# A guide to Australian alcohol data

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# Abbreviations

| | |
|---|---|
| ABS | Australian Bureau of Statistics |
| ADCA | Alcohol and other Drugs Council of Australia |
| ADF | Australian Drug Foundation |
| ADIN | Australian Drug Information Network |
| AF | Aetiological fraction |
| AHMAC | Australian Health Ministers' Advisory Council |
| AIC | Australian Institute of Criminology |
| AIHW | Australian Institute of Health and Welfare |
| ALSWH | Australian Longitudinal Study on Women's Health |
| AODTS-NMDS | Alcohol and Other Drug Treatment Services National Minimum Data Set |
| ASSADS | Australian Secondary Schools Students Alcohol and other Drugs Survey |
| BAC | Blood alcohol concentration |
| BEACH | Bettering the Evaluation and Care of Health |
| CASI | Computer aided/assisted self interview |
| CATI | Computer aided/assisted telephone interview |
| CCD | Census collection district |
| CCS | Crime and Safety Survey |
| COTSA | Clients of Treatment Service Agencies |
| DoHA | Australian Government Department of Health and Ageing |
| DTRFT | Department of Tourism, Racing and Fair Trading |
| DUCO | Drug Use Careers of Offenders |
| DUMA | Drug Use Monitoring in Australia |
| ICD–9–CM | International Classification of Diseases, 9th Revision, Clinical Modification |
| ICD–10–AM | International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification. |
| IHS | Indigenous Health Survey |
| IPP | Information Privacy Principle |
| ISS | Indigenous Social Survey |
| KHLS | Kids Help Line Statistics |
| MUNCCI | Monash University National Centre for Coronial Information |
| NACTR | National Alcohol Campaign tracking research |

| | |
|---|---|
| NAIP | National Alcohol Indicator Project |
| NAS | National Alcohol Strategy |
| NCATSIS | National Centre for Aboriginal and Torres Strait Islander Statistics |
| NCETA | National Centre for Education and Training on Addiction |
| NCIS | National Coroners Information System |
| NDARC | National Drug and Alcohol Research Centre |
| NDRI | National Drug Research Institute |
| NDS | National Drug Strategy |
| NDSHS | National Drug Strategy Household Survey |
| NEACA | National Expert Advisory Committee on Alcohol |
| NHMP | National Homicide Monitoring Program |
| NHMD | National Hospital Morbidity Database |
| NHMRC | National Health and Medical Research Council |
| NHS | National Health Survey |
| NISU | National Injury Surveillance Unit |
| NMD | National Mortality Database |
| NPCS | National Police Custody Survey |
| NPC | National Prisoner Census |
| NPHIWG | National Public Health Information Working Group |
| NPP | National Privacy Principle |
| QF | Quantity frequency |
| RTA | Road Traffic Authority |
| SAND | Supplementary Analysis of Nominated Data |
| SDUA | Statistics on drug use in Australia |
| SE | Standard error |
| SLA | Statistical local area |
| SMHWB | National Survey of Mental Health and Wellbeing of Adults |
| WHO | World Health Organisation |

# 1 Introduction

## Alcohol in Australia

Since European settlement alcohol has played a key role in the social, economic and political culture of Australia. Alcohol continues to be accepted as a major part of the Australian lifestyle today. However, alcohol consumption can adversely affect health and is second only to tobacco as a preventable cause of drug-related morbidity and mortality. Alcohol-related issues affect not only an entire population but also particular target groups and subpopulations (NDS 2001a).

An estimated 31,132 Australians (23,431 or 75% males; 7,703 or 25% females) died from risky and high-risk alcohol use in a period of ten years between 1992 and 2001. The leading causes of death were alcohol liver disease followed by road crash injury, cancer and suicide. These types of deaths reflect a pattern of drinking to intoxication with more people dying from acute rather than chronic effects of alcohol. Deaths from acute effects of alcohol were more common among younger age groups of 15–29 years whereas deaths from chronic effects of alcohol were more common among older age groups of 45 years and over (Chikritzhs et al. 2003).

However, alcohol consumption does not always pose a risk to health. Many people who consume alcohol in Australia do so at levels that are not considered harmful to health. There is recent evidence that suggests low levels of alcohol consumption may prove beneficial to health for particular individuals in the population. The protective effects of low-risk alcohol consumption are most pronounced in persons aged 65 years and over (AIHW 2002b).

Australia is ranked 23rd for its per capita alcohol consumption out of the 58 countries included in *World Drink Trends* (2003). Per capita alcohol consumption in Australia has remained stable over the past ten years, after a significant decline in the early 1990s. Wine and spirit consumption has increased in the last decade while full-strength beer has declined. Most alcohol consumed in Australia is in the form of beer (Chikritzhs et al. 2003).

## The purpose of this document

The purpose of this document is to identify and briefly describe key Australian data collections relevant to assessing patterns of alcohol consumption and alcohol-related harm. The scope of this list is limited to mostly national data collections in the public domain. This document includes an analysis of these alcohol data collections and how they contribute to reducing alcohol-related harm. Key gaps and priorities and potential opportunities for further analysis are also discussed. In addition there is a section briefly describing guidelines for running alcohol surveys. This document complements the release of the *National Alcohol Research Agenda* (NDS 2002), which focuses on research gaps and priorities.

## Structure of the report

This report is divided into five main sections. Following this introduction, Section 2 focuses on more in-depth information on alcohol in Australia, such as alcohol consumption and alcohol-related harm. Section 3 presents an analysis of the current key alcohol data sources and Section 4 provides a guide on how to run alcohol surveys. There are five appendixes: a list of key organisations, compilations, syntheses and analyses; standard drinks guide; National Alcohol Strategy and example questions for measuring alcohol consumption. A glossary of terms also follows.

# 2 Alcohol in Australia

## The context for measuring alcohol consumption

### Classifying the effects of alcohol consumption

The National Health and Medical Research Council's (NHMRC) *Australian Alcohol Guidelines: Health Risks and Benefits* (NHMRC 2001) states that classifying the effects of alcohol consumption should take into account the following factors:

- potential harms to individual, population and social health under the law;
- potential health and social benefits of alcohol;
- the potential to produce harmful alcohol dependence;
- the continuum of risk that exists from zero risk (abstinence) to high risk;
- effects of alcohol in the short-term and in the long-term;
- the variation in short-term and long-term effects between population groups;
- the variation in the effect on the individual from alcohol consumption due to factors such as body size, gender, inherent characteristics, mood and the amount the person habitually drinks; and
- the variation over time in drinking patterns and levels, of individuals and populations.

The problems resulting from excessive alcohol consumption can be summarised in three categories:

- alcohol dependence (loss of personal control, withdrawal symptoms, social disintegration, etc.);
- heavy regular use problems (cirrhosis of the liver, cognitive impairment, pancreas damage, heart and blood disorders, ulcers, etc.); and
- intoxication and acute alcohol-related problems (alcohol-related violence, risky behaviour, road trauma, injury, etc.) (NHMRC 2001).

It is useful to separate the adverse health consequences of excessive alcohol consumption into two categories:

- the harms associated with **acute or short-term** drinking episodes; and
- the harms resulting from **chronic or long-term** alcohol consumption.

### Acute or short-term effects of alcohol misuse

Acute or short-term alcohol-related harms produce the following effects and risks to health (NHMRC 2001):

- effects on the brain

- stress
- sleep deprivation
- sexual dysfunction
- gut and pancreas effects
- heart and circulation effects
- road accidents
- physical or sexual assaults
- homicide
- overdose
- behaviour risky to health and wellbeing, injury and death.

### Risk factors for acute or short-term alcohol-related harm

'Low risk' drinking defines a level of consumption at which there is only a minimal risk of harm and, for some, the likelihood of health benefits. Risk to health is positively related to consumption above the 'low risk' level (NHMRC 2001). The short-term risk to health is related to the total amount of alcohol consumed on any given drinking episode, occasion or day. It is necessary to monitor regular and occasional short-term drinking behaviour and hence the risk it poses to health.

The Australian Alcohol Guidelines define thresholds of 'low risk', 'risky' and 'high risk' drinking behaviour, for males and females, by the risk to health these levels create in the short term (see Table 2.1). These consumption thresholds do not take into account individual characteristics such as height, weight, predisposition to problems associated with the consumption of alcohol, family history, pregnancy, medications being taken, or existing medical conditions that may be exacerbated by drinking. Individual characteristics such as these are considered in Australian Alcohol Guidelines 4 to 12.

**Table 2.1: Australian Alcohol Guidelines for short-term drinking and the level of risk to health, for males and females of average or larger body size (e.g. over 160 cm in height and 50 kg for women, 60 kg for men).**

| | Risk of harm in the short term | | |
|---|---|---|---|
| | Low risk (standard drinks)[(a)] | Risky (standard drinks)[(a)] | High risk (standard drinks)[(a)] |
| Males (on any one day) | Up to 6 on any one day, no more than 3 days per week | 7 to 10 on any one day | 11 or more on any one day |
| Females (on any one day) | Up to 4 on any one day, no more than 3 days per week | 5 to 6 on any one day | 7 or more on any one day |

(a) A standard drink contains 10 grams of alcohol, which is equivalent to 12.5 millilitres of alcohol.

*Source:* NHMRC 2001 Australian Alcohol Guidelines: Health Risks and Benefits.

The short-term risk pattern of drinking assumes that:

- person drinks on a maximum of three days per week and remains within the levels for long-term harm;
- drinker is not about to engage in activities involving risk or a degree of skill, is not on medication, does not have a condition which is made worse by drinking, is not pregnant and is not under 18 years of age; and
- person is pacing their drinks over time, to moderate the rate of alcohol consumption (for males, two standard drinks in the first hour and one per hour thereafter; and for females, one standard drink per hour).

Without these qualifications the risk to health is increased.

### General risk factors for acute alcohol-related harm

In the short-term drinking model (NHMRC 2001), the general risk factor for acute alcohol-related harm is the quantity of alcohol consumed on any one day by an individual at above 'low risk' levels. That is, the volume of alcohol consumed in excess of four standard drinks per day for women and in excess of six standard drinks per day for men (see Appendix C for definition of standard drink). The risk to health is a function of excess consumption of alcohol in each short-term drinking episode.

### Risk factors for other acute alcohol-related harms

Allsop et al. (1997) identify a number of occupational groups and settings as being at higher risk of alcohol-related harm. These include the retail alcohol industry, journalism, the armed forces and the police. These groups are characterised by easy availability of alcohol, low levels of supervision and a culture supportive of heavy drinking. Another group at high risk of 'alcohol overdose' (poisoning, toxicity) are those that participate in high-risk drinking games. The study found that 75% of respondent tertiary students had participated in a drinking game at some time. Nearly all of these (89%) reported being present when someone had lost consciousness from alcohol intoxication, and had often been left alone to 'sleep it off'.

### Risk factors for alcohol-related road crashes

Recent evidence shows that the following risk factors are those most likely to contribute to alcohol-related road crashes (Stockwell 2001):

- higher blood alcohol concentration (BAC);
- drinking in certain licensed premises (e.g. nightclubs, hotels, pubs, rather than restaurants and social clubs);
- being a young male;
- drinking beer rather than other alcoholic beverages; and
- living in rural areas.

Researchers have found that on average there is an increased probability of crashing at increased BAC levels. The probability of crashing and the BAC level is as follows.

**Table 2.2: The probability of alcohol-related road crashed relative to the BAC**

| BAC | Probability of crashing (relative to zero BAC) |
|---|---|
| 0.05 | Twice |
| 0.08 | 7 times |
| 0.15 | 25 times |

(a) BAC=blood alcohol concentration.

*Source:* RTA 2003.

### Risk factors for alcohol-related violence

There is a wide body of evidence (Homel et al. 1992; Stockwell et al. 1992) which concludes that alcohol consumption above 'low risk' levels for acute harm increases the risk of physical and sexual assaults, domestic violence and homicide. Homel et al. (1992) cite a combination of crowding, a predominantly young male crowd, boring entertainment, aggressive bouncers, cheap drinks and high levels of intoxication as particularly risky combinations. There is also a correlation between alcohol-related violence and the type of licensed drinking venue. For example, nightclubs, pubs and hotels are more prone than restaurants and social clubs to experience bouts of alcohol-related violence. The evidence shows that alcohol intoxication by itself is not a sufficient condition for alcohol-related violence, but can increase the risk in situations where there is a degree of conflict or frustration around human interactions (Stockwell 2001).

## Chronic or long-term effects of alcohol misuse

Excessive long-term alcohol consumption increases the following risks to health (NHMRC 2001):

- cancers of the lips, mouth, throat and oesophagus;
- cancers of the stomach, pancreas and liver;
- cirrhosis of the liver;
- cognitive problems and dementia;

- Wernicke-Korsakof Syndrome (thiamine deficiency) resulting in brain haemorrhages;
- alcohol dependence;
- increased risk of cardiovascular diseases (e.g. hypertension, haemorrhagic stroke, ischaemic stroke, heart failure, and cardiomyopathy);
- peripheral neuropathy (limb muscle weakness);
- foetal alcohol syndrome and related conditions; and
- male sexual impotence.

### Risk factors for chronic long-term alcohol-related harm

The level of long-term risk is associated with regular daily patterns of drinking. It is typically defined by the total amount of alcohol consumed per day or per week. It is necessary to monitor regular drinking behaviour to measure the risk it poses to health. As mentioned above, the Australian Alcohol Guidelines define thresholds of 'low risk', 'risky' and 'high risk' drinking behaviour, for males and females, by the risk to health these levels of alcohol consumption create in the long term (see Table 2.3). These consumption thresholds do not take into account individual characteristics as mentioned for Table 2.1.

**Table 2.3: Australian Alcohol Guidelines for long-term drinking and the level of risk to health, for males and females of average or larger body size (e.g. over 160 cm in height and 50 kg for women, 60 kg for men)**

| | Risk of harm in the long term | | |
|---|---|---|---|
| | Low risk (standard drinks)[a] | Risky (standard drinks)[a] | High risk (standard drinks)[a] |
| Males | | | |
| On an average day | Up to 4 per day | 5 to 6 per day | 7 or more per day |
| Overall weekly level | Up to 28 per week | 29 to 42 per week | 43 or more per week |
| Females | | | |
| On an average day | Up to 2 per day | 3 to 4 per day | 5 or more per day |
| Overall weekly level | Up to 14 per week | 15 to 28 per week | 29 or more per week |

*Note:* For the definition of a standard drink please refer to the glossary of terms.
*Source: NHMRC 2001 Australian Alcohol Guidelines: Health Risks and Benefits.*

The long-term risk pattern of drinking includes the same assumptions for the short-term risk pattern of drinking. A drinker does not have a family history of alcohol-related problems, is not on medication, does not have a condition that is made worse by drinking, is not pregnant and is not in a high-risk category for breast cancer. Without these qualifications the risk to health is increased.

### Biomedical consequences of long-term alcohol consumption

A number of epidemiological studies have examined the dose–response relationship between average alcohol consumption and a variety of specific diseases using case-control and cohort methodologies (Laslett et al. 2001). There is strong evidence that

patterns of regular heavy alcohol consumption are associated with increased overall mortality and many individual diseases.

### Genetic influences

There are particular genetic characteristics that increase an individual's susceptibility to health risks from consuming alcohol. For example, when alcohol is consumed the enzyme alcohol dehydrogenase breaks down alcohol into acetaldehyde. This enzyme exists in a 'slow' and 'fast' form, the amounts of which are genetically determined. The 'fast' enzyme more rapidly breaks down alcohol into acetaldehyde and may increase the risk of cancer (Laslett et al. 2001).

### Sex

Women's biological susceptibility to both the acute and chronic effects of alcohol occurs at lower levels of exposure than for men. This is due to women's size, their smaller risk of heart disease compared with men at each age, their greater risk of liver damage and their higher risk of breast cancer. This implies the lower consumption limits at each risk level for women in the Australian Alcohol Guidelines (NHMRC 2001).

### Age

Many studies of chronic disease show that it is in middle age that health harms or benefits of long-term alcohol use begin to appear. It is not known whether this is the cumulative effect of consumption over many years and/or due to changes in the body over time (Laslett et al. 2001).

### Psychological consequences of long-term alcohol consumption

Excessive alcohol consumption in the long term is associated with a variety of psychological health consequences such as reduced cognitive performance, psychosocial functioning and mental disorders such as depression (Blanchard 2000, cited in Laslett et al. 2001). While recent studies identify the prevalence of comorbid alcohol use and mental health disorders, the cause of this comorbidity is poorly understood (Lynskey 1998 cited in Laslett et al. 2001) and suggests that comorbidity occurs within four broad classes:

- one condition increases the risk of the other condition;
- the conditions may be comorbid because they share the same risk factors;
- the risk factors for both conditions may be separate and distinct but are correlated and it is this correlation that causes the conditions to be comorbid; and
- the conditions may be correlated and co-morbid because they are reflections of a common syndrome or vulnerability.

There is evidence to suggest that heavy alcohol use may exacerbate mood disorders and that those subject to mood disorders are predisposed to heavy alcohol use. Furthermore, some medications, when taken concurrently with alcohol may increase the risk of harm to health.

Low to moderate levels of alcohol consumption may be associated with positive mental health such as reduced stress and social phobia (Degenhardt et al. 2000 cited in Laslett et al. 2001). In summary, alcohol consumption appears to be associated with some benefits and some detriments to mental health, depending on a number of variables, such as amount consumed, pattern of consumption and individual characteristics.

### Social risk factors for long-term alcohol-related harm

There has been little research on social risk factors for alcohol-related harm. Some anecdotal evidence suggests a relationship between social isolation and alcohol consumption that is harmful to health. In a study by Leonard and Rothbard (1999, cited in Laslett et al. 2001) it was found that lower alcohol consumption and fewer alcohol-related problems are found among married men and women when compared to single and divorced individuals.

### Social consequences of alcohol misuse

Excessive alcohol consumption may also produce a range of undesirable social effects (NHMRC 2001):

- physical and sexual violent behaviour
- verbal abuse and aggression
- injury
- homicide
- anxiety, depression and isolation.

In general, the risk of adverse social consequences is directly proportional to the quantity of alcohol consumed. Alcohol is frequently associated with impaired work performance and productivity, absenteeism, high rates of workplace injury, premature retirement, and relationship and family problems (NEACA 2001).

## Health benefits of alcohol

A few health benefits are believed to accrue from low to moderate levels of alcohol consumption. It is still not clear whether the health benefits that accrue compensate for the increase in risk associated with consuming these levels of alcohol when compared with zero alcohol intake (NEACA 2001). The health benefits of low to moderate alcohol consumption include decreased mortality from cardiovascular disease for the middle-aged and elderly populations, possible reduction in cognitive decline in older people, possible decreased risk of stone formation in the kidney and gall bladder, and possibly a positive development of bone mineral density (NHMRC 2001).

### Social benefits of alcohol consumption

It is widely recognised that alcohol can make a positive contribution to individual and social wellbeing. Alcohol is accepted as an important part of Australian life and

culture. It is consumed in religious and cultural ceremonies, at social and business functions, and in conjunction with celebrations and recreational activities. For many Australians, 'having a drink' is synonymous with socialisation and 'mateship' (NEACA 2001; NDS 2001a).

## Alcohol and the drinking environment

Drinking environments strongly influence the level and pattern of alcohol consumption and the risk of injury or other short-term or long-term alcohol-related harms. Responsible serving of alcohol guidelines have been developed by the Department of Tourism, Racing and Fair Trading in Queensland to help private and licensed drinking environments serve alcohol in a responsible manner and reduce alcohol-related harms. Some of the issues the responsible serving of alcohol guidelines include are (DTRFT 2003):

- preventing underage drinking by not allowing minors on the premises unless they are with a parent or eating a meal at the establishment. Measures include checking ID at the door and again at the bar;
- refusing service to persons who are intoxicated or suspected to be under the age of 18 years. Reasons for this include the law, the safety of the patron and others, and civil litigation;
- management to develop and implement house policies to provide staff and patrons with guidelines on appropriate and acceptable behaviour at the establishment. Examples include training of all staff in responsible serving, procedures for dealing with minors or intoxicated patrons, and keeping records of incidents of refusal of service; and
- management to provide a safe environment for both staff and patrons by providing adequate security, by providing a sufficient number of working telephones, providing sufficient lighting outside the establishment and alerting taxis of closing time so they are available.

## Policy needs

It is recognised that no one policy can solve the problems of alcohol misuse and alcohol-related harm. Therefore, a variety of policies and strategies are required. Australia, along with other developed countries such as the United States and New Zealand, have developed and implemented numerous alcohol policies as part of a public health approach to try to reduce alcohol misuse and alcohol-related harm. All states and territories of Australia have legislation in place related to the control of alcohol. The National Alcohol Strategy (NAS) action plan has been put into place in Australia to help Australians minimise the detrimental effects of alcohol (Fact Sheet 22). Common areas of alcohol policy concern are:

- acute or short-term alcohol-related harms;
- the number of functional areas of constraint including density of alcohol outlets;
- provision of alcohol to under-age drinkers;

- drinking and young people;
- indigenous people;
- women;
- intoxication by persons who usually drink at moderate levels;
- people suffering from concurrent mental health problems;
- reconciling the health benefits of alcohol with harm reduction strategies;
- minimum drinking age laws; and
- problems and effects of alcohol taxes and pricing.

Successful policy measures—those that have reduced alcohol consumption or alcohol-related harm in any way—include random breath testing on roads and a greater recognition of the range of treatments required and available (NARA 2002, NDSa 2001).

# Prevalence and epidemiology

### General prevalence

In 2001, 8.3% of Australians aged 14 years and over consumed alcohol on a daily basis, and males were more likely to consume alcohol daily (11%) compared to females (6%). Males were also more likely to consume alcohol weekly (46%) compared to females (33%) (AIHW 2002a).

The 2001 National Drug Strategy Household Survey (NDSHS) found that 82.4% of the population aged 14 years and over consumed alcohol in the previous 12 months. The proportion peaked in the 20–29 years age group and decreased with age. In contrast, the proportion of the population who consumed alcohol daily increased with age, and males were twice as likely as females to drink alcohol on a daily basis (AIHW 2003a).

### Short- and long-term risk

In 2001, research has shown that 85% of alcohol consumed by females aged 14–17 years and 18–24 years was consumed at risky or high-risk levels for acute or short-term alcohol-related harm. Similarly, 80% of total alcohol consumed by males aged 14–17 years was above risk thresholds. Furthermore, 23% of males and 18% of females aged 14 years and over consumed alcohol at risk of short-term alcohol related harm at least once a month (Chikritzhs et al. 2003).

The 2001 NDSHS estimated 44% of all alcohol was consumed by people who exceeded the NHMRC guidelines for avoiding chronic or long-term effects of alcohol. A smaller proportion of Australians, 10% of males and 9% of females, put themselves at risk for long-term alcohol effects compared to short term effects. Of males and females aged 14 years and over, 9% consistently drank in excess of the NHMRC guidelines for harm from the chronic effects of alcohol consumption (Chikritzhs et al. 2003).

Chikritzhs et al. 2003 report that the net benefit of low risk alcohol consumption in 2001 prevented approximately 4,143 deaths—917 male and 3,226 female—with an average of seven years of life saved for each person. On the other hand, risky or high-risk drinking was estimated to cause 3,004 premature deaths and prevent only 319 deaths. This is a net health loss of 2,685 lives at an average of 18.1 years of life lost for each person.

### Trends for alcohol-related road crashes

Of the 31,133 Australians that died between 1992 and 2001 from alcohol-related diseases and injury, road crash injury is the second largest single cause of death at 5,489 (Chikritzhs et al. 2003).

Results from NSW suggest that drink driving results in approximately one in five fatal road crashes. From 1996 to 2001, the average number of fatalities in alcohol-related road crashes in NSW was 102 and this made up 18% of the total road crash fatalities. Around half of fatal road crashes are due to drink driving and occur from Friday to Saturday night. More than 60% of drink divers in fatal road crashes had a BAC of at least 0.15 (RTA 2003).

Overall, between 1991 and 1997, 31% of all driver and pedestrian deaths in Australia were alcohol-related. This varies across states and territories with the Northern Territory being the highest. During this period, the national rates of alcohol-related fatalities decreased following the changes in per capital consumption. Alcohol-related injuries were consistently higher for males than females (NAS Fact Sheet 21, 2003).

## Facts and figures about alcohol for key population groups

### Alcohol and older people

In 2001 the proportion of daily drinkers increased with age. Nearly 23% of males and 11% of females aged 60 years and over consumed alcohol daily. The majority of persons aged 60 years and over consumed alcohol on a weekly basis (30.3%). This age group also had the highest proportion of male (12%) and female (13.5%) ex-drinkers. People 60 years and over were least likely to consume alcohol at risky (4.4%) or high-risk levels (1.6%), compared to all other age groups (AIHW 2002a).

### Alcohol and young people

In 2001, of those aged 14–17 years, 64% of males and 69% of females were current drinkers, and 21% of males and 25% of females drank at least once a month at levels risky for short-term harm. In 2001, males aged 18–24 years were less likely to consume alcohol at risky or high-risk levels compared to females, decreasing from 9% in 1998 to 6% in 2001.

Surveys conducted as part of the Australian Government's National Alcohol Drinking Campaign found over the last three years the number of under-age teenagers drinking alcohol has decreased. For example the proportion of 15–17 year olds who drank alcohol in the three months leading up to the survey decreased from

68% in February 2000 to 63% in August 2002. Among the 'high risk' drinkers there was a reduction in the total amount of alcohol consumed compared to earlier surveys. Significant shifts in the type of alcoholic drinks consumed were also noted. For example, from February 2000 to August 2002 fewer males and females reported drinking full-strength beer (46%–39% for males and 15%–8% for females) (King et al. 2003).

Alcohol-related hospitalisation rates from 1998–99 to 2000–01 increased for females aged 15–19 years by 4% and 20–24 years by 7%. Male rates of hospitalisation on the other hand decreased in the same period for 15–19 year olds by 9% and for 20–24 years olds by 10% (Chikritzhs et al. 2003).

## Other harms

### Violence

The 2001 NDSHS results state that between 1998 and 2001 there was a decrease in the proportion of the population that undertook potentially harmful activities while under the influence of alcohol. The proportion of the population aged 14 years and over who verbally abused someone while under the influence of alcohol decreased from 9.4% in 1998 to 6.3% in 2001. The proportion of the population aged 14 years and over who physically abused someone while under the influence of alcohol declined by 40% between 1998 to 2001. Males were more likely than females to be involved in potentially harmful activities while under the influence of alcohol (AIHW 2002a).

Police assault records are useful data for reporting on alcohol related violence and assaults. Night time assaults have a high alcohol involvement with 91% of assaults in public places of Sydney between 10 pm and 2 am involving prior consumption of alcohol (WHO 2000).

### Social costs of drug abuse in Australia 1998–99

In Australia in 1998–99, the total tangible cost attributed to alcohol consumption (which includes lost productivity, health care costs, road accident-related costs and crime-related costs) was $5,500 million.

# Alcohol indicators

The National Alcohol Indicators Project (NAIP), funded by the National Drug Strategy (NDS), was established to:

- develop a set of core indicators of serious alcohol-related harm applicable to all Australian jurisdictions;
- use these indicators to monitor levels of harm over time; and
- apply these indicators to the evaluation of the effect of policies which have the potential to improve or worsen the level of these harms.

Six priority indicators were selected and they include:

- hospital admissions attributed to alcohol;
- alcohol-related mortality;
- per capita consumption of alcohol by persons 15 years of age and over;
- estimated percentage of total alcohol consumption which is high risk;
- percentage of adults and adolescents drinking harmful or hazardous quantities of alcohol; and
- other problem indicators (rates of night time assaults, serious crashes with blood alcohol levels above 0.05 and single-vehicle night crashes).

Although this list of indicators is limited, it shows the main measures of concern in the analysis of alcohol issues in Australia. In the future the project aims to develop indicators that focus on trends in alcohol-related harm among Indigenous Australians, can be applied to economic cost estimates for individual jurisdictions, and can allow more comprehensive initiatives (Chikritzhs et al. 2003).

In 2003 the Australian Institute of Health and Welfare (AIHW) published recommendations for consumption indicators based on survey data. The three headline indicators recommended are:

- the proportion of the population that are current drinkers;
- the proportion of the population that consume at risky or high-risk levels for long-term alcohol-related harm; and
- the proportion of the population that consume at risky or high-risk levels for short-term alcohol-related harm on a weekly basis.

The AIHW recommends that these three alcohol consumption indicators be presented as 12–17 years, 18 years and over, and the aggregate for 12 years and over. There is a strong focus on under-age or youth alcohol consumption, therefore continual surveillance of alcohol consumption in those aged 17 years and younger is recommended (AIHW 2003b).

Developing a comprehensive set of national alcohol indicators depends largely on the availability of key data sources, and this in turn depends on the availability of funds. The World Health Organization (WHO) has put together recommendations for alcohol monitoring systems in relation to low, medium and high levels of resources that are available (see Table 2.4, 2.5, 2.6 and 2.7) (WHO 2000).

**Table 2.4: Summary of recommendations for monitoring systems with a LOW level of allocated resources**

| Chronic harms | Acute harms | | |
|---|---|---|---|
| **Problems caused by long-term heavy use** | **Problems caused by occasions of intoxication** | **Volume of alcohol consumption** | **High risk alcohol consumption** |
| 1. Rates of death from liver disease, if rates of hepatitis B and C low.<br>2. Rates of death from alcohol liver disease, alcohol dependence and alcoholic psychosis.<br>3. Optional extra indicator if national data on smoking prevalence known: composite measure of deaths from cancer of medium alcohol causation. | 1. Rates of fatal road crashes (including pedestrians and cyclists), suicide, alcoholic poisoning and assault.<br>2. Composite measure of above plus other less frequent medium-level conditions. | 1. Per capita adult alcohol consumption from international sources e.g. FAO. | |

*Source:* WHO 2000.

**Table 2.5: Summary of recommendations for monitoring systems with a MEDIUM level of allocated resources**

| Chronic harms | Acute harms | | |
|---|---|---|---|
| **Problems caused by long-term heavy use** | **Problems caused by occasions of intoxication** | **Volume of alcohol consumption** | **High risk alcohol consumption** |
| 1. Rates of all alcohol-specific hospital episodes. | 1. Rates of hospital episodes for road crashes, alcohol poisoning and assault.<br>2. Composite measure of above plus other less frequent medium level conditions.<br>3. Trend data to be adjusted by annual per capita consumption level.<br>4. Rates of serious and fatal night time crashes. | 1. Per capita alcohol consumption estimated from national sources (production, sales and/or taxation).<br>2. Quantity X Frequency (QF) from survey to derive population rates of consumption at medium and high risk volume levels. | 1. Per capita alcohol consumption of higher risk drinks e.g. Very cheap and/or high strength categories, proportion of beer sold <3.5% alcohol/volume, or other local high risk drink.<br>2. QF from survey to derive population rates of consumption at Medium and high risk levels on a typical drinking day.<br>3. Frequencies and %s of all alcohol drunk on >40 g days (men) and >20 g days (women) – by QF; frequencies and %s of all alcohol drunk on >40 g days (men) and >20 g days (women) – by QF. |

*Source:* WHO 2000.

**Table 2.6: Summary of recommendations for monitoring systems with a HIGH level of allocated resources**

| Chronic harms | Acute harms | | |
|---|---|---|---|
| **Problems caused by long-term heavy use** | **Problems caused by occasions of intoxication** | **Volume of alcohol consumption** | **High risk alcohol consumption** |
| 1. Rates of all conditions adjusted by aetiological fraction reported separately and combined for both morbidity and mortality – relative risk to be locally derived for liver disease and cancers relating to smoking. Drinking prevalence derived from national survey data. | 1. Rates of all conditions adjusted by AF, reported separately and combined for both morbidity and mortality and for which applicable case series data are available for nationally specific estimates of AFs.<br>2. Night time rates of single-vehicle crashes, serious assaults and other emergency room injuries. | 1. Per capita alcohol consumption also adjusted for imports, visitors, consumption and home production applying the graduated QF method to estimate latter. Typical alcohol content of drinks formally derived.<br>2. Graduated QF estimate with alcohol content of drinks derived informally from local data. To derive population rates for men and women drinking at medium and high risk volume levels. | 1.Proportion of total alcohol consumed in the form of high risk drinks of any kind e.g. cheap fortified wine, cask wine, strong cider etc.<br>2. Frequencies and %s of all alcohol drunk on each of >40 g, 60 g and 100 g days (men) and >20 g/40 g/60 g days (women) – by graduated QF.<br>3. %s of all alcohol drunk above each of the daily thresholds of 40 g, 60 g and 100 g for men and 20 g/40 g/60 g days for women – by Graduated QF.<br>4. Graduated QF estimate with alcohol content of drinks derived informally from local data. To derive population rates for men and women drinking at medium and high daily risk levels on a weekly basis. |

*Source:* WHO 2000.

**Table 2.7: Summary of recommendations for monitoring systems with an OPTIMAL level of allocated resources**

| Chronic harms | Acute harms | | |
|---|---|---|---|
| **Problems caused by long term heavy use** | **Problems caused by occasions of intoxication** | **Volume of alcohol consumption** | **High risk alcohol consumption** |
| 1. Annual rates of above conditions expressed as deaths, potential years of life lost (PYLL), disability adjusted life years (DALY), hospital bed days and economic costs.<br>2. Three yearly estimates of total economic costs of harm.<br>3. Rates of alcohol dependence using Internationally recognised tools. | 1. Rates of above conditions expressed as deaths, PYLL, DALY, admissions, hospital bed days and economic costs.<br>2. Rates of fatal and serious road crash with blood alcohol concentrations of >0.05–0.10%.<br>3. Self-reported rates of personal and social problems from three yearly national survey. | 1. Per capita alcohol consumption also adjusted for imports, visitors consumption and home production applying the graduated QF method to estimate.<br>2. Graduated QF estimate with alcohol content of drinks derived informally from local data. | As for high levels of allocated resources. |

*Source:* WHO 2000.

## Further reading

AIHW (Australian Institute of Health and Welfare) 2002a. Australia's health 2002. AIHW Cat. No. AUS 25. Canberra: AIHW.

AIHW 2003b. Indicators of health risk factors: the AIHW view. AIHW Cat. No. PHE 47. Canberra: AIHW.

Chikritzhs T, Catalano P, Stockwell T, Donath S, Ngo H, Young D & Matthews S 2003. Australian alcohol indicators, 1990–2001: patterns of alcohol use and related harms for Australian states and territories. Australia: National Drug Research Institute, Curtin University of Technology.

Laslett AM, Donath S & Dietze P 2001. Long-term consequences of alcohol consumption. Presented at the National Workshop on Developing National Priorities for Alcohol Research, 27–28 March 2001, Adelaide.

NHMRC (National Health and Medical Research Council) 2001. Australian alcohol guidelines: health risks and benefits. Canberra: Australian Government Department of Health and Ageing.

WHO (World Health Organization) 2000. International guide for monitoring alcohol consumption and related harm. Geneva: WHO.

# 3 Key data sources

## List of data sources

### Major collections

1. Australian Longitudinal Study on Women's Health (ALSWH).
2. Alcohol and Other Drug Treatment Services–National Minimum Data Set (AODTS-NMDS).
3. Australian Secondary Schools Students Alcohol and other Drugs Survey (ASSADS).
4. Bettering the Evaluation and Care of Health (BEACH).
5. Clients of Treatment Service Agencies (COTSA).
6. Crime and Safety Survey (CCS).
7. Drug Use Careers of Offenders (DUCO).
8. Drug Use Monitoring in Australia (DUMA).
9. Indigenous Health Survey (IHS).
10. Indigenous Social Survey (ISS).
11. Kids Help Line Statistics (KHLS).
12. National Alcohol Campaign tracking research (NACTR).
13. National Coroners Information System (NCIS).
14. National Drug Strategy Household Survey (NDSHS).
15. National Health Survey (NHS).
16. National Hospital Morbidity Database (NHMD).
17. National Mortality Database (NMD).
18. National Police Custody Survey (NPCS).
19. National Prisoner Census (NPC).
20. National Survey of Mental Health and Wellbeing of Adults (SMHWB).
21. Supplementary Analysis of Nominated Data (SAND).

# Major collections

| | |
|---|---|
| Data source | **Australian Longitudinal Study on Women's Health (ALSWH)** |
| Organisation | University of Newcastle in collaboration with the University of Queensland. |
| Contact | Research Centre for Gender and Health<br>University of Newcastle<br>University Drive<br>Newcastle NSW 2308<br>Telephone: (02) 4923 6946/6872<br>Facsimile: (02) 4923 6888<br>Email: whasec@newcastle.edu.au<br>Internet: www.newcastle.edu.au/centre/wha |
| Brief description | The longitudinal cohort study is designed to run for 20 years and explores the health needs of Australian women across the lifespan. A wide range of health and health-related issues are explored, including the health effects of biological, psychological, social and lifestyle factors, and women's use of and satisfaction with health care services. |
| Purpose(s) | To determine the social, psychological, biological and environmental factors which determine good health, and those which cause ill health, in women throughout adult life.<br>To provide an evidence base that contributes to the development of policy and practice that meets the needs of all Australian women. |
| Collection methodology | Simple random sampling from the Medicare database (oversampling for rural and remote areas); recruit three cohorts (each cohort resurveyed every three years)—self-completion of questionnaire; telephone interview for non-English-speaking respondents or when requested by participants; reminder letters; nationwide publicity campaign; information brochures; annual newsletters and a freecall number for inquiries. |
| Data content | General demographics; health service utilisation; symptoms and satisfaction with help; stress; smoking; alcohol; exercise; diet; time use; social support; aspirations (young women only). |
| Scope/coverage | Urban, rural and remote areas. |

*(continued)*

| | |
|---|---|
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Each age cohort is surveyed once every three years on a rolling basis. |
| Indigenous identification | |
| Output | The Women's Health Australia Research Team 2001. Women's Health Australia: What do we know? What do we need to know? Progress on the Australian Longitudinal Study of Women's Health 1995–2000. Australian Academic Press. 24 March 2004 <www.newcastle.edu.au/centre/wha/public.html>.<br>For a listing of academic papers and conference presentations see <www.newcastle.edu.au/centre/wha/>. |
| Management agency | University of Newcastle. |
| Ownership/access | Australian Government Department of Health and Ageing (DoHA). |
| Comments | |

| | |
|---|---|
| Data source | **Alcohol and Other Drug Treatment Services National Minimum Data Set (AODTS-NMDS)** |
| Organisation | AIHW. |
| Contact | Australian Institute of Health and Welfare<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1050<br>Facsimile: (02) 6244 1199<br>Email: drugs@aihw.gov.au<br>Internet: www.aihw.gov.au/drugs/treatment/index.html |
| Brief description | The AODTS-NMDS was implemented to help monitor and evaluate key objectives of the National Drug Strategic Framework and help the planning, management and quality improvement of alcohol and other drug treatment services. |
| Purpose(s) | To provide information on national publicly funded government and non-government drug treatment services.<br>To monitor broad patterns of service utilisation and access to services for specific population groups.<br>To inform planning and development of service delivery strategies and support the development of strategies for benchmarking. |
| Collection methodology | Administrative by-product data collected at treatment agency level, forwarded to each jurisdiction's health department and then to AIHW. |
| Data content | Gender; Indigenous status; establishment identifier; geographical location of service delivery outlet; client type; country of birth; date of birth; date of commencement and cessation of treatment episode; injecting drug use; main treatment type for alcohol and other drugs; method of use for principal drug of concern; other treatment type; person identifier; preferred language; principal drug of concern; reason for cessation of treatment episode; source of referral; other drugs of concern; and treatment delivery setting for alcohol and other drugs. |

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| Scope/coverage | Publicly funded government and non-government alcohol and/or drug treatment services, excluding correctional institutions, halfway houses, sobering-up shelters and agencies whose sole function is to provide opioid pharmacotherapy maintenance treatments or whose main function is health promotion services such as needle and syringe programs, or alcohol and drug treatment centres that report to the Admitted Patient Care National Minimum Data Set and do not provide treatment to non-admitted patients. Acute care hospitals or psychiatric hospitals are included if they have specialist alcohol and drug units that provide treatment to non-admitted patients (e.g. outpatient services). Aboriginal or Mental Health Services may also be included if they provide specialist alcohol and other drug treatment. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Data collected continuously, annual data provided to AIHW. |
| Indigenous identification | Yes. |
| Output | Australian Institute of Health and Welfare (AIHW) 2003. Alcohol and other drug treatment services in Australia 2001–02: report on the National Minimum Data Set. AIHW Cat. No. HSE 28. Canberra: AIHW.<br>AIHW 2003. Alcohol and other drug treatment services NMDS specifications 2003–04: data dictionary, collection guidelines and validation processes. AIHW Cat. No. HSE 26. Canberra: AIHW.<br>AIHW 2003. Alcohol and other drug treatment services in New South Wales: findings from the National Minimum Data Set 2001–02. AIHW Drug Treatment Data Briefing. Canberra: AIHW.<br>AIHW 2002. Alcohol and other drug treatment services 2002–03: guidelines for collection of the National Minimum Data Set. Version 3. AIHW Cat. No. HSE 21. Canberra: AIHW. |
| Management agency | AIHW. |
| Ownership/access | AIHW, DoHA. |
| Comments | |

| | |
|---|---|
| Data source | **Australian Secondary Students Alcohol and Drugs Survey (ASSADS)** |
| Organisation | The Cancer Council Victoria, in collaboration with state cancer councils, state health departments and DoHA. |
| Contact | Centre for Behavioural Research in Cancer<br>The Cancer Council Victoria<br>1 Rathdowne Street<br>Carlton VIC 3053<br>Telephone: (03) 9635 5197<br>Facsimile: (03) 9635 5380<br>Email: enquiries@cancervic.org.au<br>Internet: www.accv.org.au/index.htm |
| Brief description | A national survey of school students' behaviours regarding drug use. |
| Purpose(s) | To provide data on school students' behaviours regarding drug use.<br>To develop drug-related trend data.<br>To identify needs, strategies and policies to address drug problems. |
| Collection methodology | Secondary schools randomly selected, stratified by state and type of school; self-enumeration of surveys. |
| Data content | General demographics; language spoken at home; year at school; level of spending money; incidence and prevalence of licit drug use (since 1984); over-the-counter and illicit drug use (since 1996); drug-related behaviours and sun exposure. |
| Scope/coverage | Years 7 to 11 school students aged between 12 to 17 years (with variations in Year levels in different states and territories). |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Every three years since 1984 (illicit drug questions introduced in 1996). |
| Indigenous identification | Yes. |
| Output | Letcher T & White V 1999. Australian secondary students' use of over-the-counter and illicit substances in 1996. National Drug Strategy Monograph Series No. 33. Canberra: Australian Government Department of Health and Ageing.<br><www.health.gov.au/pubhlth/publicat/drugs.htm>. |

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| Management agency | Centre for Behavioural Research in Cancer, The Cancer Council Victoria. |
| Ownership/access | State and territories, Commonwealth access through the provision of national unit record data. |
| Comments | The major focus of this survey has been on smoking and alcohol use among secondary school students. In 1996 illicit drug questions were introduced. |

| Data source | **Bettering the Evaluation and Care of Health (BEACH)** |
|---|---|
| Organisation | The General Practice Statistics and Classification Unit, collaborating unit of The University of Sydney and the AIHW. |
| Contact | General Practice Statistics and Classification Unit<br>The University of Sydney<br>Acacia House<br>Westmead Hospital<br>Westmead NSW 2145<br>Telephone: (02) 9845 8150<br>Facsimile: (02) 9845 8155<br>Email: gpscu@fmrc.org.au or beach@fmrc.org.au<br>Internet: www.fmrc.org.au/beach.htm |
| Brief description | Survey of general practitioners' encounters with patients. |
| Purpose(s) | To provide a reliable and valid data collection process for general practice that is responsive to the changing needs of information users.<br>To establish an on going database of general practice encounters. |
| Collection methodology | Survey. |
| Data content | Characteristics of general practitioner and patient; type of medical services provided; reasons for patients' attendance; problems managed at consultations; management techniques of general practitioner. |
| Scope/coverage | General practitioners within the wider Australian population. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | 1962–63, 1969–74, 1991, 1998, 1999, 2000, 2001, 2002, 2003. |
| Indigenous identification | Yes. |
| Output | Britt H, Miller GC, Knox S, Charles J, Valenti L, Henderson J, Pan Y, Bayram C & Harrison C 2003. General practice activity in Australia 2002–03. AIHW Cat. No. GEP 14. Canberra: General Practice Series No. 14.<br>Britt H, Knox S & Miller GC 2003. Changes in pathology ordering by GPs in Australia 1998–2001. AIHW Cat. No. GEP 13. Canberra: General Practice Series No. 13.<br>Data available as consultancy.<br><www.fmrc.org.au/beach.htm>. |

*(continued)*

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|---|---|
| Management agency | General Practice Statistics and Classification Unit. |
| Ownership/access | |
| Comments | |

| Data source | **Clients of Treatment Service Agencies (COTSA)** |
|---|---|
| Organisation | National Drug and Alcohol Research Centre (NDARC). |
| Contact | National Drug and Alcohol Research Centre<br>University of New South Wales<br>Sydney NSW 2052<br>Telephone: (02) 9385 0333<br>Facsimile: (02) 9385 0222<br>Email: assda@anu.edu.au<br>Internet: http://assda.anu.edu.au/studies/D1047.html |
| Brief description | A one-day snapshot census (usually conducted in May) of all clients who use drug and alcohol treatment services across Australia. |
| Purpose(s) | To monitor the changing characteristics of people using drug and alcohol treatment services. |
| Collection methodology | Census. |
| Data content | General demographics; country of birth; language spoken at home; employment status; usual residence postcode; service provided; principle drug problem; drugs injected during the past 12 months. |
| Scope/coverage | All drug and alcohol treatment services. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Irregular, 1990, 1992, 1995, 2001. |
| Indigenous identification | Yes. |
| Output | Shand F & Mattick R 2001. Clients of Treatment Service Agencies: May 2001 census findings. Sydney: The University of New South Wales.<br>Torres M I, Mattick R P, Chen R & Baillie A 1995. Clients of treatment service agencies: March 1995 census findings. Canberra: Commonwealth Department of Human Services and Health. |
| Management agency | NDARC. |
| Ownership/access | DoHA, NDARC. |
| Comments | This census has effectively been superseded by the AODTS-NMDS. |

| Data source | **Crime and Safety Survey (CSS)** |
|---|---|
| Organisation | Australian Bureau of Statistics (ABS). |
| Contact | Australian Bureau of Statistics<br>GPO Box 796<br>Sydney NSW 2001<br>Telephone: (02) 9268 4660<br>Facsimile: (02) 9268 4463<br>Email: client.services@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | This survey collects information from residents in the Australian community aged 15 years and over living in private dwellings regarding selected household, personal crime and safety issues. |
| Purpose(s) | To provide information on reported and unreported crimes, to measure the extent of crime in the Australian community, and to provide information on the sociodemographic profile of victims, non-victims and of offenders.<br>To provide a tool for helping agencies involved in law enforcement, crime prevention and victim support services.<br>To enable planning to formulate policies and strategies tailored to the overall incidence of crime, rather than just the number of incidents reported to police. It will also be used for evaluation and strategy development of criminal justice programs. |
| Collection methodology | Self-enumerated; mail-back survey (the collection methodology has been slightly different on each occasion). |
| Data content | Victim experience; type of support services accessed; how police were told about the incident; offender information (if seen by the victim); nature of the incident including day of week, time of day; seriousness of incident; employment status; education; respondents, perception of problems regarding crime. |
| Scope/coverage | Usual residents of private dwellings aged 15 years over throughout Australia. Adults aged 18 years and over to complete a voluntary questionnaire on sexual assault. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | 1975, 1983, 1993, 1998, 2002. |
| Indigenous identification | |

*(continued)*

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|---|---|
| Output | ABS 2002, Crime and safety Australia ABS. Canberra: ABS Cat. No. 4509.0. Canberra.<br>Data available as consultancy service. |
| Management agency | ABS. |
| Ownership/access | ABS. |
| Comments | Conducted as a supplement to the monthly labour force survey. Also contains information on crime that is not reported to police. |

| Data source | **Drug use Careers of Offenders (DUCO)** |
|---|---|
| Organisation | Australian Institute of Criminology (AIC). |
| Contact | Australian Institute of Criminology<br>GPO Box 2944<br>Canberra ACT 2601<br>Telephone: (02) 6260 9231<br>Facsimile: (02) 6260 9201<br>Email: front.desk@aic.gov.au<br>Internet: www.aic.gov.au/research/projects/0019-paper.html |
| Brief description | DUCO investigates the intersection of drug use patterns and criminal careers and explores issues concerning pathways to drug use and offending. |
| Purpose(s) | To provide data on the drug use and criminal careers of offenders. |
| Collection methodology | Data collected through face-to-face interviews. |
| Data content | Incarcerated offender demographics; self-reported illicit drug use; lifetime drug treatment history; information on illicit drug markets and costs associated with drug-related criminal behaviour. |
| Scope/coverage | Males and females, range of ages. |
| Geographic coverage | Qld, WA, Tas, NT, SA, Vic. |
| Frequency/timing | 2001, 2003. |
| Indigenous identification | Self-reported identification and administrative data. |
| Output | Monographs, annual reports and journal articles found at <www.aic.gov.au/research/projects/0019.html>. |
| Management agency | AIC. |
| Ownership/access | AIC. |
| Comments | |

| Data source | **Drug Use Monitoring in Australia (DUMA)** |
|---|---|
| Organisation | AIC. |
| Contact | Australian Institute of Criminology<br>GPO Box 2944<br>Canberra ACT 2601<br>Telephone: (02) 6260 9272<br>Facsimile: (02) 6260 9201<br>Email: front.desk@aic.gov.au<br>Internet: www.aic.gov.au/research/duma/ |
| Brief description | Police detainees provide information on their drug use and crime. |
| Purpose(s) | To measure recent drug use and crime among detainees. |
| Collection methodology | Police detainees at seven designated sites in four jurisdictions fill in questionnaires and give urine samples. |
| Data content | General demographics; offender characteristics; previous arrests; prison history; education; type of housing; income; mental illness; gambling behaviour; drug use data; drug market data; treatment history. |
| Scope/coverage | All states and territories, Australia. |
| Geographic coverage | Southport and Brisbane Qld, East Perth, WA; Bankstown and Parramatta, NSW; Adelaide city and Elizabeth, SA. |
| Frequency/timing | Quarterly (1999–2003). |
| Indigenous identification | Self-reported identification. |
| Output (2003 only) | Makkai T & McGregor K 2003. Drug Use Monitoring in Australia (DUMA): 2002 annual report on drug use among police detainees. Research and Public Policy Series No. 47. Canberra: AIC.<br>McGregor K & Makkai T 2003. Self-reported drug use: how prevalent is under-reporting?'. Trends & Issues in Crime and Criminal Justice, No. 260. Canberra: AIC.<br>Makkai T, McGregor K & Wei Z 2003. Drug Use Monitoring in Australia: a project overview. Platypus: Journal of the Australian Federal Police, No. 78:23–27.<br><www.aic.gov.au/research/duma/>. |
| Management agency | AIC. |
| Ownership/access | AIC. |
| Comments | DUMA designed to be able to compare data across countries. |

| Data source | **Indigenous Health Survey (IHS)** |
|---|---|
| Organisation | ABS. |
| Contact | Australian Bureau of Statistics<br>7th Floor AANT House<br>81 Smith Street<br>Darwin NT 0800 or<br>GPO Box 3796<br>Darwin NT 0800<br>Telephone: (08) 8943 2153<br>Facsimile: (08) 8941 6276<br>Email: ncatsis@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | This survey is part of a series run in conjunction with the NHS to collect information about the health status of Indigenous Australians, their use of health services and facilities, and health-related aspects of their lifestyle. |
| Purpose(s) | To obtain a national benchmark for information on a range of health issues.<br>To enable comparisons between the health characteristics of Indigenous and non-Indigenous Australians.<br>To allow trends in the health of Indigenous Australians to be monitored over time. |
| Collection methodology | Face-to-face interviews were conducted with persons aged 18 years or over. Persons aged 15–17 years were interviewed with the consent of a parent or guardian. For persons aged less than 15 years, information was obtained from a person responsible for the child. In remote areas standard household survey approaches were modified to take account of language and cultural issues. In addition, interviewers worked in teams consisting of one male and one female to collect the survey information. |
| Data content | General demographics; self-assessed indicators of health status; health transition; quality of life scale; long-term conditions focusing in particular on asthma, diabetes, cardiovascular diseases, cancer and injuries; health-related actions; health risk factors; supplementary women's health items; socioeconomic characteristics. |

*(continued)*

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| Scope/coverage | Remote and non-remote areas of Australia were in scope for the IHS. The sample covered usual residents in private dwellings only. Non-Indigenous people were not eligible in the Indigenous sample unless they were the parent or guardian of an Indigenous child and acted as spokesperson for the child. The total 2001 sample consisted of 3,681 Aboriginal and Torres Strait Islander peoples comprising 1,853 adults and 1,828 children. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Six-yearly from 2004–05. Previous cycles have been run as the NHS (Indigenous) in 1995 and 2001. |
| Indigenous identification | Yes. |
| Output | 2001 National Health Survey: Aboriginal and Torres Strait Islander results ABS. Cat. No. 4715.0, Canberra: ABS.<br>Customised tables can be compiled for individual user specifications on request.<br>Micorodata will be available via the Remote Area Data Laboratory. |
| Management agency | ABS. |
| Ownership/access | ABS. |
| Comments | |

| Data source | **Indigenous Social Survey (ISS)** |
|---|---|
| Organisation | ABS. |
| Contact/data manager | Australian Bureau of Statistics<br>7th Floor AANT House<br>81 Smith Street<br>Darwin NT 0800 or<br>GPO Box 3796<br>Darwin NT 0800<br>Telephone: (08) 8943 2153<br>Facsimile: (08) 8941 6276<br>Email: ncatsis@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | To provide information about Aboriginal and Torres Strait Islander peoples on a range of areas of social concern including health, education, culture and labour force participation. |
| Purpose(s) | To provide broad information across key areas of social concern.<br>To explore the extent of participation in society and the barriers to that participation.<br>To provide comparisons with the non-Indigenous population through the General Social Survey and other collections.<br>To provide previously unavailable information at the national and state/Northern Territory and broad regional levels.<br>To measure change over the last eight years through comparison with the 1994 National Aboriginal and Torres Strait Islander Survey. |
| Collection methodology | Face-to-face interviews; randomly selected Indigenous people from selected households; notebook computer used to record responses in non-remote areas; paper questionnaire used in remote areas; consent of a parent or guardian obtained before interviewing those aged 15 to 17 years. |
| Data content | General demographics; social marital status; family and household type; relationship in household; State/Territory of usual residence; Accessibility/Remoteness Index for Australia; Socio-Economic Indexes For Areas; self-assessed health status; disability status; alcohol risk levels; substance use; education; vocational training; employment; income; victim of assault. |

*(continued)*

| | |
|---|---|
| Scope/coverage | Remote and non-remote areas of Australia were in scope for the ISS.<br>People excluded from the survey include non-Indigenous persons, short-term visitors (those staying for less than one month), non-Australian diplomatic staff and non-Australian members of their households, members of non-Australian defence forces stationed in Australia and their dependents, overseas visitors (people whose usual place of residence is outside Australia) and people in special dwellings. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Six-yearly (first time in 2002). |
| Indigenous identification | Yes. |
| Output | Yet to be published. |
| Management agency | ABS. |
| Ownership/access | ABS. |
| Comments | |

| Data source | **Kids Help Line Statistics (KHLS)** |
|---|---|
| Organisation | Funded by Boystown Lotteries, individual donations, fundraising events, trusts, various state and federal government funding, and supported by Optus. |
| Contact | Ian Thomas<br>Senior Research Officer<br>Kids Help Line<br>PO Box 376<br>Red Hill QLD 4059<br>Telephone: (07) 3369 1588<br>Facsimile: (07) 3367 1266<br>Email: admin@kidshelp.com.au<br>Internet: <www.kidshelp.com.au>. |
| Brief description | Kids Help Line is a confidential counselling service for children and young people aged 5–18 years. Data obtained from the phone calls and web and email counselling can be made available to assist research into youth problems and needs, including alcohol issues. |
| Purpose(s) | To provide a confidential counselling services for young people. |
| Collection methodology | Phone and online. |
| Data content | General demographics; state of residence; drug type; severity of calls; outcome of call. |
| Scope/coverage | |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Continuous, annual. |
| Aboriginal identification | Yes. |
| Output | Data available as consultancy when requested.<br><www.kidshelp.com.au/INFO13/DrugUse.htm>. |
| Management agency | |
| Ownership/access | KHL retains intellectual property rights over data and generally will not supply raw data. Data summaries are available on request. Fixed costing exists for simple requests with costings for more complex requests to be negotiated. |
| Comments | |

| Data source | **National Alcohol Campaign tracking research (NACTR)** |
|---|---|
| Organisation | DoHA. |
| Contact | Communications Branch, Research Manager<br>Australian Government Department of Health and Ageing<br>GPO Box 9848<br>Canberra ACT 2601<br>Telephone: (02) 6289 3545<br>Facsimile: (02) 6289 3549<br>Email: enquiries@health.gov.au.<br>Internet: www.nationalalcoholcampaign.health.gov.au/ |
| Brief description | The National Alcohol Campaign is one of many initiatives under the National Drug Strategic Framework 1998–99 to 2002–03 and the National Alcohol Action Plan. The national alcohol campaign consists of a mass-media component targeting teenagers and parents of teenagers, and has been designed to provide a framework within which a range of initiatives at the national, state/territory or community level can be undertaken. |
| Purpose(s) | The main focus of the campaign is to reduce alcohol-related harm among Australian teenagers. The campaign communication strategy for teenagers has sought to increase consideration of the potential negative consequences of drinking decisions, to increase motivation to avoid these negative alcohol-related consequences, and to model and promote ways of avoiding this harm. The campaign strategy has also sought to promote greater engagement among parents towards reducing harmful drinking. |
| Collection methodology | Face-to-face survey with 800 respondents. |
| Data content | The data covers process measures (relating to the target group's response to the campaign) and outcome measures (relating to young people's attitudes and behaviour towards alcohol). |
| Scope/coverage | Teenagers and parents. |
| Geographic coverage | All states and territories, Australia. |

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| Frequency/timing | The evaluation research has preceded and followed on from campaign periods, such as the launch phase in Feb. 2000, the second phase in Nov. 2000 – Jan. 2001, the third phase in August 2002. Research has also been conducted in February over the past four years to monitor any shifts in alcohol consumption trends. |
| Indigenous identification | Yes. |
| Output | SPSS data files, data tables printouts, based on predetermined table specifications. |
| Management agency | NCS Pearson was the preferred supplier from February 2000 to the end of 2002. Now Roy Morgan Research is preferred supplier for the data. |
| Ownership/access | DoHA. |
| Comments | The campaign encourages teenagers to consider the negative consequences associated with excessive alcohol consumption, thus challenging the positive expectancies that they often associate with drinking alcohol. The campaign evaluations have consistently shown that most teenagers who are aware of the campaign report that the campaign made them think about the negative things that can happen when they drink too much, and consider the choices they make about drinking. |

| Data source | **National Coroners Information System (NCIS)** |
|---|---|
| Organisation | Monash University National Centre for Coronial Information (MUNCCI). |
| Contact | Monash University National Centre for Coronial Information<br>C/- Victorian Institute of Forensic Medicine<br>57–83 Kavanagh Street<br>Southbank VIC 3006<br>Telephone: (03) 9684 4414<br>Facsimile: (03) 9682 7353<br>Email: ncis@vifm.org<br>Internet: www.ncis.org.au |
| Brief description | The NCIS is a national database of coronial information designed and managed by the MUNCCI on behalf of the Australian Coroners Society. The NCIS provides coroners and authorised third party users with an interest in public health and safety, death and injury surveillance and policy development with information on deaths, including trends of unusual or premature deaths. Information is provided by each state and territory coronial office. |
| Purpose(s) | To provide a high-quality hazard identification and research tool for coroners, their death investigation staff and other users such as researchers and policy makers. The NCIS provides a means to systematically identify and retrieve clusters of similar cases around Australia, allowing users to identify patterns and trends on a national basis. By making reliable coronial data more accessible, the NCIS will contribute to a reduction in preventable death and injury. |
| Collection methodology | Coroner and police reports and files, pathology and toxicology reports and supporting forensic medical reports. |
| Data content | Case demographics; cause of death details including incident information; classification of intent; classification of injury; location of incident leading to the death and activity being undertaken prior to the incident; ICD-10 coding of cause of death provided by ABS; narrative of events obtained from police summary of circumstances; the coroner's finding; autopsy reports; toxicology reports. |
| Scope/coverage | |
| Geographic coverage | All states and territories, excluding Queensland, from 1 July 2000; Queensland data from 1 January 2001. |
| Frequency/timing | Data is uploaded to the NCIS from coronial jurisdictions and related organisations on a daily or weekly basis. |

*(continued)*

| | |
|---|---|
| Indigenous identification | Indigenous origin information is entered into the NCIS, although access to this data is presently unavailable pending further ethical consideration. |
| Output | Output is provided by a web enquiry interface over Internet connections to approved users. MUNCCI can also provide CD-based data extracts and research reports on requested topics. |
| Management agency | MUNCCI. |
| Ownership/access | The Australian Coroners retain ownership of the information in the database.<br>Access to data is limited to nominated death investigation personnel and authorised third party users approved by the Monash University Standing Committee on Ethics in Research Involving Humans, and the Western Australian Coronial Ethics Committee (if access to identifying WA data is required). |
| Comments | The NCIS has previously been funded by the Australian Government and state governments, along with a range of public sector agencies with an interest in death and injury prevention such as the Commonwealth Department of Health and Ageing, the National Occupational Health and Safety Committee, and the Australian Transport Safety Bureau. This funding strategy was endorsed by the Standing Committee of Attorneys-General. From 1 July 2003 MUNCCI has negun the transition to a user pays system, with access fees for a range of products and services now applying. |

| | |
|---|---|
| Data source | **National Drug Strategy Household Survey (NDSHS)** (previously known as the National Campaign Against Drug Abuse Social Issues Survey) |
| Organisation | DoHA (1985, 1988, 1991, 1993, 1995), AIHW (1998, 2001). |
| Contact | Data and Information Services Unit<br>Australian Institute of Health and Welfare<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6289 7027<br>Facsimile: (02) 6289 8483<br>Email: info@aihw.gov.au<br>Internet:<br><www.aihw.gov.au/drugs/population/ndshs.html>. |
| Brief description | A household survey of drug use, exposure, knowledge, attitudes and awareness as well as participation in alcohol and drug-related crimes. |
| Purpose(s) | To contribute to the development of policies.<br>To monitor and measure the public's experience with drug use patterns, attitudes and behaviours.<br>To provide data for monitoring and evaluating the National Drug Strategy. |
| Collection methodology | Households selected by a multi-stage, stratified area sample design; drop and collect and face-to-face (1998, 2001); CATI (2001). |
| Data content | General demographics; alcohol- and drug-related knowledge, attitudes; awareness and behaviours; age first used; place of use; where drug was obtained; prevalence of use among friends; days lost from work or education; health problems due to drugs or alcohol; people's perception of problems with drug use and attitudes towards changes in regulations and treatments. |
| Scope/coverage | Residential households; persons aged 12 years and over. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | 1985,1988, 1991, 1993, 1995, 1998, 2001. |
| Indigenous identification | Yes (self-identification). |

*(continued)*

| | |
|---|---|
| Output | AIHW 2002. 2001 National Drug Strategy Household Survey: detailed findings, AIHW Cat. No. PHE 41. Canberra: AIHW.<br>AHIW 2001. 2001 National Drug Strategy Household Survey: first results, AHIW Cat. No. PHE 35. Canberra: AIHW.<br>Statistics on drug use in Australia 2002, AIHW Cat. No. PHE 43, Canberra: AIHW. |
| Management agency | AIHW. |
| Ownership/access | AIHW, DoHA. |
| Comments | Minor changes in wording of questions in the survey over time, for example from 'ever tried' to 'ever used'. |

| Data source | **National Health Survey (NHS)** |
|---|---|
| Organisation | ABS. |
| Contact | Australian Bureau of Statistics<br>Locked Bag 10<br>Belconnen ACT 2616<br>Telephone: (02) 6252 6415<br>Email: client.services@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | The NHS is designed to collect information regarding the health status of Australians, their use of health services and any health-related aspects of their lifestyle. |
| Purpose(s) | To collect information about the health status of Australians and their use of health services.<br>To collect information on health-related issues of Australian's lifestyles. |
| Collection methodology | Personal interviews and survey. |
| Data content | General demographics; recent and long-term illness; admission to day clinics and/or hospital; visit to casualty and/or emergency; outpatient units; consultation with doctors, dentists and other health professionals; use of medications, vitamin and mineral supplements; sun protection measures; smoking; alcohol consumption; breastfeeding; breast and cervical cancer screening; contraception; days away from work or school; and private health insurance. |
| Scope/coverage | Urban, rural and remote areas. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | 1989–90, 1995, 2001. |
| Indigenous identification | No (available from master data set from the ABS). |

*(continued)*

| | |
|---|---|
| Output | ABS 2002. 2001 National Health Survey: summary of results, ABS Cat. No. 4364.0. Canberra: ABS.<br>Information Paper: National Health Survey 2001, Confidentialised Unit Record Files (CURFs). Canberra:.ABS.<br>2001 National Health Survey: user's guide. ABS Cat. No. 4363.0. Canberra: ABS.<br>National Health Survey: data reference package. ABS Cat. No. 4363.0. Canberra ABS. |
| Management agency | ABS. |
| Ownership/access | ABS. |
| Comments | Access to confidential unit record data on application to the ABS. |

| Data source | **National Hospital Morbidity Database (NHMD)** |
|---|---|
| Organisation | AIHW. |
| Contact | Australian Institute of Health and Welfare<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1081<br>Facsimile: (02) 6244 1299<br>Email: info@aihw.gov.au<br>Internet: www.aihw.gov.au/hospitaldata/ |
| Purpose(s) | To compile comprehensive statistics on patient episodes in Australian hospitals. |
| Collection methodology | Summary separation records from admitted patient morbidity data collection systems in Australian public and private hospitals. |
| Data content | Demographic data, administrative data, clinical and related data, establishments data: state/territory of hospital, hospital type, geographical location of the hospital. |
| Scope/coverage | Episodes of care for admitted patients in public and private acute and psychiatric hospitals, and private free-standing day hospital facilities. In 2001–02, essentially all public hospitals were included. The great majority of private hospitals were also included the few not included were mainly free-standing day hospital facilities. Further information about the public and private hospitals included for 2001–02 and previous years is available in Appendix 4 of *Australian Hospital Statistics 2001–02*. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | 1993–94 to 2001–02. Earlier data are available but coverage is not complete. |
| Indigenous identification | Yes (see chapter 7 of *Australian Hospital Statistics 2001–02* for information on the quality of Indigenous status data). |
| Output | Interactive data cubes containing information on the principal diagnoses and diagnosis-related groups of patients admitted to Australian hospitals over the period 1993–94 to 2001–02. These are available on the AIHW's web site at: <www.aihw.gov.au/hospitaldata/datacubes/index.html>.<br>Data available as consultancy. |
| Management agency | AIHW. |

*(continued)*

| | |
|---|---|
| Ownership/access | AIHW. |
| Comments | Information on diagnoses, procedures and external causes of injury and poisoning is provided using the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) for the years 1993–94 to 1997–98. For 1998–99 four jurisdictions provided data using ICD-9-CM and the other four used the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian modification (ICD-10-AM). For 1999–00 to 2001–02 all States and Territories used IC-10-AM.<br>For 1998–99 AIHW mapped the data provided in ICD-9-CM to ICD-10-AM and vice versa using National Standard Maps. |

| Data source | **National Mortality Database (NMD)** |
|---|---|
| Organisation | AIHW. |
| Contact | Australian Institute of Health and Welfare<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1145<br>Facsimile: (02) 02 6244 1044<br>Email: info@aihw.gov.au<br>Internet:<br>www.aihw.gov.au/mortality/mortality_database.html |
| Brief description | Collection of unit record files for each State and Territory from the Cause of Death collection. |
| Purpose(s) | To monitor the cause of all deaths in Australia and hold a minimum of the last ten years of mortality data. |
| Collection methodology | Records provided by the registrars of Births, Deaths and Marriages in each state and territory. Additional demographic and administrative information is collected by funeral directors, usually through the next of kin, or a person known to the deceased. |
| Data content | Demographic data, state of registration, usual state and statistical local area of residence, year of registration, occupation, birthplace, duration of Australian residence, marital status, date of marriage, age at marriage, duration of marriage, number of children. |
| Scope/coverage | 1964 to present. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Annual. |
| Indigenous identification | Progressive by state and territory. Data not reliable from all states and territories. |
| Output | Dunn C, Sadkowsky K & Jelfs P 2002. Trends in deaths: analysis of Australian data 1987–1998 with updates to 2000. AIHW Cat. No. PHE 40. Canberra: AIHW.<br>General Record of Incidence of Mortality (GRIM books).<br>Data available as consultancy.<br><www.aihw.gov.au/dataonline/>. |
| Management agency | AIHW. |
| Ownership/access | AIHW. |

*(continued)*

| | |
|---|---|
| Comments | Mortality data is supplied by the registrars of Births, Deaths and Marriages in each state and territory via the ABS. Causes of deaths are classified according to ICD-9 up until 1998, and ICD-10 is used from the year 1999. |

| Data source | **National Police Custody Survey (NPCS)** |
|---|---|
| Organisation | AIC (1992 and 1995), Royal Commission into Aboriginal Deaths in Custody (1988). |
| Contact | Australian Institute of Criminology<br>GPO Box 2944<br>Canberra ACT 2601<br>Telephone: (02) 6260 9254<br>Facsimile: (02) 6260 9201<br>Email: front.desk@aic.gov.au<br>Internet: www.aic.gov.au/research/projects/0026.html#about |
| Brief description | Information is collected and recorded by police officers at the station level in each state and territory regarding all detainees in police cells during August of specific years. |
| Purpose(s) | To provide information on the extent and nature of police custody in Australia. |
| Collection methodology | Data forms completed by police for each detainee and sent to AIC. |
| Data content | General demographics; name and postcode of police station or watchhouse; date and time when detainee was lodged in cells; reason for being lodged in cells; most serious offence; date and time when the detainee was released from cells; reason for release and whether or not the detainee was still in police cells at the end of the survey period. |
| Scope/coverage | All detainees in Australian police cells during specific period. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | 1988; 1992; 1995. |
| Indigenous identification | Yes. |
| Output | Carcach C & McDonald D 1997. National Police Custody Survey August 1995. Research and Public Policy Series No. 9. Canberra: AIC.<br><www.aic.gov.au/publications>. |
| Management agency | AIC. |
| Ownership/access | AIC. |
| Comments | 2002 survey conducted, and to be analysed and written up shortly. |

| Data source | **National Prisoner Census (NPC)** |
|---|---|
| Organisation | AIC (1982 to 1993), ABS (1994 to present). |
| Contact | Australian Bureau of Statistics<br>GPO Box 2796Y<br>Melbourne VIC 3001<br>Telephone: (03) 9615 7381<br>Facsimile: (03) 9615 7372<br>Email: client.services@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | A census of all adult prisoners in Australia at midnight on 30 June every year. The information is collected and recorded by corrective service agencies from each state and territory and statistics are derived by the ABS. |
| Purpose(s) | To provide information on all adult prisoners in custody on 30 June each year. |
| Collection methodology | Selected information is extracted from the administrative data maintained by corrective services agencies about prisoners held in corrective custody. |
| Data content | General demographics; highest level of education; Indigenous status; number of prisoners; most serious offence; expected time to serve; aggregate sentence; prison location; known prior imprisonment; date received; level of court; state/territory; security classification of prisoner; legal status; type of sentence; earliest date of release. |
| Scope/coverage | The prisoner census reports on persons in the legal custody of adult corrective services in each jurisdiction at 30 June each year. The types of correctional facilities and programs where such prisoners are held includes, gazetted prisons, periodic detention centres, community custody centres and work outreach camps, cells in court complexes administered by corrective services, gazetted police prisons administered by corrective services, and transitional centres. The prisoner census excludes, police prisons and cells in court complexes not administered by corrective services, juvenile detention centres, immigration detention centres, home detention programs, and military prisons. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | Annual (since 1982). |
| Indigenous identification | Yes. |

*(continued)*

| | |
|---|---|
| Output | ABS 2003, Prisoners in Australia. 2002 ABS Cat. No. 4517.0. Canberra: ABS. |
| Management agency | ABS. |
| Ownership/access | Visit the ABS website at <www.abs.gov.au> or contact the National Centre for Crime and Justice Statistics by email through crime.justice@abs.gov.au |
| Comments | |

| Data source | **National Survey of Mental Health and Wellbeing of Adults (SMHWB)** |
|---|---|
| Organisation | ABS. |
| Contact | Australian Bureau of Statistics<br>Health Section<br>PO Box 10<br>Belconnen ACT 2616<br>Telephone: (02) 6252 6391<br>Facsimile: (02) 6252 7784<br>Email: client.services@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | National survey of mental health-related disability and health actions. |
| Purpose(s) | To determine the prevalence of a range of selected major mental health disorders for Australian adults.<br>To provide information on the prevalence of selected major mental disorders, the level of disability associated with these disorders, and the health services used and help needed as a consequence of a mental health problem for Australians aged 18 years or more. |
| Collection methodology | Computer-assisted personal interview. |
| Data content | General demographics; physical conditions; ICD-10 classification of mental and behavioural disorders; DSM-IV classification of mental disorders; personality disorders screener; psychosis screener; SF-12; service utilisation and perceived health needs (see the survey users' guide for a complete list of output data items and associated material to assist users in specifying data requirements). |
| Scope/coverage | People aged 18 years or more who were usual residents of private dwellings. All usual residents in scope had a chance of being selected in the survey. One adult member of each household in each selected dwelling was randomly selected to complete the survey. |
| Geographic coverage | All states and territories, Australia. |
| Frequency/timing | The survey was conducted in May–August 1997. |
| Indigenous identification | Yes. |

*(continued)*

| | |
|---|---|
| Output | ABS 1997. Mental health and wellbeing: profile of adults, Australia 1997. ABS Cat. No. 4326.0. Canberra: ABS.<br>ABS 1997. National Survey of Mental Health and Wellbeing of Adults, users' guide. ABS Cat. No. 4327.0. Canberra: ABS.<br>Hall W, Teesson M, Lynsky M & Degenhardt L 1998. The prevalence in the past year of substance use and ICD-10 substance use disorders in Australian adults: findings from the National Survey of Mental Health and Wellbeing. NDARC Technical Report No. 63. University of New South Wales, Sydney: NDARC.<br>NDARC have produced technical reports and articles found at <www.med.unsw.edu.au/ndarc>. |
| Management agency | ABS. |
| Ownership/access | ABS. |
| Comments | |

| Data source | **Supplementary Analysis of Nominated Data (SAND)** |
|---|---|
| Organisation | See BEACH. |
| Contact/data manager | See BEACH. |
| Brief description | Supplementary collection to BEACH covering health status, risk factors and use of health services. |
| Purpose | See BEACH. |
| Collection methodology | See BEACH. |
| Data content | General demographics; frequency of alcohol consumption if patient over 18 years of age; number of standard drinks consumed on a typical day; how often the patient consumes six or more standard drinks on one occasion; smoking status. |
| Scope/coverage | See BEACH. |
| Geographic coverage | See BEACH. |
| Frequency/timing | See BEACH. |
| Indigenous identification | See BEACH. |
| Output | See BEACH. |
| Management agency | See BEACH. |
| Ownership/access | See BEACH. |
| Comments | |

# Analysis of data sources

## Assessment of utility

As shown by the list of data sources, there is a vast resource of data and information on alcohol consumption and related harms in Australia. However, some of these sources serve narrow purposes or are developed in isolation from a broader perspective or information framework. There is no comprehensive information framework that can inform an assessment of the utility of these data sources. There are, however, a number of statements of information needs against which these data can be held. Two such examples are the WHO indicator sets described in Table 2.4 to 2.7, and the objectives of the NAS. While not an information framework as such, progress on the NAS objectives needs to be monitored, and a information requirement is therein implied (Appendix D provides an overview of the NAS and lists the objectives).

As a starting point in this analysis, Table 3.1 indicates which alcohol data sources inform each of the NAS objectives. From this table, it is clear that objectives 5, 6, 10 and 11 are only informed by one alcohol data source. Objectives 1, 8 and 9 are moderately informed and objectives 2, 3 and 7 are well or adequately informed by numerous data sources.

**Table 3.1: Alcohol data sources and the National Alcohol Strategy objectives**

| Alcohol data source | NAS objectives | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| ALSWH | ✓ | ✓ | | | | | ✓ | | ✓ | | |
| AODTS-NMDS | | ✓ | | | | | | | ✓ | | |
| ASSADS | | ✓ | ✓ | | | | | | ✓ | | |
| BEACH | | ✓ | | | | | | | ✓ | | ✓ |
| COTSA | | ✓ | ✓ | | | | | | | | |
| CSS | | ✓ | | | | | ✓ | ✓ | | | |
| DUCO | | ✓ | | | | | ✓ | ✓ | | | |
| DUMA | | ✓ | ✓ | | | | ✓ | ✓ | | | |
| IHS | | ✓ | | | | | ✓ | | | | |
| ISS | | ✓ | | | | | ✓ | | | | |
| KHLS | | ✓ | ✓ | | | | | | | | |
| NACTR | ✓ | ✓ | ✓ | | | | | | | | |
| NCIS | | | | | | | | | | ✓ | |
| NDSHS | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | | | |
| NHS | | ✓ | | | | | | | | | |
| NHMD | | ✓ | | | | | | | | | |

*(continued)*

**Table 3.1 (cont): Alcohol data sources and the NAS objectives**

| Alcohol data source | NAS objectives | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| NMD | | | | | | | | ✓ | | | |
| NPCS | | ✓ | | | | | ✓ | | | | |
| NPC | | ✓ | | | | | ✓ | | | | |
| SMHWB | ✓ | ✓ | ✓ | | | | | | | | |
| SAND | | ✓ | ✓ | | | | | | | | |

In the absence of a formal information framework, the following set of information needs is proposed for alcohol data:

- size of the 'problem'
- patterns of use
- factors influencing individual's choices (to use/not use alcohol)
- effectiveness of interventions (prevention and treatment, law enforcement, education, public policy)
- workforce planning and development
- community awareness (of harms, sources of help, etc.)
- emerging issues
- extent and nature of comorbidity
- international reporting obligations.

To further simplify analysis of the utility of the data sources, we have grouped them into information 'classes' (Table 3.2).

**Table 3.2: Classification of alcohol data sources**

| Alcohol data source | Information class | | | | | | |
|---|---|---|---|---|---|---|---|
| | Research and evaluation | Clinical records | Surveys | Other intelligence | Systematic reviews | Admini-strative collections | Economic/ financial analysis |
| ALSWH | | | | | | | |
| AODTS-NMDS | | | | | | | |
| ASSADS | | | | | | | |
| BEACH | | | | | | | |
| COTSA | | | | | | | |
| CSS | | | | | | | |
| DUCO | | | | | | | |
| DUMA | | | | | | | |
| IHS | | | | | | | |

*(continued)*

**Table 3.2 (cont): Classification of alcohol data sources**

| Alcohol data source | Information class | | | | | | |
|---|---|---|---|---|---|---|---|
| | Research and evaluation | Clinical records | Surveys | Other intelligence | Systematic reviews | Admini-strative collections | Economic/ financial analysis |
| ISS | | | | | | | |
| KHLS | | | | | | | |
| NACTR | | | | | | | |
| NCIS | | | | | | | |
| NDSHS | | | | | | | |
| NHS | | | | | | | |
| NHMD | | | | | | | |
| NMD | | | | | | | |
| NPCS | | | | | | | |
| NPC | | | | | | | |
| SMHWB | | | | | | | |
| SAND(a) | | | | | | | |

*Note:* Lighter shading indicates partial clinical information available.

Having classified the collections in this way, they are then tabulated against the wider set of information purposes, and an assessment of their utility is summarised as high, moderate or low (Table 3.3). A brief commentary on this cross-tabulation follows the table.

**Table 3.3: Information classes and information purposes**

| Information purpose | Information class | | | | | | |
|---|---|---|---|---|---|---|---|
| | Research and evaluation | Clinical records | Surveys | Other intelligence | Systematic reviews | Admini-strative collections | Economic/ financial analysis |
| Size of problem | L | L[(a)] | H | M | M | M | H |
| Patterns of use | L | H | H | M | M | L | L |
| Factors influencing individual's choices | H | H | H | H | M | L | L |
| Effectiveness of interventions | H | L[(a)] | L[(b)] | L | H | M | H |
| Workforce planning and development | L | L | M | L | M | M | L |
| Community awareness | L | L | H | L | L | L | L |
| Emerging issues | M | L | H | M | M | M | M |
| Extent and nature of comorbidity | H | H | M | H | M | H | L |
| International reporting obligations | L | L | H | M | L | M | M |

(a) If aggregated, utility can be greatly enhanced.

(b) If repeated or longitudinal, effectiveness or outcome may be assessable.

### Research and specific evaluations

Research and specific evaluations, for example experimental research, highly inform factors that influence individual alcohol choices, the effectiveness of interventions, and the extent and nature of comorbidity, as well as moderately inform emerging issues. Community awareness and research and specific evaluations are not very well able to inform the size of problems, patterns of alcohol use, workforce planning and development, and reporting obligations at an international level.

### Clinical records

Clinical records, such as general practise encounters, highly inform patterns of alcohol use, factors that influence individual choices regarding alcohol, and extent and the nature of comorbidity. Clinical records, however, do not well inform the size of problems, effectiveness of interventions, workplace planning and development, community awareness and international reporting obligations. Note, though, that if clinical records can be aggregated and analysed at a population level, they may be highly informative for the size of the problem and effectiveness of interventions.

### Surveys

Surveys, for example BEACH, the NDSHS and the NHS, highly inform the size of problems, patterns of alcohol use, factors that influence individual alcohol choices, community awareness in terms of alcohol and alcohol-related harm and, emerging issues as well as international reporting obligations. Household or school-based surveys only moderately inform workplace planning and development, and the extent and nature of comorbidity, and do not very well inform on the effectiveness of interventions. Specific labour force or organisational surveys may be highly informative in workforce planning and development.

### Other intelligence

Other forms of intelligence, for example DUMA, highly inform factors that influence individual alcohol choices and the extent and nature of comorbidity, and moderately informs the size of problems, the patterns of alcohol use, emerging issues and international reporting obligations. However, other intelligence does not well inform the effectiveness of interventions, workforce planning and development, and community awareness.

### Systematic reviews

Systematic reviews, such as the Cochrane Collaboration or literature reviews, are highly effective at informing the effectiveness of interventions. The ability to inform on the size of problems, patterns of use, emerging issues, factors that influence individual alcohol choices, workforce planning and development, and the extent and nature of comorbidity are moderate. Systematic reviews do not well inform community awareness and international reporting obligations.

### Administrative collections

Administrative alcohol data sources, such as NMD, highly inform the extent and nature of comorbidity, and moderately inform the size of problems, the effectiveness of interventions, workforce planning and development, emerging issues and international reporting obligations. Administrative alcohol data sources have a low ability to inform patterns of alcohol use, factors that influence individual alcohol choices and community awareness.

### Economic and financial analyses

Economic and financial analyses of alcohol data sources, such as that completed by Collins and Lapsley (2002), highly inform the size of problems and the effectiveness of interventions. International reporting obligations and emerging issues are moderately informed. Economic and financial analyses do not well inform patterns of alcohol use, factors influencing individual's choices, workforce planning and development, community awareness, and the extent and nature of comorbidity.

Note that the pooling or 'triangulation' of different data sources can greatly enhance the value of any single data source.

## Gaps, deficiencies and opportunities

### International reporting obligations

Australia has an obligation to report per capita alcohol consumption and other indicator data internationally. This obligation poses a challenge for Australia because there is currently no main data source focusing on per capita alcohol consumption, and the frequency of surveys does not enable annual reporting.

### Frequency of collection

Most national surveys are conducted every few years, whereas most administrative collections are ongoing (and reported annually). However, many useful surveys or research on alcohol and alcohol-related harm have been conducted and never repeated; repetition of such surveys that have proved to be important and useful should be considered as a priority.

### Barriers to access

Accessibility to data and information is an important component of the usefulness of the information, and for many of these collections access is good. The information should be accessible to a wide range of people such as policy makers, and health professionals as well as the public. Barriers to access may include legal barriers and restriction to access as set out by the working agency, lack of tools or skills to access the information, the inability to interpret or understand accessible data, as well as the cost to access the data. These barriers may in turn reduce the health of individuals and populations, and may increase the total costs of health services. Ongoing and regular surveys should be conducted to assess the nature of the

barriers to access so that limitations can be addressed (AIHW & AHMAC 1995; AIHW & NPHIWG 1999).

### Limitations to data linkage in Australia

Data linkage is the process of combining or matching identifiers of the data collected at different times or places into single records for a particular individual. No national or coordinated approach to health record linkage has been implemented in Australia. Data linkage to date is limited but could improve or greatly increase the benefits and usefulness of the data. Some of the reasons why data linkage has not progressed in Australia include privacy concerns, scepticism about the feasibility of data linkage and the cost effectiveness of linking data as well as the lack of clearly documented justification (AIHW & AHMAC 1995; AIHW & NPHIWG 1999).

### Specificity of data

Surveys are designed to fulfil specific purposes and these do not always meet the needs of all investigators or policy makers. Data are collected according to the purpose of the survey and if the data are used in the future to fulfil other criteria, analysis may be restricted. For example, the sample size collected for a certain area may be too small for analysis at that level, but the respondents contributed to a wider, representative sample.

Also, the format in which the data is available (including physical format, data media, classifications, etc.) may not be accessible, appropriate or enabling for analysis to be carried out by others.

### Specific population groups

Specific population groups or priority populations require special consideration because they may have greater exposure to certain diseases, and less access to health services and other particular needs. These specific population groups include Aboriginal and Torres Strait Islanders, people from non-English-speaking backgrounds, the homeless, children, youth, the elderly, and people from rural and remote areas of Australia (AIHW & AHMAC 1995). A number of the collections include over-sampling for specific subpopulations. Few of the national data collections include sufficient numbers of people from these priority groups and few regularly collect ongoing data.

### Geographic classifications

Large variations exist in geographical classification used in data collections. Due to the lack of consistency in geographical boundaries and identifiers, the examination, analysis or definition of geographic location is limited. The consistent application of standard geographic classification needs to be more widespread (AIHW & NPHIWG 1999).

### Other deficiencies

Finally, it is apparent that:

- there are few nationally agreed data collection instruments;
- there is no routine validation of self-report data;
- few national data collections include biological measurements; and
- there are limited national data on the relationship between alcohol use and mental health.

### Opportunities

Each of the gaps and deficiencies noted above presents an opportunity to improve our understanding of alcohol use and the related harms. Furthermore, each of the collections assessed here can undoubtedly be further analysed but for insufficient resources available to organisations and individual researchers.

As a way of focusing attention on the range of opportunities available with the current data sources, Table 3.4 shows—with reference to the NAS objectives—opportunities for further analysis.

**Table 3.4: National Alcohol Strategy: opportunities for further analysis**

| NAS Objective | Information class | | | | | | |
|---|---|---|---|---|---|---|---|
| | Research and evaluation | Clinical records | Surveys | Other intelligence | Systematic reviews | Admini-strative collections | Economic/ financial analysis |
| 1 | | | ✓ | | | | |
| 2 | ✓ | O | ✓ | ✓ | | O | |
| 3 | ✓ | O | ✓ | ✓ | | O | |
| 4 | O | | O | | O | | O |
| 5 | O | | ✓ | | O | | O |
| 6 | O | | ✓ | | | | O |
| 7 | ✓ | | ✓ | ✓ | | ✓O | |
| 8 | | O | ✓ | ✓ | | ✓O | |
| 9 | | ✓ | ✓ | | ✓ | O | O |
| 10 | O | | O | O | ✓ | O | O |
| 11 | O | O | ✓ | O | ✓ | O | ✓ |

✓=Informed

O=Opportunity

## Further reading

NAS (National Alcohol Strategy) 2003. Alcohol and your health. Alcohol Fact Sheets. Canberra: Australian Government Department of Health and Ageing.

AIHW & AHMAC (Australian Health Ministers' Advisory Council) 1995. National Health Information Development Plan. Canberra: AIHW.

AIHW & NPHIWG (National Public Health Information Working Group) 1999. National Public Health Information Development Plan. AIHW Cat. No. HWI 22. Canberra: AIHW.

# Guide to conducting alcohol surveys

This section presents some information to help those readers who may be contemplating conducting an alcohol-related survey. It is also useful for informing readers who may be end users of survey data, or who may be contracting with a survey organisation to collect data on their behalf.

The first part comprises a set of guiding principles that are generally applicable to any survey process. This part is somewhat modelled on *An Introduction to Sample Surveys: A User's Guide* published by the ABS (1999). The second part discusses some issues that are particularly relevant to alcohol-related surveys in Australia.

## General principles of survey design and implementation

### Define the survey's objectives and scope

The critical first step in conducting a survey is to define the objectives of the study. This may be in the form of a policy statement, data specification, or simply a series of questions that the researcher wants answered. It is desirable at this stage to consider the nature of the outputs, as the complexity of the resulting tables and level of disaggregation are factors that influence the questionnaire design, sample design and sample size.

As part of specifying the objectives, it is necessary to define the target population—notably in terms of sociodemographic characteristics (such as age and sex) and geography—and the unit of enumeration, or the 'entity' about which the information is being collected (individual, household, school class, etc.). In some studies, it may be appropriate to collect information by proxy, for example to ask a parent about their child's early exposures to alcohol.

### Check alternative sources

For some information requirements a sample survey may not be the most appropriate method, that is, there may be alternative, even better, sources of the required information. The general classes of alternative sources are listed in Box 4.1. Prospective surveyors should investigate these types of sources before committing to a new survey process.

**Box 4.1: Possible alternative sources of information**

***Existing data sources***

*Possible data sources for the defined topic and target group may already exist in the form of:*

- *published research papers and reports;*
- *administrative by-product data, that is, data that are collected as part of administering a program or intervention;*
- *previous surveys.*

***Non-survey methods***

*A range of non-survey methods are available that may provide the required information:*

- *focus groups;*
- *observational studies;*
- *case studies;*
- *controlled trials (mostly used in medical research).*

***Censuses***

*Censuses, otherwise known as full enumeration studies, aim to collect information from each member of the target population.*

## Choose data collection method

Having decided on a survey as the most appropriate method to fulfil the data requirements, the researcher is then required to select a data collection method or methods. Where more than one method is employed in the one study this is often termed 'mixed mode'. Typical mixed mode combinations include mail and telephone, face-to-face and telephone, and telephone and self-enumeration (self-complete). The modes may both be used with the same respondent (say as a follow-up), or each mode may be used on a different subsample.

The most common collection methods are described below.

### Personal interviewing

In this mode, a trained interviewer asks questions directly to the respondent (or proxy) and records the answers. The interviewer essentially controls the flow and pace of the interview, and is able to prompt or clarify at the time of the response. Two subtypes of this method are face-to-face interviewing—with or without a computer-aided questionnaire—and telephone interviewing, again with or without a computer-aided script. The computer-assisted/aided telephone interview (CATI) is becoming the dominant data collection method of market researchers in Australia, and is also being used for surveillance of health behaviours by many health departments.

### Self-enumeration

In this method, the respondent completes a questionnaire with little or no intervention from the interviewer. Typically, self-complete surveys are implemented as mail surveys, although the 'drop-and-collect' method is also an option. In this option, a fieldworker leaves a questionnaire with the selected respondent, and either

collects it a few days hence, or leaves a return-addressed envelope by which the respondent dispatches the completed questionnaire. A third form of self-complete data collection available now is the computer-assisted/aided self interview (CASI), by which the respondent completes the questionnaire on a computer, generally in the presence of the fieldworker. Nowadays, such questionnaires are also being implemented as web-based forms.

Some of the factors that influence the choice of mode include:

- the nature of the questions being asked: more sensitive questions may be better in a self-complete mode;
- target response rates: mail surveys generally result in lower response rates than other modes;
- target population and relevant sample frame: sometimes the target population lends itself to only a few collection methods. For example, it is not practical to conduct a school-based survey by telephone;
- available resources, in terms of money and time: each of the possible modes generally involves a trade-off among cost, timeliness, complexity of possible questions, and data quality.

## Design the questionnaire

The questionnaire, or survey instrument as it is sometimes known, is the main device by which the information is collected. Its purpose is to record data that is accurate and relevant to the survey's objectives. Accordingly, the questionnaire should:

- be conducive to recording accurate answers;
- not be overly burdensome to the respondent in terms of length and complexity;
- be properly administered by the fieldwork staff; and
- be readily processed by people and computers.

Principles that should be applied in good questionnaire design include:

- use of a logical order in the flow and sequencing of questions;
- use of clear and simple instructions and explanations;
- allowing the full range of responses, including zero or negative values, not applicable, refused, etc., as appropriate;
- avoiding 'leading' questions;
- avoiding complicated questions, including double-barrelled questions;
- minimising recall bias by use of appropriate reference/recall periods;
- using response categories that sensibly relate to the concept being measured or align with proposed output categories;
- minimising the use of open-ended (or 'free-text') responses.

## Design and select the sample

The optimal design and selection of the sample is properly the province of an experienced survey statistician. However, an overview of sample design is provided here as a basic reference.

### Sample frame

The first step is to construct a sample frame, which is essentially a list of all the possible members of the sample, such as the numbers in the current White Pages telephone directory, or a list of secondary schools in the region. Often these lists are incomplete, possibly out of date, and have an unknown degree of representativeness of the target population. The nature and size of any such flaws in the frame may need to be quantified for correct sample weighting.

### Sample size

The most relevant factor in determining, a priori, the sample size is the degree of precision required in the results. This is almost always moderated by the available resources, in that the optimum sample size cannot be achieved within the available budget. Other factors that influence required sample size include the level of disaggregation required, the sampling method used, the proportions of the population with the attributes being measured, and the variability of those attributes.

A result obtained from a sample is likely to differ from a result obtained from the whole population. The extent of this difference can be quantified using the so-called 'standard error' (SE) of the measure. The SE is used to calculate a confidence interval, which is expected to contain the population value. A 95% confidence interval is the survey estimate ± two (actually 1.96) SEs of the estimate, and represents the range of values around the 'true' value that would be obtained in 95 out of 100 samples.

For a simple random `sample, the SE is determined only by the proportion of respondents that have the attribute (p) and the size of the sample (n), according to the following formula:

$$SE = \sqrt{\frac{p \times (1 - p)}{n}}.$$

The proportion in this formula is always expressed as a number between 0 and 1 (that is, 36% is a p of 0.36). This formula can be rearranged as:

$$n = \frac{p \times (1 - p)}{SE^2}.$$

So the sample size for a specified SE and expected proportion can be readily calculated. For example, a researcher wants to be 95% confident that the proportion of the population that supports bans on serving alcohol at sporting events is between 30% and 36%, that is 33% ± 3% (here the SE is specified as 1.5% because the 95% confidence interval is the estimate ± 1.96 times the SE). So putting these values into the formula:

$$n = \frac{.33 \times (1 - .33)}{(.015)^2} = \frac{.33 \times .67}{.000225} = 982.7,$$

or close to 1,000 respondents would be needed to gain this certainty. If the researcher was to relax the precision to ± 5%, then the sample size would only need to be 354 respondents. On the other hand, if the researcher wanted the 95% confidence interval to be ± 1% then the sample would increase to 8,844. Table 4.1 below shows the minimum sample size required for selected proportions and SEs, for 95% confidence intervals. It should be stressed that this is for simple random samples, and that other sample designs require more complex methods for determining adequate sample size (and invariably require larger samples to provide the same level of precision).

**Table 4.1: Minimum sample sizes for selected p and SE, 95% confidence level**

| | Standard error of sample estimate (%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Sample proportion (%)[(a)] | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 4.0 | 5.0 |
| 1 | 395 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 5 | 1,900 | 475 | 210 | 120 | 75 | 55 | 30 | n.a. |
| 10 | 3,600 | 900 | 400 | 225 | 145 | 100 | 55 | 35 |
| 20 | 6,400 | 1,600 | 710 | 400 | 255 | 180 | 100 | 65 |
| 30 | 8,400 | 2,100 | 935 | 525 | 335 | 235 | 130 | 85 |
| 40 | 9,600 | 2,400 | 1,065 | 600 | 385 | 265 | 150 | 95 |
| 50 | 10,000 | 2,500 | 1,110 | 625 | 400 | 280 | 155 | 100 |

(a) Note that this pattern is symmetrical around 50% prevalence, because a p of say 40% gives (1-p) of 60%, and these can be swapped with no effect on the valuation of the quantity p x (1-p).

## Sampling methodology

A range of sampling methodologies is available, and the choice of a method will be influenced by available resources, nature of the target population and availability of suitable sampling frame. Some of the more common approaches are described below.

- Simple random sample: in this approach all members of the population are listed and are selected by some random process, such as a random number generator.
- Systematic sample: all members are listed in some sort of sequence, and a fixed selection interval *i* is determined (total in population divided by required sample size). A random starting point (between 1 and *i*) is chosen, and then each *i*th member on the list is selected.
- Stratified sample: in this approach the target population is first divided into strata, or well-defined groups, for example health region, or in secondary school or not. Once the strata are set, one of the above sampling methods can be used.

Stratification is useful for getting at particular groups within the target, and can produce more accurate results overall.

- Cluster sample: this means that clusters of respondents are selected, and then all or some (randomly selected) members of the cluster are included in the sample. Clusters could include schools, workplaces, even households.
- Multistage: this involves selecting respondents in at least two steps. In the first step, large groups (clusters) are selected, and in the second step members of that cluster are selected. In large national surveys, there may be up to four stages, for example:

  Statistical local areas (SLAs) are selected within the state;

  – Census collection districts (CDs) are selected within the SLA;
  – Households (or block groups) are selected within the CCD; and
  – Individuals within the household are selected.

  Clustered samples provide efficiency in the fieldwork phase of the survey, but have attendant increases in sampling error (variance). Determining the optimal number of units selected at each stage is a complex task which needs to trade off the resulting cost savings against the increase in sample variance.

## Test the questionnaire and survey procedures

The purpose of survey testing is to:

- assess the appropriateness of the sampling method and data collection mode;
- obtain an estimate of likely sample variance;
- gain an initial impression of response characteristics;
- assess the fitness of the questionnaire;
- evaluate field work and processing procedures, including adequacy of interviewer training;
- generate response frames for questions that were initially open-ended; and
- identify potential areas for cost blow-outs.

There are typically three main stages in survey testing, referred to as pre-testing, pilot and dress rehearsal. The dress rehearsal may only be required for particularly large or complex surveys.

**Pre-testing**

Pre-testing includes a number of techniques to help develop the most robust questionnaire. These techniques include:

- Expert review: experienced survey developers compare candidate questions with existing questions, standard terms and concepts, international best practice, etc., and ensure that the questions will yield the desired outputs.
- Cognitive testing: trained staff conduct 'interviews' with a small group of respondents. Methods such as 'think aloud' or retrospective review are used to elicit the cognitive processes and decisions that the respondent makes when

answering a particular question. Often cognitive testing is done on a specially selected target group. It is ideally conducted in a way that simulates the mode in which the questionnaire will eventually be delivered.

- Focus groups: this is similar in some ways to cognitive testing, in that a facilitator explores with a group the range of issues that arise from a question or group of questions.

**Pilot testing**

Pilot testing involves implementing the survey to a small sample, but using all the procedures and materials intended for the main survey. It is most useful for testing the fieldwork procedures, including timing points, interviewer briefing and supervision, response characteristics, data coding and input. It can also be useful for comparing alternative forms of questions.

**Dress rehearsal**

This form of testing—generally only used for large-scale surveys—is a more comprehensive pilot test, and is used as a final check of all aspects of the survey. Generally it informs fine-tuning of procedures, and it does not result in substantial changes to the questionnaire or operation of the survey.

## Collect the data

This is obviously the main operational component of any survey. It comprises:

- recruiting and training the fieldwork staff;
- allocating workloads and dispatching materials to the fieldwork staff;
- administering the questionnaire, including screening interviews (by which an eligible respondent is selected from a larger unit such as a household), callbacks and edits/follow-up as required;
- supervising and auditing field staff as appropriate;
- collating and preparing the completed data for further processing.

The exact nature of each of these components depends on the collection mode, geographic spread, period over which the enumeration is spread, and available resources.

## Process the data

Data processing involves translating the questionnaire responses into a form that can be manipulated and turned into results. At the end of the processing stage, the data are declared 'clean' (that is free from errors) and can be handed over to the analysts. Throughout the processing phase, comprehensive documentation should be kept, both to support quality control and to inform the end users of the decisions made along the way. The four main stages are described below.

- Checking and coding. This involves practical things such as:
  - making sure all open-ended questions are legible, and, where appropriate, converted into codes (including nil response or missing codes);
  - making sure that any responses that are being read by machine are the correct type and will not be read ambivalently; and
  - removing any identifying sections/pages that are not to be scanned or entered.
- Data entry. Typically data entry is now automated by the use of optical character (or mark) recognition machines with associated software, or by whole image scanners with associated software. Where data are manually entered, it is desirable to double-enter critical questions, or have an audit/quality control process in place. The great advantage of CATI /CASI data collection modes is that the data entry is done as part of completing the questionnaire, with the responses writing straight to a database.
- Editing. Despite the care taken in questionnaire design, implementation, and checking and coding, a number of edits are usually required to ensure the data are as accurate and useful as possible. The main types of edit are:
  - Structure/integrity checks: making sure that the questionnaire is complete, and that related forms are held together to form the one record;
  - Range edits: ensuring that values on each question do not lie outside the valid range of values for that question;
  - Sequence edits: making sure that all and only the intended respondents answered a particular set of questions;
  - Duplicate records check: ensuring that the same questionnaire was not inadvertently entered more than once; and
  - Logic edits: checking that answers to one question are not incompatible with answers to another, or that males haven't answered questions on alcohol use during pregnancy, for example.
- Weighting. The purpose of weighting is twofold:
  - to align the structure of the sample to the structure of the underlying population of interest: often the actual sample achieved is not fully representative of the study population, and weights are used to account for distortions in the sample that may arise from the sample design and/or the data collection (including non-response and other biases);
  - if appropriate, to 'expand' the sample numbers to the study population: it is often desirable to have the sum of the weights equal the size of the study population, so that frequencies and other statistical procedures directly produce population-level estimates.

Typically, estimates of the study population size and structure are not available for the exact time period in which the survey was conducted, so projections or other demographic techniques are required to estimate the population.

## Analyse the data

The analysis phase is potentially the most interesting yet most challenging phase of the survey process. It is the point at which the researcher gets to translate the survey data into answers to the study questions, that is, to provide results against the survey objectives.

This guide is not the place to describe all the possible analyses available, and readers should consult at least a basic statistics text. As a starting point, one might consider running some descriptive statistics (frequencies, means and standard deviations) to get a 'feel' for the nature of the data, and to identify possible outliers and the extent of item missing values. Further exploration of the variables can then be done with a series of cross-tabulations, comparison of means (for subgroups) and so forth.

Users of survey data should be aware of the impact of weights on statistical procedures. In most analyses, if sample weights that include an expansion factor are applied during statistical procedures, all results will be statistically significant because the software treats the weighted number of cases as the 'real' number of cases.

Most of the advanced statistical software packages now have modules for dealing with complex survey designs (including stratification, clustering and multistage sampling), and it is generally worth the investment of time to 'define' the sample parameters to the system so that the correct analyses can be undertaken.

## Report and present the results

Essentially, the key to good reporting and presentation of results is an understanding of the audience for the results. This may mean that different 'products' from the same data need to be prepared for different audiences. Regardless of the products, a good general rule is to make a few points well, rather than to provide many diffuse messages.

With the rapid uptake of web-based reporting, products can be more versatile, often interactive, and the lead time to disseminate results can be substantially shortened as hard copies of reports don't need to be printed, bound and distributed. If hard copy reports are required, these can be made quite short, with supplementary material (especially detailed tables) published electronically.

If the data are being disseminated for use by other researchers, then a report of various technical aspects of the survey needs to accompany the dataset. It is also good practice to include as part of the survey documentation the questionnaire, plus any prompt cards and screening schedules. When unit record data is disseminated, care may need to exercised to ensure that no information is included that could potentially identify a respondent.

## Other issues

### Ethical clearance

Most government departments and universities have human ethics committees, and prospective survey researchers should check the requirements for ethical clearance as part of the planning phase (or earlier). Where required, ethical clearance for a survey should be obtained well in advance of the fieldwork.

An ethics committee will normally consider the issues of privacy, sensitivity of the content and burden on respondents, all in the context of the scientific merit of the study.

### Privacy legislation

The collection of personal information is regulated by either the *Privacy Act 1988* (Cwlth) or the *Privacy Amendment (Private Sector) Act 2000.* Researchers should confirm what privacy legislation applies to them (or their agency) and ensure that they adhere to the relevant privacy requirements. Even if no legislation is applicable, researchers are urged to consider the principles inherent in the legislation.

Commonwealth public sector agencies that collect personal information must comply with the eleven Information Privacy Principles (IPPs) under the *Privacy Act 1988.* Private sector organisations must similarly comply with the ten National Privacy Principles (NPPs) under the *Privacy Amendment (Private Sector) Act 2000.*

The IPPs and NPPs are largely similar, and the important points as they relate to surveys are:

- personal information can only be collected for a purpose relate to a function of the collector;
- collection must be by fair and lawful means;
- the collector must take steps to ensure that the individual is aware of:
  - who is collecting the information;
  - the purpose for which the information is collected;
  - any law that covers the collection;
  - any other party to whom the information will usually be disclosed.
- personal information collected should be accurate, complete and up to date;
- any person from whom information is collected should be able to access that record (unless this is prohibited by another relevant law);
- the collector cannot use personal information for a purpose other than that for which it was collected, unless the individual has consented to this other use;
- the collector cannot disclose the personal information to another person, body or agency unless:
  - the individual is likely to have been aware (or was told) that such disclosure is usual;

- the individual consented to the disclosure; and
- the disclosure is authorised by another law.

### Contracting out

Often it can be more efficient and effective to contract out various components of the survey to specialist survey units, such as market research companies or university departments. Virtually all the components after setting the objectives can be outsourced, with the data collection and processing components being the best investment. As noted above, it is highly recommended to get input from a survey statistician for the survey design and sampling components.

Researchers should be familiar with any purchasing or procurement guidelines for their organisation throughout the process of engaging and managing a consultant.

Things to be mindful of when contracting out a survey process include:

- that the total funds available for the project, making sure that there are sufficient project funds after the contract phase for adequate analysis and dissemination of results;
- that the survey objectives are clearly stated and can be readily translated into a questionnaire and survey design;
- the tasks and responsibilities of the consultant and the researcher are clearly defined, particularly the nature and extent of any analysis to be done by the consultant;
- that the intellectual property rights for the survey materials and resulting dataset are properly assigned: it is possible for the consultant to retain as long as they grant back to the researcher unrestricted, worldwide rights to use the material.

### Data quality

Quality data is the primary goal of the survey task. One of the challenges of the survey process is to find the optimum allocation of available resources so as to maximise data quality. Often this may require trading off, say, sample size for less clustered designs, or reducing the level of analysis to finance more comprehensive interviewer training.

Two topics that need to be discussed when considering data quality are validity/reliability and sources of error.

#### Validity and reliability

The terms validity and reliability are used interchangeably; however, the two concepts are quite different. Validity is about agreement between a measure and the phenomenon or quality being measured, whereas reliability is about the stability of a measure. These terms are further explained in Box 4.2.

**Box 4.2: Validity and reliability**

*Validity refers to the notion of agreement between a measure and the phenomenon or attribute being measured. Subcategories of validity are face, content, criterion and construct validity. Face validity is whether a measure makes sense or fits with our understanding of a concept. Content validity describes the extent to which a measure covers the range of meanings within a concept. Criterion-related validity (also known as predictive reliability) is based on an external criterion. Construct validity is based on the way a measure relates to other variables within a system of theoretical relationships.*

*Reliability is the stability of a measure applied by different observers at different places or at different times and there are generally three methods used to test reliability – test–retest reliability, inter-rater reliability and internal (scale) consistency.*

## Sources of error

There are two broad classes of error (or bias) inherent in survey processes, termed sampling error and non-sampling error.

Sampling error refers to the difference between the result obtained from a sample and that which would be obtained from measuring the attribute in the whole population. It can be minimised by optimal sample design, and is affected by:

- the sample size: in general, larger sample sizes produce smaller errors (although to halve the error you need to increase the sample fourfold, and this is typically not affordable);
- the number of strata, clusters, and units within clusters: in general, the more 'dispersed' the sample the lower the error;
- the degree of variation in an attribute among the sampled population: the more similar respondents are in an attribute the lower the error.

Sampling error is typically measured in terms of the standard error (see section on sample size calculation).

Non-sampling error arises through other aspects of the survey, and includes:

- non-response bias: where the respondents have, on average, different attributes from the non-respondents;
- measurement error, which can arise from a poorly designed questionnaire that leads to inaccurate responses;
- interviewer bias, both in terms of possible influence on answers by the interviewer, and inconsistent prompting or interpretation of responses;
- processing errors, including errors in the stages of coding, data entry, edits and weighting;
- incorrect analysis and other misinterpretation of results (including bias that arises from the handling of missing values, such as might arise from the method used for imputation of missing values).

# Specific issues for alcohol surveys

As well as the principles for conducting any survey, there are specific issues to consider when conducting an alcohol-related survey.

## Range of possible topics

Chapter 2 provides an overview of the range of topics (and related indicators) that could be of interest to a researcher contemplating an alcohol survey. These can be broadly grouped into:

- behaviours
  - consumption behaviours;
  - behaviours preceding alcohol use (such as how people obtained alcohol);
  - behaviours following alcohol use (such as undertaking activities that are more risky under the influence of alcohol, or treatment actions);
- experiences as a 'victim' of alcohol-related incidents;
- attitudes and knowledge; and
- policy support.

Researchers should ensure that any specific survey objectives (or indicators) are translated into appropriate questions.

A basic set of topics for monitoring short-term and long-term alcohol consumption follows.

**Alcohol consumption status (drinkers and abstainers)**

That is, to determine the proportion of a population that consumes alcohol and the proportion that does not.

**Volume of alcohol consumed**

That is, to quantify how much alcohol a population consumes. The volume of alcohol consumed during a period is a function of the number of drinks consumed during the same period multiplied by the amount of ethanol in each drink. Therefore, it is necessary to identify the type of alcoholic beverage, and frequency with which each alcoholic beverage is consumed.

**Pattern of alcohol consumption**

For both short-term and long-term alcohol-related harm, it is necessary to identify how often a population is consuming above 'low risk' levels, and how much alcohol they consume. These levels differ for men and women, and for short-term and long-term alcohol-related harm.

It is desirable to collect information on drinking patterns and how these patterns relate to levels of risk as identified in the Australian Alcohol Guidelines (NHMRC 2001). Tables 2.1 and 2.3 in Chapter 2 relate the risk to health to patterns of alcohol consumption for men and women.

**Alcohol-free days**

It may be desirable to measure the presence of alcohol-free days across consumption patterns in a population, as there is some evidence to suggest that alcohol-free days may be associated with positive health effects.

**Harm-minimising behaviour**

It is desirable to collect information on strategies used to control the effects and/or harm from consuming alcohol. For example, whether people pace their drinking, or eat while drinking, and whether they conduct risky behaviour after drinking.

**Drinking setting**

It is desirable to collect information on the types of locations where alcohol is consumed. Some evidence suggests there is a link between setting and risk to health.

**Motivation for drinking**

It may be desirable to collect information on the motivations for consuming alcohol and/or the motivations for abstaining. This might include access to alcohol, affordability, health status or other motivating factors.

**Demographic data**

To monitor patterns of drinking and the risk of related harm across a population, it is necessary to collect demographic data such as age, sex, ethnicity, pregnancy status, health status and socioeconomic status.

Readers are also advised to consult the *National Health Data Dictionary*—the authorised source of definitions in the health sector in Australia—which defines a number of terms and concepts related to alcohol consumption.

## Matching measures to target groups

Given the vast array of possible combinations of target group, topic and collection method, it may be necessary to limit or modify survey content for specific groups. For example:

- assessment of long-term risk is not particularly relevant to youth, as their pattern of drinking usually has the nature of short-term risk consumption;
- for older people it may be prudent to focus on the long-term risk patterns, particularly total weekly consumption and alcohol-free days;
- for women who are pregnant and/or breastfeeding, there are different risk thresholds and these will either need to be derived separately from a general set of questions or may require a separate module;
- it would be desirable to have more complex questions for youth (as opposed to older drinkers) around motivations and early influences for initiation into alcohol consumption.

## What a survey cannot measure

There are a number of topics of interest to the alcohol researcher that cannot be assessed from survey data. For example, taking the indicators specified in Table 2.6, the following need sources other than survey data:

1. Rates of all conditions adjusted by aetiological fraction (AF), reported separately and combined for both morbidity and mortality;
2. Rates of all conditions adjusted by AF, reported separately and combined for both morbidity and mortality—and for which applicable case series data are available for nationally specific estimates of AFs;
3. Night time rates of single vehicle crashes, serious assaults and other emergency room injuries;
4. Per capita alcohol consumption also adjusted for imports, visitors, consumption and home production

It may also be the case that, for certain target populations, focus groups or other such methods are more suitable means of collecting data that would otherwise be collected in a survey.

### Alcohol sales data

Sales data complement survey estimates of alcohol consumption very well and this is important in monitoring alcohol use. Alcohol sales data are usually presented by per capita intake. There are limitations to solely analysing alcohol sales data. For example, trend alcohol sales data cannot measure increases and decreases in the proportion of abstainers from alcohol with those that reflect changing volumes of consumption among drinkers (WHO 2000).

## Comparison of the main methods of measuring alcohol consumption

Various standard methods are available for measuring alcohol consumption in population surveys (Appendix E contains examples of the questions and response categories for each of these methods). The choice of these depends on the space and time allowances in the survey, and the mode of collection. The tables below set out some of the pros and cons of each of the methods.

**Table 4.2: Quantity–frequency method**

| Pros | Cons |
|---|---|
| *Can be assessed with just two commonly used questions*<br>*Can cover long reference period* | *Least comprehensive assessment of consumption because misses peak episodes*<br>*No information on type of beverage*<br>*Requires inferences regarding relationship between usual quantity and usual frequency*<br>*Dependent on standard drink concept* |

**Table 4.3: Graduated quantity–frequency method**

| Pros | Cons |
|---|---|
| *Most comprehensive method for capturing pattern of drinking over time*<br>*Can cover long reference period*<br>*Generates higher self-reported alcohol consumption than Quantity-Frequency*<br>*Generates higher estimates of the proportion of the population who regularly drink at risk levels for long-term health problems* | *Requires six or more questions (or matrix)*<br>*No information on type of beverage*<br>*Complex analysis required to derive risk measures*<br>*Dependent on standard drink concept*<br>*In practice it generates a number of respondents whose total number of drinking days exceeds 365 days in the past year* |

**Table 4.4: Last seven days method**

| Pros | Cons |
|---|---|
| *Able to capture atypical periods (based on the notion that the last seven days are a 'sample' of a longer period)*<br>*Collects detailed information on quantity of each type of beverage*<br>*Does not rely on standard drink concept* | *Limited use for measuring drinking patterns*<br>*Requires substantial time/space to collect*<br>*Recall bias needs to be reduced by starting reference period on all days of the week*<br>*Complex analysis required to adjust for day of week, holidays, festivities, etc., and to extrapolate to longer periods*<br>*Can be difficult for respondents to recall detail* |

**Table 4.5: Simple yesterday method**

| Pros | Cons |
|---|---|
| *Able to capture atypical periods (based on the notion that yesterday is a 'sample' of a longer period).*<br>*Reduces the opportunity for memory loss*<br>*Requires the least time/space of all methods* | *Not useful for measuring drinking patterns*<br>*No information on type of beverage*<br>*Day-of-week bias needs to be reduced by interviewing on all days of the week*<br>*Complex analysis required to adjust for day of week, holidays, festivities, etc., and to extrapolate to longer periods* |

**Table 4.6: Detailed yesterday method**

| Pros | Cons |
|---|---|
| *Able to capture atypical periods (based on the notion that yesterday is a 'sample' of a longer period).*<br>*Covers close to 80% of known alcohol sales*<br>*Reduces the opportunity for memory loss*<br>*Collects detailed information on quantity of each type of beverage*<br>*Does not rely on standard drink concept* | *Not useful for measuring drinking patterns*<br>*Requires substantial time/space to collect*<br>*Day-of-week bias needs to be reduced by interviewing on all days of the week*<br>*Complex analysis required to adjust for day of week, holidays, festivities, etc., and to extrapolate to longer periods* |

## Further reading

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WHO (World Health Organization) 2000. International guide for monitoring alcohol consumption and related harm.

# Appendix A: Key organisations

| Title | **Alcohol and other Drugs Council of Australia (ADCA)** |
|---|---|
| Internet address | www.adca.org.au |
| Contact | PO Box 269<br>Woden ACT 2606<br>Telephone: (02) 6281 0686<br>Facsimile: (02) 6281 0995<br>Email: adca@adca.org.au |
| Description | ADCA is a national, non-government organisation focusing on representing the interests of the Australian alcohol and other drugs sector. ADCA provides a national voice for people working to reduce the harm caused by alcohol and other drugs. |

| Title | **Australian Bureau of Statistics (ABS)** |
|---|---|
| Internet address | www.abs.gov.au |
| Contact | ABS House<br>45 Benjamin Way<br>Belconnen ACT 2616<br>Telephone: 1300 135 070<br>Email: client.services@abs.gov.au |
| Description | The ABS provides statistical information and designs and conducts the five yearly national Census of Population and Housing as well as other complex surveys such as the Household Expenditure Survey and the Economic Activity Survey. The ABS also analyses and releases data collected to provide meaningful and high quality statistics, which are widely used by governments, businesses and the media. The ABS provides statistical consultancy, modelling, analysis, training and support, evaluates survey effectiveness and conducts reviews of methodologies. |

| Title | **Australian Drug Foundation (ADF)** |
|---|---|
| Internet address | www.adf.org.au |
| Contact | PO Box 818<br>North Melbourne VIC 3051<br>Telephone: (03) 9278 8100<br>Facsmile: (03) 9328 3008<br>Email: adf@adf.org.au |
| Description | ADF is an independent, non-profit organisation that works to prevent and reduce alcohol and other drug problems in the Australian community. The ADF provides drug prevention services and focuses on research, information, community development and education, and advocacy. |

| Title | **Australian Institute of Criminology (AIC)** |
|---|---|
| Internet address | www.aic.gov.au |
| Contact | 74 Leichhardt Street<br>Griffith ACT 2603<br>GPO Box 2944<br>Canberra ACT 2601<br>Telephone: (02) 6260 9200<br>Facsimile: (02) 6260 9201<br>Email: front.desk@aic.gov.au |
| Description | The AIC conducts criminological research; communicates the research results; arranges conferences, seminars or courses of training; and publishes material arising from their analyses. |

| Title | **Australian Institute of Health and Welfare (AIHW)** |
|---|---|
| Internet address | www.aihw.gov.au |
| Contact | 6A Traeger Court<br>Fern Hill Park<br>Bruce ACT 2601<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1000<br>Facsimile: (02) 6244 1299<br>Email: info@aihw.gov.au |
| Description | The AIHW is Australia's national agency for health and welfare statistics and information. It aims to inform community discussion and decision making through development and provision of health and welfare statistics and information.<br>The AIHW produces produce over 80 reports and working papers each year on key health and welfare issues in Australia. The information is used by policy makers, academics, students and the general public. |

| Title | **Australian National Council on Drugs (ANCD)** |
|---|---|
| Internet address | www.ancd.org.au/ |
| Contact | PO Box 1552<br>Canberra ACT 2601<br>Telephone: 02 6279 1650<br>Facsimile: 02 6279 1610<br>Email: ancd@ancd.org.au |
| Description | The ANCD aims to reduce harms caused by drugs and ensures that policies, strategies and directions in the drug and alcohol field are consistent with the National Drug Strategic Framework. It aims to enhance partnership between the government and the community and has advisory, advocacy and representative functions. The ANCD brings together expertise from volunteer and community organisations, law enforcement, health and social welfare fields. |

| Title | **Australian Transport Safety Bureau (ATSB, formerly FORS)** |
|---|---|
| Internet address | www.atsb.gov.au |
| Contact | Switchboard–Communications and Information<br>15 Mort Street<br>Canberra City ACT 2601.<br>PO Box 967<br>Civic Square ACT 2608.<br>Telephone: (02) 6274 6141 or 1800 020 616<br>Facsimile: (02) 6247 3117<br>Email: atsbinfo@atsb.gov.au |
| Description | The ATSB maintains and improves transport safety and public confidence through independent transport accident and incident investigation, safety data analysis and research, and safety communication and education. |

| Title | **Department of Veterans' Affairs (DVA)** |
|---|---|
| Internet address | www.dva.gov.au |
| Contact | Telephone: 133 254 |
| Description | The Department of Veterans Affairs serves members of Australia's veteran and defence force communities, war widows and widowers, and dependents through programs of care, compensation, commemoration and support services. |

| Title | **Drinking Choices web site** |
|---|---|
| Internet address | www.nationalalcoholcampaign.health.gov.au/ |
| Contact | GPO Box 9848<br>Canberra ACT 2601<br>Email: enquiries@health.gov.au. |
| Description | The Drinking Choices web site offers information about alcohol, alcohol choices, alcohol facts and figures, and alcohol-related issues as well as competitions and other web site links. This website also plays the 'Drinking, where are your choices taking you?' advertisement. |

| Title | **National Centre for Aboriginal and Torres Strait Islander Statistics (NCATSIS)** |
|---|---|
| Internet address | www.abs.gov.au |
| Contact | Australian Bureau of Statistics<br>GPO Box 3796<br>Darwin NT 0801<br>Telephone: 1800 633 216<br>Email: ncatsis@abs.gov.au |
| Description | NCATSIS coordinates national statistical activity about Australia's Indigenous peoples, including consultation with Aboriginal and Torres Strait Islander communities, and working in collaboration with a broad range of external agencies. It fosters links between government agencies and the community sector, and support, partnerships which foster improved data. |

| Title | **National Centre for Education and Training on Addiction (NCETA)** |
|---|---|
| Internet address | www.nceta.flinders.edu.au |
| Contact | Flinders University<br>GPO Box 2100<br>Adelaide SA 5001<br>Telephone: (08) 8201 7535<br>Facsimile: (08) 8201 7550<br>Email: nceta@flinders.edu.au |
| Description | NCETA is a research centre focused on investigating workforce development on alcohol and drug and related fields. |

| Title | **National Drug Research Institute (NDRI)** |
|---|---|
| Internet address | www.ndri.curtin.edu.au |
| Contact | National Drug Research Institute<br>Curtin University of Technology<br>Health Research Campus<br>Level 2, 10 Selby Street<br>Shenton Park, WA 6008<br>Telephone: (08) 9266 1600<br>Facsimile: (08) 9266 1611<br>Email: enquiries@ndri.curtin.edu.au |
| Description | NDRI is located at Curtin University of Technology in Perth and is part of the national strategy to address the harm arising from drug use in Australia. NDRI aims to disseminate high quality research that contributes to the primary prevention of harmful drug use and the reduction of drug-related harm. |

| Title | **National Drug and Alcohol Research Centre (NDARC)** |
|---|---|
| Internet address | www.ndarc.med.unsw.edu.au |
| Contact | NDARC<br>University of New South Wales<br>Sydney NSW 2052<br>Randwick Campus<br>22–32 King Street<br>Randwick NSW 2031<br>Telephone: (02) 9385 0333<br>Facsimile: (02) 9385 0222<br>Email: ndarc@unsw.edu.au |
| Description | NDARC contributes to the minimisation of the harmful consequences of alcohol and other drugs use in Australia by increasing the effectiveness of the Australian treatment response to drug-related problems. |

| Title | **National Injury Surveillance Unit (NISU)** |
|---|---|
| Internet address | www.nisu.flinders.edu.au |
| Contact | Research Centre for Injury Studies<br>Mark Oliphant Building<br>Laffer Drive<br>Bedford Park SA 5042<br>Telephone: (08) 8374 0970<br>Facimile: (08) 8374 0702<br>Email: injury.studies@nisu.flinders.edu.au |
| Description | NISU analyses and reports on existing data, assesses the needs and opportunities for new information sources and mechanisms, and for improvement of existing ones, develops new information sources and other relevant infrastructure. NISU provides advice and other services to assist others who are engaged in injury control and related matters. |

| Title | **National Drug Strategy website (NDS)** |
|---|---|
| Internet address | www.nationaldrugstrategy.gov.au/index2.htm |
| Contact | Population Health Division<br>Australian Government Department of Health and Ageing<br>Telephone: (02) 6289 1555<br>Facsimile: (02) 6289 7228<br>Email: nationaldrugstrategy@health.gov.au |
| Description | The NDS, and its forerunner the National Campaign Against Drug Abuse, have been operating since 1985. NDS is a cooperative venture between the Commonwealth and state/territory governments as well as the non-government sector. The common aim from the outset was 'to minimise the harmful effects of drug use in Australian society'. |

# Appendix B: Compilations, syntheses and analyses

| | |
|---|---|
| Title | **Australian social trends** |
| Organisation | ABS. |
| Contact | ABS House<br>45 Benjamin Way<br>Belconnen ACT 2617<br>Telephone: 1300 135 070<br>Email: client.services@abs.gov.au<br>Internet: www.abs.gov.au |
| Brief description | A report on various aspects of Australian society and how they change over time. |
| Purpose(s) | To inform Australians on contemporary social issues of public policy concern.<br>To describe Australian society and how it is changing over time, and assist and encourage informed decision makers.<br>To assist and encourage informed decision making.<br>To be of value to a wide audience, including all those engaged in research, journalism, marketing, teaching and social policy. |
| Content | The 2003 edition contains a new chapter of feature articles covering a broader range of issues than previous editions and covering new areas such as population characteristics and remoteness, regional differences in education and outcomes, and geographic distribution of unemployment.<br>A set of national and state summary tables which present key social indicators in each of the seven major areas of social concern. The seven areas of concern are population, family and community, health, education and training, work, economic resources and housing. |
| Frequency/timing | Annual since 1994. |
| Output | |
| Comments | |

| | |
|---|---|
| Title | **The burden of disease and injury in Australia (BOD)** |
| Organisation | AIHW. |
| Contact | 6A Traeger Court<br>Fern Hill Park<br>Bruce ACT 2601<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1000<br>Facsimile: (02) 6244 1299<br>Email: info@aihw.gov.au<br>Internet: www.aihw.gov.au |
| Brief description | This report is the first national burden of disease study for Australia. Summary population health information is presented and builds on Australian and international work to assist national and state planning and priority settings for health, health services and research. |
| Purpose(s) | To provide the first detailed and internally consistent estimates for Australia of the incidence, prevalence, duration, mortality and disease burden for an exhaustive and mutually exclusive set of diseases and injury categories.<br>To provide an analysis of inequalities in mortality burden according to socioeconomic status. |
| Content | Introduction to Australian burden of disease issues; methodology of the burden of disease study; years of life lost due to mortality, disability and injury; National Health Priority Areas and attributable burden for ten major risk factors. |
| Frequency/timing | Once. |
| Output | Mathers C, Vos T Stevenson C 1999. The burden of disease and injury in Australia. AIHW Cat. No. PHE 17. Canberra: AIHW. |
| Comments | |

| | |
|---|---|
| Title | **Counting the cost: estimates of the social costs of drug abuse in Australia in 1998–99** |
| Organisation | DoHA. |
| Contact | Drug Strategy Branch<br>Australian Government Department of Health and Ageing<br>Telephone: (02) 6289 4454<br>Facsimile: (02) 6289 7837<br>Email: phd.frontdesk@health.gov.au |
| Brief description | This report is a study of the social costs of drug abuse in Australia. |
| Purpose | To revise aetiological fractions which form the basis of the health cost calculations.<br>To include estimates of the impact of involuntary smoking.<br>To provide a broader scope of estimation, including the cost of absenteeism. |
| Content | Epidemiological issues regarding drug, alcohol and tobacco abuse, issues involved in defining and identifying the costs of drug abuse, estimation of drug-attributable crime costs, comparability with previous social cost estimates, desegregated costs, aggregate results and future research. |
| Frequency/timing | Third report conducted by Collins and Lapsley. |
| Output | Collins D & Lapsley H 2002. Counting the cost: estimates of the social costs of drug abuse in Australia in 1998—99. Monograph series No. 49. Canberra: Australian Government Department of Health and Ageing.<br>Collins D & Lapsley H 1996. The social costs of drug abuse in Australia in 1998 and 1992. Monograph series No. 30. Canberra: Australian Government Department of Health and Ageing. |
| Comments | |

| | |
|---|---|
| Title | **HealthWiz** |
| Organisation | DoHA. |
| Contact | Level 2, Australian Industry Group House<br>214 Northbourne Avenue<br>Braddon ACT 2612<br>Telephone: (02) 6267 8777<br>Facsimile: (02) 6267 8776<br>Email: enquiries@health.gov.au<br>Internet: http://www.healthwiz.com.au/ |
| Brief description | HealthWiz consists of a data library and a user-friendly software package to access the data library. |
| Purpose | To provide and enable users to interrogate the data and extract the specific information that they require, and then present this information in tables, maps and graphs. |
| Content | Data collections: aged care; cancer; child care; deaths; dementia; disability; general practice; health care establishments; hospital separations; immunisation; Medicare; national health survey; population; social health atlas 1992; social security; standardisation data; the burden of disease and injury; tutorial data; veterans' affairs. |
| Frequency/timing | Continuous. |
| Output | |
| Comments | |

| Title | **National Alcohol Indicators Project (NAIP)** |
|---|---|
| Organisation | National Drug Research Institute, collaborating organisation Turning Point Alcohol and Drug Centre Inc. |
| Contact | Curtin University of Technology<br>GPO Box U1987<br>Perth WA 6845<br>Telephone: (08) 9266 1600<br>Facsimile: (08) 9266 1611<br>Email: enquiries@ndri.curtin.edu.au<br>Internet: www.ndri.curtin.edu.au/ |
| Brief description | The focus of NAIP is to use data on alcohol-related harm and alcohol consumption patterns from national surveys and other resources to determine the magnitude (prevalence and incidence) of specific alcohol-related problems. Also, to track changes and determine trends in these problems over time. Time series data about specific sets of alcohol patterns can also be used to evaluate the effects of policy or prevention interventions within Australia. |
| Purpose(s) | To establish a national minimum data set for monitoring alcohol consumption and related harms.<br>To determine the prevalence and incidence of specific alcohol-related problems, track the changes and to determine trends in these problems over time. |
| Content | Hospital admissions due to alcohol; alcohol-related mortality; per capita consumption of alcohol by persons 15 years and over; estimate percentage of total alcohol consumption which is high risk; percentage of adults and adolescents drinking harmful or hazardous quantities of alcohol; other problem indicators such as rates of night time assaults, serious crashes with BAC above 0.05; single-vehicle night crashes. |
| Frequency/timing | Continuous. |

*(continued)*

| | |
|---|---|
| Output | Chikritzhs T, Catalano P, Stockwell T, Donath S, Ngo H, Young D and Matthews S 2003. Australian alcohol indicators, 1990–2001: patterns of alcohol use and related harms for Australian states and territories. National Drug Research Institute, Curtin University of Technology.<br>National Drug Strategy 2002. Trends in alcohol-related violence in Australia 1991/92–1999/00. National Alcohol Indicators Bulletin No. 5. Perth: Curtin University.<br>National Drug Strategy 2001. Trends in per capita alcohol consumption in Australia, 1990/91–1998/99, National Alcohol Indicators Bulletin No. 4. Perth: Curtin University.<br>National Drug Strategy 2000. Patterns of alcohol consumption in Australia, 1998, National Alcohol Indicators Bulletin No.3.<br>National Drug Strategy 2000. Trends in alcohol-related road injury in Australia, 1990–1997, National Alcohol Indicators Bulletin No.2. Perth: Curtin University.<br>National Drug Strategy 1999. Alcohol-caused deaths and hospitalisations in Australia, 1990–1997, National Alcohol Indicators Bulletin No. 1. Perth: Curtin University. |
| Comments | |

| | |
|---|---|
| Title | **Quantification of drug-caused morbidity and mortality** |
| Organisation | AIHW. |
| Contact | 6A Traeger Court<br>Fern Hill Park<br>Bruce ACT 2601<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1000<br>Facsimile: (02) 6244 1299<br>Email: info@aihw.gov.au<br>Internet: www.aihw.gov.au |
| Brief description | This report presents results from the revised aetiological fractions methodology, along with estimations for 1998 (for mortality) and 1997–98 (for hospital separations). |
| Purpose(s) | To estimate the number of drug-caused deaths, hospital separations, patient days and years of life lost in Australia. |
| Content | Deaths attributed to alcohol, tobacco and illicit drugs; hospital separations attributable to tobacco, alcohol and illicit drugs; and aetiological fractions. |
| Frequency/timing | 2001. |
| Output | |
| Comments | |

| | |
|---|---|
| Title | **Statistics on Drug Use in Australia (SDUA)** |
| Organisation | AIHW. |
| Contact | 6A Traeger Court<br>Fern Hill Park<br>Bruce ACT 2601<br>GPO Box 570<br>Canberra ACT 2601<br>Telephone: (02) 6244 1000<br>Facsimile: (02) 6244 1299<br>Email: info@aihw.gov.au<br>Internet:<br><www.aihw.gov.au/publications/phe/sdua02/index.html>. |
| Brief description | This publication is a summary of major drug-use statistical collections and includes additional information to broaden the scope of the publication. |
| Purpose(s) | To provide patterns of drug use (including trends and attitudes to use), international comparisons, drugs and health, special population groups, crime and law enforcement, polydrug use, and drug avoidance and moderation.<br>To provide data on treatment services and data describing drug use by police detainees, and drug use and drug-related offences by male prisoners. |
| Content | Tobacco; alcohol; illicit drug use; pharmaceutical products; international comparisons; drugs and health; special population groups; treatment services; crime and law enforcement; polydrug use; drug avoidance and moderation. |
| Frequency/timing | Tenth in the series. |
| Output | AIHW 2003. Statistics on drug use in Australia 2002. AIHW Cat. No. PHE 43. Drug Statistics Series No. 12. Canberra: AIHW. |
| Comments | |

| Title | **Australian Drug Information Network (ADIN)** |
|---|---|
| Internet address | www.adin.com.au |
| Contact | ADIN Project Manager<br>Australian Drug Foundation<br>PO Box 818<br>North Melbourne VIC 3051<br>Telephone: (03) 9278 8122<br>Email: adin@adf.org.au |
| Brief description | ADIN provides a central point of access to quality Internet-based alcohol and drug information. |

| Title | **Cochrane Library** |
|---|---|
| Organisation | The Cochrane Collaboration |
| Contact | Monash Institute of Health Services Research<br>Monash Medical Centre<br>Locked Bag 29<br>CLAYTON VIC 3168<br>Telephone: (03) 9594 7530<br>Facsimile: (03) 9594 7554<br>Email: cochrane@med.monash.edu.au<br>Internet: http://www.cochrane.org.au |
| Brief description | The Cochrane Collaboration develops software tools for assembling and reviewing research evidence and produce electronic publications for presenting and distributing this evidence. Its main focus is on healthcare. The Cochrane Library consists of a regularly updated collection of evidence-based medicine databases that provide high quality information to people providing and receiving care and those responsible for research, teaching, funding and administration at all levels. |
| Purpose(s) | To keep up-to-date relevant evidence in different fields of interest. |
| Content | Databases included in The Cochrane Library are the Cochrane Database of Systematic Reviews, the Database of Abstracts of Reviews of Effectiveness, the Cochrane Controlled Trials Register, the Cochrane Methodology Register, the NHS Economic Evaluation Database, the Health Technology Assessment Database and the Cochrane Database of Methodology Reviews.<br>The Cochrane Library also includes Cochrane reviews, abstracts and summaries, comments and criticisms and sample reviews. |
| Frequency/timing | Continuous. |
| Output | |
| Comments | |

| | |
|---|---|
| Title | **National Health and Medical Research Council (NHMRC) alcohol guidelines** |
| Organisation | NHMRC. |
| Contact | Executive Secretary<br>Office of NHMRC (MDP 100)<br>GPO Box 9848<br>Canberra ACT 2601<br>Telephone: (02) 6289 9184<br>Facsimile: (02) 6289 9197<br>Email: exec.sec@nhmrc.gov.au<br>Internet: www.health.gov.au/nhmrc/ |
| Brief description | The alcohol guidelines were developed to provide clear, helpful and evidence-based information regarding alcohol and health-related consequences where many views conflict and social, political and commercial interests differ. |
| Purpose | To help Australians who chose to drink to avoid or minimise harmful consequences of alcohol. |
| Content | To minimise short-and long-term alcohol effects and gain longer term benefits: avoid undertaking risky activities or activities that require a degree of skill when under the influence of alcohol; be responsible in public and private environments; people with a health or social problem should avoid drinking alcohol; be careful or aware with regards to a relative/friend who drinks alcohol; for people with a mental health problem or sleep disturbance to avoid alcohol; carefully read medicine labels if planning to drink alcohol; young and older people to consider drinking only certain amounts of alcohol and following set alcohol guidelines; women who are pregnant or plan to become pregnant to avoid alcohol; and people who chose not to drink alcohol to be supported with their decision. |
| Frequency/timing | |
| Output | |
| Comments | |

| Title | **National Homicide Monitoring Program** |
|---|---|
| Organisation | AIC. |
| Contact | Senior Research Analyst–Manager<br>National Homicide Monitoring Program<br>Australian Institute of Criminology<br>GPO Box 2944<br>Canberra ACT 2601<br>Telephone: (02) 6260 9250<br>Facsimile: (02) 6260 9201<br>Email: front.desk@aic.gov.au<br>Internet: www.aic.gov.au |
| Brief description | To identify trends and patterns in homicide victimisation and offending within the various subsets of homicide in Australia. |
| Purpose(s) | To identify the characteristics of individuals which place them at risk of homicide victimisation and of offending, and the circumstances which contribute to the likelihood of a National Drug Strategy 2000.homicide occurring.<br>To provide a basis for the rational implementation of public policy on the prevention and control of violence. |
| Content | National annual collection of all homicides coming to police attention; police records; information from individual investigating officers; toxicology reports. |
| Frequency/timing | Since 1989. |
| Output | Mouzos J & Rushforth C 2003. Family homicide in Australia. Tends and issues in crime and criminal justice. Canberra: AIC.<br>Mouzos J 2002. Homicide in Australia: 2000–2001 National Homicide Monitoring Program (NHMP) annual report'. AIC: Research and Public Policy Series No. 40. Canberra: AIC. |
| Comments | |

# Appendix C: Standard drinks guide

# Appendix D: The National Alcohol Strategy 2001 to 2003–04

The NAS was developed under the National Drug Strategic Framework 1998–99 to 2002–03 and sets out a broad strategic approach to help reduce alcohol-related harm in Australia. This broad strategic approach or national framework acts as a template for the development of jurisdictional action plans while also having the capacity to meet local needs. The national framework sets out broad directions, specific priorities, roles and responsibilities, outputs and performance indicators to measure the effectiveness of the Strategy. It is built on a range of current initiatives already implemented by the Commonwealth, state and territory governments and non-government organisations (NAS 2001b). The NAS consists of eight priority areas and 11 objectives in relation to alcohol:

1. Increased community awareness of:
   - the magnitude of harm related to misuse of alcohol;
   - the factors that increase the risk of alcohol-related harm;
   - the preventable nature of these problems.
2. Reduction in alcohol-related problems in specific population identified as being at higher risk of alcohol-related harm.
3. Reduction in onset of high-risk patterns of alcohol consumption during adolescence.
4. Liquor licensing and regulatory initiatives that have a positive public health impact, particularly in terms of minimising harm related to the use of alcohol.
5. Alcohol advertising and availability that is consistent with community standards and harm minimisation principles.
6. Systems of pricing and taxation that have a positive public health impact, particularly in terms of minimising harm related to the misuse of alcohol.
7. Reduction in the incidence of alcohol-related crime, violence and antisocial behaviour in and around licensed premises.
8. Reduction in the incidence of alcohol-related crime, violence and antisocial behaviour at organised public events, such as sport matches, shows, rodeos and open-air concerts.

   Reduction in the incidence of alcohol-related problems at private social gatherings.

   Reduction in alcohol-related domestic and family violence.

   Reduction in alcohol-related problems in the workplace.

   Reduction in injuries and fatalities in the aquatic environment.
8. Reduction in the incidence of injuries and fatalities from drink driving.

   Reduction in the incidence of injuries to pedestrians when intoxicated.

9. Improved awareness and capacity of health professionals to identify individuals, families and communities with alcohol-related problems.

   Increased access to a range of high-quality health care services for the management of alcohol dependence and problem drinking, particularly in rural and remote areas and for marginalised groups.

10. Increased effectiveness of individuals in a wide variety of occupations to reduce alcohol-related harm.
11. Promotion and uptake of evidence-based practice through research.

# Appendix E: Example questions for the main methods of measuring alcohol consumption

## Quantity–frequency method

**In the last 12 months, how often did you have an alcoholic drink of any kind?** (Mark one response only)

- ☐ Every day
- ☐ 5 to 6 days a week
- ☐ 3 to 4 days a week
- ☐ 1 to 2 days a week
- ☐ 2 to 3 days a month
- ☐ About 1 day a month
- ☐ Less often
- ☐ No longer drink

**On a day that you have an alcoholic drink, how many standard drinks do you usually have?** (Mark one response only)

- ☐ 13 or more drinks
- ☐ 11 – 12 drinks
- ☐ 7 – 10 drinks
- ☐ 5 – 6 drinks
- ☐ 3 – 4 drinks
- ☐ 1 – 2 drinks

## Graduated quantity–frequency method

**Please record how often in the last 12 months you have had each of the following number of standard drinks in a day?** (Mark one response for each row below)

| | Every day | 5 – 6 days a week | 3 – 4 days a week | 1 – 2 days a week | 2 – 3 days a month | About 1 day a month | Less often | Never |
|---|---|---|---|---|---|---|---|---|
| 20 or more standard drinks a day | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11 – 19 standard drinks a day | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7 – 10 standard drinks a day | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5 – 6 standard drinks a day | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3 – 4 standard drinks a day | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 1 – 2 standard drinks a day | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Last 7 days method

**How many regular-strength beers did you have on Sunday? What was the size of the glasses or bottles of beer that you drank? [Repeat for each type of beverage for each of the last 7 days.]**

## Simple yesterday method

**Record in some way the day of the week] How many standard drinks did you have yesterday?**

## Detailed yesterday method

**How many nips, cans, bottles or glasses did you have yesterday? For each of the following drinks, please summarise your own usage.**

| | Cans | Small Bottles (300 – 375 ml) | Large Bottles (750ml) | Large Glass (425 ml) | Medium Glass (285 ml) | Small Glass (100 – 200ml) | Nips | Other (write in) 1 | Other (write in) 2 | Other (write in) 3 |
|---|---|---|---|---|---|---|---|---|---|---|
| Cask wine | | | | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Bottled wine | | ☐ | ☐ | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Regular Strength Beer (greater than 4% Alc/Vol) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Mid Strength Beer (3% to 3.9% Alc/Vol) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Low Alcohol Beer (1% to 2.9% Alc/Vol) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Home brewed beer | | ☐ | ☐ | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Premixed spirits in cans (e.g. UDL, Jim Beam and Cola) | ☐ | | | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Bottled spirits and liqueurs (e.g. Vodka, Rum, Gin, Kahlua) | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Premixed bottles (e.g. Lemon Ruski/Stolis, Bacardi Breezer) | | ☐ | | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Cider | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | | ☐ | ☐ | ☐ |
| Fortified wine, port, vermouth, sherry, etc | | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Other (please write in) 4 ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

# Glossary of terms

*Abstainer:* Never consumed a full serve of alcohol.

*Acute:* Coming on sharply and often brief, intense and severe.

*Addiction/addictive use:* A condition marked by repeated and compulsive activity in a manner or at a level that is harmful or dangerous. The term is most often applied to addictive drug use, such as with alcohol, tobacco or other drugs, but could be applied to gambling or many other practices.

*Affective disorders:* Mood disorders such as depression, mania and bipolar affective disorder. (Do not include anxiety disorders, which are classified as a separate group).

*Age standardisation:* A method of removing the influence of age when comparing populations with different age structures. This is usually necessary because the rates of many diseases vary strongly (usually increasing) with age. The age structures of the different populations are converted to the same 'standard' structure, then the disease rates that would have occurred with that structure are calculated and compared.

*Cardiovascular disease:* Any disease of the heart (cardio) or blood vessels (vascular). Includes heart attack, angina, stroke and peripheral vascular disease. Also known as circulatory disease.

*Case control studies:* Case control studies gather past data from selected cases and controls and determine if there are any differences in regards to exposure to a suspected factor.

*Cause of death:* From information reported on the medical certificate of cause of death, each death is classified by the underlying cause of death according to rules and conventions of the 10th revision of the International Classification of Diseases. The underlying cause is defined as the disease that initiated the train of events leading directly to death. Deaths from injury or poisoning are classified according to the circumstances of the violence which produced the fatal injury, rather than to the nature of the injury.

*Census:* Also known as full enumeration studies. A census aims to collect information from each member of the target population

*Chronic:* Persistent and long-term.

*Chronic diseases:* Term applied to a diverse group of diseases, such as heart disease, cancer and arthritis (to name a few), that tend to be long-lasting and persistent in their symptoms or development. Although these features also apply to some communicable diseases (infections), the general term chronic diseases is usually confined to non-communicable diseases.

*Cirrhosis:* Permanently damaged structure of the liver due to extensive death of its cells with resultant scarring. Main causes are chronic alcohol abuse and hepatitis C.

*Cluster sample:* A random sample of groups is selected and a person from each household of the selected blocks is interviewed.

*Cognitive testing:* To assess the cognitive process involved in answering survey questions.

*Cohort studies:* A group of individuals being studied who have experienced the same event at a specific period in time, e.g. 'birth cohort' refers to people born in the same year.

*Comorbidity:* When a person has two or more health problems at the same time.

*Computed assisted/aided self interview (CASI):* A self-complete questionnaire system which allows direct entry of data from the questionnaire into a computer file. It facilitates questionnaire monitoring data coding and entry and quality control procedures.

*Computed assisted/aided telephone interview (CATI):* A telephone-based interview system which allows direct entry of data from interviews into a computer file. It facilitates interview monitoring, data coding and entry, and quality control procedures.

*Confidence interval:* A statistical term describing a range (interval) of values within which we can be 'confident' that the true value lies, usually because it has a 95% or higher chance of doing so.

*Depression:* A mood disorder with prolonged feelings of being sad, hopeless, low and inadequate, with a loss of interest or pleasure in activities and often with suicidal thoughts or self-blame.

*Dress rehearsal:* Generally only conducted for large-scale surveys and is a more comprehensive pilot test used as a final check and fine tuning for all aspects of the survey.

*Drop and collect:* A survey questionnaire that is delivered to the household by mail or in person and collected in person once completed, usually a few days later.

*Epidemiology:* The study of the patterns and causes of health and diseases in populations, and the application of this study to improve health.

*Ex-drinker:* A person who had consumed a full serve of alcohol in their lifetime, but not in the last 12 months.

*Expert review:* Experienced survey developers compare candidate questions with existing questions, standard terms and concepts, and best practice, and ensure that all the questions will yield the desired outputs.

*Focus groups:* A facilitator explores with a group the range of issues that arise from a questionnaire or group of questions.

*Haemorrhage:* bleeding.

*Health:* Term relating to whether the body (which includes the mind) is in a good or bad state. With good health the state of the body and mind are such that a person feels and functions well, given their circumstances, and can continue to do so for as long as possible.

*Health outcome:* A change in the health of an individual or population due to a preventive or clinical intervention.

*Health status:* An individual's or population's overall level of health, taking account of various aspects such as life expectancy, amount of disability, levels of disease risk factors and so forth.

*High risk alcohol consumption:* A level of drinking at which there is substantial risk of serious harm, and above which risk continues to increase rapidly.

*Incidence:* The number of new cases (of an illness or event) occurring during a given period.

*Indicator:* A key statistic that indicates an aspect of population health status, health determinants, interventions, services or outcomes. Indicators are designed to help assess progress and performance, as a guide to decision making. They may have an indirect meaning as well as a direct one; for example, Australia's overall death rate is a direct measure of mortality but is often used as a major indicator of population health.

*Interviewer bias:* Possible influence on answers by the interviewer and inconsistent prompting or interpretation of responses.

*Long-term alcohol risk:* The level of risk associated with regular daily patterns of drinking, typically defined by the total amount of alcohol consumed per day or week.

*Low-risk alcohol consumption:* A level of drinking at which there is only minimal risk of harm, and for some the likelihood of benefits.

*Measurement error:* Arises from a poorly designed questionnaire that leads to inaccurate responses.

*Morbidity:* Refers to ill health in an individual and to levels of ill health in a population or group.

*Mortality:* Death.

*Non-response bias:* The respondents have on average different attributes from the non-respondents.

*Non-sampling error:* Arises through other aspects of the survey such as non-response bias, measurement error, interviewer bias, processing errors, incorrect analysis and other interpretations.

*Observational studies:* Examine how exposure and risk factors influence the probability of developing disease. There are three types of observational studies: cross-sectional (prevalence), cohort (longitudinal) and case-control.

*Outcome:* A health-related change due to a preventive or clinical intervention or service. The intervention may be single or multiple and the outcome may relate to a person, group or population or be partly or wholly due to the intervention.

*Per capita alcohol consumption:* The average amount of alcohol consumed per person aged 15 years and over.

*Pilot testing:* Implementation of the survey to a small sample and using all the procedures and materials intended for the main survey.

*Pre-testing:* Applying a number of techniques to develop the most robust questionnaire such as expert review, cognitive testing and focus groups.

*Prevalence:* The number or proportion (of cases, instances, etc.) present in a population at a given time.

*Prevention:* Action to reduce or eliminate the onset, causes, complications or recurrence of disease.

*Processing errors:* Errors in the stages of coding, data entry, editing and weighting.

*Reliability:* The stability of a measure applied by different observers at different places or at different times.

*Risk factor:* Any factor which represents a greater risk of a health disorder or other unwanted condition or event. Some risk factors are regarded as causes of disease, others are not necessarily so.

*Risky drinking:* Defines a level of drinking at which risk of harm is significantly increased beyond any possible benefits.

*Sampling error:* The difference between the result obtained from a sample and that which would be obtained from measuring the attribute in the whole population.

*Self-enumeration:* The respondent completes a questionnaire with little or no intervention from the interviewer.

*Short-term alcohol risk:* The risk of harm (particularly injury and death) in the short term, that is, associated with given levels of drinking on a single day.

*Simple random sample:* Each member of the population has an equal chance of being selected.

*Standard drink:* A standardised measure of alcohol content or consumption equal to 10 grams of ethanol (or 12.5 millilitres).

*Standard error (SE):* A measure of variability in a set of survey responses.

*Statistical significance:* An indication from a statistical test that an observed difference or association many be significant or 'real' because it is unlikely to be just due to chance. A statistical result is usually said to be 'significant' if it would occur by chance only once in twenty times or less often.

*Substance use disorders:* Result from harmful use and/or dependence on illicit or licit drugs, including alcohol, tobacco and prescription drugs.

*Suicide:* Deliberately ending one's own life.

*Systematic sample:* Systematic sampling involves choosing every nth person from a list and carries the potential for subtle error depending on the list.

*Validity:* Validity refers to the notion of agreement between a measure and the phenomenon or attribute being measured. Subcategories of validity are face, content, criterion and construct validity. Face validity is whether a measure makes sense or fits with our understanding of a concept. Content validity describes the extent to which a measure covers the range of meanings within a concept. Criterion-related validity (also known as predictive reliability) is based on an external criterion. Construct validity is based on the way a measure relates to other variables within a system of theoretical relationships.

*Wernicke-Korsakof Syndrome (thiamine deficiency):* A brain disorder involving loss of specific brain function as a result of thiamine deficiency.