6 Explanatory notes

The 2007 National Drug Strategy Household Survey is the ninth in a series which commenced in 1985. The Australian Institute of Health and Welfare (AIHW) was commissioned by the Australian Government Department of Health and Ageing to manage the 2007 survey. The AIHW was supported in this task by a Technical Advisory Group.

As in 2004, two survey modes (Drop and Collect, CATI) were used. In 2007 however, two companies were selected by competitive tender to do the field work. Roy Morgan Research was selected to administer the Drop and Collect component and The Social Research Centre was selected to administer the CATI component. Roy Morgan Research was also tasked with compilation and weighting of the final dataset.

The CATI component of the survey was conducted between July and November 2007, and the drop and collect component was conducted between July and October 2007.

Scope

The estimates for 2007 contained in this publication are based on information obtained from persons aged 12 years or older or 14 years or older (as specified) from the populations of all states and territories.

Methodology

Households were selected by a multistage, stratified area random sample design. Minimum sample sizes sufficient to return reliable strata estimates were allocated to states and territories, and the remainder distributed in proportion to population size.

Survey design

The survey employed two collection modes: drop and collect and the computer-assisted telephone interview (CATI). The sample was designed so that each method was implemented in separate census collection districts. For the drop and collect sample in country areas, the Statistical Local Area was selected for the first stage, rather than collection districts, as this had considerable efficiency benefits. Census collection districts could be selected only for the Drop and Collect survey component, outlined below.

Drop and collect

Data were collected from a national random selection of households, using self-completion booklets. Two attempts were made by the interviewer to personally collect the completed questionnaire; if collection was not possible at this time, a reply-paid pre-addressed envelope was provided. A reminder telephone call was made if necessary. The respondent was the household member aged 12 years or older whose birthday was next. The number of respondents who completed the survey from this sample was 19,818.

CATI

Data from computer-assisted telephone interviews were collected from a national random selection of households.

As in the drop and collect sample, the respondent was the household member aged 12 years or older whose birthday was next. The number of respondents who completed the survey from this sample was 3,538. Due to the practical limitations of the CATI method, some questions were omitted in this mode.

Not all respondents were asked all questions; the questionnaire at Appendix 5 provides a full description. Persons aged 12–15 years of age completed the survey with the consent of the adult responsible for the adolescent at the time of consent. A separate, shorter questionnaire was administered to 12–13-year-olds in order to minimise respondent burden.

Sample distribution

The over sampling of lesser populated states and territories, in order to return reliable estimates along with reasonable sampling variations, produced a sample which was not proportional to the state/territory distribution of the Australian population aged 12 years or older (Table 6.1).

Table 6.1: Comparison of sample and state/territory population distributions, by sex, 2007

	State/territory								
Population	**NSW**	**Vic**	**Qld**	**WA**	**SA**	**Tas**	**ACT**	**NT**	**Australia**
					(number)				
Males	2,870	2,072	1,845	1,103	867	506	477	491	**10,231**
Females	3,757	2,770	2,395	1,323	1,115	650	576	539	**13,125**
Persons	**6,627**	**4,842**	**4,240**	**2,426**	**1,982**	**1,156**	**1,053**	**1,030**	**23,356**
Distribution					(per cent)				
% of total sample	28.4	20.7	18.2	10.4	8.5	4.9	4.5	4.4	100.0
% of 2007 population aged 12 years and over	32.8	24.9	19.8	10.0	7.6	2.3	1.6	1.0	100.0

Source: ABS 2007.

Estimation procedures

Multistage editing and weighting procedures were applied to derive the estimates.

Editing

All open-ended questions were coded manually prior to scanning. The only fully open-ended questions related to occupation and industry. The Australian Standard Classification of Occupations and the Australian and New Zealand Standard Industry Classification were used for coding. Various scan and logic edits were applied to maximise data quality.

Weighting

The sample was designed to provide a random sample of households within each geographic stratum. Respondents within each stratum were assigned weights to overcome

imbalances arising in the design and execution of the sampling. Estimates in this publication are based on the weighted combined samples.

For questions that were not included in the CATI component, weights based on the drop and collect sample were used to calculate estimates.

Table 6.2: Comparison of the sample and estimated population distributions

	Sample			2007 estimated popultion		
Age group	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Population aged 14+			(per cent)			
14–19	3.2	3.6	6.8	5.1	4.9	10.0
20–29	5.2	7.3	12.4	8.6	8.4	17.0
30–39	7.1	10.9	18.0	8.8	8.9	17.6
40–49	7.3	9.2	16.5	8.8	8.9	17.7
50–59	7.6	9.4	17.0	7.7	7.7	15.4
60+	13.3	15.9	29.2	10.3	11.8	22.2
14+	**43.7**	**56.3**	**100.0**	**49.4**	**50.6**	**100.0**
Population aged 12+			(per cent)			
12–15	2.0	2.1	4.1	3.3	3.1	6.4
16–17	1.1	1.3	2.4	1.7	1.6	3.2
18–19	1.0	1.1	2.1	1.7	1.6	3.2
12–19	*5.2*	*5.0*	*5.2*	6.6	6.3	12.9
20+	39.5	51.5	91.0	42.8	44.3	87.1
12+	**43.5**	**56.5**	**100.0**	**49.4**	**50.6**	**100.0**

Source: ABS 2007.

Response rates

When compared with 2004, the 2007 survey achieved a slightly higher but comparable response rate (49.3%).

Table 6.3: Sample disposition and participation rates, by sample, 2007

Disposition	Drop & collect	CATI	Total
		(number)	
Original sample	55,515	28,163	83,678
Less out-of-scope households			
Not connected	n.a.	9,801	9,801
Not residential	1,041	2,390	3,431
Fax/modem	n.a.	1,863	1,863
Failed quota	n.a.	—	—
Other ineligible	88	71	159
Total	*1,129*	*14,125*	*15,254*
Eligible sample	54,386	14,038	68,424
Less those not contact after 3/6 attempts[(a)]	15,971	5,032	21,003
Eligible sample contacted	*38,415*	*9,006*	47,421
Less eligible respondents contacted but not available			
Refusals	8,635	4,316	12,951
Foreign	733	64	797
Incapacitated	280	482	762
Terminated	n.a.	72	72
Respondent unavailable	n.a.	534	534
Other non-response	1,974	—	1,974
Questionnaire not returned/unusable	6,975	—	6,975
Total	*18,597*	*5,468*	*24,065*
Completed	19,818	3,538	23,356
		(per cent)	
Participation rate	**51.6**	**39.3**	**49.3**

(a) Three attempts at drop and collect and six attempts at CATI.

Several strategies were used to minimise cases of non-contact and non-response by the originally selected respondent, including those below:

- fieldworkers conducted call backs at different times on different days
- strict protocols were applied to ensure that selected dwellings were fully attempted
- respondents were given a letter of introduction and support from the Director of the Australian Institute of Health and Welfare
- calling cards were left where appropriate
- two '1800' numbers were set up to answer queries, one to AIHW for questions about the confidentiality of the survey, and one to Roy Morgan Research for operational queries.

Reliability of estimates

Sampling error

As the estimates are based on a sample, they are subject to sampling variability (that is, the extent to which the sample-derived results vary from the results that would have been derived had a census/complete survey been undertaken). Estimates in this publication are considered reliable if the relative standard error (the ratio of the sampling error to the derived results or estimate) is less than 25%. Estimates between 25% and 50% should be interpreted with caution. Estimates with relative standard errors over 50% should be considered unreliable for most practical purposes. A table of standard errors and relative standard errors can be found in Appendix 2.

Non-sampling error

In addition to sampling errors, the estimates are subject to non-sampling errors. These can arise from errors in transcription of responses, errors in reporting of responses (for example, failure of respondents' memories), and the unwillingness of respondents to reveal their 'true' responses.

Counter balancing

The order in which multiple possible answers are presented can sometimes affect the likelihood of responses (the earlier a possible response in a list, the higher the likelihood that it will be selected). To overcome this tendency, possible responses were rotated within questions. There were three rotations for the drop and collect component; the CATI questionnaire was comprehensively auto-rotated during execution. Thus, there were more than four different questionnaires with identical sequencing of questions, but different orders of possible responses within. The copy in Appendix 5 is a rotation 1 version of the drop and collect questionnaire. The symbols in the questionnaire, the telephone and a group of three (young) people, indicate those questions asked via CATI and/or of 12–13-year-olds respectively.

Limitations of the data

Excluded from sampling were non-private dwellings (hotels, motels, boarding houses, etc.) and institutional settings (hospitals, nursing homes, other clinical settings such as drug and alcohol rehabilitation centres, prisons, military establishments and university halls of residence). Homeless persons were also excluded as well as the territories of Jervis Bay, Christmas Island and Cocos Island.

Illicit drug users, by definition, have committed illegal acts. They are, in part, marginalised and difficult to reach. Accordingly, estimates of illicit drug use and related behaviours are likely to be underestimates of actual practice.

Definitions

Definitions used in previous NDSHS surveys were retained for 2007. However, since the 1998 survey the descriptions of 'non-medical' and 'illicit' have been improved.

Recent smoker

A recent smoker was a person who had smoked 100 cigarettes (manufactured and/or roll-your-own) or the equivalent tobacco, and had not since permanently ceased smoking.

Ex-smoker

An ex-smoker was a person who had smoked at least 100 cigarettes (manufactured and/or roll-your-own) or the equivalent tobacco in their life, but reported no longer smoking.

Never smoked

A person who had not smoked 100 cigarettes (manufactured and/or roll-your-own) or the equivalent tobacco in their life, was deemed to have never smoked.

Recent drinker

A recent drinker was a person who consumed a full serve of alcohol in the last 12 months.

Ex-drinker

An ex-drinker was a person who had consumed a full serve of alcohol, but not in the past 12 months.

Never drinker

A never drinker was a person who had never had a full serve of alcohol.

Non-medical drug use

The definition used in the survey questionnaire and for this publication is:

1. either alone or with other drugs in order to induce or enhance a drug experience
2. for performance (e.g. athletic) enhancement
3. for cosmetic (e.g. body shaping) purposes.

This definition has been used since 1998; however, in 1995, 'non-medical use' was not defined in the questionnaire.

Illicit drugs

Illegal drugs, drugs and volatile substances used illicitly or inappropriately, and prescription or over-the-counter pharmaceuticals used for non-medical purposes.

The survey asked questions on the following illicit drugs:

- painkillers/analgesics*
- tranquillisers/sleeping pills*
- steroids*

- barbiturates*
- meth/amphetamine*
- marijuana/cannabis
- heroin
- methadone**
- buprenorphine**
- other opiates*
- cocaine
- LSD/synthetic hallucinogens
- ecstasy
- ketamine
- GHB
- (any) injected*.

* for non-medical purposes

** non-maintenance program

Recent illicit drug use

Use within the previous 12 months.

Ever used illicit drugs

Used at least once during a person's lifetime.

Comparability with previous surveys

The 2007 survey differs from the 1993, 1995, 1998, 2001 and 2004 surveys in several respects.

Methodology

- For the 1993 and 1995 surveys, a combination of personal interview and self-completion for the more sensitive issues, was collected nationally. Sample 1 of the 1998 survey was also collected nationally via this method. However, the similar component of the 2001 survey was collected only in capital cities. Personal interviews have not been included since 2001.
- The 2001 survey was the first to include a CATI component. The CATI questionnaire was a version of the drop and collect questionnaire, shortened to suit telephone methodology. CATI was conducted nationally, proportional to the population.
- In 2007, the field work was split between two companies, one completing the CATI component and the other completing the Drop and Collect component (as well as dataset preparation).

Sample

- In 1998, sample 2 targeted young people from capital cities in order to obtain more reliable estimates, in particular for illicit drugs. In 2001, the overall sample size was more

than double that of 1998, eliminating the need for a targeted sample. However, as requested and funded by the Western Australian Department of Health, additional respondents aged 14–34 years were selected from metropolitan Perth. In 2004, the 12–17 years age group was boosted via CATI in all jurisdictions; and as requested and funded by the Queensland Health Department, additional respondents aged 12–29 years were selected via the drop and collect method from Queensland. In 2007, no jurisdictions purchased a supplemental sample.

- In 1998, samples 1 and 2 were drawn from the same household, whereas for the 1993, 1995, 2001 and 2004 surveys only one respondent per household was selected.

Questionnaire

- Since 2001, the survey has included an expanded section on tobacco. Type of cigarette smoked was asked—manufactured or 'roll-your-own'. Importantly, there was no upper limit on the reporting of the number of cigarettes smoked. There were also questions on unbranded loose tobacco, otherwise known as 'chop-chop'.
- Since 2004, questions relating to attitudes to tobacco cessation have been included.
- A new section on opiates other than heroin and methadone (e.g. morphine and pethidine) was included in 2001 and retained in 2004 and 2007. Methadone was introduced as a separate category in 1998; thus, data on methadone use are not available for the 1993 and 1995 surveys. Buprenorphine was included with methadone in 2007—'methadone or buprenorphine'.
- Questions relating to heroin overdoses were included only in the 1998 survey.
- The 1995 survey included three questions on personal health, whereas the 1998 survey used the SF-36 instrument to assess personal health. Based on an analysis of the 1998 data, the SF-36 was not included in the 2001 survey. This latter survey included five questions on personal health. A question on self-assessed health was consistent for the three most recent surveys. The 2004 and 2007 surveys have included the Kessler 10 Scale of Psychological Distress and questions about diagnosis and treatment of selected health conditions.
- The 2004 and 2007 surveys included new sections on use of GHB and ketamine; thus, data about these substances are not available for the 1993, 1998 and 2001 surveys.
- In 2004 and 2007, the section on barbiturates was reduced to seven questions and the hallucinogens section was clarified.
- In 2004 and 2007, questions relating to meth/amphetamine use were refined to more accurately reflect substances used in Australia.
- In 2001, new questions related to drugs consumed during pregnancy and breastfeeding in the past 12 months were included. These were refined in 2004 and also included in 2007.
- The alcohol section was restructured and expanded in the 2001 survey. In previous surveys there were gender-specific questions on alcohol consumption. In 2001, however, both genders answered the same questions and gave a detailed report of the previous day's alcohol consumption. Since 2004, respondents were also able to indicate consumption of less than one standard drink or no standard drinks on given days.
- The 2007 questionnaire included a 'fake' drug with a view to validating the survey instrument. Initial analysis suggests that very few (half a dozen) respondents nominated

it as a drug they had used. Among these few respondents, various subsequent responses were made, suggesting that none were sky-larking.

- Since 2001, the survey has included new alcohol consumption questions which enabled estimations of the population at risk of harm in the long and short term using the NHMRC (2001) Australian alcohol guidelines.
- Since 2004, the question relating to quantity and types of alcohol consumed yesterday was expanded to include a wider variety of types and sizes of alcohol containers, and a new question relating to awareness of the Australian alcohol guidelines was introduced.
- Since 1998, the term 'non-medical purposes' has been explained to respondents.
- In 1998, questions on drug use were in grid layout formats; however, in 2001 they were returned to the 1995 and 1993 format of questions (separated into sections for each drug type). In 2001, questions relating to where drugs were first obtained and age last used were omitted and in 2004 and 2007 they were reintroduced for most substances.
- The section relating to alcohol- and drug-related incidents varied in size between surveys. In 2007, more detailed questions on injury were added.
- The 1998 and 1995 surveys included sections on regulations relating to cannabis use. In the 2001 and subsequent surveys, this section was expanded to include heroin, ecstasy and meth/amphetamine; however, the number of questions was reduced.
- In 2004, minor changes were made to some questions in the demographics section of the questionnaire, and these were retained in 2007.
- The mix of open-ended and forced-choice questions varied between surveys.

Fieldwork

- Since 2001, the survey was conducted between June/July and November, compared with between June and September in 1998 and 1995, and between March and April in 1993.
- The 2007 Census was 'in the field' at the same time as the 2007 survey but the extent of any cross-effect is unknown.

This list comprises several of the major changes between versions of the surveys. Please see the relevant questionnaires to determine the full extent of changes made.

Interpretation of results

The exclusion of persons from dwellings and institutional settings described in 'Limitations of the data' above, and the difficulty in reaching marginalised persons, are likely to have affected estimates.

It is known from past studies of alcohol and tobacco consumption that respondents tend to underestimate actual consumption levels. There are no equivalent data on the tendencies for under- or over-reporting of actual illicit drug use. Anecdotal data, however, suggest that younger persons may overestimate actual consumption of these drugs.