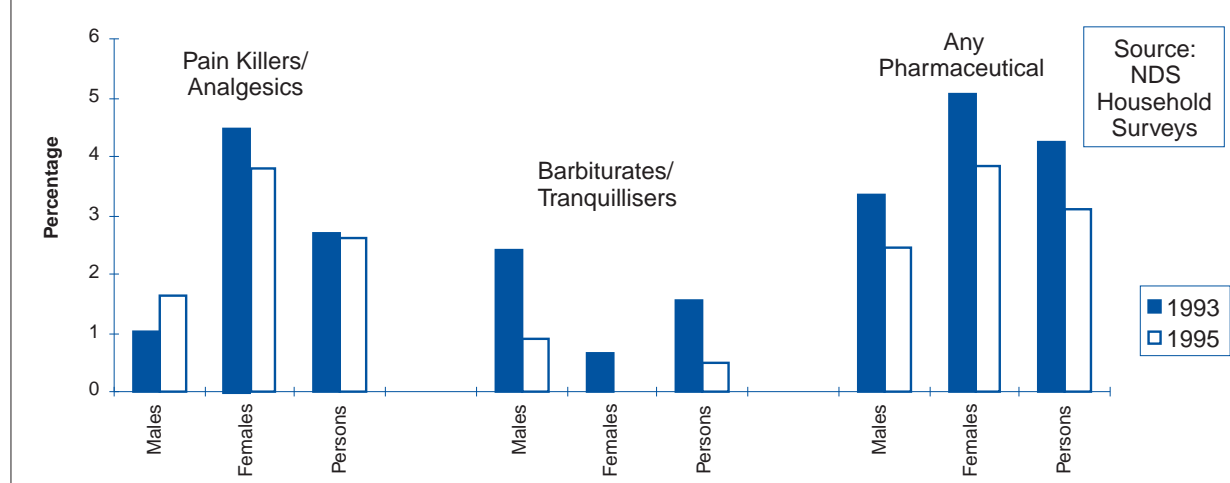
Between 1993 and 1995, the proportion of young persons aged 14–17 years who used prescription drugs for non-health reasons declined from 4.2% to 3.1%. Females were more likely than males to use any prescribed drugs for non-health reasons.

For particular drug groups, young male persons were more likely to use barbiturates or tranquillisers than young females, while young females were three to four times more likely to use painkillers or analgesics for non-medical reasons.

TABLE 27. PROPORTION OF YOUNG PEOPLE¹ WHO USE PRESCRIBED DRUGS FOR NON-MEDICAL REASONS (PER CENT)

Year	Pain Killers/ Analgesics	Barbiturates	Tranquillisers	Barbiturates or Tranquillisers	Any Prescribed
<i>Males</i>					
1993	1.02	0.50	1.90	2.41	3.33
1995	1.62	0.16	0.89	0.89	2.45
<i>Females</i>					
1993	4.50	0.00	0.67	0.67	5.06
1995	3.80	0.00	0.00	0.00	3.83
<i>Persons</i>					
1993	2.71	0.26	1.30	1.57	4.24
1995	2.61	0.08	0.47	0.47	3.09

FIGURE 27. PROPORTION OF YOUNG PEOPLE (14-19 YEARS) WHO USE PRESCRIBED DRUGS FOR NON-MEDICAL REASONS



Key National Indicator priority group (older persons)

Proportion of older people who use prescribed drugs for non-health reasons.

(Baseline: Not set.)

Rationale: Use of prescribed drugs for extended periods beyond best practice recommendations can lead to dependence. Older persons are believed to be at greater risk of dependence on certain prescribed drugs than are younger persons. The expectation was that the proportion of older people using prescribed drugs for non-health reasons would decline.

Note: The survey question from which results are drawn did not include a definition of “non-medical use” (refer to Appendix B). Whereas it might be expected that younger persons might interpret the question to include ‘experimental’ use, this seems unlikely for older persons. It is possible that older respondents interpreted

the question to include circumstances where drugs were prescribed for others, but were personally used for a perceived medical condition.

The proportion of older persons using prescribed drugs for non-health reasons are at relatively low levels compared with younger persons. Whereas between 3% and 4% of persons aged 14–17 years used prescribed drugs in such circumstances between 1993 and 1995 (table/figure 27), the comparable prevalence among older persons was about 1% to 2% in the same period. Older females were more likely than older males to have used prescribed drugs for non-health reasons.

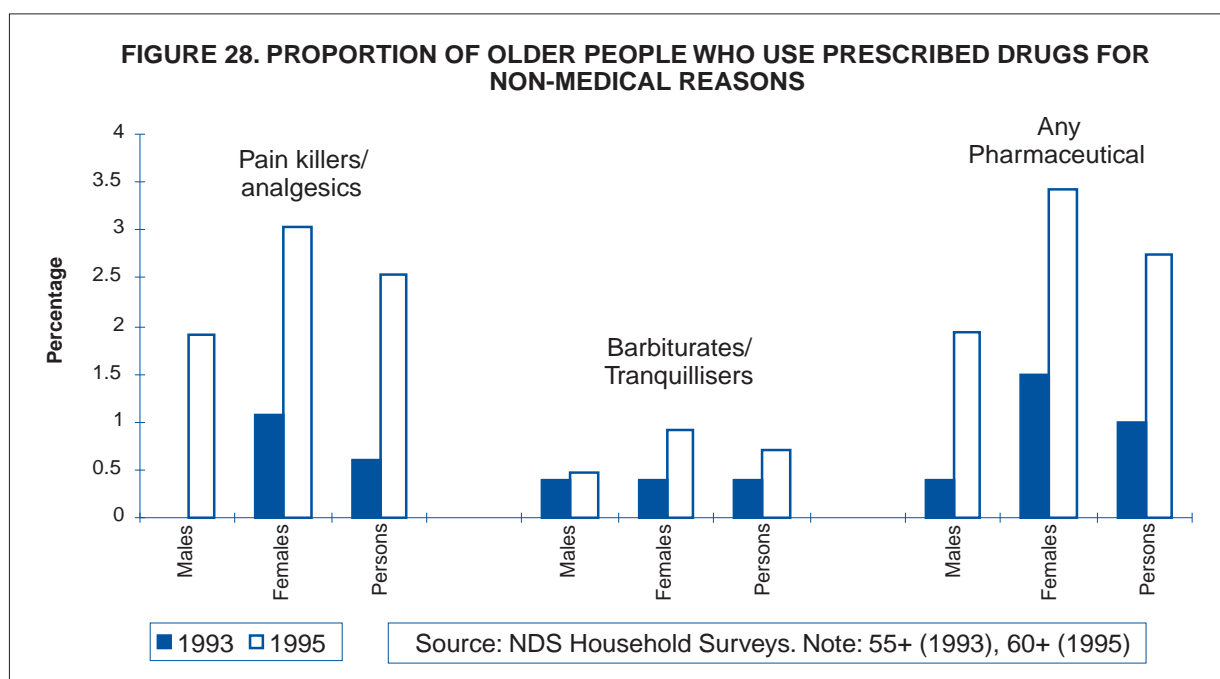
In contrast to the trend for non-medical use of prescribed drugs by younger persons to be towards less use, between 1993 and 1995, such use increased among older persons, in particular their likelihood to use prescribed painkillers and analgesics.

Note: The increase in proportions might be due to the different age groups represented. The 1993 rates are based on persons aged 55 years and above. The 1995 rates are based on persons aged 60 years and above.

TABLE 28. PROPORTION OF OLDER PEOPLE¹ WHO USE PRESCRIBED DRUGS FOR NON-MEDICAL REASONS (PER CENT)

Year	Pain Killers/ Analgesics	Barbiturates	Tranquillisers	Barbiturates or Tranquillisers	Any Prescribed
<i>Males</i>					
1993	0.00	0.00	0.37	0.38	0.40
1995	1.90	0.00	0.48	0.48	1.93
<i>Females</i>					
1993	1.06	0.00	0.38	0.39	1.50
1995	3.04	0.00	0.91	0.92	3.42
<i>Persons</i>					
1993	0.60	0.00	0.38	0.39	0.99
1995	2.53	0.00	0.71	0.72	2.74

Source: NDS Household Surveys. Note: Age range = 55+ (1993), 60+ (1995)



**Key National Indicator
priority group
(polydrug users)**

Proportion of older people using more than one prescribed medication.

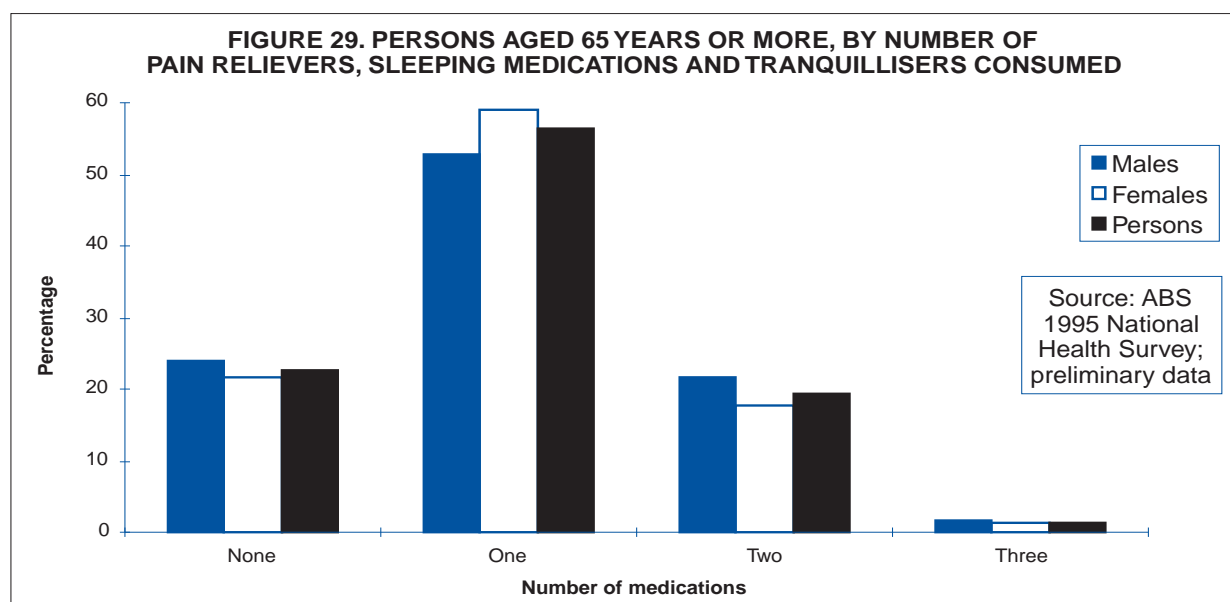
(Baseline: Not set.)

Rationale: Drugs can interact with each other, reducing their intended (individual) efficacy and increasing the health risks to the user. Older persons are possibly more likely to be using more than one class of medication, due to their increased likelihood of being treated for more than one medical conditions. The expectation was that the proportion of older persons using more than one class of prescribed drugs would decline.

TABLE 29. PERSONS AGED 65 YEARS OR MORE, BY NUMBER OF PAIN RELIEVERS, SLEEPING MEDICATIONS AND TRANQUILLISERS, 1995 (PER CENT)

Number of medications taken	Males	Females	Persons
None	24.0	21.7	22.7
One	52.9	59.1	56.4
Two	21.6	17.8	19.5
Three	1.5	1.2	1.4

Source: ABS 1995 National Health Survey, preliminary data



In 1995, over three-quarters of persons aged 65 years and over were using at least one prescribed pain reliever, sleeping medication or tranquilliser. Almost one in five persons (19.5%) were using more than one class of medication. Just over one per cent were using all three classes of medications.

Females aged 65 years and over were slightly more likely than males in the same age group to use pain relievers or sleeping medications or tranquilisers. Just over one in five (21.7%) females did not use these classes of drugs, while about one in four (24.0%) males did not take prescribed pain relievers or sleeping medications or tranquilisers at all. Of all older persons using these medications, males were slightly more likely than females to be polydrug users

Key National Policy Objective

Reduce the prevalence of inappropriate long-term use of pharmaceutical drugs which carry the risk of dependency.

Few drugs are free of side effects. Such effects are usually of short duration and limited to the immediate period of usage. Some drugs however, involve the additional risk of dependency when they are used for extended periods. Long-term use of sleeping medications, tranquilisers and anti-anxiety drugs are particularly likely to develop dependency in the user. Benzodiazepines, prescribed for sleeping disorders, anxiety and epilepsy, are one group of tranquilisers which are known to cause dependency.

Key National Indicator

Number of persons receiving prescriptions for benzodiazepines for periods of six months or more.

(Baseline: ABS National Health Survey 1989–90, 115,700 persons used sleeping pills and 88,400 used tranquillisers/sedatives daily for 6 months or more)

Rationale: Best practice recommendations suggest benzodiazepines be used for the short term (less than one month) and that prescribers monitor both the likelihood of dependency and subsequent withdrawal complications (Brayley, Bradshaw and Pols 1991). The indicator attempts to measure the extent to which recommendations are being observed.

Note: The 1989–90 National Health Survey baseline data were not specific to benzodiazepines, nor mutually exclusive. Accordingly, they have been discarded.

More than four in every five (84.5%) persons aged 18 years or more who were using prescribed benzodiazepines in 1995, had been prescribed the drugs for six months or more. More than nine in every ten (91.4%) persons aged 65 years or more who were using benzodiazepines had been using them for six months or more.

Approximately two in every five (35,500/84,700) persons who had been using benzodiazepines for six months or more, were aged 65 years or older. There were over twice as many females (24,800) as males (10,700) in this age group who had used them for periods of six months or more.

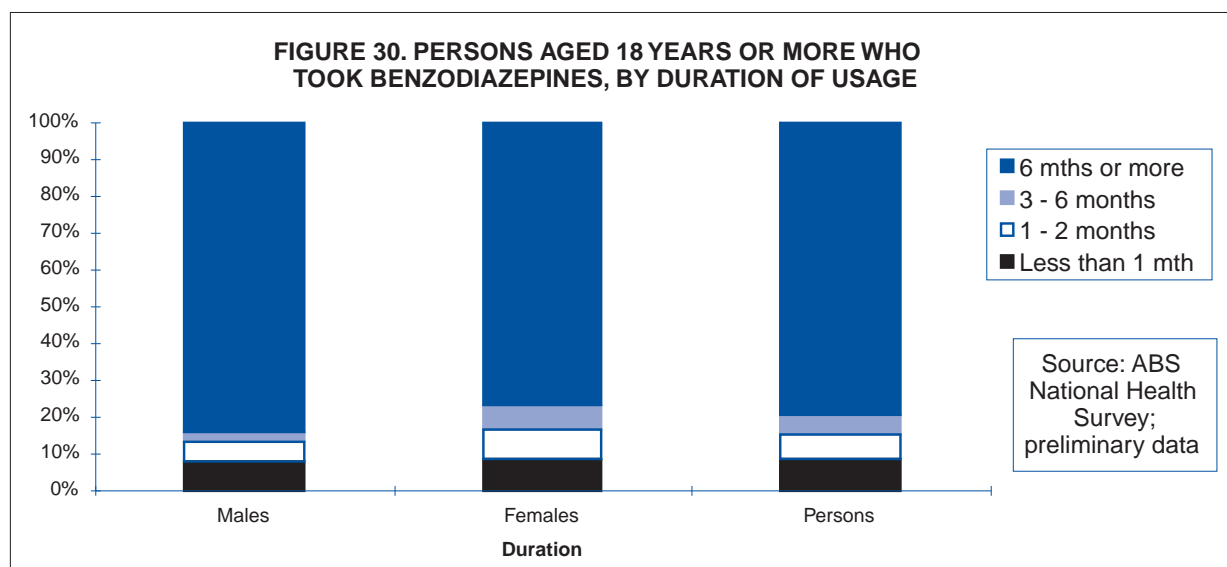
Females aged 18 years and over who had been prescribed benzodiazepines (85.7%) were slightly more likely than males (82.6%) to have used them for six months or more. Almost two-thirds of all persons aged 18 years or more (54,000/84,700) who had been prescribed benzodiazepines and who had been using them for six months or more, were female.

Note: The ABS survey methodology contributes to the likelihood of results being over estimates of duration of benzodiazepine consumption. The relevant period of usage was in the last two weeks, followed by how long have you been using [this drug]. The longer the period that benzodiazepine users had been on the drug, the higher the likelihood that they would have been captured by the questions. For example, in any 12 month period users of two weeks or less had a likelihood of one in 26, while a user of six months had a likelihood of one in two chances, of being captured.

TABLE 30. PERSONS RECEIVING PRESCRIPTIONS FOR BENZODIAZEPINES, BY DURATION OF USAGE, AUSTRALIA, 1995

Duration	Males	Females	Persons	Males	Females	Persons
	18+	18+	18+	65+	65+	65+
<i>Per cent</i>						
< 1 month	7.6	9.9	9.1	4.1	10.2	8.3
1 mth – <3 months	5.7	8.4	7.4	4.0	12.8	10.2
3 months < 6 months	2.7	7.5	5.7	1.1	11.2	8.2
6 months or more	82.6	85.7	84.5	92.0	91.2	91.4
<i>Number</i>						
6 months or more	30700	54000	84700	10700	24800	35500

Source: ABS National Health Survey, 1995. Preliminary data. Note: respondents may have taken more than one type of benzodiazepine, therefore totals may exceed 100%



Illicit drugs

Key National Policy Objective

Reduce the use and consequences of major illicit drugs, including marijuana, amphetamines, heroin and cocaine.

By definition, consumption of illicit drugs is an illegal activity. In addition to the adverse health and social effects of the use of major illicit drugs, consumers are committing criminal acts. Health effects are detailed under each substance in the pages following. Collins and Lapsley (1996) have estimated that the total economic costs of illicit drug consumption increased (at current prices) from \$1.2 billion in 1988 to \$1.7 billion in 1992. Law enforcement alone increased from \$320 million to \$457 million over the same period. Lost productivity associated with illicit drug use increased from \$527 million to \$758 million.

Key National Indicators

Proportion of adults (14+) which has used illicit drugs in the past 12 months.

(Baseline: NCADA Survey 1991, All illicit drugs 15%, hard drugs 6%.)

Proportion of youth aged 14–19 which has used illicit drugs in the past 12 months.

(Baseline: NCADA Survey 1991, all illicit drugs 26%, hard drugs 10%.)

Rationale: Measuring prevalence of

consumption is fundamental to understanding the scale of illicit drug use and the effectiveness of intervention policies. The expectation was that the proportions using illicit drugs would decline.

Notes: The original indicators in the Strategic Plan refer to “using drugs illicitly”. The wording has been amended to “used illicit drugs” to more accurately reflect the intentions (with the possible exception of amphetamines) of the indicator, ie. use of drugs not usually legally available on prescription.

Reference is also made to the statement in chapter 1 concerning the nature of illicit drug use and in particular, marginalisation of users, which may lead to an unwillingness or inability to participate in population surveys. Accordingly, prevalence data presented here are, in all likelihood, underestimates of actual consumption levels.

Marijuana

Marijuana contains a mixture of chemicals called cannabinoids, which produce the drug’s intoxicant effects. The main psychoactive substance in marijuana is delta-9-tetrahydrocannabinol (THC) (DHS&H 1994). THC has both depressant and mild hallucinogenic effects on the central nervous system.

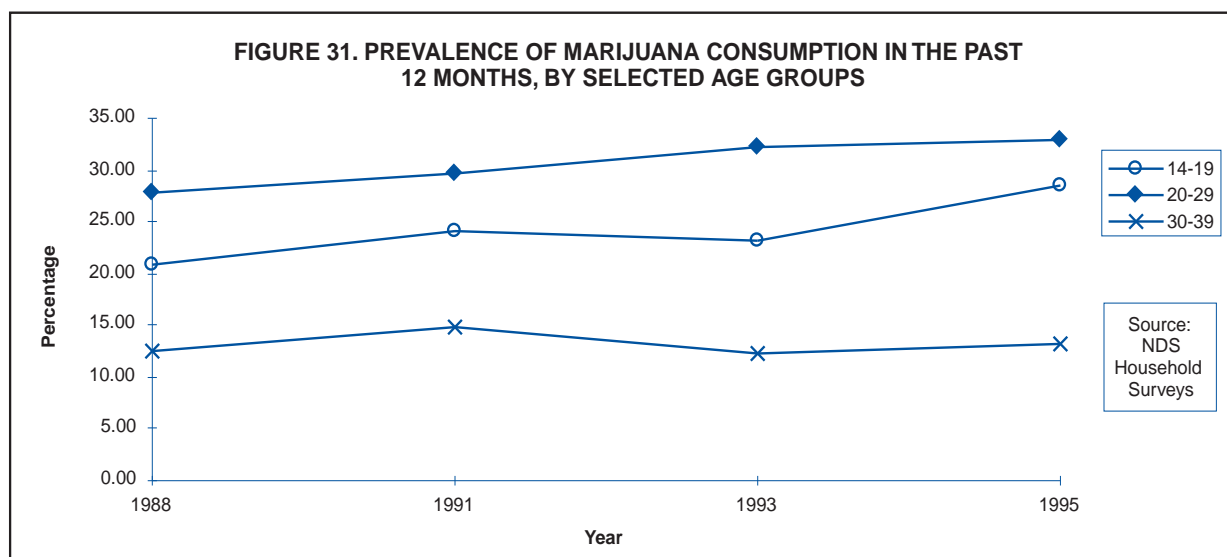
Between 1988 and 1995, the proportion of the population who consumed marijuana in the last 12 months increased from 11.1% to 13.1%. There was a moderate increase in usage for 40–49 year old persons, and moderate decreases in persons over 49 years of age in the same period, however, consumption is concentrated in younger people aged 14–39 years of age. Males were more likely than females to use marijuana.

In 1995, over one in four (28.4%) 14–19 year olds (up from 20.8% in 1988), almost one in three (32.9%) 20–29 year olds (up from 27.9%), and about one in eight (13.2%) 30–39 year olds (up from 12.5%), consumed marijuana in the previous 12 months.

TABLE 31. PREVALENCE OF MARIJUANA USE IN THE PAST 12 MONTHS (PER CENT)

Year	14-19 ¹	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	26.58	35.39	18.56	7.04	2.17	0.00	14.57
1991	32.00	37.54	19.14	5.85	2.09	0.79	16.51
1993*	24.96	43.34	13.21	6.46	0.96	0.18	16.08
1995	35.52	42.57	18.81	7.82	1.86	0.02	17.77
<i>Females</i>							
1988	14.29	20.56	7.21	2.78	1.00	0.51	7.57
1991	17.00	21.77	11.25	4.28	0.68	0.95	9.88
1993*	21.38	21.32	11.32	2.56	0.57	0.00	9.49
1995	19.90	23.23	8.08	2.18	1.16	0.46	8.53
<i>Persons</i>							
1988	20.81	27.93	12.50	4.90	1.56	0.24	11.06
1991	24.00	29.74	14.81	5.04	1.37	0.86	13.19
1993*	23.18	32.28	12.23	4.54	0.76	0.07	12.74
1995	28.40	32.93	13.17	5.13	1.49	0.26	13.10

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 55-69, 70+. Note: 1. 14-19 year olds 1991 subject to rounding errors



Inhalants

Inhalants include many household items such as aerosol sprays containing fluorocarbons, lighter fluid or gas, glues, cleaning fluids, liquefied petroleum gas

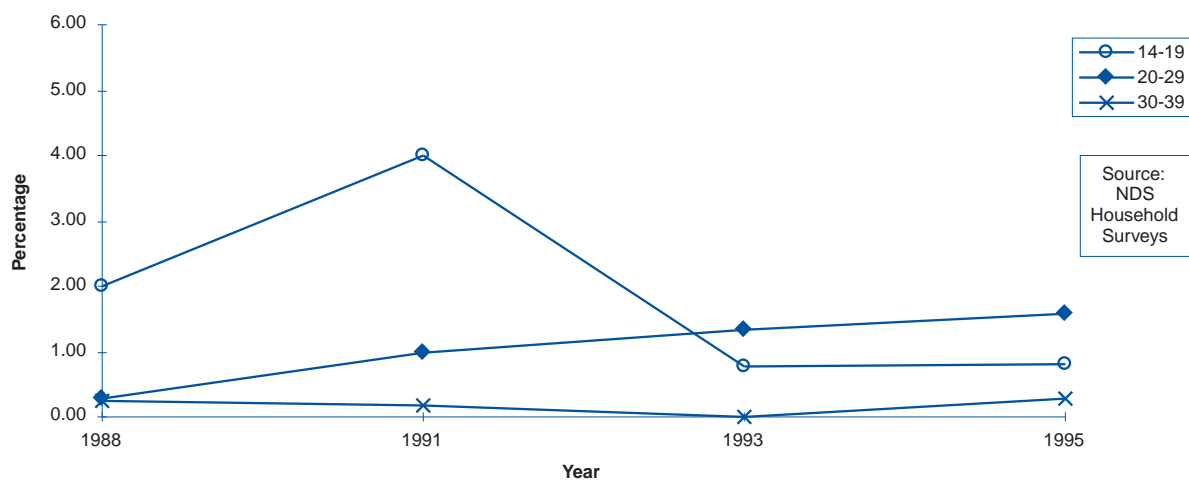
(LPG) and petrol. The fumes or gasses from these substances are easily absorbed through the lungs and carried to the brain, where they act to depress the central nervous system (DHS&H 1994). Users can experience blurred vision, 'highs', slurred speech and loss of coordination.

TABLE 32. PREVALENCE OF INHALANT USE IN THE PAST 12 MONTHS¹ (PER CENT)

Year	14-19 ²	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	3.80	0.56	0.00	0.00	0.00	0.00	0.44
1991	4.00	1.97	0.00	0.00	0.00	0.00	0.88
1993*	0.12	2.50	0.00	2.11	0.19	0.00	1.07
1995	0.77	2.14	0.06	0.03	0.00	0.00	0.60
<i>Females</i>							
1988	0.00	0.00	0.45	0.69	0.00	0.00	0.22
1991	3.00	0.00	0.00	0.77	0.68	0.47	0.72
1993*	1.47	0.21	0.00	0.00	0.00	0.00	0.18
1995	0.85	1.02	0.00	0.00	0.00	0.00	0.27
<i>Persons</i>							
1988	2.01	0.28	0.24	0.35	0.00	0.00	0.33
1991	4.00	0.99	0.17	0.40	0.34	0.21	0.80
1993*	0.78	1.32	0.00	1.08	0.09	0.00	0.63
1995	0.81	1.58	0.28	0.01	0.00	0.00	0.43

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 55-69, 70+. Notes: 1. Sampling variability ages 40+ too high for most practical uses. 2. 14-19 year olds 1991 subject to rounding errors.

FIGURE 32. PREVALENCE OF INHALANT USE IN PAST 12 MONTHS, BY SELECTED AGE GROUPS



Note: Inhalants are not usually referred to as illicit drugs. For convenience of placement, if for no other reason, they are included in this section. There are a number of other reasons why it might be reasonable for this to be the logical position, including their prevalence among the menu of experimental drugs, consumed in the teen years.

Inhalants, at the population level, are used by a small minority of persons. After increases in consumption between 1988 and 1991 (to 0.8%), the proportion of the population who had used inhalants in the previous 12 months declined to 0.4% by 1995. Males were more likely than females to have used inhalants. Consumption was predominantly concentrated in the ages

14–29 years, however prevalence rates in the youngest age group of 14–19 indicate a decline over the period 1988–1995, which contrasts with a similar increase in the 20–29 year age group in the same period.

The proportion of 14–19 year olds who had used inhalants in the previous 12 months declined from 2% to 0.8% between 1988 and 1995. In the same period, the proportion of 20–29 year olds who used inhalants increased from 0.28% to 1.58%. One interpretation of the data is that a proportion of the 14–19 years age group who were inhalant users in 1988 have persisted with their use as they moved into the (previously lower usage) older age group, and the popularity of using inhalants has decreased for (new) younger persons.

Hallucinogens

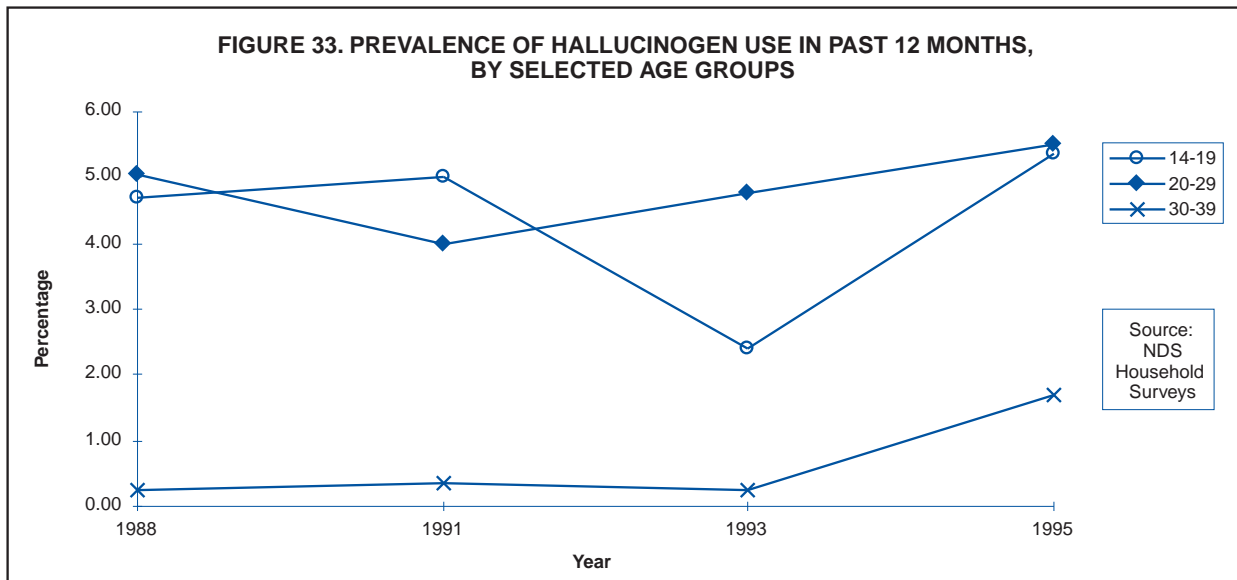
Hallucinogens affect all the senses and can cause hallucinations (for example seeing or hearing things that do not exist) (CEIDA 1992). Common hallucinogenic drugs include LSD, psilocybin (magic mushrooms), PEP (angel dust) and mescaline. Immediate effects may include distortion of sound, smells, touch, taste and sight. Physical effects can include muscle weakness, poor coordination reflexes, and vomiting, increased heart beat and blood pressure and abnormally rapid deep breathing. Psychological effects include paranoia and anxiety. The effects of long-term use include tolerance, psychological dependence and flashback experiences.

TABLE 33. PREVALENCE OF HALLUCINOGEN USE IN THE PAST 12 MONTHS¹ (PER CENT)

<i>Year</i>	<i>14–19²</i>	<i>20–29</i>	<i>30–39</i>	<i>40–49</i>	<i>50–59</i>	<i>60+</i>	<i>Combined</i>
<i>Males</i>							
1988	6.33	6.18	0.52	0.00	0.00	0.00	1.88
1991	8.00	6.71	0.77	0.00	0.00	0.00	2.34
1993*	3.05	7.63	0.42	0.00	0.00	0.00	2.00
1995	7.28	6.32	1.83	0.00	0.00	0.00	2.44
<i>Females</i>							
1988	2.86	3.89	0.00	0.00	0.00	0.00	0.99
1991	2.00	1.21	0.00	0.00	0.00	0.47	0.64
1993*	1.60	1.91	0.00	0.00	0.00	0.00	0.56
1995	3.11	4.07	0.48	0.00	0.00	0.00	1.24
<i>Persons</i>							
1988	4.70	5.03	0.24	0.00	0.00	0.00	1.43
1991	5.00	4.00	0.35	0.00	0.00	0.21	1.49
1993*	2.41	4.77	0.24	0.00	0.00	0.00	1.27
1995	5.36	5.50	1.71	0.00	0.00	0.00	1.84

Source: NDS Household Surveys. * Age ranges = 14–19, 20–29, 30–39, 40–54, 55–69, 70+.

Notes: 1. Sampling variability ages 40+ too high for most practical uses. 2. 1991 subject to rounding errors



The proportion of the population who had used hallucinogens in the previous 12 months increased moderately from 1.4% to 1.8%, between 1988 and 1995. Consumption was concentrated in the 14–39 years age range, and males were more likely than females to have used hallucinogens.

While there has been some volatility in proportions between 1988 and 1995, approximately one in twenty 14–19 year olds and 20–29 year olds used hallucinogens in the previous 12 months, for each year of the survey. In both age groups, males were approximately twice as likely as females to have used hallucinogens.

Use of hallucinogens does not appear to persist for most users beyond age 30. For example, in 1988 5% of persons aged 20–29 had used hallucinogens in the previous 12 months, and in 1995 (when most of this cohort would have moved to the 30–39 year age group), less than 2% were (still) using.

Ecstasy and other designer drugs

Ecstasy (MDMA) is a stimulant that also has mild hallucinogenic properties (White

et al. 1996). The primary positive effects of ecstasy reported by users are an elevated mood state encompassing feelings of euphoria, intimacy and closeness to other people. Side effects include loss of appetite, dry mouth, increased heart rate, grinding of teeth, insomnia, hot and cold flushes, reduced urine flow and increased thirst.

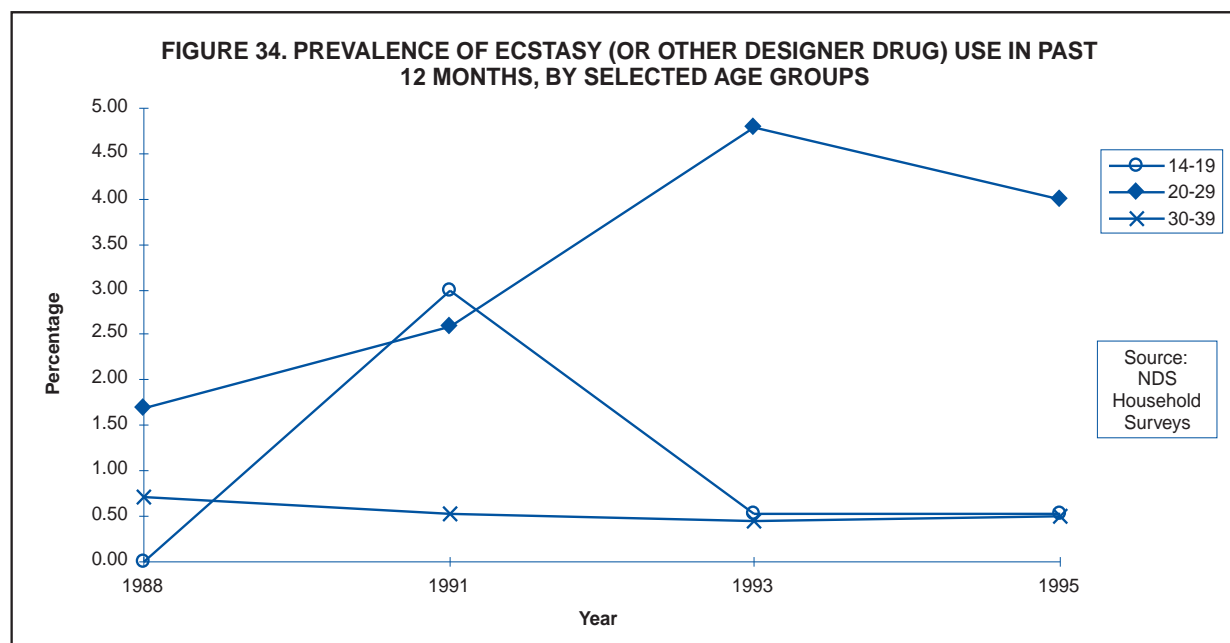
Where deaths have occurred following ecstasy use, the key appears to be the loss of normal temperature control and water balance arising from vigorous exercise (such as occurs at a dance party). When exercising vigorously it is important to drink fluids but, as a consequence of the drug retarding urine production and the body's capacity to dispose of excess fluids, this can lead to 'water intoxication' which can be fatal if untreated. Ecstasy's effect on temperature control also increases the user's risk of becoming overheated. This too can be fatal.

After doubling between 1988 and 1993 to 1.2%, the proportion of the population which had used ecstasy or other designer drugs in the previous 12 months, declined by 1995 to 0.9%. Consumption was concentrated in the 20–29 years age group and males were more likely than females to have used these drugs.

TABLE 34. PREVALENCE OF ECSTASY (OR OTHER DESIGNER DRUG) USE IN THE PAST 12 MONTHS¹ (PER CENT)

Year	14-19 ²	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	0.00	2.81	1.55	1.41	0.00	0.45	1.21
1991	4.00	3.55	1.16	0.83	0.00	0.79	1.69
1993*	0.50	6.93	0.77	0.82	0.00	0.37	1.87
1995	0.86	5.06	0.58	0.00	0.00	0.00	1.12
<i>Females</i>							
1988	0.00	0.56	0.00	0.00	0.00	0.00	0.10
1991	1.00	1.61	0.00	0.38	0.00	0.00	0.48
1993*	0.53	2.52	0.20	0.00	0.00	0.00	0.57
1995	0.14	2.91	0.44	0.00	0.00	0.00	0.60
<i>Persons</i>							
1988	0.00	1.68	0.72	0.70	0.00	0.24	0.66
1991	3.00	2.59	0.53	0.60	0.00	0.43	1.09
1993*	0.52	4.80	0.45	0.41	0.00	0.15	1.22
1995	0.52	3.99	0.51	0.00	0.00	0.00	0.86

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 55-69, 70+. Notes: 1. Sampling variability ages 40+ too high for most practical uses. 2. 14-19 year olds 1991 subject to rounding errors



Except for 1991, use of ecstasy or other designer drugs in the previous 12 months was relatively rare for 14-19 year olds. Consumption is concentrated in the 20-29 year age group. In this group, there

appears to have developed a trend towards greater use between 1988 and 1995. However, even in this age group, just one in twenty-five persons (4%) used the drugs in the previous 12 months.

Amphetamines

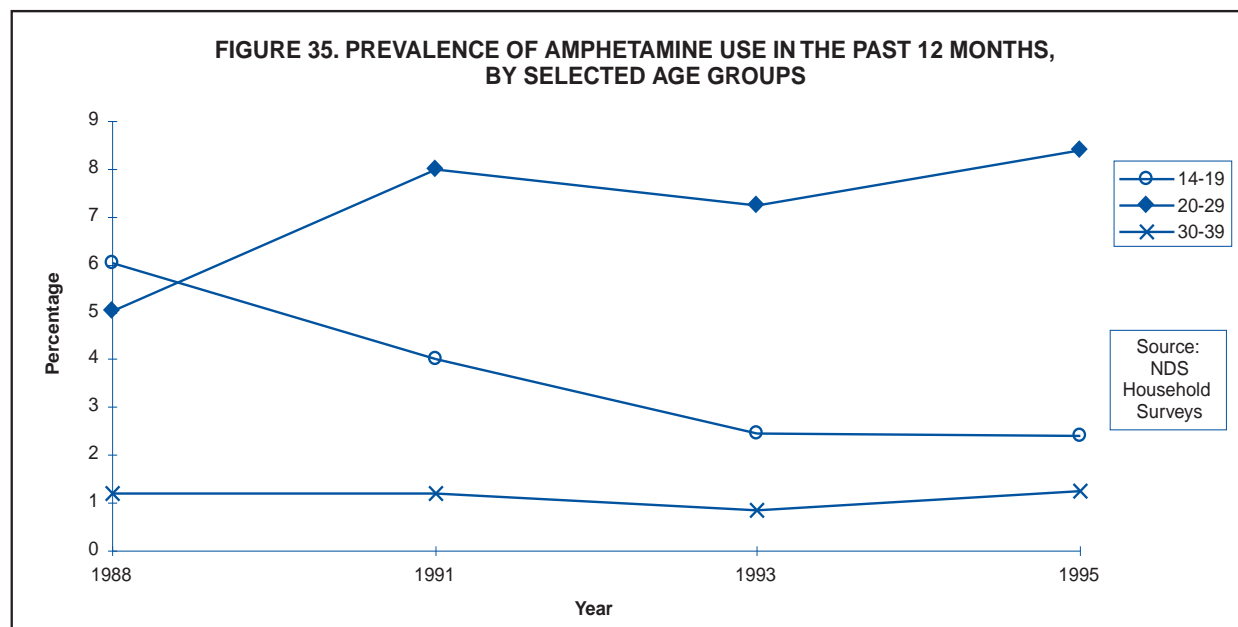
Amphetamines are psychostimulants. They stimulate the central nervous system and increase the activity of the brain. They are habit forming with physical and

psychological dependence (DHS&H 1994). Low to moderate doses induce initial feelings of wellbeing and happiness as well as increased mental alertness and activity. Higher doses can cause dizziness, irregular heartbeat, stomach cramps, blurred vision and loss of coordination. Chronic use can

TABLE 35. PREVALENCE OF AMPHETAMINE USE IN THE PAST 12 MONTHS¹ (PER CENT)

Year	14-19 ²	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	8.9	6.7	1.6	0.7	0.0	0.0	2.5
1991	6.0	11.5	2.7	0.4	1.4	0.4	4.0
1993*	1.7	11.5	0.8	0.0	0.2	0.0	2.8
1995	2.9	10.5	2.1	0.6	0.0	0.0	2.8
<i>Females</i>							
1988	2.9	3.3	0.9	0.0	1.0	0.0	1.2
1991	3.0	4.4	0.0	0.0	0.0	0.5	1.2
1993*	3.4	2.9	0.9	0.0	0.0	0.0	1.1
1995	1.9	6.3	0.5	0.5	0.0	0.0	1.5
<i>Persons</i>							
1988	6.0	5.0	1.2	0.4	0.5	0.0	1.9
1991	4.0	8.0	1.2	0.2	0.7	0.4	2.6
1993*	2.5	7.2	0.8	0.0	0.1	0.0	1.9
1995	2.4	8.4	1.3	0.6	0.0	0.0	2.1

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 55-69, 70+. Notes: 1. Sampling variability ages 40+ too high for most practical uses. 2. 14-19 year olds 1991 subject to rounding errors.



cause high blood pressure, violent behaviour, malnutrition, auditory hallucination, psychosis and heart attack. Unsafe injecting of amphetamines (for example, needle and syringe sharing) introduces the possibility of transmission of HIV/AIDS and other blood-borne diseases.

There was some variability in the proportion of the population which used amphetamines in the previous 12 months between 1988 and 1995, however it remained at about 3%.

Usage was concentrated in the 14–39 years age group and males were more likely than females to have used amphetamines.

Illicit use of amphetamines by 14–19 year old persons declined from 6% to 2.4% between 1988 and 1995. In the same period, prevalence of illicit amphetamine use increased from one in twenty (5%) to approximately one in 12 (8.4%) persons aged 20–29 years and prevalence in the age group 30–39 years remained relatively stable at just over 1%.

Cocaine

Cocaine is a stimulant of the central and sympathetic nervous systems. It produces acute effects similar to those produced by adrenalins (DHS&H 1994). It can be absorbed through any mucous membrane and is carried by the blood to the rest of the body to cause a sense of euphoria and excitement. Cocaine is most frequently sniffed or “snorted”, although smoking of the freebase forms of cocaine (e.g. ‘Crack’) is another technique. Crack cocaine is not common in Australia. Immediate effects include dilated pupils and increases in blood pressure, heart rate, breathing rate and temperature. If taken in large doses it can depress the central nervous system causing reduced breathing and eventually, death.

Between 1988 and 1995, the proportion of the population which had used cocaine increased from 0.7% to 1%. Prevalence was

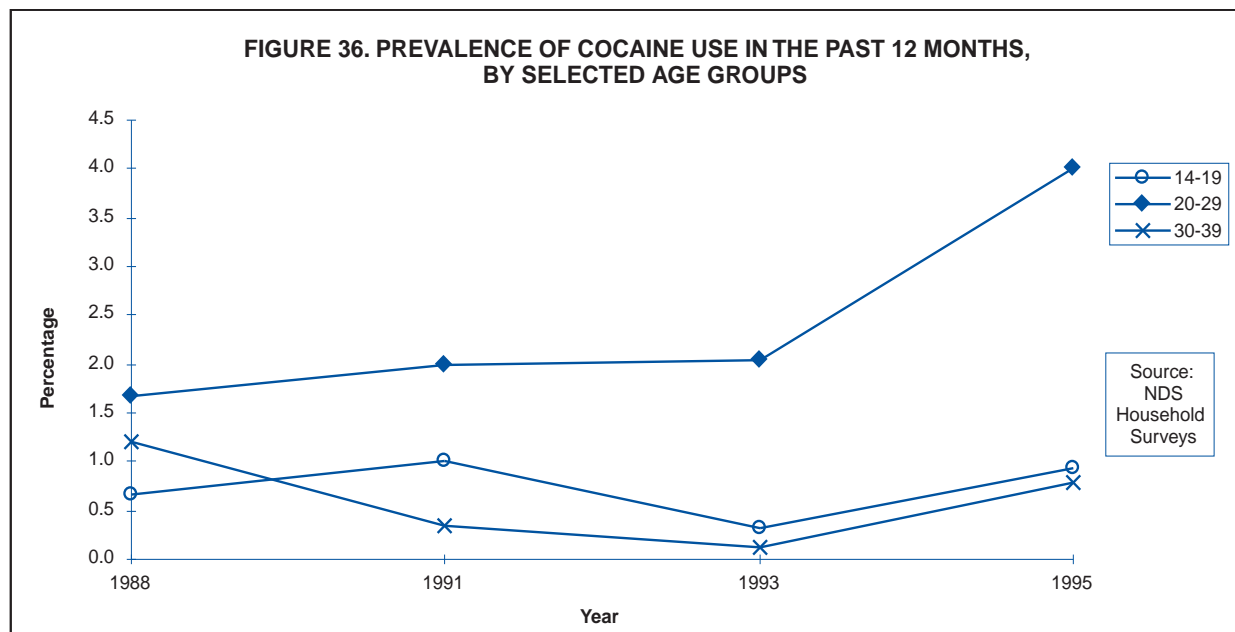
TABLE 36. PREVALENCE OF COCAINE USE IN THE PAST 12 MONTHS¹ (PERCENT)

<i>Year</i>	<i>14–19²</i>	<i>20–29</i>	<i>30–39</i>	<i>40–49</i>	<i>50–59</i>	<i>60+</i>	<i>Combined</i>
<i>Males</i>							
1988	1.27	2.25	2.06	0.70	0.00	0.00	1.11
1991	1.00	3.55	0.38	0.00	0.00	0.00	1.05
1993*	0.00	2.75	0.00	0.23	0.00	0.00	0.62
1995	0.00	5.62	0.72	0.00	0.00	0.00	1.13
<i>Females</i>							
1988	0.00	1.11	0.45	0.00	0.00	0.00	0.30
1991	1.00	0.40	0.32	0.38	0.00	0.47	0.40
1993*	0.53	1.34	0.27	0.00	0.00	0.00	0.39
1995	2.03	2.37	0.84	0.00	0.00	0.00	0.81
<i>Persons</i>							
1988	0.67	1.68	1.20	0.35	0.00	0.00	0.72
1991	1.00	1.99	0.35	0.20	0.00	0.20	0.72
1993*	0.32	2.05	0.13	0.11	0.00	0.00	0.50
1995	0.93	4.01	0.78	0.00	0.00	0.00	0.97

Source: NDS Household Surveys. * Age ranges = 14–19, 20–29, 30–39, 40–54, 55–69, 70+.

Notes: 1. Sampling variability ages 40+ too high for most practical uses. 2. 14–19 year olds 1991 subject to rounding errors.

FIGURE 36. PREVALENCE OF COCAINE USE IN THE PAST 12 MONTHS, BY SELECTED AGE GROUPS



concentrated in the 14–39 years age group, and males were more likely than females to have used cocaine in the previous 12 months.

After either relative stability or moderate declines in prevalence of use between 1988 and 1993, a trend appears to have developed by 1995 for higher proportions of persons aged 14–39 years to have used cocaine in the previous 12 months.

Heroin

Heroin is a derivative of morphine and is highly addictive (DHS&H 1994). Injection is the most common method of administration. Once injected it induces a surge of pleasure or ‘rush’ which gives way to a state of gratification. Other immediate effects include relief of pain, euphoria, suppression of coughing, depression of bowel activity and a lower breathing rate. If heroin is not administered cleanly, serious bacterial infections, including abscesses, cellulitis and tetanus can result. Unsafe injecting (for example, needle and syringe sharing) poses a risk of transmission of HIV/AIDS and other blood-borne diseases.

With large doses, breathing and central nervous system activity are slowed to the

point where a person can lapse into a coma and death can occur.

Note: Reference is again made to the statement in the introduction. Due to the illegal nature of consumption of illicit drugs (particularly so for injectables), and the marginalisation of some users, prevalences drawn from population surveys are likely to underestimate actual consumption rates.

Prevalence of heroin consumption remained at relatively low rates between 1988 and 1995. Less than 0.5% of the Australian population used heroin in any one year. Males were more likely than females to have used heroin, and consumption was concentrated in persons aged less than 30 years.

While prevalence rates are low in comparison with other illicit drugs, the trend for the younger age groups appears to be towards more, rather than fewer, persons using heroin.

At least one hard drug

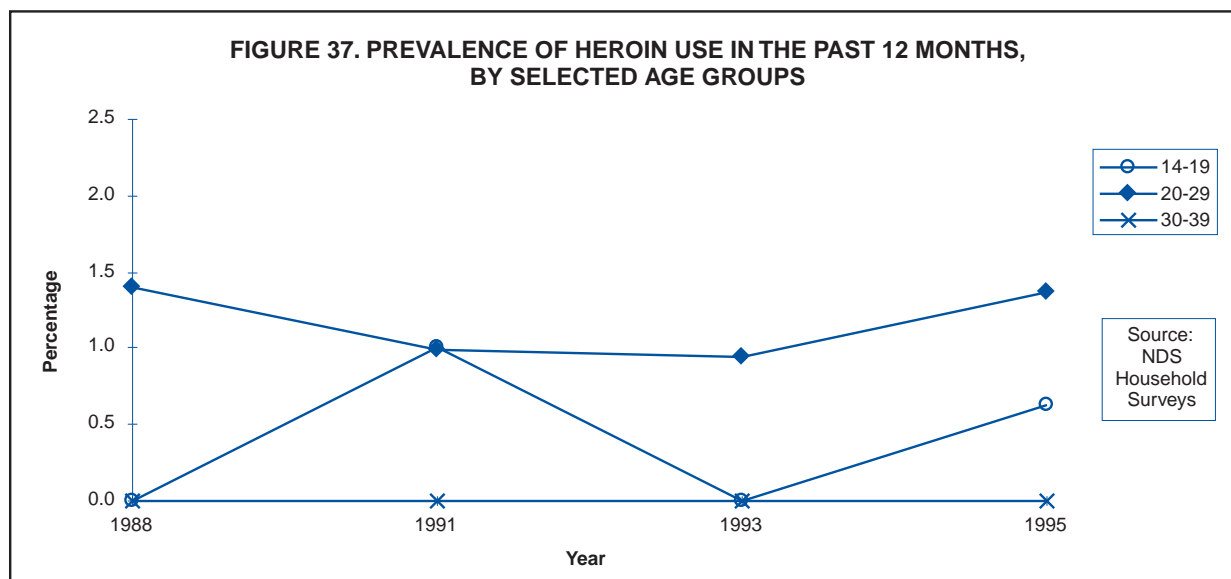
Between 1988 and 1995 the proportion of all persons who had used at least one hard

TABLE 37. PREVALENCE OF HEROIN USE IN THE PAST 12 MONTHS¹ (PER CENT)

Year	14-19 ²	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	0.00	2.25	0.00	0.00	0.00	0.00	0.40
1991	1.00	0.79	0.00	0.00	0.00	0.00	0.39
1993*	0.00	0.99	0.00	0.00	0.00	0.00	0.20
1995	0.44	2.24	0.41	0.00	0.00	0.00	0.53
<i>Females</i>							
1988	0.00	0.50	0.00	0.00	0.00	0.00	0.01
1991	2.00	0.00	0.00	0.00	0.00	0.47	0.24
1993*	0.00	0.91	0.00	0.00	0.00	0.00	0.18
1995	0.85	0.47	0.22	0.00	0.00	0.00	0.22
<i>Persons</i>							
1988	0.00	1.40	0.00	0.00	0.00	0.00	0.28
1991	1.00	0.99	0.00	0.00	0.00	0.21	0.32
1993*	0.00	0.95	0.00	0.00	0.00	0.00	0.19
1995	0.63	1.37	0.00	0.00	0.00	0.00	0.38

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 55-69, 70+.

Notes: 1. Sampling variability ages 30+ too high for most practical uses. 2. 14-19 year olds, 1991 subject to rounding errors.



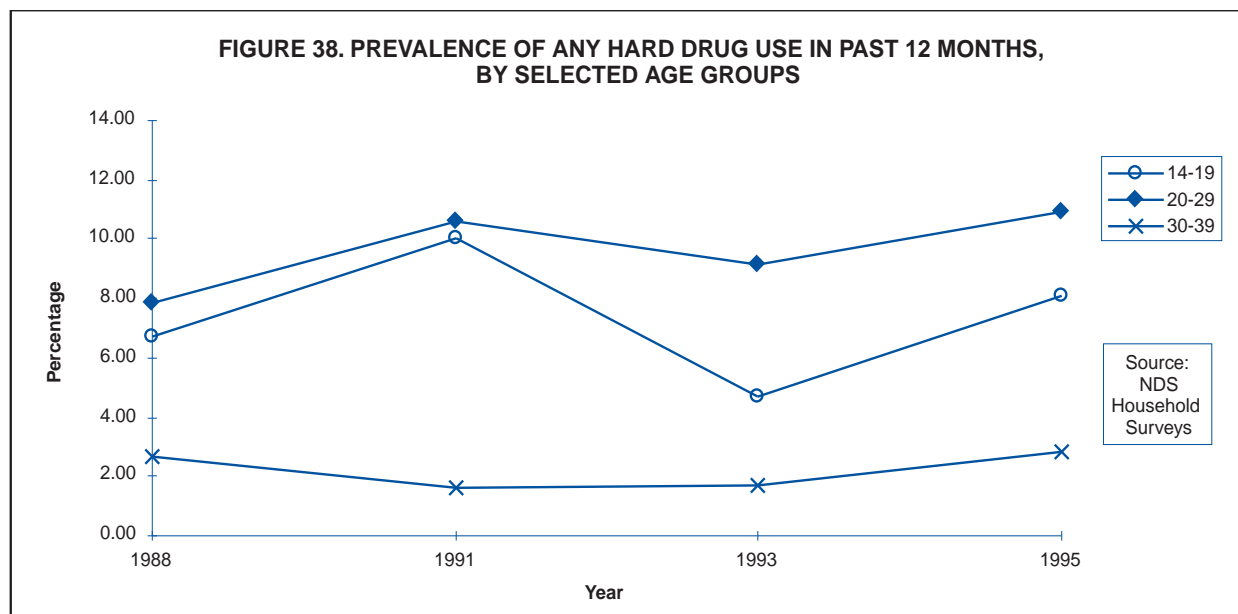
drug in the previous 12 months increased from slightly less than 3% to just under 4%. Males were more likely than females to have consumed hard drugs and consumption was concentrated in persons aged less than 40 years.

Overall trend lines suggest more rather than fewer persons aged 14-19 are using at least one "hard" drug. The data presented on individual substances in the preceding pages indicate that this is due to increased use across the board, rather than confined

TABLE 38. PREVALENCE OF (ANY) HARD DRUG USE IN THE PAST 12 MONTHS¹ (PER CENT)**

Year	14-19 ²	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	10.12	10.11	4.12	1.40	0.00	0.40	4.09
1991	12.00	15.01	3.11	1.25	1.40	1.19	5.58
1993*	4.58	13.54	2.00	0.90	0.19	0.38	4.04
1995	8.26	14.31	4.48	1.12	0.00	0.00	4.74
<i>Females</i>							
1988	2.85	5.55	1.35	0.00	1.00	0.00	1.75
1991	8.00	6.07	0.32	0.77	0.00	0.47	2.25
1993*	4.74	4.49	1.43	0.00	0.00	0.00	1.68
1995	7.99	7.40	1.60	0.53	0.00	0.44	2.66
<i>Persons</i>							
1988	6.71	7.82	2.65	0.69	0.52	0.24	2.92
1991	10.00	10.60	1.58	1.00	0.69	0.86	3.91
1993*	4.66	9.16	1.71	0.45	0.09	0.16	2.86
1995	8.13	10.89	2.87	0.84	0.00	0.24	3.69

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 50-69, 70+. ** "Hard" comprises heroin, cocaine, amphetamines, hallucinogens, ecstasy and other designer drugs. Notes: 1. Sampling variability ages 50+ too high for most practical uses. 2. 14-19 year olds, 1991 subject to rounding errors



to an increase in popularity of a single substance. For persons aged 14-19 years, approximately one in 12 (8.1%) had used one or more hard drugs in 1995 (an increase from one in 16 in 1988). For

persons aged 20-29 years, slightly more than one in ten (10.9%) had used one or more hard drugs in 1995 (an increase from one in 12 in 1988).

At least one illicit drug

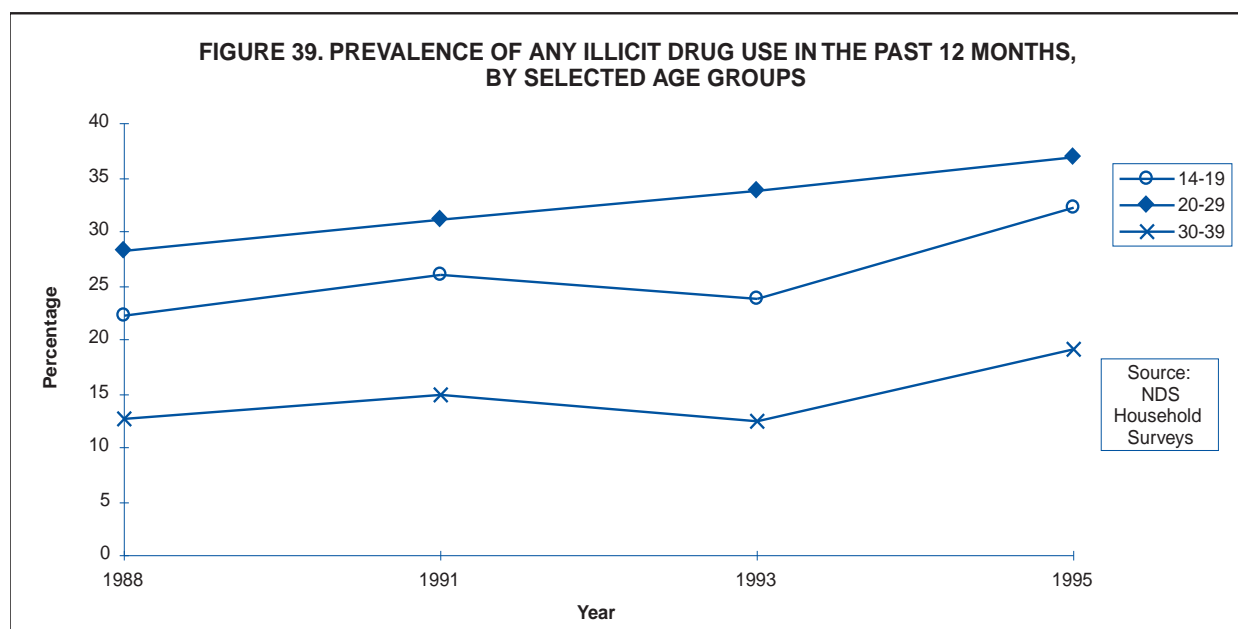
Between 1988 and 1995, the proportion of the Australian population which had used at least one illicit drug in the previous 12 months increased from approximately one in eight (11.5%) persons to slightly less

than one in six persons (17.2%). This trend was largely due but not limited to the increased prevalence of marijuana consumption. Males were more likely than females to have used at least one illicit drug and consumption was concentrated in persons aged under 50 years.

TABLE 39. PREVALENCE OF AT LEAST ONE ILLICIT DRUG USED IN PAST 12 MONTHS (PER CENT)

Year	14-19 ¹	20-29	30-39	40-49	50-59	60+	Combined
<i>Males</i>							
1988	27.84	35.95	18.55	7.74	2.17	0.45	15.04
1991	34.00	39.13	19.45	6.69	3.52	1.99	17.65
1993*	25.00	43.48	13.40	8.20	1.00	0.59	16.86
1995	38.44	46.16	24.93	11.99	3.58	1.89	21.37
<i>Females</i>							
1988	15.71	20.55	7.69	3.47	1.00	0.51	7.91
1991	20.00	22.98	11.25	5.44	1.36	0.95	10.69
1993*	22.57	23.52	11.65	2.64	0.61	0.00	10.14
1995	24.97	27.60	13.71	7.95	4.04	3.78	13.06
<i>Persons</i>							
1988	22.14	28.21	12.77	5.59	1.56	0.48	11.46
1991	26.00	31.13	14.96	6.04	2.42	1.52	14.16
1993*	23.70	33.79	12.49	5.46	0.80	0.24	13.48
1995	32.28	36.94	19.02	10.07	3.84	2.92	17.17

Source: NDS Household Surveys. * Age ranges = 14-19, 20-29, 30-39, 40-54, 55-69, 70+. Note: 1. 14-19 year olds, 1991 subject to rounding errors



In 1995 approximately one in three (32.3%) persons aged 14–19 years had used at least one illicit drug (an increase from one in five persons in 1988). Over one in three persons (36.9%) aged 20–29 years (an increase from one in four persons in 1988), and one in five (19%) persons aged 30–39 years (an increase from one in eight persons in 1988), had used at least one illicit drug in the previous 12 months. For older age groups, although at relatively low levels, prevalence of illicit drug use doubled in the same period.

Key National Indicator

Proportion of street youth aged 19 years and under which has used illicit drugs in the past 12 months.

(Baseline: NCADA Sydney Street Youth Survey 1991, all illicit drugs 98%, hard drugs 90%.)

Rationale: Street youth are at increased risk of illicit drug consumption. The indicator attempts to measure the effectiveness of intervention strategies targeted to this group of young persons.

The 1991 baseline data of almost universal use of at least one illicit drug, and using at least one hard drug in the previous 12 months, was drawn from a once-only Sydney based survey. The data are misleading due to the study recruitment criteria, which specified that participants had to have used at least one illicit drug to be included in the study.

If the same criterion (tried at least one illicit drug) was applied to the 14-19 year age group included in the 1995 NDS Household Survey, comparable prevalence rates were 75% any illicit and 19% any hard drug, in the previous 12 months.

Key National Indicator

Proportion of 14–19 year olds which has never used illicit drugs.

(Baseline: NCADA Survey 1991, 64% never tried illicit drugs, 84% never tried hard drugs.)

Rationale: A correlate of regular illicit drug use is the age of initiation (the younger the age at which illicit drug use commences the higher the likelihood that use will progress to regular consumption). The indicator attempts to measure the effectiveness of programs which emphasise abstinence, targeted to this age group. The expectation was that the proportion of young people who had never used illicit drugs would increase.

Note: The original indicator included in the Strategic Plan was worded “used drugs illicitly”. The wording has been changed in this document to “used illicit drugs” to more accurately reflect the intention of the indicator.

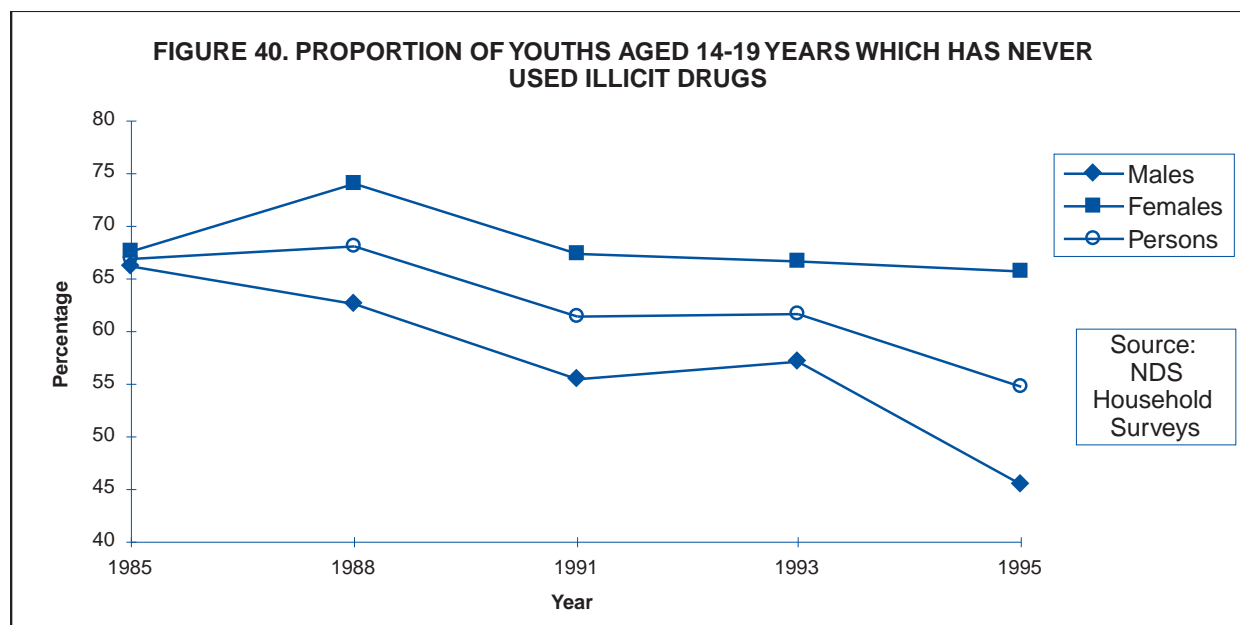
Between 1985 and 1995, the proportion of the population aged 14–19 years which has never used illicit drugs declined from two-thirds (66.9%) to just over one in two (54.8%). Males were less likely than females to abstain from consuming illicit drugs. As might be expected as a function of increased opportunity to use illicit drugs, the proportion of youth who had never used illicit drugs, declined with each year of age. In 1995 two-thirds (66.7%) of youths aged 14 years had never used an illicit drug (a decrease from nine in ten in 1985), and only one in three (36%) of youth aged 19 years had never used an illicit drug (a decrease from over one in two in 1985).

As was seen earlier in reference to substance-specific tables and figures, the decline in the proportion of youth which

TABLE 40. PROPORTION OF 14–19 YEAR OLDS WHICH HAS NEVER USED ILLICIT DRUGS (PER CENT)

<i>Year</i>	<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>Combined</i>
<i>Males</i>							
1985	88.78	80.74	62.68	51.03	53.02	56.91	66.18
1988	90.00	81.82	66.67	80.00	40.91	33.34	62.64
1991	74.35	61.90	53.85	48.08	52.94	45.65	55.39
1993	n/a	n/a	n/a	n/a	n/a	n/a	57.07
1995	55.04	60.50	53.05	37.55	30.78	34.71	45.45
<i>Females</i>							
1985	96.19	73.04	65.43	65.11	45.33	54.55	67.54
1988	90.91	94.11	70.59	61.54	70.00	53.85	74.07
1991	88.37	66.67	65.96	75.00	62.22	47.62	67.43
1993	n/a	n/a	n/a	n/a	n/a	n/a	66.58
1995	92.86	75.28	78.55	65.14	47.96	37.62	65.78
<i>Persons</i>							
1985	92.36	76.90	64.00	59.17	49.41	55.89	66.86
1988	90.48	87.18	68.97	69.57	50.00	42.86	68.02
1991	81.70	64.44	60.47	59.09	57.29	46.59	61.32
1993	n/a	n/a	n/a	n/a	n/a	n/a	61.68
1995	66.68	65.95	69.41	52.02	36.93	36.12	54.77

Source: NDS Household Surveys. n/a—not available. Sampling variability for individual years of age too high for other than trend indication only.



has never used illicit drugs, is largely a result of an increase in the proportion of youth using 'soft' illicit drugs, particularly marijuana. The proportion of youth aged 14–19 years using hard drugs increased moderately from 6.7% to 8.1% between 1988 and 1995.

(Baseline: NCADA 1990, males 528, females 280.)

Rationale: Deaths from illicit drug use are entirely avoidable. The emphasis on harm minimisation in the National Drug Strategy is promoted through a range of measures, including supply control, demand reduction and treatment activities. The indicator attempts to measure the effectiveness of both the programs and the infrastructure (for example, ambulance services and hospitals) which support them. The expectation was that the number of deaths due to illicit drug use would decline.

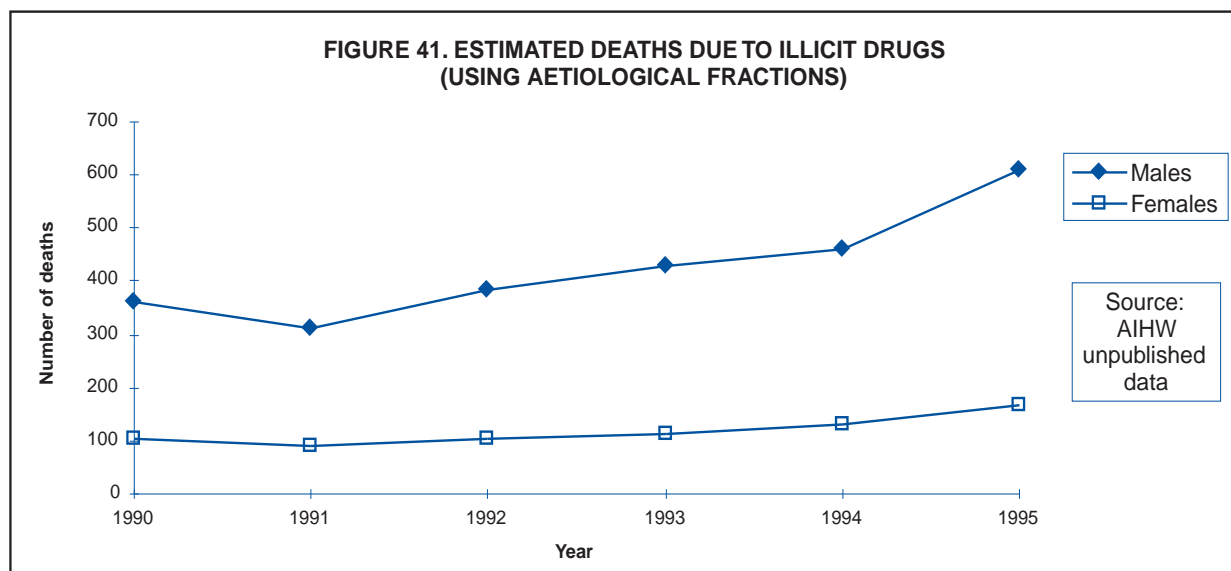
Key National Indicator

Deaths due to illicit drugs using aetiological fractions

TABLE 41. DEATHS DUE TO ILLICIT DRUGS, USING AETIOLOGICAL FRACTIONS¹ (NUMBER)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST ²
<i>Males</i>									
1990	188	87	27	27	22	4	3	2	360
1991	150	81	28	19	25	6	1	3	313
1992	189	92	32	36	25	4	2	4	384
1993	211	94	42	38	31	7	4	4	430
1994	221	94	51	31	50	5	6	3	460
1995	299	131	53	37	69	8	1	12	609
<i>Females</i>									
1990	59	26	6	6	5	1	0	0	104
1991	49	22	5	9	4	1	0	1	90
1992	50	24	10	7	10	1	1	1	104
1993	51	29	6	14	9	3	1	3	115
1994	54	35	12	16	7	1	4	2	130
1995	65	49	15	17	18	2	0	3	168
<i>Persons²</i>									
1990	247	113	32	33	27	6	3	2	464
1991	199	103	33	27	29	7	2	3	403
1992	239	116	42	43	35	5	4	5	488
1993	261	123	48	51	40	9	4	7	545
1994	274	129	64	46	57	5	9	5	590
1995	364	180	67	53	87	10	1	15	778

Source: AIHW unpublished data. Notes. 1. See English et al., 1995. 2. Persons, Australia, subject to rounding errors.



Notes: In contrast to deaths due to tobacco and alcohol (excluding motor vehicle accidents) where abuse often leads to chronic and sometimes fatal diseases in older persons, deaths from illicit drug use occur among younger persons, resulting in disproportionately greater loss of person years. The 1990 baseline data which indicated 528 male and 280 female deaths due to illicit drug use were calculated using an earlier aetiological model. Data presented here are calculated according to the revised English and Holman et al. (1995) model. Accordingly, 1990 deaths have been recalculated.

The indicator is a crude measure only. While indicating in absolute terms the extent of illicit drug-related deaths standardised rates by age and gender might provide a more relevant measure of trends.

Between 1990 and 1995, 3268 Australians died as a result of illicit drug use. In 1990, 464 persons died. In 1995, the number of deaths rose to 778. For all years, more

males than females died from illicit drug-related causes.

On a State and Territory level, the number of deaths doubled in Queensland and trebled in Western Australia, between 1990 and 1995.

With the exception of 1991, there has been a steady increase in the number of deaths due to illicit drugs over the period. The rate at which the number of deaths are occurring appears to have accelerated from 1993 onwards.

The majority of deaths due to illicit drugs are opiate related. Between 1979 and 1995, the number of deaths increased from 10.7 per million of the adult population to 67.0 per million (Hall and Darke 1997). In 1995, it was estimated that 550 adults died as a result of opiate overdoses. Most of the deaths occurred in persons who had initiated their heroin use in the 1970s and 1980s. The authors speculate that this increase in deaths is a result of many factors, including the purity of heroin available, the extent of polydrug use and injecting behaviours among heroin users.

Key National Indicator

Hospital separations associated with illicit drug use.

(Baseline: NSW Health Department 1989–90, 10,282 separations where illicit drug-related condition was principal diagnosis—177 per 100,000 population.)

Rationale: The indicator attempts to measure the effectiveness of harm minimisation policies and programs. The expectation was that the number of separations would decline.

Notes: Documentation on the 1989–90 baseline data of 10,282 separations, which related to New South Wales only, was not available. It is believed that the earlier (1992) Holman and Armstrong aetiological model, or a variation thereof, formed the basis for calculations, however the precise substances/conditions included in the computation are unknown. The absolute number which resulted, equates to approximately 200 illicit drug related separations per week in 1989–90 for NSW alone, a figure far in excess of national figures available for more recent years.

The indicator is a crude measure only. While indicating in absolute terms the extent of illicit drug-related hospital separations, standardised rates by age and gender might provide a more relevant measure of trends. Accordingly, it has been discarded for the purposes of this report.

Between 1992–93 and 1994–95, there were 23,644 hospital separations from conditions associated with illicit drug use. More males were hospitalised for these conditions than were females. On a State and Territory level, Queensland and Western Australia showed the highest increases over this period.

Over the three years from 1992–93 to 1994–94, the trend was towards higher numbers of hospital separations for conditions associated with illicit drug use.

Key National Indicator

Proportion of all fatal road accidents which are drug related (excluding alcohol).

(Baseline: Preliminary data, survey by M. Robertson, Vic. Institute of Forensic Pathology, 1990, of 357 fatally injured drivers.)

Rationale: Many drugs (both licit and illicit) affect the ability to drive a motor vehicle. The indicator attempts to measure the extent to which harm minimisation initiatives, including those targeted towards illicit drug users and prescribed medication users, and on driving while in a (pharmacologically) impaired state, have been effective. The expectation was that the proportion of all fatal road accidents which are drug related would decline.

Note: A number of small post-mortem studies have been conducted to determine the presence or absence of drugs. The 1990 baseline Victorian Institute of Forensic Pathology study which indicated that benzodiazepines were present in 7% of road accident fatality victims; psychostimulants in 8%; and cannabinoids in 7%, is an example. It is usually acknowledged that attribution of the fatality to the presence of the substance(s), is almost impossible. Accordingly, the indicator refers to drug related, rather than drug 'caused'.

A recent large scale study into drug-related motor vehicle deaths was completed in Queensland. It covered all motor vehicle deaths in that jurisdiction for the period 1989 to 1992. Over this period, one in 10 (10.1%) of all motor vehicle deaths were drug (other than alcohol) related. Of this proportion, three-quarters were related to illicit drugs. Fatalities involving males were more likely to be drug related than were fatalities involving females.

Cannabis was involved with 3.7% of motor vehicle deaths, opiates with 1.8% and barbiturates with 1.7% of deaths.

TABLE 42. HOSPITAL SEPARATIONS FROM CONDITIONS ASSOCIATED WITH ILLICIT DRUG USE (NUMBER)

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST ¹
<i>Males</i>									
1992–93	1678	1043	600	190	185	47	31	40	3815
1993–94	2020	772	843	255	319	86	34	54	4383
1994–95	2187	640	933	251	412	58	51	47	4578
<i>Females</i>									
1992–93	1431	836	519	191	201	60	10	34	3282
1993–94	1680	780	625	218	274	43	12	42	3673
1994–95	1683	714	773	250	375	58	26	34	3913
<i>Persons¹</i>									
1992–93	3110	1879	1119	381	387	107	41	75	7097
1993–94	3700	1552	1467	473	593	129	46	96	8056
1994–95	3870	1354	1706	501	787	116	77	81	8491

Source: AIHW unpublished data. Note: 1. Persons, Australia, subject to rounding errors

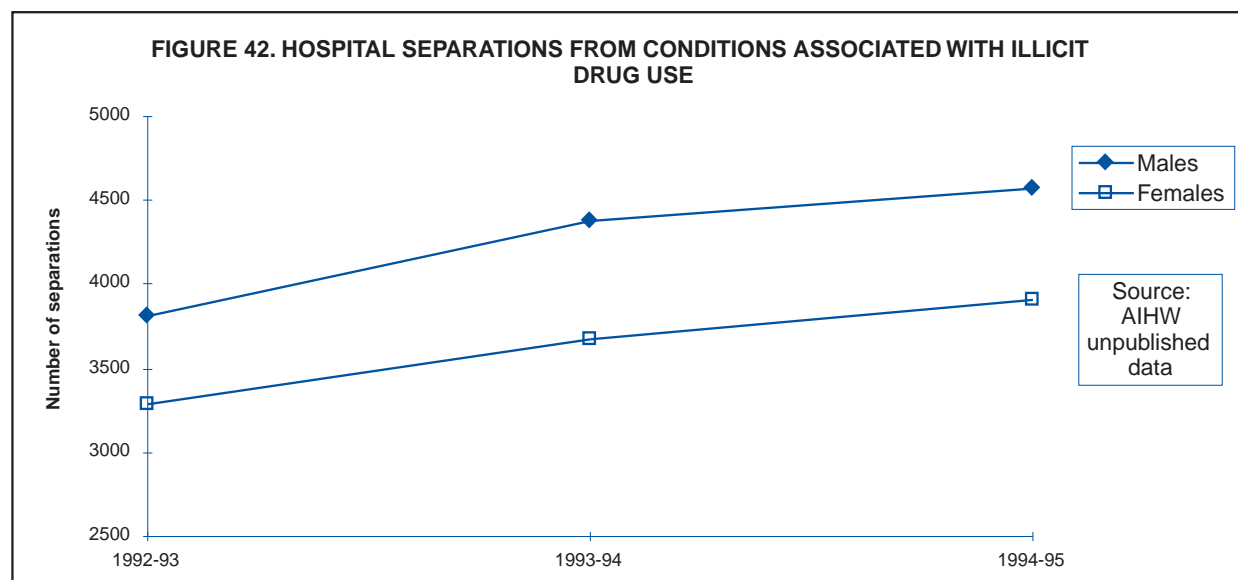
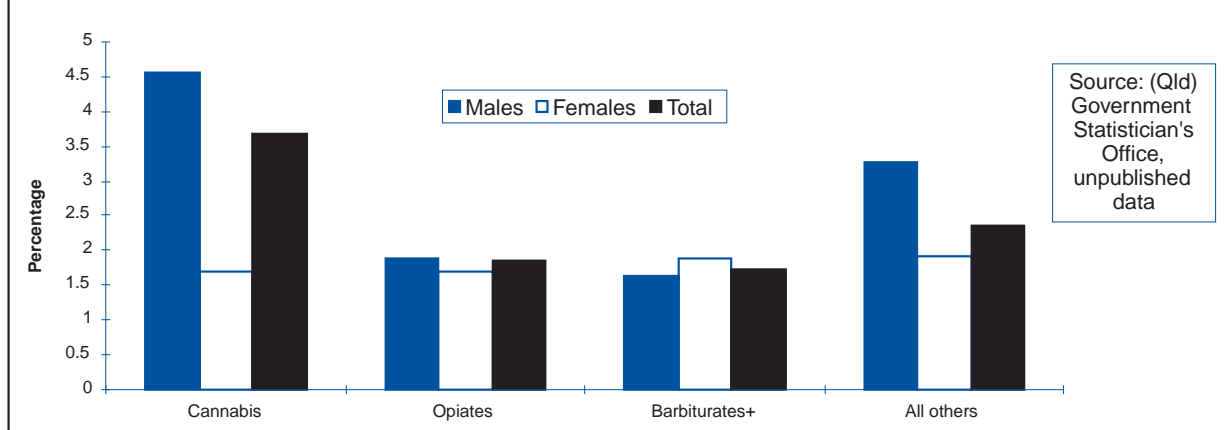


TABLE 43. NUMBER AND PROPORTION OF ALL MOTOR VEHICLE DEATHS WHICH ARE DRUG RELATED (EXCLUDING ALCOHOL), QUEENSLAND, 1989-92 (NUMBER)

Year	Cannabis	Barbiturates, other sedatives & tranquillisers	Opiates	Cocaine	Amphetamines & other psycho stimulants	Anti- depressants	Inhalants, volatile solvents, glue, hydrocarbons	Other, including prescribed drugs	Total
<i>Males</i>									
1989	12	3	3	1	0	1	0	4	24
1990	10	3	1	0	1	1	0	6	22
1991	13	7	10	0	0	1	0	8	39
1992	18	6	8	0	1	1	0	13	47
Total	53	19	22	1	2	4	0	31	132
%	4.6	1.6	1.9	0.0	0.2	0.3	0.0	2.7	11.3
<i>Females</i>									
1989	1	2	3	0	0	0	0	2	8
1990	1	1	2	0	0	0	0	1	5
1991	2	1	1	0	0	1	0	2	7
1992	5	6	3	0	0	0	0	4	18
Total	9	10	9	0	0	1	0	9	38
%	1.7	1.9	1.7	0.0	0.0	0.2	0.0	1.7	7.2
<i>Persons</i>									
1989	13	5	6	1	0	1	0	6	32
1990	11	4	3	0	1	1	0	7	27
1991	15	8	11	0	0	2	0	10	46
1992	23	12	11	0	1	1	0	17	65
Total	62	29	31	1	2	5	0	40	170
%	3.7	1.7	1.8	0.0	0.1	0.3	0.0	2.4	10.1

Source: Queensland Government Statistician's Office, unpublished data

FIGURE 43. PROPORTIONS OF ALL MOTOR VEHICLE TRAFFIC ACCIDENT DEATHS WHICH ARE (NON-ALCOHOL) DRUG RELATED, QUEENSLAND, 1989-92



Source: (Qld) Government Statistician's Office, unpublished data

Key National Policy Objective

Limit the spread of hepatitis, HIV/AIDS and other infectious diseases associated with drug use, in particular among injecting drug users.

Injection of illicit drugs is frequently conducted in unsafe circumstances. In addition to the uncertainty surrounding quality and potency (for example, purity), many users share needles and syringes, increasing the risk of transmission of blood-borne viruses, which include hepatitis C and HIV/AIDS. The potential for subsequent transmission of infectious diseases to sexual partners of injecting drug users, particularly where a diagnosis has not been made, is high.

Responsibility for infection control measures rests outside the National Drug Strategy, with the HIV/AIDS Program.

Key National Indicators

Incidence of new HIV diagnoses among injecting drug users.

(Baseline: National Centre in HIV Epidemiology and Clinical Research 1992, 79 new cases of HIV among ID users, 1 July 1991 to 30 June 1992.)

Number of all notified cases of HIV/AIDS where injecting drug use is the main reported risk factor (excluding multiple risks).

(Baseline: National Centre in HIV Epidemiology and Clinical Research 1992, 19 AIDS cases were injecting drug users, excluding homo/bisexual IDUs, 1 July 1991 to 30 June 1992, cumulative 66 cases to 30 June 1992.)

Rationale: The indicators attempt to measure the effectiveness of activities initiated under the NDS-related Commonwealth HIV/AIDS Strategy, which aim to educate injecting drug users (and their partners) of safe injecting and sexual practices. The expectation was that over time,

TABLE 44. INCIDENCE OF IDU RELATED HIV DIAGNOSES (NUMBER)

Year	Male homosexual/ bisexual contact			Heterosexual contact with an injecting drug user		Total injecting drug use	Total Diagnoses	
	Male	Male	Female	Male	Female		Male	Female
1990–91	35	46	12	1	3	97	1266	83
1991–92	32	45	7	0	6	91	1149	66
1992–93	32	30	10	4	10	90	951	84
1993–94	46	32	9	4	9	101	923	70
1994–95	43	23	7	3	7	84	822	84
1995–96	33	24	5	1	5	68	757	54
Total	221	200	50	13	40	531	5868	441
Cumulative total	437	474	149	15	58	1166	16892	853

Source: National Centre in HIV Epidemiology and Clinical Research unpublished data.

the number of all notified cases of HIV/AIDS where injecting drug use is the main reported risk factor would decline.

Note: The 1992 baseline data which indicated that 79 new cases of HIV diagnoses among intravenous drug users were received, has been updated to include late notifications.

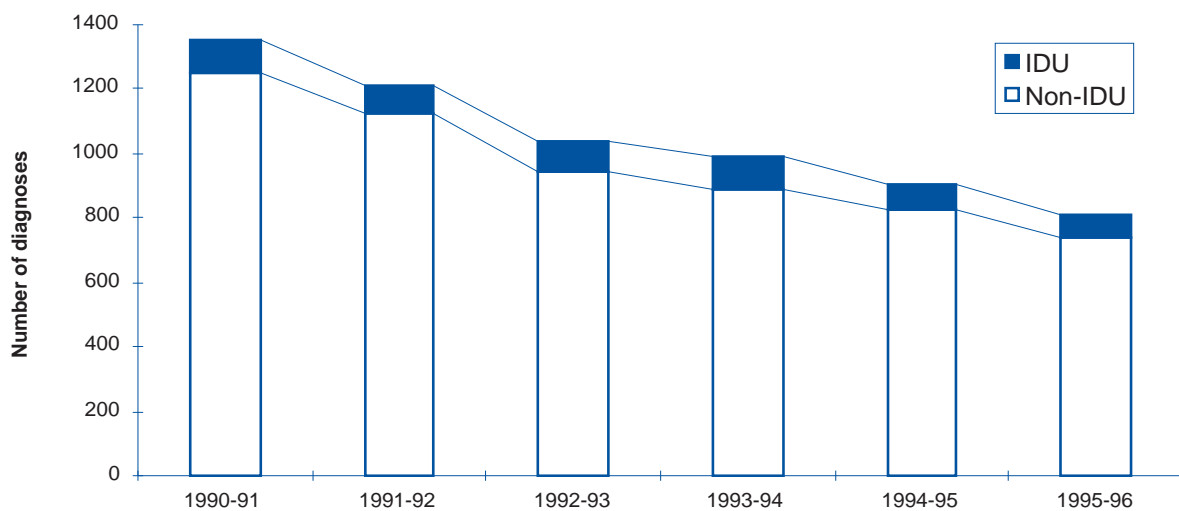
Between 1990–91 and 1995–96, there were a total of 524 notifications of HIV diagnoses where injecting drug use was a risk factor. The number of HIV diagnoses where injecting drug use was a risk factor, appears to be decreasing. In 1995–96, as a proportion of all HIV diagnoses, less than one in 12 (8.4%) diagnoses were injecting drug use related.

Excluding multiple risk factors (e.g. homosexual/bisexual contact), there were

250 (or approximately one in two) IDU-related diagnoses notifications of HIV between 1990–91 to 1995–96. Four times as many males as females whose only risk factor was injecting drug use, were diagnosed as HIV positive in this period. Between 1990–91 and 1995–96, the annual number of IDU (exclusive) related diagnoses declined by half. In 1990–91, 46 males and 12 females whose only risk factor was injecting drug use were diagnosed. In 1995–96, 24 males and five females of IDUs were diagnosed.

A cautionary note on results reflecting a decreased willingness to be tested for HIV needs to be evaluated by further research. Testing is entirely voluntary, with the exception of prisoners in some jurisdictions. A more likely explanation for the decline would appear to be the increased distribution of needle exchange programs in Australia.

FIGURE 44. INCIDENCE OF INJECTING DRUG USE (IDU) RELATED HIV DIAGNOSES



Source: National Centre in HIV Epidemiology and Clinical Research, unpublished data

Key National Indicator

Proportion of injecting drug users with safer practices, among those who continue to use.

(Baseline: ANAIDUS study 1989, 31% of Sydney

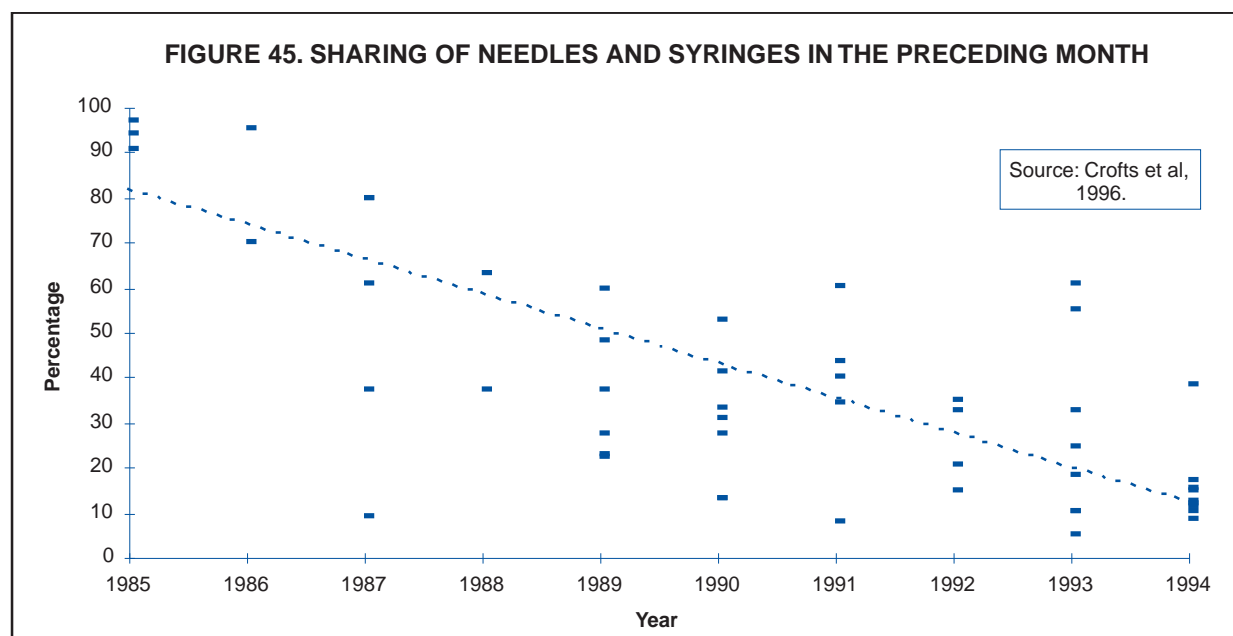
IDUs had never injected with a used needle and syringe, 13% had shared within weeks of interview—however, data not linked to practice of cleaning needles and syringes.)

Rationale: In recognising that a proportion of injecting drug users will continue to use drugs, the harm minimisation focus of the NDS includes education initiatives about

TABLE 45. SHARING OF NEEDLES AND SYRINGES IN THE PRECEDING MONTH, BY GENDER

Gender	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<i>Male</i>										
Number of studies	0	2	0	0	4	4	1	2	7	8
Total subjects	-	89	-	-	1649	964	170	186	774	955
Percentage	-	33.7	-	-	23.0	24.6	27.1	25.8	14.5	15.0
Range	-	9–74	-	-	19–39	13–40	27	21–33	4–29	9–32
<i>Female</i>										
Number of studies	1	1	1	1	4	4	1	1	3	7
Total subjects	18	25	18	16	774	363	130	76	289	544
Percentage	94.4	64.0	61.1	37.5	31.5	27.6	27.7	32.9	18.3	18.6
Range	94	64	61	38	28–37	13–47	28	33	6–39	7–49

Source: Reproduced from Crofts, N; Webb-Pullman, J; and Dolan, K., 1996



safer injecting practices. The indicator attempts to measure the effectiveness of these initiatives. The expectation was that the proportion of injecting drug users with safer practices among those who continue to use, would increase.

Between 1985 and 1994, from studies of injecting drug users who shared needles and syringes in the preceding month reviewed as part of the HIV/AIDS evaluation (Crofts et al. 1996), the median

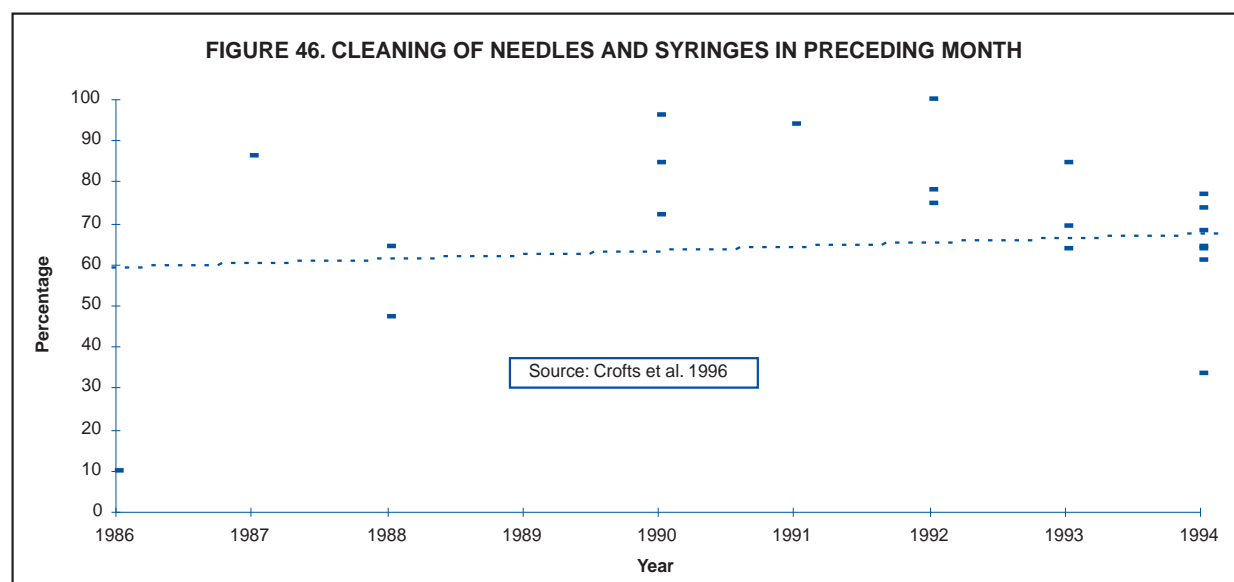
level of sharing declined from about one-third (33.7%) to one in six (15%) males and from nine in ten (94.4%) to about one in five (18.6%) females.

In the same period (1985 to 1994), the proportion of injecting drug users who shared needles and syringes, and who cleaned the needles/syringes before reusing them increased from one in six (15%) to two in three (66.9%) male, and from one in 20 (5%) to three in four (75%) female (sharing) injecting drug users.

TABLE 46. CLEANING OF SHARED NEEDLES AND SYRINGES IN PRECEDING MONTH, BY GENDER

Gender	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<i>Male</i>										
Number of studies	0	1	0	0	0	2	1	2	2	6
Total subjects	-	20	-	-	-	167	46	49	89	118
Percentage	-	15.0	-	-	-	89.2	93.5	87.8	76.4	66.9
Range	-	15	-	-	-	87-97	94	75-100	73-80	50-80
<i>Female</i>										
Number of studies	0	1	0	0	0	2	1	1	2	6
Total subjects	-	20	-	-	-	74	36	25	71	75
Percentage	-	5.0	-	-	-	89.2	94.4	100	77.5	74.7
Range	-	5	-	-	-	79-100	94	100	64-91	60-86

Source: Reproduced from Crofts, N; Webb-Pullman, J; and Dolan, K., 1996



Key National Indicators

Hepatitis C

The National Drug Strategic Plan identified the need for hepatitis C specific indicators and they were to be developed as part of the 1993-97 program, however to date, this

has not yet been achieved. This is due in no small part to the chronicity of the hepatitis C virus (HCV) infection and the asymptomatic nature of most acute infections. The notification system reflects changing trends in testing patterns and it distinguishes poorly between prevalent and incident cases. Trends in incidence are impossible to discern (NHMRC 1997).

Between 1990 and April 1997, there were 47,588 notifications of positive hepatitis C

tests to the National Notifiable Diseases Surveillance System (NNDSS). There were almost 9,000 notifications in 1995 and again in 1996. The recent introduction of laboratory based notification, and an increased awareness of the disease among medical providers and the public, make it likely that notifications reflect infections which were acquired many years ago.

Key National Policy Objective

Reduce the violence and crime associated with the manufacture, trafficking and use of illicit drugs, including property crime and crimes against the person.

By definition, the manufacture, trafficking and use of illicit drugs are crimes. Violence associated with these offences include a wide range of activities from verbal to physical assaults, to homicide. Property crimes almost invariably include robbery or theft and conversion of property to support illicit drug dependencies.

Key National Indicator

Proportion of criminal offenders with drug-related offences.

(Baseline: NSW Department of Corrective Services 1991, 63% of prisoners.)

Rationale: The indicator attempts to measure both the focus and effort of law enforcement activities. The expectation was that reduced consumption of illicit drugs would lead to reduced illicit drug activity overall, with a consequent decline in illicit drug offences and convictions.

Notes: The indicator is a crude measure only. The number of drug offences expressed as a proportion of all offences is a function of many factors including the total 'other' offences, the number of drug offences committed, the number of drug convictions and the lengths of custodial sentences. The bulk of offences relate to cannabis rather than 'hard' illicit drugs and expiation measures have been introduced in South Australia, the Australian Capital Territory and Northern Territory.

Documentation on the derivation of the baseline data was not available. Accordingly, it has been discarded and data from the National Prison Censuses provided instead.

Between 1985 and 1995, the number of criminal offenders where the most serious offence was drug related, increased from 1,118 to 1,694. The number of criminals with possession or use offences declined by half (from 283 in 1985 to 149 in 1995) and the number of criminals with manufacturing/growing offences almost doubled from 100 to 194. In the same period the number of criminals in prison for dealing or trafficking grew from 735 to 1,351.

While the absolute number of criminals who have a drug-related offence as their most serious offence increased by 50% between 1985 and 1995, as a proportion of the total prison population, there has been little change. In 1985, 10.3% of the prison population had a drug-related offence as their most serious offence. In 1995, the proportion was 11%.

Of the three broad drug offence categories, the proportion of criminals where trafficking was the most serious drug offence, increased from two-thirds (65.7%) in 1985 to almost four in five (79.8%) drug related offence prisoners in 1995.

Convictions resulting in a prison sentence for possession or use have declined by two-thirds. In 1985, one in four drug offence

TABLE 47. NUMBER OF CRIMINAL OFFENDERS WHERE MOST SERIOUS OFFENCE IS DRUG RELATED

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	AUST
<i>Possession, use drugs</i>									
1985	133	7	94	16	14	7	11	1	283
1986	111	16	105	34	13	2	7	0	288
1987	112	13	35	27	21	4	4	0	216
1988	128	9	75	14	10	1	1	0	238
1989	71	14	75	19	7	0	3	0	189
1990	81	17	45	16	7	0	3	0	169
1991	85	23	48	29	8	0	5	2	200
1992	102	14	43	41	15	1	1	2	219
1993	91	7	28	34	19	0	7	1	187
1994	61	11	31	16	23	0	2	0	144
1995	60	15	41	12	15	0	6	6	149
<i>Deal/traffic drugs</i>									
1985	420	112	68	97	31	3	4	0	735
1986	506	133	89	115	34	0	3	2	882
1987	528	152	38	115	20	0	3	0	856
1988	502	218	94	116	22	7	2	1	962
1989	489	224	104	111	38	1	5	1	973
1990	544	238	103	108	37	1	2	7	1040
1991	572	214	93	90	30	1	8	1	1009
1992	674	225	65	114	34	3	11	0	1126
1993	824	239	50	142	36	4	2	1	1298
1994	939	199	61	39	123	2	1	0	1364
1995	901	187	93	51	115	3	1	5	1351
<i>Manufacture/grow drugs</i>									
1985	49	4	21	10	14	0	2	0	100
1986	55	3	31	13	17	0	7	0	126
1987	90	7	52	20	8	1	8	0	186
1988	69	5	47	21	6	0	3	0	151
1989	62	11	25	26	9	0	2	0	135
1990	70	16	17	21	7	0	6	1	138
1991	77	18	19	23	9	0	8	1	155
1992	111	11	28	12	7	0	4	0	173
1993	157	10	13	19	19	0	1	0	219
1994	150	10	17	17	11	1	7	0	213
1995	139	2	25	14	7	0	7	1	194
<i>Total</i>									
1985	602	123	183	123	59	10	17	1	1118
1986	672	152	225	162	64	2	17	2	1296
1987	730	172	125	162	49	5	15	0	1258
1988	699	232	216	151	38	8	6	1	1351
1989	622	249	204	156	54	1	10	1	1297
1990	695	271	165	145	51	1	11	8	1347
1991	734	255	160	142	47	1	21	4	1364
1992	887	250	136	167	56	4	16	2	1518
1993	1072	256	91	195	74	4	10	2	1704
1994	1150	220	109	72	157	3	10	0	1721
1995	1100	204	159	77	137	3	14	12	1694

Sources: Australian Institute of Criminology, National Prison Censuses, 1985–93; ABS Prisoners in Australia, 1994, 1995. The vast majority of ACT prisoners are imprisoned in New South Wales

criminals were imprisoned for possession or use. In 1995, less than one in nine drug-related offence prisoners were incarcerated for possession or use.

Drug-specific offences were not a major factor in the total number of persons imprisoned. The figure of approximately one in ten prisoners where the most serious offence was drug related however obscures

the proportion of all prisoners where a drug offence is subordinate to a more serious offence (for example, homicide, assault), or where the offence for which imprisonment resulted, was drug related (for example, robbery to maintain a drug dependency), but for which the drug-related precursor was not recorded.

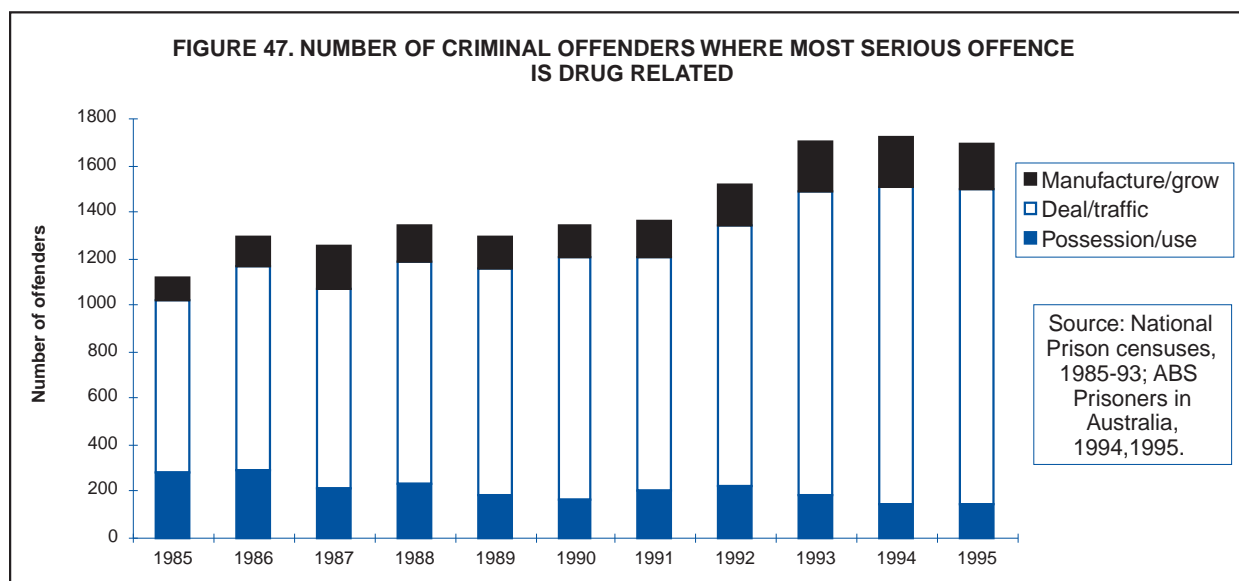
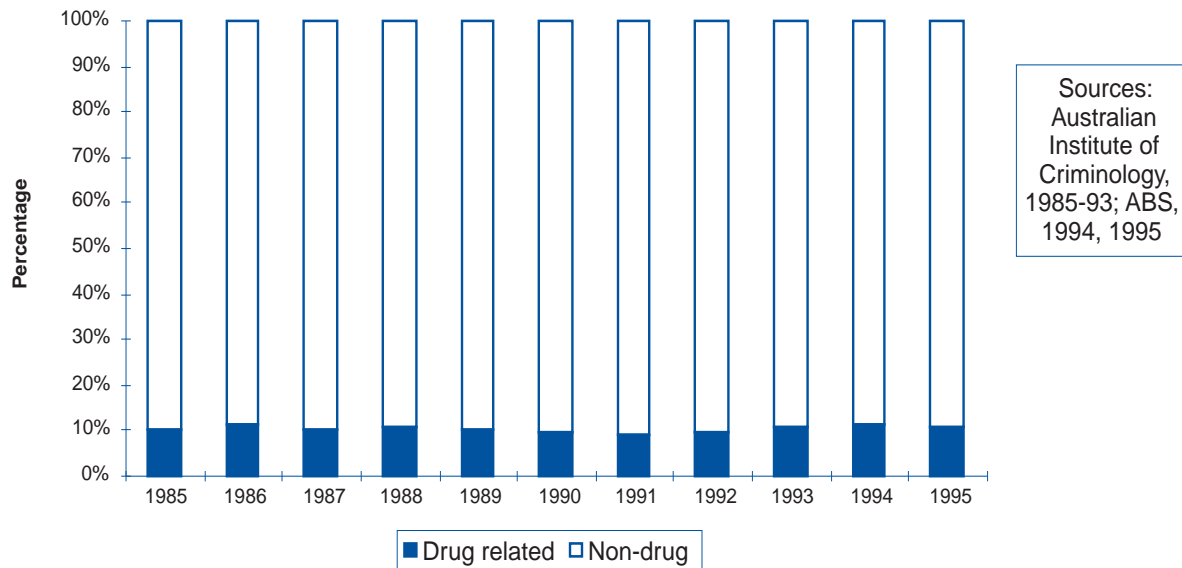


TABLE 48. PROPORTION OF CRIMINAL OFFENDERS WHERE MOST SERIOUS OFFENCE IS DRUG RELATED

Offence	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<i>By drug offence</i>											
Possession, Use drugs	25.32	22.22	17.17	17.61	14.57	12.55	14.66	14.43	10.97	8.37	8.80
Trafficking drugs	65.74	68.06	68.04	71.21	75.02	77.21	73.97	74.18	76.17	79.26	79.75
Manufacture, grow drugs	8.94	9.72	14.79	11.18	10.41	10.24	11.36	11.40	12.85	12.38	11.45
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
<i>Proportion of all prisoners</i>											
Possession, Use drugs	2.61	2.51	1.78	1.93	1.46	1.18	1.33	1.41	1.18	0.96	0.97
Trafficking drugs	6.77	7.67	7.07	7.81	7.51	7.27	6.72	7.24	8.18	9.09	8.76
Manufacture, grow drugs	0.92	1.10	1.54	1.23	1.04	0.96	1.03	1.11	1.38	1.42	1.26
Total	10.31	11.27	10.39	10.97	10.00	9.42	9.08	9.76	10.74	11.47	10.98

Sources: Australian Institute of Criminology, National Prison Censuses, 1985-93; ABS Prisoners in Australia, 1994, 1995

FIGURE 48. PROPORTION OF PRISONERS, BY OFFENCE



All drugs

Key National Indicator

Key National Policy Objective

Reduce the loss of productivity in the workplace linked to the use of alcohol and other drugs.

Collins and Lapsley (1992, 1996) have shown that the costs associated with lost productivity amount to approximately 50% of all costs of drug abuse. At current prices, the total production loss resulting from the use of alcohol and other drugs increased from \$7.0 billion to \$9.2 billion dollars, between 1988 and 1992.

Measurement of absenteeism and industrial accidents due to drug use.

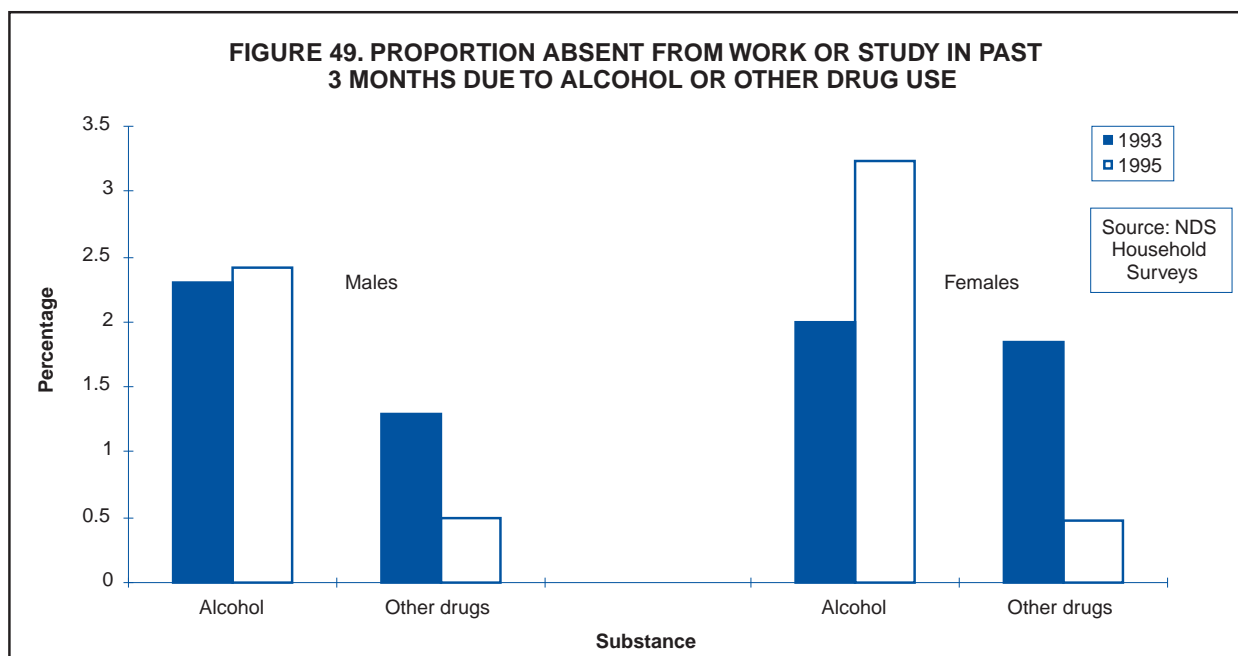
(Baseline: NCADA National Survey 1993, percentage of employees who missed work because of drug abuse data pending; also pending, National Injury Surveillance Unit data on industrial accidents due to drug use.)

Rationale: In addition to the economic costs, the indicator attempts to measure the extent to which effects of drug abuse impact on the immediate health of the population. While not necessarily sufficiently serious to require hospitalisation, drug abuse can and does incapacitate to the extent that productive work and study are impaired or prevented. The expectation was that absenteeism due to drug use would decline.

TABLE 49. ABSENTEEISM FROM WORK OR STUDY IN PREVIOUS 3 MONTH DUE TO ALCOHOL OR OTHER DRUG USE (PER CENT)

Substance	Males		Females		Persons	
	1993	1995	1993	1995	1993	1995
Alcohol	2.31	2.42	2.00	3.24	2.17	2.78
Drugs other than alcohol	1.30	0.50	1.85	0.48	1.55	0.49

Source: NDS Household Surveys



Notes: The National Drug Strategic Plan foreshadowed the development of a data collection system by the National Injury Surveillance Unit on industrial accidents due to drug use. The system has not yet been developed. Accordingly, data presented here relate only to absenteeism.

The questionnaire items from which the data are drawn were imprecise—‘In the last 3 months, have you missed any days of work, school, TAFE or university because of ... alcohol use; drug use...’ The intention was to gain answers in relation to *personal* use, however the scope of the item as worded leaves open the possibility that days missed were as a result of use by other persons (for example, alcohol- (or other drug-) related assaults, care for alcohol- (or other drug-) affected persons).

Compared with 1993, more persons were absent from work or study due to alcohol use, and fewer persons were absent due to drugs other than alcohol in 1995. In 1993, 2.2% of the population did not attend work or study due to alcohol use, and 1.6% missed work or study due to drugs other than alcohol. In 1995, the respective rates were 2.8% and 0.5%. In 1993, males were more likely than females to miss work or study due to alcohol use. Females were more likely than males to miss work or study due to drugs other than alcohol. In 1995, males and females were equally likely to be absent due to drugs other than alcohol, and females were more likely than males to be absent from work or study due to alcohol use.

Key National Policy Objective

Reduce the non-medical use of drugs by young people, particularly delay or prevent the initiation or uptake of regular use of alcohol, tobacco and marijuana.

The objective is in part, tautological. In Australia, it is unheard of for medical practitioners to provide alcohol, tobacco or marijuana for medical conditions. Accordingly, all consumption of these drugs is for non-medical purposes. The objective to delay or prevent initiation or uptake of regular use of the substances is, however, appropriate.

A correlate of regular use of alcohol, tobacco and marijuana is the age at which the substances were first used. If the substances have not been used prior to 20 years of age, there is a high probability that they will never be used.

Key National Indicator

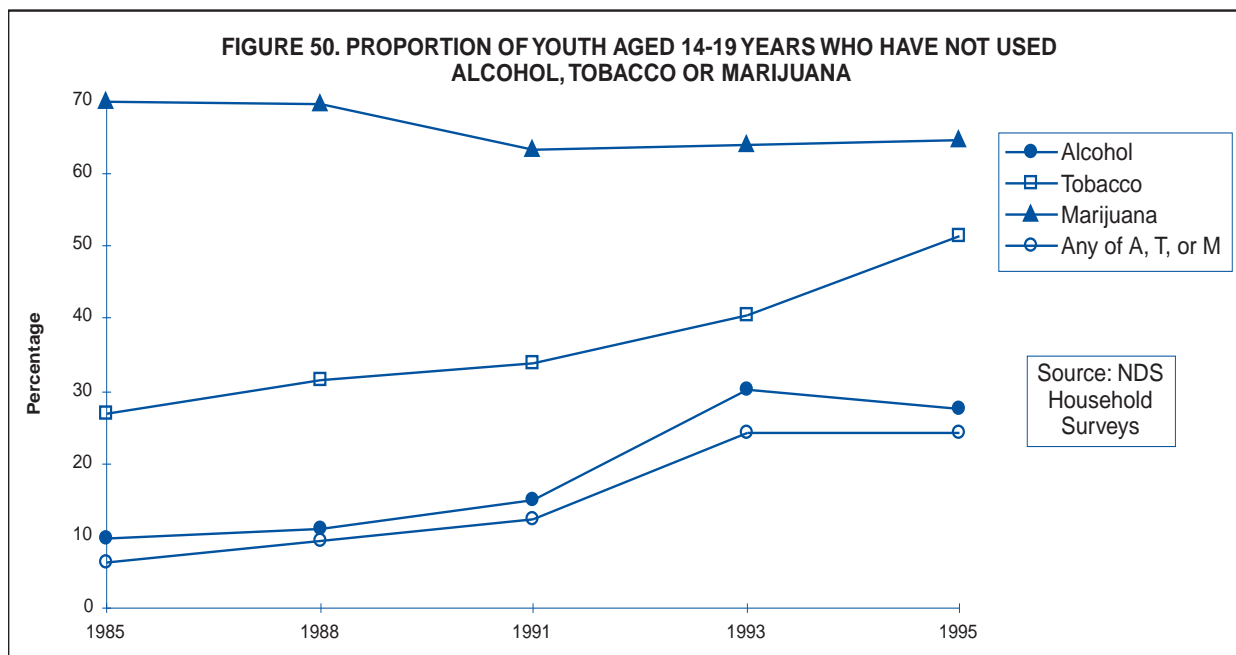
Proportion of youth aged 14–19 who report having not used alcohol, tobacco or marijuana.

(Baseline: NCADA National Survey 1993—data pending.)

Rationale: The indicator attempts to measure the extent to which education and other intervention programs which

TABLE 50. PROPORTION OF YOUTH WHO REPORT HAVING NOT USED ALCOHOL, TOBACCO OR MARIJUANA (PER CENT)

Year	Alcohol	Tobacco	Marijuana	All substances
<i>Males</i>				
1985	8.4	25.6	69.4	4.1
1988	8.4	30.8	64.8	7.7
1991	16.4	35.7	57.2	13.4
1993	26.3	43.3	60.4	22.5
1995	24.6	53.0	55.3	22.1
<i>Females</i>				
1985	10.8	28.3	70.5	8.6
1988	13.8	32.5	75.3	11.3
1991	13.7	31.7	69.9	11.5
1993	34.3	37.4	67.7	25.8
1995	31.1	49.5	75.6	26.4
<i>Persons</i>				
1985	9.6	27.0	69.9	6.3
1988	10.9	31.6	69.8	9.4
1991	15.1	33.7	63.5	12.4
1993	30.2	40.4	64.0	24.1
1995	27.5	51.4	64.5	24.1



encourage abstinence have been successful. The expectation was that the proportion of youth who reported having not used alcohol, tobacco or marijuana would increase.

Compared with 1985, a higher proportion of youths in 1995 reported having never used alcohol and tobacco, and fewer youths reported having never used marijuana. In 1985, approximately one in 16 (6.3%) only, had never used any of the three substances. By 1995, one in four (24.1%) had never used alcohol, tobacco or marijuana. Throughout the period 1985 to 1995, males were less likely than females to have abstained from these drugs.

By substance, between 1985 and 1995 the proportion of males who had never used alcohol increased from one in 12 (8.4%) to one in four (24.6%); the proportion who had never used tobacco increased from approximately one in four (25.6%) to approximately one in two (53%); and the proportion who had never used marijuana

declined from approximately two-thirds (69.4%) to just over one in two (55.3%). Corresponding rates for females were: alcohol—one in ten (10.7%) to approximately one in three (31.1%); tobacco—approximately one in four (28.3%) to one in two (49.5%); and marijuana—seven in every ten (70.5%) to just over three-quarters (75.6%) of all females, aged 14–19 years.

For genders combined, abstaining from tobacco showed the highest increase between 1985 and 1995. The proportion of youths aged 14–19 years reporting having never used marijuana appears to have stabilised after a decline in the early 1990s. After a sharp increase in the proportion of youths reporting having never used alcohol in 1993, the trend appears to have turned towards fewer youths abstaining. The 1995 result may be a short-term aberration from the previously established trend towards more, rather than fewer, youths not using alcohol.

Key National Policy Objective

Reduce the use of prescribed performance-enhancing drugs by sports participants and bodybuilders.

There are a variety of drugs which have been identified as performance-enhancing. With particular emphasis on bodybuilders, increased aggression and transmission of blood-borne diseases are particular risks associated with regular use and injecting practices. Principal among them are anabolic steroids and stimulants.

Steroids

Use of steroids may have adverse effects on the liver and serum lipids. The use of steroids contributes to impaired glucose tolerance, cardiovascular and cerebrovascular disease and reproductive disorders (DHS&H 1994). Regular steroid use leads to harmful psychological and behavioural effects which include increased aggression. Injection of steroids, particularly the sharing of needles when doing so, can lead to the transmission of HIV, hepatitis C and other blood-borne diseases.

Key National Indicator

Proportion of drug tests positive.

(Baseline: Australian Sports Drug Agency 1991–92, 1.7% of tests positive for elite athletes.)

Rationale: Sport is an activity which almost invariably leads to better health. Sports identities are role models for Australian youths, and the use of performance-enhancing

drugs introduces an unhealthy element into an otherwise healthy pursuit. In addition to minimising the personal health risks to the individual in using drugs illicitly and the effects on the country's international image, the objective seeks to limit the influence a message that 'to succeed in sport, drugs are required', might bring. The indicator attempts to measure the effectiveness of the sports drugs testing program, including educative elements. The expectation was that the number of positive drug tests would decline.

Between 1989–90 and 1995–96, the Australian Sports Drug Agency increased the number of tests conducted from 1,235 to 3,296. In that time, the proportion of tests which resulted in positive results declined from approximately one in twenty-five (4.4%) to one in one hundred (1.0%).

The two performance-enhancing substances detected most often were anabolic steroids and stimulants. In the seven years from 1989–90 to 1995–96, the proportion of all tests which revealed the presence of these two substances declined by half; steroids from 0.49% to 0.21%; and stimulants from 0.83% to 0.46%.

In both absolute terms (54 positive in 1989–90 to 34 in 1995–96) and as a proportion of all tests (4.4% in 1989–90 to 1.0% in 1995–96), the evidence is overwhelming that the trend is towards fewer tests for performance-enhancing drugs to be positive.

Key National Indicator

Proportion of elite athletes who believe drug testing program acts as a deterrent.

(Baseline: Australian Sports Drug Agency 1992, 87%. NCADA National Survey 1993, percentage of persons who have used anabolic steroids for non-medical reasons—pending.)

TABLE 51. NUMBER OF PERFORMANCE ENHANCING DRUG TESTS AND PROPORTION POSITIVE

	<i>Refusals</i>	<i>Anabolic steroid</i>	<i>Beta-blocker</i>	<i>Diuretic agent</i>	<i>Masking analgesic</i>	<i>Narcotic positive</i>	<i>Restricted</i>	<i>Stimulant</i>	<i>Total</i>	<i>Tests</i>
<i>Number</i>										
1989–90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	54	1235
1990–91	13	28	0	0	0	0	8	22	71	2656
1991–92	7	13	0	2	0	1	3	14	40	2480
1992–93	21	4	0	1	1	1	4	21	53	2877
1993–94	5	14	0	2	0	0	1	16	37	2802
1994–95	9	7	1	1	0	1	1	14	34	3108
1995–96	7	9	0	1	0	2	0	15	34	3296
<i>Proportion Positive</i>										
1989–90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.37	-
1990–91	0.49	1.05	0.00	0.00	0.00	0.00	0.30	0.83	2.67	-
1991–92	0.28	0.52	0.00	0.08	0.00	0.04	0.12	0.56	1.61	-
1992–93	0.73	0.14	0.00	0.03	0.03	0.03	0.14	0.73	1.84	-
1993–94	0.18	0.50	0.00	0.07	0.00	0.00	0.04	0.57	1.32	-
1994–95	0.29	0.23	0.03	0.03	0.00	0.03	0.03	0.45	1.09	-
1995–96	0.21	0.27	0.00	0.03	0.00	0.06	0.00	0.46	1.03	-

Source: Australian Sports Drug Agency, 1990–1996. n/a = not available

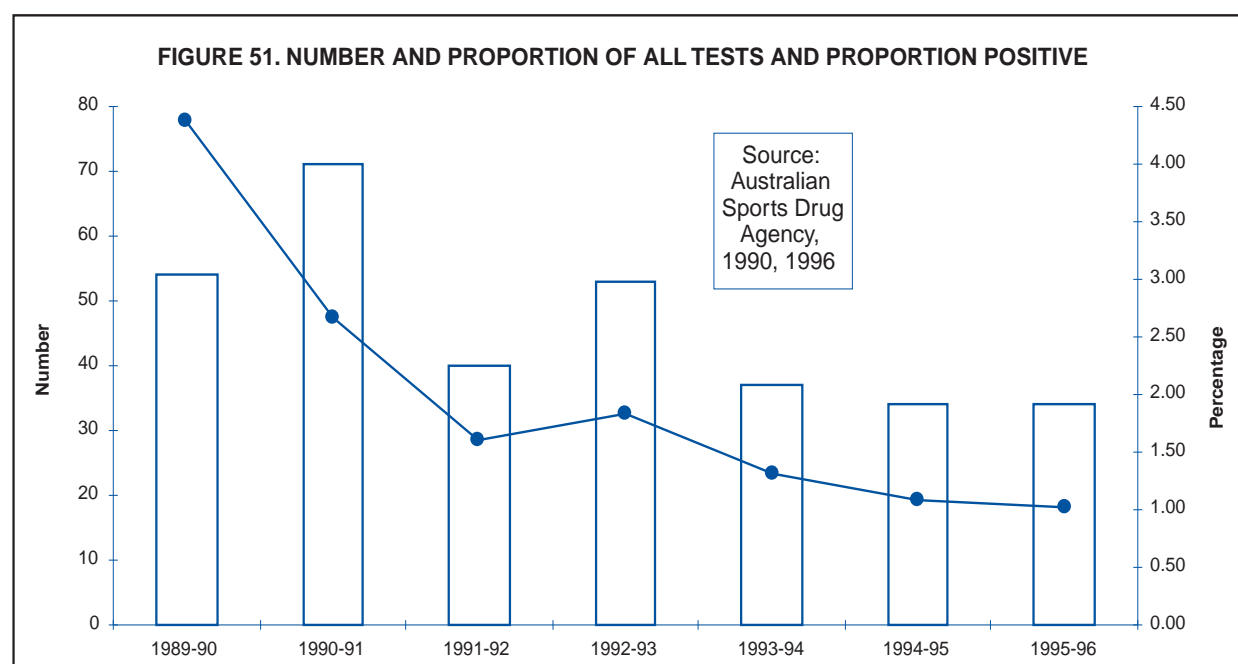
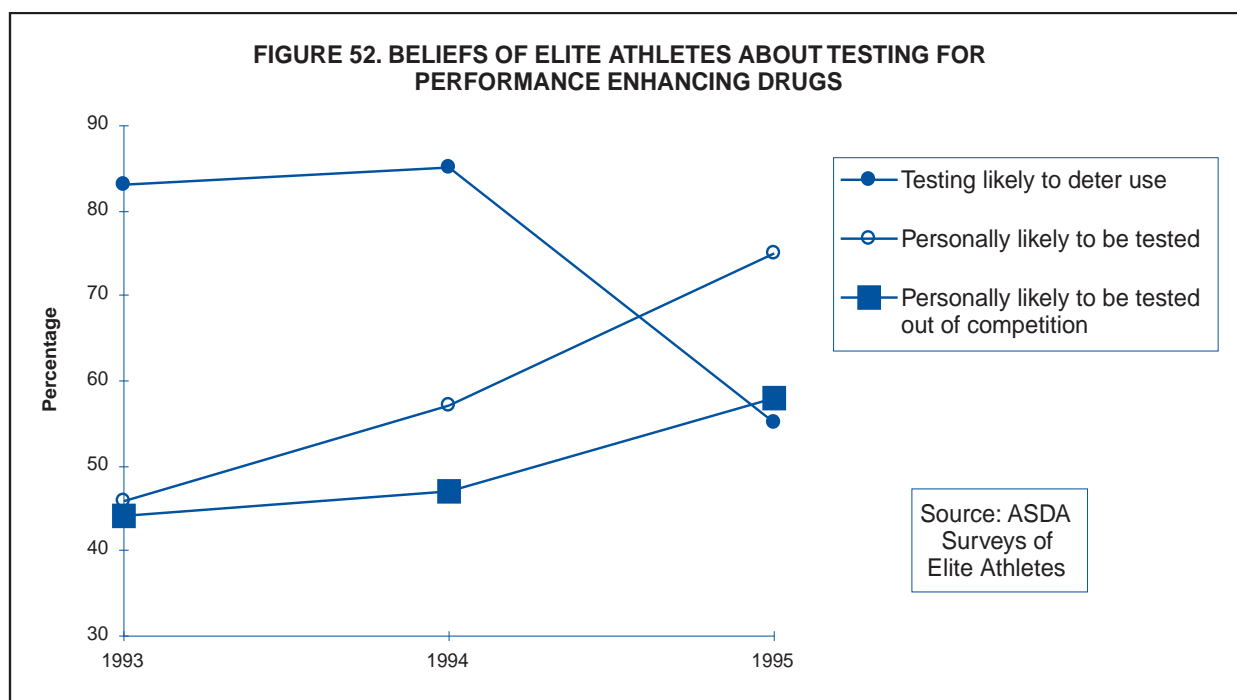


TABLE 52. ELITE ATHLETES AND TESTING FOR PERFORMANCE ENHANCING DRUGS (PER CENT)

Belief	1992	1993	1994	1995
Drug testing likely to deter elite athletes from using prohibited drugs	87	83	85	55*
Likely they would be tested at a sporting event	n/a	46	57	75
Likely they would be tested out of competition	n/a	44	47	58

Source: ASDA Surveys of elite athletes. n/a = not available. * question varied from previous surveys.



Rationale: A correlate of support for a drug testing program is the belief that the program is effective and acts as a deterrent to using the drugs. The expectation was that the number of elite athletes who believe drug testing acts as a deterrent would increase.

Between 1992 and 1994, the proportion of elite athletes who believed that drug testing in Australia was likely to deter elite athletes from using prohibited drugs was consistently between eight and nine out of every ten. In the 1995 survey, the survey

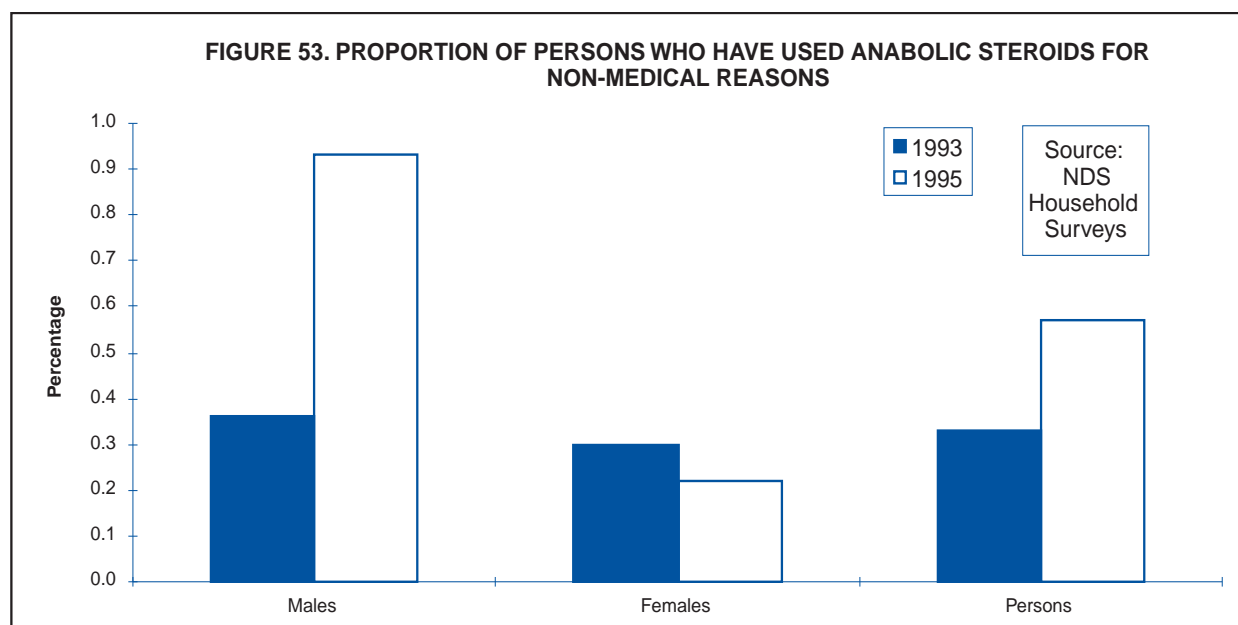
question did not distinguish between Australia’s drug testing program and programs in other countries. The decrease in the proportion from 1994 to 1995 can be perceived as a lack of confidence in the deterrent effect in those countries.

Over the same period, the proportion of elite athletes who believed it was likely they would be tested at a sporting event increased from less than one in two (46%) in 1993 to three in every four (75%) in 1995. The proportion who believed it likely that they would be tested out of competition increased from 44% to 58%.

TABLE 53. PROPORTION OF PERSONS WHO HAVE USED ANABOLIC STEROIDS FOR NON-MEDICAL REASONS (PER CENT)

Year	Males	Females	Persons
1993	0.36	0.30	0.33
1995	0.93	0.22	0.57

Source: NDS Household Surveys.



Between 1993 and 1995, the proportion of the population who have used anabolic steroids for non-medical reasons increased from 0.3% to 0.6%. Males were more likely than females to use anabolic steroids. The proportion of women who used steroids for non-medical use declined between 1993 and 1995. In the same period the proportion of males increased from 0.4% to 0.9%.

Key National Policy Objective

Reduce the risk of the transmission of sexually transmissible diseases including HIV/AIDS, through unsafe sex associated with intoxication resulting from alcohol or other drug use.

The impairment of decision making faculties which can result from the use of alcohol and other drugs increases the risk for firstly engaging in sex in circumstances where, in the absence of consumption, an alternative decision might have been made, and secondly, the risk of doing so without due regard to protecting against transmissible diseases. The potential for transmission of HIV/AIDS, HCV and other diseases is also accordingly increased.

Note: The National Drug Strategic Plan foreshadowed the development of appropriate indicators for this objective. Indicators were not developed.

In a 1992 national survey of secondary school students, almost one in four males (23.4%) and one in six females (16.6%) indicated they were drunk or 'high' on other drugs the last time they had sex (DHH&CS 1993). There was very little difference in proportions of students who were drunk or

'high' and those who were not, in their likelihood of using a condom when they last had sex. Approximately one in four (24.8%) males and slightly more than one in six (17.3%) female students who were drunk/'high' the last time they had sex did not use condoms. Among the school students who were not intoxicated, respective rates were 23.1% of males and 15.9% of females, who did not use a condom.

Key National Policy Objective

Reduce drug use by occupational groups where use can impact upon the community, for example, professional drivers, bouncers.

The National Health and Medical Research Council recommends that persons who operate machinery or drive motor vehicles, should abstain from consumption of alcohol and other drugs which impair safe practices during working hours and for periods prior

to commencement of duties, when their effects may persist into time on duty. With particular reference to occupational groups in the security industry (for example, bouncers), some illicit substances (for example, steroids) are known to contribute to aggression, which increases risks for unprofessional and/or illegal conduct.

The National Drug Strategic Plan foreshadowed the development of appropriate indicators for the objective. Indicators were not developed.

Between 1993 and 1995, the proportion of transport workers who consumed alcohol increased from over three out of every four (76.6%) to almost nine out of every ten (87.2%). In the same period, the proportion who used marijuana declined from 22.9% to 16.4%; the proportion who used amphetamines declined from 1.0% to 0.7%; the proportion who used cocaine declined from 0.8% to 0.5%; and the proportion who used tranquillisers or barbiturates increased from 0.8% to 1.3%.

Note: The data do not distinguish between use in working hours and use outside working hours.

FIGURE 54. PROPORTION OF TRANSPORT WORKERS WHO USE SELECTED DRUGS

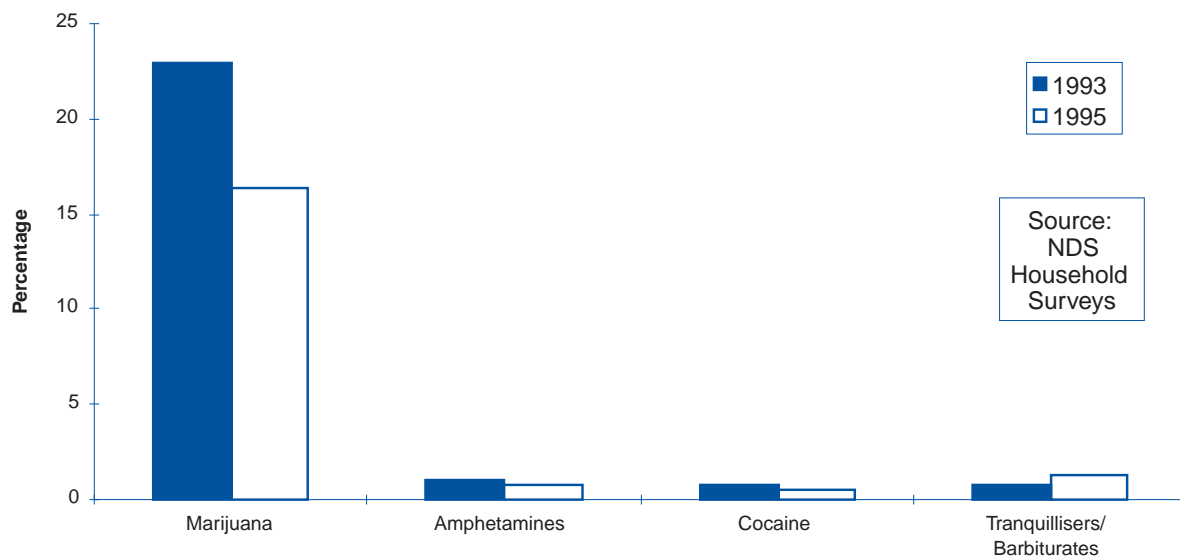


TABLE 54. PROPORTION OF TRANSPORT WORKERS WHO USE SELECTED DRUGS¹ (PER CENT)

Year	Alcohol	Marijuana	Amphetamines	Cocaine	Tranquillisers/ barbiturates
1993	76.58	22.89	1.02	0.75	0.78
1995	87.23	16.41	0.71	0.51	1.27

Source: NDS Household Surveys. Note: 1. Measure does not distinguish between consumption during working and non-working hours.

Key National Policy Objective

Reduce the non-medical use of drugs by prisoners, particularly use with risk of transmission of HIV/AIDS and other infectious diseases.

The non-medical use of drugs by prisoners is, by definition, illicit. In a closed environment such as a prison, the procurement of drugs for non-medical use, and their subsequent consumption, would necessarily be conducted furtively and frequently unsafely. The risk of transmission of HIV/AIDS and other blood-borne viruses, particularly when injected using unclean and shared equipment, is high.

Key National Indicator

Prevalence of injecting drug use among IDUs in prison.

(Baseline: ANAIDUS 1990, 74% of Sydney IDUs who had been in prison in last 10 years injected when last in prison.)

Rationale: In addition to attempting to measure the level of success of security procedures which are designed to prevent the entry of drugs into prisons, the indicator estimates the proportion of prisoners who are at increased risk of adverse health effects associated with injecting, due to the additional impediments to safe injecting circumstances which exist in prisons. The expectation was that the number of injecting drug users in prison would decline.

TABLE 55. PREVALENCE OF INJECTING DRUG USE AMONG INJECTING DRUG USERS WHILE IN PRISON (PER CENT)

Study	Year	Coverage	N	Percentage
Wolk et al.	1987	NSW	54	50 a
Potter & Conolly	1988	NSW	73	68 a
Wodak et al.	1989	NSW	209	74 a
Wodak et al.	1989	National	2482	36
Gaughwin et al.	1989	SA	50	52
Dolan et al.	1992	NSW	185	44 b
Dolan et al.	1993	NSW	113	68 a
Wodak et al.	1994	National	865	35
Dolan et al.	1994	NSW	65	66 a
MacDonald et al.	1994	NSW	26	31 b

Source: Crofts, N; Webb-Pullman, J; and Dolan, K. 1996. a—"ever injected in prison";

b = "when last in prison".

Prisoners who inject are difficult to study. Despite the volatility in prevalence figures the data suggest that between 1987 and 1994 (table 55), the proportion of injecting drug users who injected while in prison appears not to have changed substantially, but the trend is towards fewer injecting drug users injecting while in prison.

injecting implements. The indicator attempts to quantify the proportion of IDUs in prison who are at increased risks.

Between 1988 and 1994, the proportion of injecting drug users who shared needles and syringes while in prison appears to have remained stable or increased moderately. A large majority of prisoners who inject also share needles or injecting implements when injecting.

Again, despite the volatility in prevalence figures, the data suggest that the proportion of injecting drug users in prison who share needles and syringes appears not to have changed substantially. However, the trend is marginally towards more rather than fewer IDU prisoners sharing needles and syringes.

The proportion of injecting drug users who cleaned injecting equipment while in prison increased between 1988 and 1994. In New South Wales, the proportion increased from about one in four (25–30%) in 1988–89 to over four in every five (81%) in 1994.

Key National Indicator

Risky injecting behaviours of IDUs in prison.

(Baseline: ANAIDUS 1990, of those who had injected in prison, 75% shared needles at some time—indicator needs to be linked to clean injection equipment)

Rationale: The increased health risks associated with injecting in prison (over and above injecting out of prison) arise from a higher likelihood that needles and syringes will be shared and a lower likelihood that facilities will be available for cleaning

FIGURE 55. PREVALENCE OF INJECTING DRUG USE AMONG INJECTING DRUG USERS WHILE IN PRISON

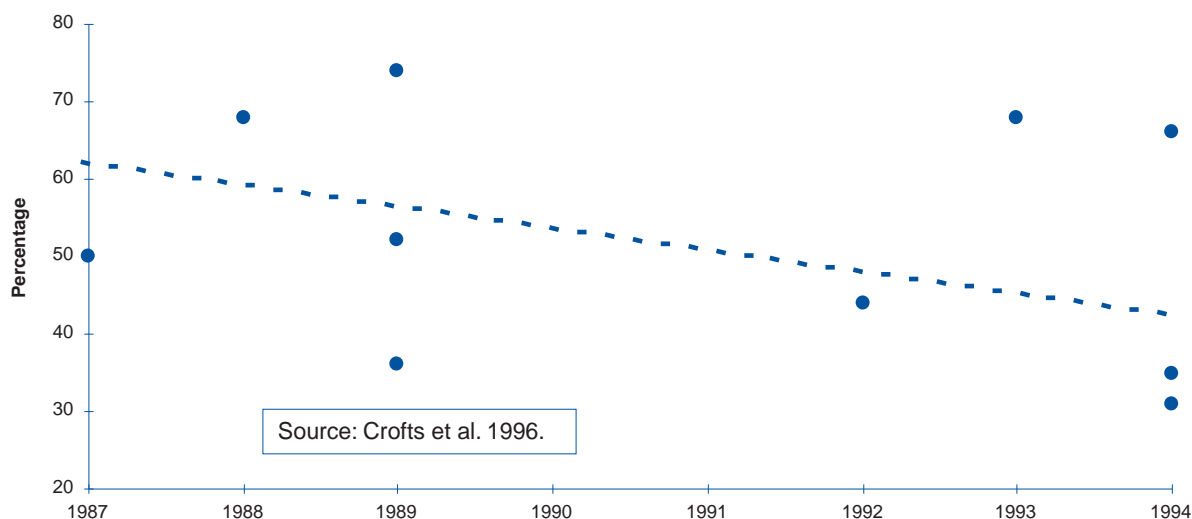
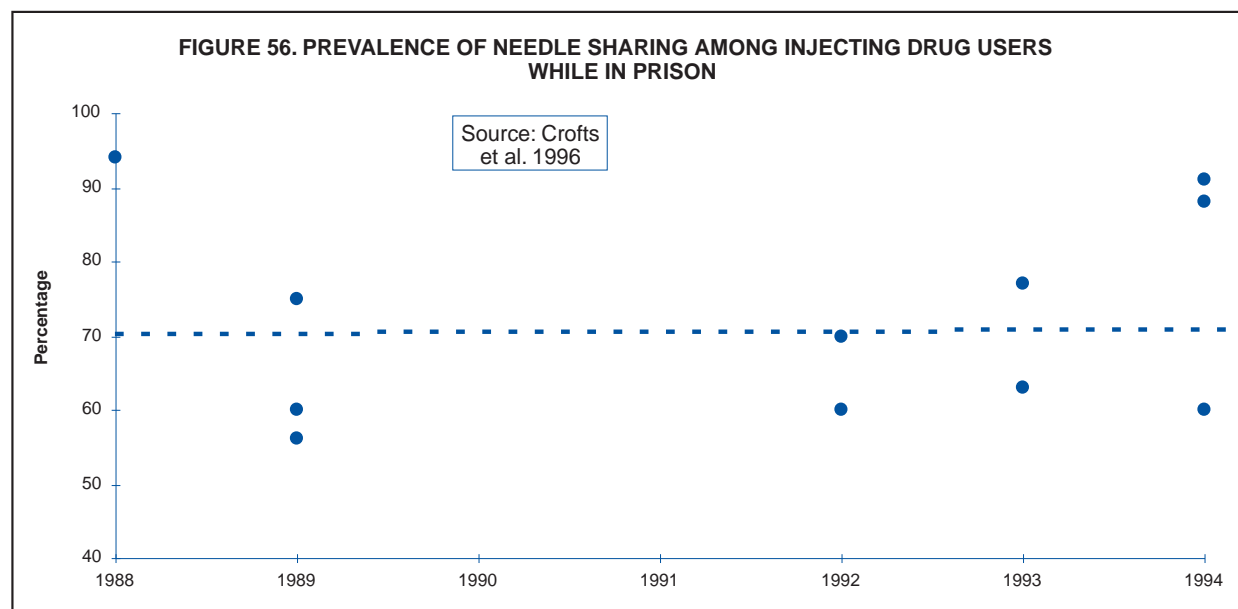


TABLE 56. PREVALENCE OF NEEDLE SHARING AMONG INJECTING DRUG USERS WHILE IN PRISON (PER CENT)

<i>Study</i>	<i>Year</i>	<i>Coverage</i>	<i>N</i>	<i>Percentage</i>
Potter & Conolly	1988	NSW	50	94
Wodak et al.	1989	NSW	155	75
Gaughwin et al.	1989	SA	26	60
Bertram & Gorta	1989	NSW	50	56
Dolan et al.	1992	NSW	81	70
Denton	1992	Vic	56	60
Dolan et al.	1993	NSW	45	77
Spooner et al.	1993	Qld	27	63
Wodak et al.	1994	National	110	60
Dolan et al.	1994	NSW	43	91
MacDonald et al.	1994	NSW	8	88

Source: Crofts, N; Webb-Pullman, J; and Dolan, K. 1996.



Note: This indicator is an example of one where, because of research subsequent to its adoption, recommendations have changed. In June 1993, the Australian National Council on AIDS (ANCA) revised its guidelines in light of research which indicated that rinsing with bleach was ineffective in eliminating blood from syringes and in inactivating HIV (ANCA 1993). Subsequent research also indicated that rinsing with bleach was ineffective in

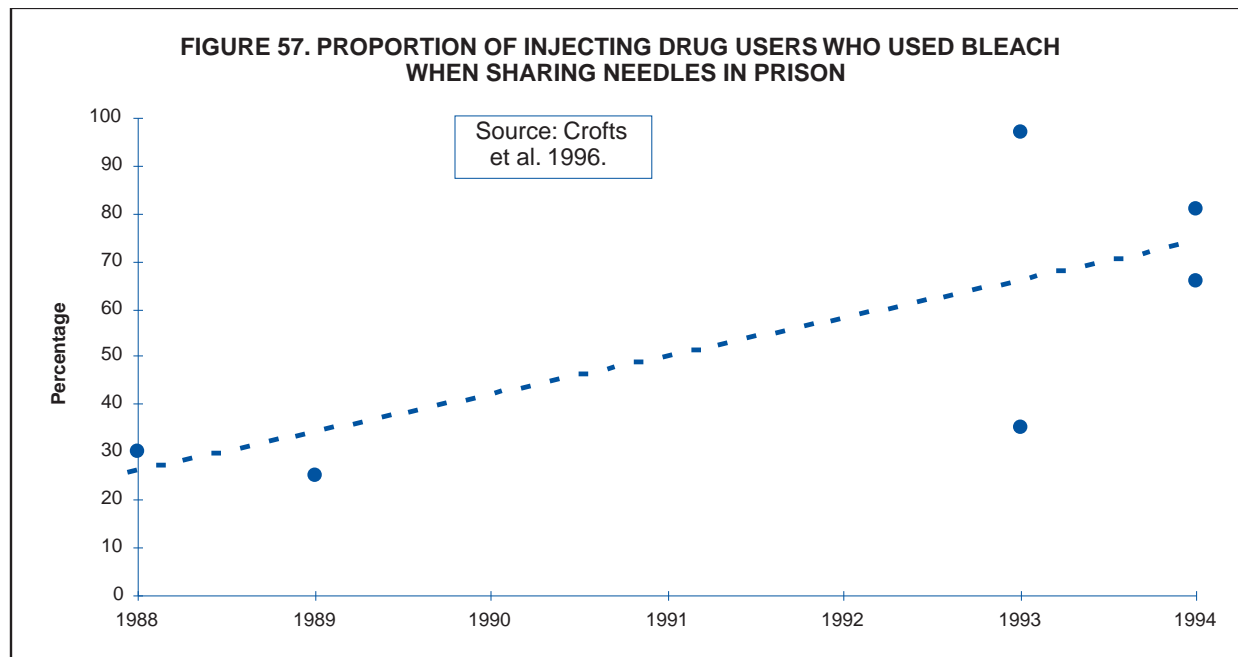
inactivating hepatitis C virus (HCV). Use of previously unused needles and syringes is the only recommended technique for injecting drug users who continue to use.

From the limited data available and despite the revised guidelines, it appears that the trend for IDU prisoners who use bleach as a cleansing agent, is towards more rather than fewer using this technique.

TABLE 57. PROPORTION OF INJECTING DRUG USERS WHO USED BLEACH WHEN SHARING IN PRISON (PER CENT)

<i>Study</i>	<i>Year</i>	<i>Coverage</i>	<i>N</i>	<i>Percentage</i>
Potter & Conolly	1988	NSW	47	30
Wodak et al.	1989	NSW	116	25
Dolan et al.	1993	NSW	35	97
Spooner et al.	1993	Qld	27	35
Dolan et al.	1994	NSW	38	81
Wodak et al.	1994	National	110	66

Source: Crofts, N; Webb-Pullman, J; and Dolan, K. 1996.



Chapter 4

Conclusion

The Key National Indicators provide a set of measures which collectively allow for the construction of a ‘report card’ of the level of Australia’s success in applying the concept of harm minimisation to drug use in the country. The National Drug Strategy and its forerunner, the National Campaign Against Drug Abuse have been in place for over 10 years. In 1993 the Ministerial Council on Drug Strategy adopted 20 Key Policy Objectives and it is against these objectives which the Key National Indicators (partly) judge Australia’s performance. There are other measures which might be employed, and Professors Single and Rohl refer to a some of them in their report *The National Drug Strategy: Mapping the Future* (1997). During consultations in the evaluation Professors Single and Rohl proposed an additional set of indicators which might be considered for inclusion in a future NDS Strategic Plan. These are shown in Appendix C.

The indicators adopted by the MCDS in 1993 are, in general, characterised by limitations in utility and definitional consistency. Some indicators that were intended to be developed were not developed, some were inadequately tracked, and others in light of further research, have become redundant. The unavailability of more recent results from baseline studies required the adoption of alternate and less reliable studies that were sometimes barely adequate for the task. In particular, the absence of data from the Anti-Cancer Council of Victoria (VACC) national surveys meant that NDS Household Surveys, with sample sizes lower than the former, had to be substituted. In addition to lower reliability of results across tobacco, alcohol and marijuana compared with what might

have been obtained elsewhere, the NDS surveys were also limited in the areas of pharmaceuticals and ‘hard’ illicit. In the circumstances attribution of changes in rates (where change occurred), to the NDS is difficult. Notwithstanding these difficulties, the trends established since the commencement of the NDS (and its forerunner—NCADA) as indicated by results presented in this report are sufficiently consistent to draw a number of conclusions.

Tobacco

If it can be accepted that the NDS has been influential in tobacco consumption and behaviour trends, then the Strategy has been successful. The only goal not achieved was a decrease in the number of hospital separations that were related to active smoking. As most separations would have been as a result of consumption patterns established over many years, this was not an unexpected short-term result and it would be reasonable to anticipate a reversal of this trend in coming years.

Tobacco trends

Number of indicators	Positive	No change	Negative (or unknown)
13	10	2	1

Another of the indicators required only the establishment of baselines for Indigenous Australians, and this was achieved (hence its ‘positive’ rating in the table of trends), however the consumption levels revealed, were far from satisfactory.

There is some evidence of an increase in consumption by the very young, however in terms of the overall strategy as it related to tobacco, it can be concluded as far as it is possible to determine from the Key National Indicators which were adopted, the vast majority of objectives were achieved.

Alcohol

Trends of alcohol consumption and alcohol-related behaviours are similar to those established for tobacco. Of the 14 indicators adopted by the MCDS in 1993, only two revealed no change. These indicators were related to hazardous and harmful alcohol consumption by adult and senior school student drinkers. In the latter category, even these results are contestable, given the low reliability attached to the small sample sizes.

Alcohol trends

Number of indicators	Positive	No change	Negative (or unknown)
14	12	2	0

Two of the indicators required only the establishment of baselines for Indigenous Australians. This was achieved (hence their ratings of 'positive' in the table of trends also). However as with the corresponding tobacco indicator, the prevalences revealed were far from satisfactory.

In terms of the overall strategy as it related to alcohol, it can be concluded as far as it is possible from the indicators adopted, that four out of the five national objectives were achieved. The exception as already referred to, was the objective to reduce the incidence and consequences of heavy or binge drinking. A possible reason for the failure in the youth area might be the increase between 1985 and 1995 in the number of outlets that sell alcohol (e.g. supermarkets,

'liquor barns' etc.), combined with increased opportunity for young persons to consume alcohol in quantity. One interpretation of the data on adult drinkers who consume at hazardous or harmful levels (stable at just over one in four of all adult drinkers), is that for this group of drinkers, consumption patterns are entrenched and it will require increased efforts (and more compelling reasons than offered to date), to effect change.

Pharmaceuticals

Very few indicators were selected for pharmaceuticals and this in itself reflects a higher emphasis of the NDS on tobacco, alcohol and 'hard' illicit. Where the NDS was directed at pharmaceuticals, it was limited to those medications that have the potential to lead to illness, injury and/or dependency. In terms of this limited focus on pharmaceuticals, the objectives of the Strategy met with mixed results.

Three indicator results demonstrate trends in directions in accord with objectives and two results might be viewed as slightly disappointing.

Pharmaceutical trends

Number of indicators	Positive	No change	Negative (or unknown)
5	3	0	2

The proportion of all drug-poisoning admissions attributable to (selected) pharmaceuticals and the proportion of older people using prescribed drugs for non-health reasons both increased marginally by 1%. The drug poisoning result might be an artefact of a reduction in the 'other' drug-caused poisonings, however this will require further research. The difference in proportions of older persons using prescribed drugs for non-health reasons

between surveys is outside reasonable sampling tolerance levels, and accordingly, might have been due to chance alone (refer to Appendix B).

Similarly, the extremely high proportion of persons using prescribed benzodiazepines for periods of six months or more (about nine out of every ten), might be attributable to problems with the methodology (refer to results in chapter 3). Notwithstanding this possibility, the residual or true prevalence of prescribing for six months or greater, even after accounting for the over-estimate component, is in all likelihood, much higher than would be desirable.

Illicit drugs

Given the prevailing trends at the time of the NDS's commencement, the indicators adopted by the MCDS were ambitious. It is understandable in the circumstances that a relatively high number of them would reveal that these trends had not been reversed in the short time frame since their adoption.

Illicit drug trends

Number of indicators	Positive	No change	Negative (or unknown)
12	4	0	8

Where objectives of the NDS were achieved was in the area of transmissible diseases, and for that success the strategy owes a debt to the related National HIV/AIDS program, under which many of the initiatives in this area were implemented. The proportion of continuing injecting drug users who used safer practices increased and the availability of needle and syringe exchanges contributed to a reduction of HIV diagnoses in this group. Unfortunately, the development of an indicator specific to hepatitis B and hepatitis C was not progressed and this was a major failure.

Objectives of the NDS in the areas of 'soft' illicit and the consequences of consumption of 'hard' drugs were not met. Proportions of the population using so-called hard drugs remained relatively stable, however the number of deaths and hospital separations attributable to these drugs and particularly so for heroin, increased. It has been speculated that the increased purity of heroin and amphetamines, combined with (until recently) a relatively unsympathetic law enforcement approach to users who overdose, contributed to this increase.

Among the 'soft' illicit, use of marijuana in particular, increased among youth. There is some evidence that consumption patterns established during youth were being maintained to a greater degree than previously, as users moved into the older age groups. This has led to an overall increase in the proportion of the population that uses marijuana. Levels of consumption of the other soft illicit do not seem to have increased to any great extent.

All drugs

The description of 'all drugs' is a misnomer. Rather, the category might be termed multi-drug, cross-drug or non-specific. It is a grab bag of indicators that do not fit conveniently in the major categories and/or those that are applicable to more than one category. Results again, in comparison with tobacco and alcohol, were mixed.

All drugs trends

Number of indicators	Positive	No change	Negative (or unknown)
8	3	1	4

The three indicators which revealed positive trends were an increase in the proportion of youth who had never used alcohol or tobacco; a decrease in the

proportion of drug tests for performance-enhancing drugs which proved positive; and a (modest) reduction in the proportion of injecting drug using prisoners who continued to inject, while in prison.

Two indicators that were aimed at measuring unsafe sexual activity as a result of intoxication and the impact of drugs on the work performance of occupational groups, were not proceeded with.

The two other negative results concerned a modest increase in absenteeism from work or study due to alcohol, and a slight increase in the proportion of injecting drug user prisoners who used risky injecting techniques. This latter result was predictable, given the reluctance of jurisdictions to provide safer environments for injecting while in prison.

Future directions

It is clear that the number and appropriateness of the Key National Indicators requires re-examination. The direction and focus of the National Drug Strategy will be redefined in response to the

Single and Rohl evaluation report. It is extremely unlikely however, that an emphasis on harm minimisation will alter. New Key National Policy Objectives will be determined, and the indicators attached to these objectives will need to be sufficiently sensitive and specific to enable a far greater measurement of the strategy's success, than that afforded by the present set.

Data gathering mechanisms will need to be implemented to ensure that the indicators are tracked as intended and consideration might be given to extending the set to include qualitative measures. Presently, the indicators are purely prevalence and incidence measures of consumption and related behaviours.

The NDS is a cooperative strategy involving the Commonwealth, the States and Territories (encompassing both health and law enforcement), non-government organisations and the community, which is broadly aimed at reducing the harm from the consumption and consequences of drugs. Consideration might also be given to including indicators which measure the level of success of this partnership domestically, and its impact on international approaches to 'the drug problem'.

Appendix A

Survey, data set descriptions

Surveys

DATA SET TITLE:	National Drug Strategy Household Surveys
INVESTIGATORS:	Department of Health and Family Services
DATE/S OF DATA COLLECTION:	1985, 1988, 1991, 1993, 1995.
LOCATION:	National
SAMPLE SIZE/S:	(1995) 3,850
SAMPLE CHARACTERISTICS:	SEX: 46% male, 54% female AGE: 14–19 9%; 20–24 9%; 25–34 21%; 35–54 34%; 55+ 27% ETHNICITY: 97% Australian EMPLOYMENT STATUS: Working fulltime 38%; working part-time 13%; studying 12%; unemployed 5%; home duties 15%; retired/pension 17%
RECRUITMENT:	Random (household), geographic stratification
DESIGN:	Cross-sectional
INSTRUMENT:	Questionnaires
ADMINISTRATION:	Face to face interviews, self completed, sealed section
OBJECTIVE OF STUDY:	1. Benchmarking data 2. Measure consumption patterns, attitudes, behaviour 3. Policy development
STUDY CONTEXT:	National health program evaluation
CONTACT:	Paul Williams (02) 6289 6851
INCLUDED:	Published data, additional commissioned data tables
DATA SET TITLE:	National Drug Strategy Aboriginal and Torres Strait Islander Household Supplement Survey
INVESTIGATORS:	Department of Health and Family Services
DATE/S OF DATA COLLECTION:	1994
LOCATION:	National (urban).
SAMPLE SIZE/S:	2,993
SAMPLE CHARACTERISTICS:	SEX: 45% males, 55% females AGE: 14–24 30%; 25–34 30%; 35–44 21%; 45+ 19%
RECRUITMENT:	Cluster sample (household)
DESIGN:	Cross-sectional
INSTRUMENT:	Questionnaires
ADMINISTRATION:	Face to face interviews, self completed sealed section
OBJECTIVE OF STUDY:	1. Benchmarking data 2. Measure consumption patterns, attitudes, behaviour 3. Policy development
STUDY CONTEXT:	National health program evaluation
CONTACT:	Paul Williams (02) 6289 6851
INCLUDED:	Published data

Appendix A

DATA SET TITLE:	Patterns of tobacco smoking in Australia
INVESTIGATORS:	David Hill, Centre for Behavioural Research in Cancer
DATE/S OF DATA COLLECTION:	1974, 1976, 1980, 1983, 1986, 1989, 1992, 1995
LOCATION:	National
SAMPLE SIZE/S:	Approximately 6,000 respondents nationwide
SAMPLE CHARACTERISTICS:	Representative sample of Australian residents aged 16 years and over
RECRUITMENT:	Random (household) geographic stratification (city/rural, state)
DESIGN:	Cross-section
INSTRUMENT:	Questionnaire
ADMINISTRATION:	Face to face interviews as part of a larger omnibus survey conducted by a market research company for the Anti-Cancer Council of Australia
OBJECTIVE OF STUDY:	To determine current smoking rates by age, sex and type of smoking. To determine current patterns of giving up smoking and attitudes to smoking
STUDY CONTEXT:	Monitoring smoking prevalence
CONTACT:	Director, Centre for Behavioural Research in Cancer (03) 9279 1180
INCLUDED:	Published data, commissioned data tables
DATA SET TITLE:	Smoking and Alcohol use among secondary students, Australia
INVESTIGATORS:	David Hill, Centre for Behavioural Research in Cancer
DATE/S OF DATA COLLECTION:	1984, 1987, 1990, 1993, 1996
LOCATION:	National
SAMPLE SIZE/S:	Approximately 22, 000 respondents nationwide
SAMPLE CHARACTERISTICS:	Representative sample of Australian secondary students aged 12 to 17 years
RECRUITMENT:	Secondary schools sampled randomly (state and school type stratification). 80 students sampled randomly across predetermined year levels within each school.
DESIGN:	Cross-section
INSTRUMENT:	Pencil and paper questionnaire
ADMINISTRATION:	Students surveyed in groups of 20 by outside administrator. Questionnaires completed anonymously.
OBJECTIVE OF STUDY:	To determine current tobacco smoking rates and alcohol drinking rates by age and sex among Australian secondary students. Types of cigarettes smoked and alcohol consumed also monitored.
STUDY CONTEXT:	Monitoring adolescent smoking prevalence
CONTACT:	Director, Centre for Behavioural Research in Cancer
INCLUDED:	Published data, commissioned data tables

DATA SET TITLE: **National Health Survey**
INVESTIGATORS: Australian Bureau of Statistics
DATE/S OF DATA COLLECTION: 1995
LOCATION: National
SAMPLE SIZE/S: 28,636
SAMPLE CHARACTERISTICS: Representative of whole population
RECRUITMENT: Geographic stratification sample
DESIGN: Cross-sectional
INSTRUMENT: Questionnaires
ADMINISTRATION: Face to face interviews, self completion section
OBJECTIVE OF STUDY: Determine national state of health
STUDY CONTEXT: National health stocktake
CONTACT: Brian Richings (02) 6252 7911
INCLUDED: Commissioned data tables

Other studies

STUDY TITLE: **Drug related deaths; Queensland 1989–92**
INVESTIGATORS: (Qld) Government Statisticians Office
DATE/S OF DATA COLLECTION: 1989–92
LOCATION: Queensland
DATA CHARACTERISTICS: All external (ICD-9 E) deaths
OBJECTIVE OF STUDY: Determine the extent and nature of drug related external causes of death
STUDY CONTEXT: Health, policy development
CONTACT: James Hinchcliffe (07) 3224 5282
INCLUDED: Unpublished data

STUDY TITLE: **An analysis of trends over time in social and behavioural factors related to the transmission of HIV among injecting drug users and prison inmates**
INVESTIGATORS: Crofts, N; Webb-Pullman, J and Dolan, K
DATE/S OF DATA COLLECTION: Review of studies from 1985–1994
LOCATION: Australia
DATA CHARACTERISTICS: Varies
OBJECTIVE OF STUDY: To provide a summary of research inot risk behaviours for HIV infection among injecting drug users and prison inmates
STUDY CONTEXT: Evaluation of the National HIV/AIDS Strategy 1993–94
CONTACT: Mr Brendan Gibson, Director Evaluation, National Public Health Planning Branch, Dept of Health and Family Services, (02) 6289 8758
INCLUDED: Published data

Data sets

DATA SET TITLE:	National hospital utilisation data set
INVESTIGATORS:	Australian Institute of Health and Welfare
PERIOD OF RECORDS HELD	(complete) from 1993–94
SCOPE:	National, all admissions
DATA ITEMS HELD:	Sex, birthdate, country of birth, aboriginality, marital status, residence, employment status, (health) insurance status, episode type, admission and discharge date, cause, DRG, admission weight, referral source, external cause, major diagnostic category.
SIZE OF COLLECTION:	4–5+ million records, per year
PURPOSE OF COLLECTION:	Monitor national health patterns
CONTEXT:	Health research
CONTACT:	Ruth Penm (02) 6244 1130
INCLUDED:	Commissioned data tables
DATA SET TITLE:	National mortality data set
INVESTIGATORS:	Australian Institute of Health and Welfare
PERIOD OF RECORDS HELD	1964-
SCOPE:	National, all deaths
DATA ITEMS HELD:	State of registration, month of registration, year, sex, age at death, State of usual residence, occupation, birthplace, duration of Australian residence, marital status, date of marriage, age at marriage, duration of marriage, number of children, date of death, cause of death (ICD), certification, post mortem, and from 1980—aboriginality, place of marriage, registration district, registration number.
SIZE OF COLLECTION:	120,000, per year
PURPOSE OF COLLECTION:	Monitor national mortality patterns
CONTEXT:	Health research
CONTACT:	Ruth Penm (06) 244 1130
INCLUDED:	Commissioned data tables
DATA SET TITLE:	National Serious Injury data set
INVESTIGATORS:	Federal Office of Road Safety
PERIOD OF RECORDS HELD	1990–1996
SCOPE:	National
DATA ITEMS HELD:	Age, injury extent, road user category, sex, seat belt, blood alcohol level, licence type, no. of occupants
SIZE OF COLLECTION:	35,000 per year
PURPOSE OF COLLECTION:	Monitor road crash trends
CONTEXT:	Road Safety Research
CONTACT:	Sheridan Coombes (02) 6274 7922
INCLUDED:	Commissioned computations

DATA SET TITLE:	ASDA Register of Notifiable Events
INVESTIGATORS:	Australian Sports Drugs Agency
PERIOD OF RECORDS HELD:	1989–90—present
SCOPE:	National
DATA ITEMS HELD:	Age, sex, sport, date, substance results, where tested, event/date of event status
SIZE OF COLLECTION:	10,000 records
PURPOSE OF COLLECTION:	Monitor prohibited substance consumption trends
CONTEXT:	Legislative requirement
CONTACT:	Phillipa Taylor (02) 6206 0230
INCLUDED:	Published data
DATA SET TITLE:	Results of the National Prison Census
INVESTIGATORS:	National Corrective Services Statistics Unit, ABS
PERIOD OF RECORDS HELD:	1994–1996 (previous years held by Australian Institute of Criminology)
SCOPE:	National
DATA ITEMS HELD:	Sex, age, country of birth, Indigenous status, legal status, security classification, most serious offence, court sentence, sentence type, sentence length
SIZE OF COLLECTION:	17,000 records (approx)
PURPOSE OF COLLECTION:	Statistical information on persons in prison
CONTEXT:	National Justice system statistics
CONTACT:	Jacqueline Oddie (03) 9615 7673
INCLUDED:	Published data
DATA SET TITLE:	The National HIV database
INVESTIGATORS:	National Centre in HIV Epidemiology and Clinical Research
PERIOD OF RECORDS HELD:	HIV diagnoses since 1985
SCOPE:	National
DATA ITEMS HELD:	Sex, age, State of residence, date of diagnosis, place of diagnosis, exposure category , evidence of newly acquired infection
SIZE OF COLLECTION:	Approx. 20,000
PURPOSE OF COLLECTION:	Determine the extent and nature of HIV transmission
CONTEXT:	Public Health
CONTACT:	Head of Epidemiology (02) 9332 4648
INCLUDED:	Commissioned data tables

Note: Presentational template for details above first used by Crofts et al, 1996.

Appendix B

Table/figure notes

Unless indicated otherwise, data points in corresponding figures are drawn from the data in tables.

Table 1

Definition:

Regular equals smokes at least daily

Survey questions:

- 1985, *Please look through all the statements on this card. Which one statement best describes you?*
1988. *How often do you or did you use tobacco/cigarettes?*
1991. *Please look through all of the statements below. Which one statement best describes your use of tobacco/cigarettes?*
- 1993 *Please look through all of the statements below. Which one statement best describes your use of tobacco/cigarettes?*
1995. *Please read through all the statements below and then tick the one statement which best describes your current use of tobacco/cigarettes?*

Menu of statements attached to survey questions (where applicable) included frequency/quantity options.

Figure 1.

1988 data points estimated from smokers in past week.

Table 2

Definitions:

Upper white collar = ASCO codes 1000–2999; Lower blue collar = ASCO codes 7000–8999.

Survey questions:

As described for table one above.

Table 3

Survey questions:

As described for table one above

Table 4

Definitions:

Definite action = Prochanska and DeClemente's stages of change model, codes 9,10.

Some action = successfully given up, tried to give up, changed to cigarette brand with

Appendix B

lower tar or nicotine content or reduced the amount of tobacco smoked each day

Survey questions:

National Heart Foundation—not available

Victorian Anti-Cancer Council *Which line best describes how likely you'd be to give up smoking in the next three months?*

- | | |
|----|-----------------------------|
| 1 | Extremely unlikely |
| 2 | Quite unlikely |
| 3. | Slightly unlikely |
| 4 | Neither likely nor unlikely |
| 5 | Slightly likely |
| 6 | Quite likely |
| 7 | Extremely likely |

NDS—1993, 1995 *In the last 12 months have you [taken action as per definition above]?*

Table 5

Definition:

Non-English speaking background defined according to country of birth.

Survey questions:

As described for table one above

Table 6

Definition:

Pregnancy status determined from *medical reason for consulting health professional*.

Survey question:

Do you currently smoke?

Table 7

Definitions:

Current regular = at least daily; current occasional = smokes, but less than daily

Non-Indigenous:

1993 and 1995 general community household surveys included approximately 50 persons who identified as Indigenous. In terms of the overall sample sizes (>3,500), their impact on prevalences is negligible.

Survey Questions:

As described for table one above

Table 8

Definitions:

Never smoked regularly

1985	don't smoke now and lifetime consumption < 100 cigarettes
1988	never smoked at all
1991	don't smoke now and lifetime consumption < 100 cigarettes
1993	don't smoke now and never a daily smoker
1995	don't smoke now and never a daily smoker

Survey questions:

As described for table 1 above

Table 9

Survey questions:

As described for table 8 above

Table 10

Definitions:

Non-smoking policy = total ban

Restricted smoking = allowed to smoke in my own room only, allowed to smoke in defined smoking area, allowed to smoke outside building

Survey questions:

Does your workplace, school or college have any non-smoking policies or restrictions? If yes, what type of restrictions?

Table 11

Definition:

Potentially exposed to tobacco smoke in the home =at least one smoker in the residence.

Table 12

The aetiological fraction method, sometimes referred to as the attributable proportion or attributable risk method, is the application of probabilities calculated from estimates of the prevalence and relative effect of exposure to classifications of causes of death (refer to English and Holman, 1995, p476 for fractions applied); smoking-related mortality from heart failure calculated from (ICD-9 428–429 * ICD-9 410–414/ICD-9 393–414,420–429). Low birthweight includes stillbirths calculated as ICD-9 764–765 plus 9% from perinatal collections.

Table 13

Refer to English and Holman, 1995, p476 for ICD-9 classifications and fractions applied.

Table 14

Refer to English and Holman, 1995, p 244 for ICD-9 classifications and fractions applied.

Table 15

Refer to English and Holman, 1995, p244 for ICD-9 classifications and fractions applied.

Table 16

Survey questions: Hierarchical exclusion/inclusion

1985	<i>About how often do you have an alcoholic drink?</i> followed by <i>On a day that you drink alcohol, how many drinks do you usually have?</i>
1988	<i>Have you ever tried alcohol?</i> followed by <i>When did you last drink alcohol?</i> followed by <i>On a day that you drink alcohol how many drinks do you usually have?</i>
1991	<i>Have you ever tried alcohol?</i> followed by <i>In the past 12 months, how often have you had more than 4 (m), 2 (f) drinks in a day?</i>
1993	<i>Have you ever tried alcohol?</i> followed by <i>Was it a full glass of alcohol?</i> followed by <i>When did you last have an alcoholic drink of any kind?</i> followed by <i>In the past 12 months, how often have you had more than 4 (m), 2 (f) drinks in a day?</i>
1995	<i>Have you ever tried alcohol?</i> followed by <i>Have you ever had a full glass of alcohol?</i> followed by <i>When did you last have an alcoholic drink of any kind?</i> followed by <i>In the past 12 months, how often have you had more than 4 (m), 2 (f) drinks in a day?</i>

Table 17

Non-Indigenous:

1993 and 1995 general community household surveys included approximately 50 persons who identified as Indigenous. In terms of the overall sample sizes (>3,500), their impact on prevalences is negligible.

Survey questions:

Non-Indigenous

1993, 1995 as per table 16 above

Indigenous

1994 Hierarchical exclusion/inclusion

Have you ever tried alcohol? followed by *Have you ever had a full glass of alcohol?* followed by *When did you have an alcoholic drink of any kind?* followed by *In the past 12 months, how often have you had more than 2 drinks in a day?* followed by *On the last occasion that you drank more than 2 drinks in a day, about how many drinks did you actually have?*

Table 18

Definition:

Pregnancy status determined from *medical reason for consulting health professional*.

Survey question:

How long ago did you last have an alcoholic drink?

Table 19

Survey questions:

1991	<i>On a day that you drink alcohol how many drinks do you usually have?</i>
1993	<i>On a day that you drink alcohol how many drinks do you usually have?</i>
1995	<i>On a day that you have an alcoholic drink, how many standard drinks do you usually have?</i>

Table 20

Survey questions:

As per table 16 above.

Note: Oversample 14–19 year olds data files 1985, 1988, 1991 used for computations.

Table 21

Survey questions

As per tables 16, 17 above

Note: Non-Indigenous 1991—oversample 14–19 data file used for computations.

Table 22

The data contained in the table are derived from information supplied to the Federal Office of Road Safety by each State and Territory government compiled from individual police road crash reports (refer to Appendix A for data set description).

Table 23

As per table 22 above.

Table 24

Data contained in the table are derived from reports produced by the State and Territory Police Departments.

Table 25

Survey questions:

Victims

1993 *In the past 12 months how often have you experienced any of the following?*

[menu included]

Been physically abused by someone affected by alcohol

Been verbally abused by someone affected by alcohol

Had property damaged by someone affected by alcohol

Had property stolen by someone affected by alcohol

1995 *In the past 12 months has there been any occasion when you...*

[menu included]

Were physically abused by someone affected by alcohol

Were verbally abused by someone affected by alcohol

Had property damaged by someone affected by alcohol

Had property stolen by someone affected by alcohol

Appendix B

Survey questions:

Perpetrators

1993 *In the past 12 months how often have you...*

[menu included]

Physically abused anyone when you were affected by alcohol

Verbally abused someone when you were affected by alcohol

Damaged property when you were affected by alcohol

Stolen property when you were affected by alcohol or while with other who were affected by alcohol

1995 *In the past 12 months, has there been any occasion when, because you or your companions were affected by alcohol, you personally...*

[menu included]

Physically abused someone

Verbally abused someone

Caused damage to property

Stole property

Table 26

Proportions calculated from (ICD-9 965.09–969.5 admissions)/(tobacco-related admissions + alcohol-related admissions + illicit drug-related admissions + ICD-9 965.09–969.5 admissions).

Table 27

Survey questions:

1993 *Have you used [medication] in the past 12 months for non-medical purposes?*

1995 *Have you used [medication] for non-medical purposes in the past 12 months*

Table 28

Survey questions:

As per table 27 above

Table 29

Survey question:

In the last two weeks have you used any of these kinds of medications?

[menu comprised]

Tablets/capsules/granules/powders

Medicines of any kind

Inhalers

Skin ointments, creams, rubs, lotions

Injections

Eye drops/ointments, ear drops

Other medications including patches, gels, suppositories, implants followed by
It might be easier to answer the next few questions if you have these medications in front of you. What are the names of all the medications you took in the last two weeks?

Table 30

Survey questions:

As per table 29 above

Benzodiazepine list of drugs comprised:

Alprazolam

Bromazepam

Clobazam

Chlordiazepoxide (including combinations)

Diazepam

Flunitrazepam

Flurazepam

Lorazepam

Nitrazepam

Oxazepam

Potassium clorazepate

Triazolam

Table 31

Survey questions:

1988 *Have you ever used marijuana / hash?* followed by *When did you last use marijuana / hash?*

1991 As per 1988

1993 *Have you ever tried marijuana / has?* followed by *Have you used marijuana / hash in the last 12 months?*

1995 *Have you ever tried marijuana (or cannabis products)?* followed by *Have you used marijuana in the past 12 months?* [Additional descriptive (any Cannabis products, e.g. Grass, Dope, Pot, Weed, Mull, Hash, Skunk)]

Note: Oversample file used for 1991 14–19 year olds

Tables 32–37

Survey questions:

As per table 30 above (substitute table substance for [marijuana/hash] in questions).

Additional descriptives:

Inhalants	1988	(Glue, Petrol, Solvent, Rush)
	1991	(Glue, Petrol, Solvent, Rush)
	1993	(Glue, Petrol, Solvent, Rush)
	1995	(e.g. Glue, Petrol, Solvent, Rush)
Hallucinogens	1988	(LSD, Magic Mushrooms, Trips)

Appendix B

	1991	(LSD, Magic Mushrooms, Trips)
	1993	(e.g. LSD, Magic Mushrooms, Trips)
	1995	(e.g. Acid, Trips) NB. two questions (naturally occurring hallucinogens and LSD specific asked in this survey. Data presented relate only to LSD question)
Ecstasy/Designer drug	1993	(e.g. Ice)
	1995	(e.g. XTC, E, MDMA, Ecce, Adam)
Amphetamines	1988	(Speed, Uppers)
	1991	(Speed, Uppers)
	1993	(e.g. Speed, Uppers, Ritalin, Ox Blood)
	1995	(e.g. Speed, Goey, Uppers, OxBlood, MDA, Eve)
Cocaine	1988	(Described in question as Cocaine/Crack)
	1991	(Described in question as Cocaine/Crack)
	1993	(Described in question as Cocaine/Crack)
	1995	(e.g. Coke, Crack, Blow, Charlie)
Heroin	1993	(e.g. Hammer, Smack, Skag, Rock)

Note: Oversample file used for 1991 14–19 year olds

Table 38

Data drawn from questions as per tables 31–37 above, as they applied to hard drugs. Hard drugs comprise any of heroin, cocaine, amphetamines, hallucinogens, ecstasy and other designer drugs. Included—a positive response to any or all of the hard drugs.

Table 39

Data drawn from questions as per tables 31–37 above. Included—a positive response to any or all of all substances.

Table 40

Data drawn from negative responses to all substance questions as per tables 31–37 above

Table 41

Refer to English and Holman, 1995, p580 for ICD-9 classifications and fractions applied. Stillbirth deaths according to ICD-9 764–765 plus 9% of stillbirths from perinatal collections

Table 42

Refer to English and Holman, 1995, p580 for ICD-9 classifications and fractions applied.

Table 43

Presence or absence of substances determined from post mortem examinations and toxicological analyses.

Table 44

Refer to Appendix for dataset description.

Table 45

Refer to Crofts et al, 1996 for details of studies.

Trend line computed by OLS regression.

Figure 45

1985	97.00	1989	48.31	1991	43.48	1993	10.47
1985	94.44	1989	37.54	1991	40.00	1993	10.17
1985	91.07	1989	27.55	1991	34.5	1993	05.04
1986	95.59	1989	23.16	1991	08.20	1994	38.57
1986	70.00	1989	22.61	1992	32.89	1994	17.24
1986	09.09	1990	53.11	1992	35.06	1994	15.79
1987	80.11	1990	41.57	1992	20.91	1994	15.14
1987	80.00	1990	33.19	1992	14.86	1994	12.50
1987	37.14	1990	31.06	1993	60.87	1994	11.86
1987	61.11	1990	13.44	1993	55.26	1994	11.68
1988	37.50	1990	13.33	1993	33.00	1994	10.49
1988	62.96	1991	27.33	1993	24.55	1994	08.68
1989	59.62	1991	60.62	1993	18.18		

Trend line computed by OLS regression.

Table 46

Refer to Crofts et al. 1996 for details of studies.

Figure 46

Data points

1986	09.76	1990	72.00	1993	69.14	1994	63.64
1987	86.21	1991	93.90	1993	63.64	1994	61.11
1988	47.06	1992	77.78	1994	77.14	1994	33.33
1989	64.52	1992	75.00	1994	73.85		
1990	96.00	1992	100.00	1994	68.00		
1990	84.88	1993	84.81	1994	64.10		

Table 47

Refer to Appendix A for dataset description

Table 48

Refer to Appendix A for dataset description

Table 49

Survey questions:

In the past 3 months, have you missed any days of work, school or university because of:

Alcohol use?

Other drug use?

Table 50

Data drawn from negative responses to questions as per tables 16, 1 and 31 above.

Note: 1985, 1988 and 1991, 14–19 oversample files used for computations.

Table 51

Refer to Appendix A for dataset description.

Table 52

Refer to Appendix A for dataset description

Table 53

Survey question:

Have you ever used steroids for non-medical purposes?

Table 54

Definition:

Transport worker: ASCO codes 7100–7109

Table 55

Details of studies presented in the table can be found in Crofts et al, 1996

Figure 55

Data points

1987	50	1989	52	1993	68	1994	31
1988	68	1989	36	1994	66	1994	12
1989	74	1991	44	1994	35		

Trend line computed by OLS regression.

Table 56

Details of studies presented in the table can be found in Crofts et al, 1996

Figure 56

Data points

1988	94	1989	56	1993	77	1994	88
1989	75	1991	70	1993	63	1994	60
1989	60	1991	60	1994	91		

Trend line computed by OLS regression.

Table 57

Details of studies presented in table can be found in Crofts et al, 1996

Figure 57

Data points

1988 30

1989 25

1993 97

1993 35

1994 81

1994 66

Trend line computed by OLS regression.

All table/figures using NDS household Survey data

- 1985 data - unweighted sample size 2791; restricted to areas with 5,000 or more residents; oversamples of 14–19 year olds and small States; survey comprised interviews only; weighted sample used for computations
- 1988 data - unweighted sample size 2257; restricted to areas with 5000 or more residents; oversample of 14–19 year olds; survey comprised interviews and sealed questionnaire; unweighted data file only available, used for computations. Oversample of 14–19 year olds excluded from general population tables, but included in single year of age (< 20 year olds) tables.
- 1991 data unweighted sample size 2850; restricted to areas with 5000 or more residents; oversample of 14–19 year olds and small States; survey comprised interviews and sealed questionnaire; unweighted data file only available, used for computations. Oversamples of 14–19 year olds excluded from general population tables, but included for single year of age (< 20 year olds) tables.
- 1993 data unweighted sample size 3500; oversample of small States; survey comprised interviews and sealed questionnaire; weighted data file used for computations. Note different age groups this survey; 14–19, 20–29, 30–39, 40–54, 55–69, 70+.
- 1995 data unweighted sample size 3850; oversample of small States; weighted data file used for computations.

National Drug Strategy Urban Aboriginal and Torres Strait Islander Supplement Household Survey

Sample size 2,493, 45% males, 55% females. Weighted sample file used for computations.

Appendix C

Range of possible other indicators

Drug control

Alcohol

Objective: Increase the substitution of low-alcohol content beverages for high-alcohol content beverages

Indicator

Sales trends of low versus high-alcohol content beverages

Objective: Ensure that alcohol advertising and promotions do not convey messages that drinking contributes to sports, social or sexual success

Indicator

(qualitative) Perceptions of linkages between alcohol and idealised behaviour/beliefs

Objective: Increase knowledge and skill to intervene to prevent alcohol problems

Indicators

Number of operators and servers trained in responsible serving practices;

(qualitative) Alcohol server intervention beliefs/behaviours

Number of States/Territories with anti-serving of alcohol affected persons legislation

Objective: Increase community awareness of health and law enforcement programs to reduce alcohol harm

Indicator

Proportion of adults/adolescents aware (of objective)

Tobacco

Objective: Reduce the availability of tobacco to persons aged under 18 years

Indicators

Proportions of youth who report successfully purchasing tobacco products

Number of warnings/prosecutions of retailers for breaching (under-age) sales regulations

Objective: Increase the real price of tobacco

Indicator

Trend in price relative to disposable income

Objective: Eliminate all forms of tobacco advertising, sponsorship and promotion

Indicator

Number of States/Territories with tobacco bans

Pharmaceuticals

Objective: Identify and target those Pharmaceuticals most often used inappropriately

Indicators

Need to be developed

Objective: Increase measure to ensure that Pharmaceuticals are prescribed appropriately

Indicators

Need to be developed

Illicit drugs (Intersectoral approach)

Objective: Improve coordination of Commonwealth and State/Territorial policy and programs

Indicators

Need to be developed

Objective: Increased collaborative programs between levels of government

Indicator

Number and nature of collaborative programs

Objective: Increase awareness and use of programs from other sectors

Indicators

Need to be developed

Objective: Improve coordination of law enforcement and health policy and programs

Indicators

Need to be developed

Objective: Increase collaborative programs between health and law enforcement

Indicator

Number and nature of collaborative programs and policies

Objective: Increase awareness and use of health information and programs by law enforcement (and vice versa)

Indicators

Need to be developed

International cooperation

Objective: Maintain/increase influence of the National Drug Strategy in international forums

Indicators

Level of standing/respect of Australian research and programming

Number of citations to Australian research and programs in international journals of repute

Number of international media mentions of NDS

Objective: Maintain/increase influence of the National Drug Strategy in promoting participation in international drug forums

Indicators

Number of presentations of papers

Number of invited presentations

Evaluation and accountability

Objective: Increase the number of programs subject to systematic evaluation, in particular, cost effectiveness studies

Indicator

Number and proportion of programs systematically evaluated

Objective: Increase the influence of systematic evaluations in strategic planning

Indicators

Need to be developed

Treatment effectiveness

Objective: Increase outreach

Indicator

Number and proportion of eligible population who receive such treatment

Objective: Increase the cost-effectiveness of treatment programs

Indicators

Need to be developed

Training

Objective: Improve medical training in alcohol, tobacco and other drug issues

Indicators

Number of hours in medical school curricula devoted to alcohol and other drug issues

Number of specialised programs in graduate schools at Australian Universities

Objective: Improve continuing (drug issue) education of medical and other professionals

Indicators

Need to be developed

Objective: Improve training of law enforcement officers on alcohol and other drug issues

Indicators

Need to be developed

Research

Objective: Improve the quality of research

Indicator

Number of NDS sponsored publications in refereed journals

Number of NDS sponsored research citations

Number of international awards, honours for NDS sponsored research and researchers

Objective: Promote the contribution of research to program development

Indicators

Need to be developed

Acronyms and abbreviations

ABS	Australian Bureau of Statistics
AIDS	Acquired immunodeficiency syndrome
AIHW	Australian Institute of Health and Welfare
ANCA	Australian National Council on AIDS
ASDA	Australian Sports Drugs Agency
ATSI	Aboriginal and Torres Strait Islanders
DHHLG&CS	Department of Health, Housing, Local Government and Community Services
DHS&H	Department of Human Services and Health
FORS	Federal Office of Road Safety
HIV	Human immunodeficiency virus
ID	Intravenous drug
IDU	Intravenous drug user
LPG	Liquefied petroleum gas
MCDS	Ministerial Council on Drug Strategy
MDMA	Methylene dioxymethamphetamine (ecstasy)
NCADA	National Campaign Against Drug Abuse
NHF	National Heart Foundation
NDS	National Drug Strategy
NHMRC	National Health and Medical Research Council
PBS	Pharmaceutical Benefits Scheme
TAFE	Technical and further education
VACC	Anti-Cancer Council of Victoria

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