

National Drug Strategy Household Survey 2007

TECHNICAL REPORT

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- Prepared for -

**Australian Institute of Health and Welfare
Department of Health and Ageing**

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EXECUTIVE SUMMARY

Overview

This is a report on the conduct of the Drop and Collect component of the National Drug Strategy Household Survey for 2007, which was managed by the Australian Institute of Health and Welfare on behalf of the Department of Health and Ageing, and conducted by Roy Morgan Research. The 2007 Survey, which was the ninth in a series, provides data about awareness, attitudes and behaviour relating to drug use, including alcohol and tobacco as well as illicit drugs.

This was the third survey to be fully conducted under the AIHW legislation, which provided a very high level of protection to the personal information being collected.

The 2007 Survey utilised self completion (Drop & Collect) and Computer Assisted Telephone Interviewing (CATI) methodologies as adopted in past surveys. The CATI interviewing was conducted by a second consultant, the Social Research Centre. The Drop & Collect methodology was conducted by Roy Morgan Research from 19 June to 23 October 2007. Responses returned by reply paid envelopes were accepted until 28 October 2007. Data from a total of 23,356 respondents (19,818 from the Drop and Collect component and 3,538 from the CATI component) are included in the final results.

This document reports on the Technical Details of the Drop & Collect methodology.

Sample

A multi-stage stratified random sample design was used. The sample was stratified by region (15 strata in total - Capital City and rest of State, with the ACT operating as one stratum) in line with the Institute's requirements, and included over-sampling in some States and Territories. All respondents were aged 12 and over. Parental or guardian permission was sought for those respondents aged 12 to 15. In each household the selected respondent was the person aged 12 and over with the next birthday.

A total of 19,818 complete and useable questionnaires were obtained using the self-completion Drop & Collect method.

Roy Morgan Research employed a number of strategies in order to minimise cases of non-contact and non-response by the originally selected respondent, including multiple call-backs, a reminder telephone call, and the use of reply paid envelopes.

A letter from the Director of the Australian Institute of Health & Welfare was handed out at all households contacted for the Drop & Collect method. The letter assured potential respondents of the survey's legitimacy and confidentiality, and included the 1800 number that was set up and managed by the Australian Institute of Health and Welfare to deal with respondent concerns and queries, as well as the 1800 number managed by Roy Morgan Research.

Given the sensitive nature of the research, it was of the utmost importance to ensure respondents of the confidentiality of their responses. Respondents were asked to seal their questionnaires in envelopes prior to handing them to the Roy Morgan Research fieldworker, providing further reassurance that their answers would remain confidential.

Questionnaire Development and Testing

The questionnaire included both questions about general attitudes to drugs and more sensitive questions about personal drug usage. The questionnaire was closely based on the 2004 questionnaire, with various additions and deletions. On the whole, the 2007 questionnaire was of a similar length to the 2004 questionnaire. Respondents aged 12-13 were asked a shorter version of the Drop & Collect questionnaire.

Pilot testing of the questionnaires was conducted from 11 – 26 April 2007, and included cognitive testing amongst former drug users, and also members of the general public. Following the pilot, a number of amendments were discussed with the Institute and made to the questionnaires over the ensuing weeks, followed by finalisation of the three rotations of the Drop & Collect questionnaire.

Fieldwork

A total of 270 Drop & Collect interviewers took part nationally, many drawn from Roy Morgan Research's large interviewing teams and some hired by Roy Morgan Research especially to conduct this survey.

All fieldworkers working on the survey were required to sign confidentiality agreements and carry Roy Morgan Research identification at all times while in the field.

Before commencing work on the survey, fieldworkers participated in a survey-specific training session. These were held in all capital cities and many regional centres and were conducted by Roy Morgan Research project staff. Additional fieldworker briefing sessions were conducted in various States throughout the course of the survey fieldwork. In cases where it was cost prohibitive for fieldworkers to attend a briefing (for instance, those fieldworkers who lived in more remote country areas), briefing was conducted over the telephone and by mail.

On the last page of the questionnaire Drop & Collect respondents were asked whether they would mind being recontacted for verification and 10% of those who agreed were then randomly selected to be called back. Respondents were asked a small set of general questions about their participation in the survey.

Data Processing

Roy Morgan Research undertook coding of the Drop and Collect questionnaires in the Melbourne Head Office in accordance with the Institute's requirements. Following coding and checking, Roy Morgan Research scanned questionnaires using a combination of OMR (optical mark recognition) and OCR (optical character recognition) technology. Verification of the scanned OCR images ensured the lowest possible error rate.

As part of the scanning process, images of all the scanned questionnaires were stored in an *Alchemy* database. As a result, when data analysts came across cases of dubious, misleading or inconsistent data they were able to refer to the actual scanned image of the questionnaire as filled in by the respondent or interviewer in order to help resolve the treatment of the data.

Cleaning and editing of the raw data file was completed by Roy Morgan Research. Extensive sets of edits and logic checks were agreed with the Institute and were implemented by Roy Morgan Research. The CATI consultant was responsible for applying edit and logic checks to the CATI data consistent with those applied by Roy Morgan Research.

Weighting

An approach for the final weighting was developed and agreed with the Institute. The details on this approach are outlined later in this report.

Response Rates and Contact Rates

Drop & Collect

The final response rate for the Drop & Collect approach was 54% (i.e. complete useable questionnaires as a percentage of in-scope households contacted).

Contact was attempted with a total of 55,515 households Australia-wide for the Drop & Collect method, of which 54,386 proved to be in-scope. Contact was achieved with 36,698 in-scope households (67%). Questionnaires were successfully placed at 26,793 (48%) of households at which contact was attempted (or 73% of in-scope households at which contact was made).

While a high proportion of the questionnaires dropped off were returned (85%), many of these were deemed unusable as they were either totally blank or missing essential information. Of the total of 22,880 questionnaires returned, blanks accounted for 10% and those either missing essential information or otherwise too badly completed to be relied upon accounted for 3%.

Therefore, 74% of households that accepted a questionnaire returned it completed and useable. This proportion ranged from 68% in the Northern Territory to 80% in the ACT. The total number of completed, useable, questionnaires was 19,818 for the Drop and Collect sample.

Overall, contact was made with 36,698 in-scope households selected for the Drop & Collect sample, of which, the total of 19,818 complete and useable questionnaires represented 54%.

Discussion

In summary, Drop & Collect return rates were higher than expected, even allowing for the rate of blanks and unusables. The final response rate was slightly higher than the high rate experienced in 2004.

Final response rate for Drop and Collect Component of 2007 NDSH Survey

	Drop & Collect
Interviewed/self-completed	54.0%
Refused, did not return questionnaire	34.2%
Unavailable, sent back unusable	8.3%
No English, incapable	2.0%
Other	1.5%
Total attempts (in-scope contacts)	100%

On this basis, (completed interviews as a proportion of total in-scope contacts) the overall response rate for the Drop and Collect component of the survey was 54% (compared to 48% for this component in 2004).

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- Appendix 1: Design Effect, Standard Error and Effective Sample Size Estimates for Key Variables (All samples combined, plus Drop & Collect and CATI separately)
- Appendix 2: CATI Weighting Effects
- Appendix 3: Summary Table of Effective Sample Sizes
- Appendix 4: Results of Inter-Sample Reliability Tests
- Appendix 5: Average Weights by Age/Sex/State (All samples combined)
- Appendix 6: Overview of Responses to Audit Calls
- Appendix 7: Audit Questionnaire
- Appendix 8: Drop & Collect Screening Questionnaire

1. INTRODUCTION

The Australian Institute of Health and Welfare on behalf of the Australian Government Department of Health and Ageing engaged Roy Morgan Research to conduct the Drop & Collect component of the National Drug Strategy Household Survey for 2007.

The main objective of the Survey was to collect data about awareness, attitudes and behaviour relating to drug use, including licit drugs such as alcohol and tobacco as well as illicit drugs.

The 2007 survey was the ninth in a series. In 1988, 1991, 1993 and 1995, data were collected via personal interview (including a self-completion section). The 1998 survey, as well as utilising the personal interview and self-completion methodology also included respondents who were surveyed solely via a self-completion questionnaire (administered drop and collect style, like the Census). For the 2001 survey both methods were again used (the Drop & Collect method accounting for the vast majority of respondents), and in addition a CATI method (Computer Assisted Telephone Interviewing) was also introduced. However, in 2004 and 2007 only the Drop & Collect (D&C) and CATI methods were employed. The CATI component of the 2007 survey was carried out by a second consultant, the Social Research Centre.

As in 2001 and 2004, the survey was fully conducted as an AIHW function under the *Australian Institute of Health and Welfare Act 1987*, which means by law the AIHW will not and can not release information about individuals collected in the survey.

The Drop & Collect methodology was conducted from 19 June to 23 October 2007. Responses returned by reply paid envelopes were accepted until 28 October 2007. The bulk of the survey was conducted during July, August and September, with the fieldwork in October mainly taking place in Victoria and Western Australia. This was a slightly different time frame to 2001 and 2004, where the bulk of the interviewing was conducted in August, September and October. In other previous surveys, most of the fieldwork had been conducted somewhat earlier in the year: July and August in 1998, May and June in 1995, and March and April in most waves prior to the 1995 survey.

2. SURVEY METHODOLOGY

Two separate samples were collected, each utilising a different methodology. Amongst the reasons the different methodologies were employed was the need to test the data quality and value for money attained through an entirely self-completion questionnaire versus a telephone interview.

The self-completion methodology was shown in 2004, 2001 and 1998 to be a successful and cost-effective approach, and therefore again comprised the vast majority of interviews in 2007.

As far as possible, the questionnaires for both methods were identical except for amendments that were essential for the different methods, and the fact that some questions were removed from the CATI survey to keep it close to the intended length of 30 minutes. A shorter questionnaire was printed (in the case of the Drop & Collect) for 12-13 year olds.

2.1 Drop & Collect

Drop & Collect questionnaires were completed both in capital cities and country areas, nationally. Questionnaires were left with respondents to complete in their own time. Fieldworkers attempted to speak directly to the selected respondent when calling at a selected dwelling. If successful, the fieldworker left the questionnaire with the selected respondent to be collected later. If the selected respondent was unavailable, the fieldworker left the questionnaire with the person answering the door. Clear instructions were given to the person answering the door as to who was the selected respondent, and therefore who should fill out the questionnaire. Interviewers were able to make at least two attempts to personally pick up the completed questionnaire, and for the first time in 2007 were able to make a reminder telephone call, before leaving a reply-paid envelope.

The selected respondent was the person aged 12 or over whose birthday next occurred in the household.

A total of 19,818 useable Drop & Collect questionnaires were completed Australia wide. This is significantly higher than the target (or intended) sample of 18,000.

2.2 General Field Procedures

2.2.1 Maximising Response Rates

In consultation with the Institute Roy Morgan Research developed and employed a number of strategies in order to minimise cases of non-contact and non-response by the originally selected respondent including:

- having fieldworkers conduct call backs at different times on different days;
- adopting strict protocols to ensure that attempted dwellings were fully attempted;
- handing a letter of introduction from the Director of AIHW;
- handing a list of frequently asked questions; and
- leaving calling cards where appropriate.

Three attempts were made to establish contact with households selected for the Drop & Collect sample. Once contact had been made with a Drop & Collect household and a questionnaire had been accepted, one attempt was made to pick up the completed questionnaire, on a day agreed to by both the fieldworker and respondent. If the fieldworker was unable to collect it on the specified day (e.g. it was not yet completed, no one was at home etc), a time was arranged for a second pick-up attempt to be made. In many cases the interviewer was also able to make a phone call to the selected respondent before the second pick-up attempt, to remind them that they would be returning to pick up the questionnaire. If they were still unable to pick up the questionnaire after two in-person attempts and one phone call, a reply paid envelope was left for the respondent to mail the completed questionnaire back to Roy Morgan Research.

The letter from the AIHW assured potential respondents of the survey's legitimacy and confidentiality, and included information about a 1800 number that was set up and managed by the Australian Institute of Health and Welfare to deal with respondent concerns and queries (particularly about privacy and the use of the data that was being collected). An alternative 1800 number was also established for Roy Morgan Research, which predominantly handled enquiries about the conduct of the survey, and the return of questionnaires.

2.2.2 Ensuring Confidentiality

Given the sensitive nature of the research, it was of the utmost importance to assure respondents of the confidentiality of their responses. In addition to the letter from the AIHW, notes emphasising confidentiality and making reference to the AIHW legislation, were shown at key stages of the questionnaires. Respondents were also asked to seal their questionnaires in envelopes prior to handing them to the Roy Morgan Research fieldworker, providing further reassurance that their answers would remain confidential.

2.2.3 Screening Households for the Selected Respondent

Once contact had been made with a selected household, a respondent was selected according to pre-determined criteria. To aid Drop & Collect fieldworkers in this process, a separate screening questionnaire was developed. A copy of this questionnaire is contained in Appendix 8.

For the Drop and Collect component, the selected respondent was the person in the household aged 12 or over whose birthday next occurred. In cases where the selected respondent was aged 12-15, the fieldworker was required to seek permission from the adult aged 18 or over who was responsible for the household at the time. The responsible adult was then required to sign the screener questionnaire to indicate that permission had been granted. The relationship of the person granting the permission was also recorded.

3. SAMPLE DESIGN

The sampling units for the Drop & Collect component of the 2007 National Drug Strategy Household Survey were residential households. Eligible households were those containing at least one person aged 12 or over.

A multi-stage stratified random sample design was used for this component of the Survey. The sample was stratified by region in line with requirements of the Institute, and the numbers of interviews to be carried out per stratum were determined by negotiations between the Institute and interested parties in the States and Territories. The result was a sample in which the number of interviews per region was not in proportion to population – the sample sizes in the smaller States and the Territories were significantly boosted. The result, as intended, is that the precision of State-specific estimates is generally higher and the precision of national estimates is generally lower than would have been obtained with a proportionate sample of comparable overall size.

3.1 Key Parameters

The sample design aimed to achieve 18,000 completed Drop & Collect questionnaires, in total.

- It was a requirement of the Institute that oversampling be conducted in Tasmania, the ACT and the NT such that the total targeted number of interviews in each of these areas was 800.
- The sample size allocated to WA and SA was the proportion of 18,000 which reflected that State's respective share of population.
- The remaining sample was allocated between the other 3 States (NSW, Victoria and Queensland) in proportion to population.
- It may be considered that there were 15 strata for this survey: the ACT was one stratum, each other jurisdiction comprised two strata – one being the Capital City and the other being the Rest of State.
- As part of the sample design for the Drop & Collect method in country areas, an SLA selection stage was agreed to be used as its cost benefits were significant.
- Within Capital Cities, an SLA selection stage was not used as its cost benefits would have been minimal and the additional clustering effect may have been significant.

3.2 Calculation of Target Sample Sizes

To determine target (or intended) sample sizes for particular collection methods for particular strata:

1. A total sample of 800 was allocated to each of Tasmania, ACT and NT.
2. For WA and SA their total sample was set as 18,000 x that State's share of population.
3. The remainder to be split between NSW, VIC and QLD was determined by subtracting the samples allocated to ACT, NT, TAS, SA and WA from 18,000. This remainder was apportioned between each of NSW, VIC and QLD according to share of population.
4. Within each State/Territory, that jurisdiction's sample was apportioned between Capital City and Rest of State proportional to population, (using Statistical Division as the definition of Capital City)

3.3 Drawing Sample

3.3.1 Drop & Collect Component – Capital Cities

1. The number of Drop & Collect interviews to be conducted in each Capital City stratum was determined as described in Section 3.2 above.
2. The number of CCDs required in each stratum was determined on the basis of an anticipated average of 12 complete/useable questionnaires per CCD.
3. The CCDs were selected with probability proportional to the number of private households at the 2001 Census. CCDs were sorted in numerical (i.e. arbitrary or quasi-random) order within each relevant stratum and selected systematically (constant-interval method).

3.3.2 The Drop & Collect Component – Rest of State

4. The number of Drop & Collect interviews to be conducted in each Rest of State stratum was determined as described in Section 3.2.
5. The number of CCDs required in each stratum was determined on the basis of an anticipated average of 12 complete/useable questionnaires per CCD.
6. The number of SLAs to be used per Rest of State stratum was determined on a case-by-case basis as the average population size of SLAs varies considerably from State to State.
7. SLAs for each stratum were selected with probability proportional to the number of households at the 2001 Census.

8. From within each selected SLA, CCDs were selected with probability proportional to the number of private households at the 2001 Census.
9. If a CCD was selected which required an interviewer to complete more than a 300km round trip to conduct the interviews, this CCD could be replaced and CATI sample would be permitted from this CCD (in the same way as if it had not been drawn). The replacement CCD would be drawn from the same SLA where possible.

3.3.3 Picking Starting Addresses for each Drop & Collect cluster

10. From available address listings, an address was randomly picked from within each selected CCD. This house was not interviewed at; rather the house next door formed the start of each interviewer's workload.
11. Interviewers then followed a comprehensive set of rules for the selection of dwellings at which interviews were to be sought, designed to remove any element of discretion from the fieldworkers themselves. The rules covered such matters as: eligible and ineligible addresses; skip intervals; dealing with blocks of flats and units; etc.

3.4 Sample Achieved

The following table outlines the number of completed questionnaires for the Drop & Collect component by region. While higher numbers were returned, the numbers shown below reflect those questionnaires deemed to be useable following checking and editing.

Number of Completed Questionnaires by Region

Region	Drop & Collect
Sydney	3,431
Other NSW	2,168
Melbourne	2,913
Other VIC	1,236
Brisbane	1,627
Other QLD	2,019
Adelaide	1,179
Other SA	441
Perth	1,469
Other WA	556
Hobart	419
Other TAS	537
Darwin	420
Other NT	412
ACT	991
TOTAL	19,818

4. QUESTIONNAIRE DESIGN AND PILOT TESTING

4.1 Questionnaire Design

The questionnaires were developed in close consultation with researchers from the Australian Institute of Health and Welfare, as well as Roy Morgan Research specialists in questionnaire design, door-to-door interviewing, data analysis and output.

The issues covered on the Drop & Collect and the CATI questionnaires were very similar. The CATI questionnaire was a shorter version of the Drop & Collect questionnaire, with certain agreed questions excluded to reduce the questionnaire length to suit a telephone methodology. Questions were also asked slightly differently (as the questions were read out and certain lists had to be read out where they usually would have been read by the respondent in the Drop & Collect). A separate, shorter questionnaire booklet was developed for 12-13 year olds.

In essence, the questionnaires included questions about both general attitudes to drugs and more sensitive questions about personal drug usage. They were modelled on the 2004 questionnaire, although significant changes were made in a number of areas.

The major additions, changes or deletions to the questionnaire since the 2004 survey included:

- Section A was reduced in size, with the alcohol and tobacco-related questions moved into the relevant sections. X3 (approval or disapproval of regular drug use by an adult) became A4, and the answer categories were expanded.
- Questions on the health effects of tobacco (previously A17 and A18) were removed
- Injury questions from 2004 (C2 and C3) were removed, with a new series added in Section Y.
- Section B (Regulations relating to drug use) was disbanded, with the component questions moved to the relevant sections on illicit drugs.
- Questions regarding the proportion of friends or acquaintances that took specific drugs (formerly the first question in each section) were collated in one question (C3).
- A question was included on 'where usually obtained' for each drug type measured including alcohol and tobacco (e.g. D12, F9b).
- A question was included at the start most sections from F to V asking "Have you ever used ... ?" with the intention of clarifying the difference between use and non-medical use.

- Additional questions were included in the section on Marijuana dealing with the amount and cost of marijuana purchased by the respondent.
- “Methadone” was renamed to “Methadone or Buprenorphine” throughout the entire questionnaire.
- The street names MDDA, MDEA and Eve were included for Ecstasy.
- The street names 1,4B and GBL were included for GHB.
- The street names amyl and bulbs were included for Inhalants.
- A section on "Zanthanols" was added (a non-existent drug). This section was intended to be used as a quality check on responses. Though it was not specifically intended, the inclusion of this section also served as a useful quality check on the scanning process and application of logic edits
- “Methamphetamines/Amphetamines (Speed)” were renamed as “Meth/amphetamine” throughout the entire questionnaire. The street names speed/base/gas/tina/paste were added, and the street name eve was removed for “Meth/amphetamine”.
- Section YY (the questions on Policy Support) was reordered to make the flow more logical.
- “Ecstasy” added to the questions regarding legalisation of drugs, and penalties for drug use.
- The income brackets at the income questions (ZZ15 and ZZ16) were modified, with specifically tailored categories used for the 12 – 13 questionnaire.

In addition, the Drop & Collect questionnaire had three rotations. The answer places for a number of questions were rotated in logical groups, where possible, following consultation with the Institute. The answer places in CATI questionnaire were to be randomly rotated at these questions.

4.1.1 Some Questionnaire Issues for Future Surveys

In 2007 a number of questionnaire modifications were put in place to address one of the issues raised in 2004 (namely that some respondents were not taking into consideration the term “for non-medical purposes”). New questions were asked at the start of six sections (Painkillers/Analgesics, Tranquillisers/Sleeping Pills, Barbiturates, Steroids, Methadone or Buprenorphine, and Other Opiates/Opioids) so that a clearer distinction between “use” and “non-medical use” could be established in respondents’ minds and in the data. A more detailed explanation of the term “for non-medical purposes” was included at the beginning of the questionnaire and on the Standard Drinks/Information Card.

The extent to which this additional question helped improve the data will presumably be the subject of further investigation by the Institute. However, an initial view of the results suggests that the effect was beneficial, at least for some of these drugs, in reducing over-inclusion in the subsequent “non-medical” question, and also in slightly reducing the differences between the CATI and Drop and Collect results. Significant differences were still apparent between the CATI and Drop and Collect results for some of these drugs (particularly Other Opiates/Opioids). This may be due in a large part to the inherent differences between the two data collection processes. For example, in a telephone interview the examples given for Other Opiates/Opioids (morphine and pethidine) are the last thing the respondent hears before they answer the question – whereas in the Drop and Collect methodology it is easier for the respondent to skim over both the term “for non-medical purposes” and the examples of the drugs.

This was the first year that two consultants played a role in the data collection. Despite considerable checking, there were a small number of cases where the two questionnaires varied from each other in ways that had not been intended. If this situation (involving two separate consultants) occurs again in the future then additional quality checks (to ensure direct comparability between the CATI and Drop and Collect questionnaires) will be essential. Responsibility for this checking process would also need to be clearly established.

4.1.2 Zanthanols

The section on Zanthanols was included with the intention of using it as an additional quality check on the data. As the drugs type “Zanthanols” does not exist, the questionnaires of respondents that answered that they had tried this drug were subject to extra scrutiny. In the unweighted D&C component, only 7 respondents indicated that they had ever tried Zanthanols. Visual checks of the remainder of these respondents questionnaires suggested that the remainder of their data was still valid. It is possible that these respondents believed that Zanthanols were a type of prescription drug, and therefore honestly believed that they had tried the drug.

Though it was not intended, the Zanthanols section also served as a useful check on the operation of the logic edits and the scanning process.

4.2 Pilot Testing

The Drop & Collect methodology was piloted amongst the general public and with a group of specially recruited former drug users.

Amongst the general public, 70 completed pilot interviews were sought. A total of 73 completed pilot surveys and 7 partially completed surveys were obtained. Interviews were conducted in various areas around Melbourne and country Victoria by experienced Roy Morgan Research fieldworkers.

Cognitive testing of the Drop & Collect questionnaires was also conducted among six specially recruited former drugs users on 25th March at Odyssey House, Lower Plenty, Melbourne. Cognitive testing of 4 members of the general public aged 23 – 37 was also conducted at Roy Morgan Research’s Head Office in Melbourne. In-depth discussions took place afterwards with the respondents and Roy Morgan Research’s project management team.

This cognitive testing element of the pilot focused on the questionnaire rather than sampling or respondent selection issues.

Pilot testing interviews were completed in the following proportions:

Method	Cognitive Testing (former drugs users, and general public)	Pilot Interviews General Public	TOTAL
Drop & Collect	10	80	90

One team of interviewers was briefed and subsequently de-briefed as part of the pilot. All fieldworkers and project staff participated in the debriefing sessions. The dates of the sessions are detailed below.

Method	Briefing	Debriefing	No. of Interviewers
Drop & Collect	April 11 2007	April 24 2007	6

The general outcome of the debriefing sessions was that the questionnaires were generally well accepted and that the field procedures seemed to work satisfactorily. Following the pilot, a number of amendments were discussed with the Institute and made to the questionnaires over the ensuing weeks, followed by finalisation of the three rotations of each questionnaire for the Drop & Collect.

4.3 Printing of Questionnaires

Scannable questionnaires were printed by BlueStar Printing. All other documents were printed in-house at Roy Morgan Research, and were delivered to BlueStar Printing for collation by Roy Morgan Research staff at that site.

Three rotations of each questionnaire (Respondents aged 14+, and Respondents aged 12-13) were printed, resulting in a total of 6 different booklets. Each of these rotations was also printed in a different colour. In order to allow for non-return of questionnaires, briefing and training etc 33,000 questionnaire booklets were printed as follows:

Questionnaire Booklet Type	Rotation 1	Rotation 2	Rotation 3	Total
Drop & Collect (Respondents aged 14+)	10,000	10,000	10,000	30,000
Drop & Collect (Respondents aged 12-13)	1,000	1,000	1,000	3,000
TOTAL				33,000

5. INTERVIEWING

5.1 Recruitment

A total of 270 Drop & Collect fieldworkers took part in the 2007 National Drug Strategy Household Survey. Most of these interviewers were drawn from Roy Morgan Research's large Ad-Hoc/Establishment Survey (face-to-face omnibus) interviewing team, while in certain specific areas, interviewers were engaged by Roy Morgan Research especially to conduct this survey. The geographic spread of the interviewers is detailed below:

Region	TOTAL
Queensland	75
NSW	60
ACT	11
Victoria	54
Tasmania	13
Northern Territory	10
South Australia	20
Western Australia	27
TOTAL	270

5.2 Training

Before commencing work on the survey, fieldworkers for the Drop & Collect approach participated in a survey-specific training session. These were held in all capital cities (Melbourne, Sydney, Brisbane, Canberra, Adelaide, Perth, Darwin and Hobart) as well as regional areas in various states. The locations are outlined below:

State	Location	State	Location
Victoria	Melbourne	Queensland	Brisbane
	Shepparton		Sunshine Coast
	Geelong		Toowoomba
	Ballarat		Cairns
	Benalla		Townsville
			Maryborough
New South Wales	Sydney		Bundaberg
	Newcastle		Gladstone
	Lismore		Rockhampton
	Wollongong		Proserpine
	Taree		Mackay
	Wagga Wagga		Gold Coast
Tasmania	Hobart		South Australia
	Launceston	Port Augusta	
		Mount Gambier	
ACT	Canberra	Northern Territory	Darwin
Western Australia	Perth		Katherine
	Mandurah		Alice Springs

There were also 8 cases where it was cost prohibitive for fieldworkers to attend a briefing (for instance, those fieldworkers that lived in more remote country areas) – for these eight interviewers, briefing was conducted over the telephone and by mail.

Roy Morgan Research field management staff were also available to answer any queries throughout fieldwork. Once sent in, each workload was checked and any problems referred back to the fieldworker immediately.

The initial training sessions took place between 18th - 29th June 2007. Roy Morgan Research project staff and field management staff conducted the sessions. Representatives from the Institute were invited to attend where possible if they wished. Training lasted approximately four hours and covered the following areas:

- **Background/ Objectives/ Purpose of the Study**

Including a history of the survey, who commissioned the research, why the research is being conducted and an overview of the methodology being employed by Roy Morgan Research.

- **Field Procedures and Sample Management**

Including confidentiality, household selection, respondent screening, contact and call back procedures, delivering and collecting questionnaires.

- **Questions and Feedback**

Throughout the course of all briefings fieldworkers were encouraged to ask questions on difficult areas and provide feedback.

All fieldworkers working on the Drop and Collect component of the survey were required to sign confidentiality agreements, under Section 29 of the *AIHW Act*, and wear Roy Morgan Research identification at all times while in the field.

5.3 Interviewer Auditing

All Roy Morgan Research fieldworkers are accustomed to working under very strict controls, and understand the need for adherence to all specified contact procedures, callback procedures and reporting.

Respondents were asked whether they would mind being recontacted for verification and 10% of those who agreed were then randomly selected to be called back. Respondents who were recontacted were asked very general questions covering the following areas:

- Whether respondent remembers taking part in the survey;
- Selection procedures (ensuring that the fieldworker had selected the correct person in the household i.e. the person in the house who was to have the next birthday at that time);
- Whether they were handed the AIHW's approach letter;
- Whether they received an envelope in which to seal their completed questionnaire;
- The amount of time the questionnaire took to complete; and
- Whether they had any general comments to make.

An overview of the general comments made by a random sample of 340 respondents Australia wide during the audit is shown in Appendix Six. The main comments made focussed on the interesting and informative nature of the survey and the professionalism/manner of the interviewers. A copy of the audit questionnaire is attached as Appendix Seven.

5.4 Australian Institute of Health and Welfare 1800 Line

A 1800 free call line was set up by the AIHW and monitored seven days a week. This helpline was designed to deal with queries such as privacy concerns, concerns about the way the collected information will be handled, and questions about particular components of the survey. 20 calls were received on this line, which was significantly lower than the 348 calls received on the equivalent number in 2004. However, we suggest that this is primarily due to the operation of a separate 1800 number for Roy Morgan Research, rather than any actual reduction in the number of enquiries made.

5.5 Roy Morgan Research 1800 Line

An additional 1800 free call line was set up and maintained by Roy Morgan Research, and monitored during business hours. This hotline was designed to deal with questions about the conduct of the survey (such as the return of completed questionnaires, interviewer conduct, or the auditing process). Over 300 calls were received on this line, with a peak of 3 to 4 calls received a day during the main fieldwork period.

Issues raised by respondents included fieldworkers not returning at the specified time to collect completed questionnaires, and field procedures not being correctly followed. All the Drop & Collect issues were followed up immediately with the interviewer involved by senior Roy Morgan Research field supervisory staff.

6. DATA PROCESSING AND ANALYSIS

6.1 Coding

Roy Morgan Research undertook coding of the Drop & Collect questionnaires in the Melbourne Head Office in accordance with the requirements of the Institute.

Occupation and Industry comprised the only fully open-ended questions. ASCO (Australian Standard Classification of Occupations) and ANZSIC (Australia and New Zealand Standard Industry Classification) coding was also undertaken. ASCO coding was undertaken to four digits (using the 1996 ASCO codes), while ANZSIC coding was to 2 digits (using the 2006 ANZSIC codes).

The joint decision was made between Roy Morgan Research and the AIHW to undertake occupation coding to the 1996 ASCO codes rather than the recently released 2006 ANZSCO codes. The 2006 ANZSCO codes were only released a short time before the 2007 Survey began in field, and the initial release occurred in hard-copy rather than on disc. To ensure efficiency of coding, minimisation of error, and direct comparability of the 2007 results with those from 2004, the 1996 ASCO codes were utilised. It is planned for the 2006 ANZSCO codes to be utilised in the future.

There were a number of partially open-ended questions, coded by Roy Morgan Research. These comprised the following:

- Types of cancer diagnosed/treated for in the last 12 months;
- Types of other major illnesses diagnosed/treated for in the last 12 months;
- Types and amount of alcoholic drinks consumed on the previous day;
- Reasons for not intending to quit smoking;
- Factors which would motivate respondent to quit smoking;
- Factors influencing decision to first use an illicit drug;
- Factors influencing decision never to use an illicit drug;
- Country of birth;
- Main language spoken at home; and
- Other languages spoken at home.

Verbatim responses were supplied to the AIHW after several thousand questionnaires had been coded. It was decided that no additional codeframes were to be applied (other than those listed above), and the AIHW approved the codeframes to be used for the 2007 Survey.

Coders also thoroughly checked each questionnaire to ensure that it was of a high enough quality to be scanned. Any questionnaires that would have had problems being scanned (for example ticks used instead of crosses, or the booklet filled out in red pen) were corrected before being sent to scanning.

6.2 Scanning

Following coding and checking, questionnaires were scanned by Roy Morgan Research's scanning department using a combination of OMR (optical mark recognition) and OCR (optical character recognition) technology.

Images of the scanned pages of the questionnaires were stored in an *Alchemy* database. As a result, when data analysts came across cases of dubious, misleading or inconsistent data they were able to refer to the image of the completed questionnaire page as filled in by the respondent or interviewer in order to help resolve the treatment of the data.

6.3 Editing

Editing on the scanned raw data from the Drop & Collect component of the survey was undertaken by Roy Morgan Research. An extensive set of edits and logic checks, based on those used for the 2004 Survey and extended where necessary for new questions, was agreed with the Institute, and implemented by Roy Morgan Research.

6.4 Weighting

The samples were designed to provide (within each geographic stratum) a close-to-random sample of households within the scope of the respective samples. The selection of respondents was designed to be unbiased. However, the resulting samples required weighting to correct for imbalances arising in the design and execution of the sampling. Each respondent was assigned a weight designed to counteract this imbalance overall. Where estimates are derived from the sample they are based on the weighted samples unless stated otherwise.

- The disproportionate sampling by region meant that it was necessary to attach lower weights to respondents from relatively over-sampled regions and higher weights to respondents from relatively under-sampled regions.

- Households were selected with equal probability, meaning that the probability of selection of an individual was inversely proportional to the number of persons aged 12 years and over in the household, this probability being taken into account in the calculation of the individual's weight, so that respondents in households of different sizes were represented in their due proportions.
- Other factors (such as variations in the number of final interviews achieved per sampling point) affected the probability of inclusion of individuals.
- Cooperation could not be obtained from all selected households, or from all selected respondents. These non-cooperators were not necessarily typical of the populations being sampled.

A number of different weights were calculated as part of the weighting process. Following discussion with the Institute, it was agreed to use the weights based on all samples combined. In general, therefore, survey data will be published utilising the weights based on the combined Drop & Collect and CATI samples. The following sub-sections describe the weighting processes for the various sets of weights.

6.4.1 Drop & Collect Weighting

The weighting was based on a sample design where the capital cities and country areas of the States and the Northern Territory, plus the ACT as a whole, comprised the (fifteen) strata. For the Drop and Collect sample, it was decided to select CCDs directly in metropolitan areas, while in non-metropolitan areas an additional sample selection stage (SLA) was used (We understand that, as in past surveys, the telephone sample was not subject to any clustering or selection by CCD or SLA.) The Drop and Collect sample CCDs were selected with probability proportional to numbers of private households reported at the 2001 Census.

For each selected CCD a fixed maximum number of interviews was possible, (18 for the Drop & Collect) but there was variation in the number of interviews achieved. Thus (within each sample) all households in a stratum did not effectively have an equal chance of selection and a 'prior weight' was applied, equal to the mean number of interviews per sampling point (selected CCD) within the respondent's stratum divided by the number achieved within the respondent's CCD (weight 1). (It should be noted that while a maximum of 18 Drop & Collect interviews will be **possible** per CCD, it is not expected that 18 will be achieved: 18 questionnaires are being placed with willing households in order to achieve an average of 12 completed and useable questionnaires per CCD). Due to extremely low number of interviews in some CCDs, the decision was made (in close consultation with the AIHW) to place a cap of 4 on weight 1.

Households were selected using a randomly selected starting address provided to the interviewer and a series of rules for selecting the addresses for interview. Within each selected address one eligible person was selected for interview (next birthday rule). To compensate for the varying probabilities of selection of individuals in different-sized households each respondent was assigned a second 'prior weight' equal to the number of eligible persons in the household - weight 2. (Weight 3 is the re-scaled product of weights 1 and 2, i.e. a 'net personal selection prior weight').

Non-response weights (weight 4) were inferred from the differences between the age/sex profile of the 'prior-weighted' sample (using the product of the two prior weights for each respondent) and that of the population within each stratum. A correction factor was also calculated for each age/sex cell and multiplied by the prior weight (weight 5). The age bands used were the same bands used in 2004, as listed below.

Male 12-13	Female 12-13
Male 14-15	Female 14-15
Male 16-17	Female 16-17
Male 18-19	Female 18-19
Male 20-29	Female 20-29
Male 30-39	Female 30-39
Male 40-49	Female 40-49
Male 50-59	Female 50-59
Male 60+	Female 60+

Where a stratum/age/sex cell contained no respondents, or so few that the weight applied would have been very high, cells were be combined or re-defined on a judgmental basis. This weight was then multiplied by a correction factor calculated for each stratum to bring the strata sums-of-weights into their correct proportions within the population (weight 6).

The weights were then uniformly scaled to the estimated stratum population in thousands (weight 7). The single respondent weight thus encompasses the components of within-household selection probability, non-response adjustment and stratum balancing.

The population estimates, used for the weighting, were based on the latest available age/sex profile of each stratum using the latest published ABS Labour Force Survey results (*Labour Force Australia, Cat.No.6291.0.55.001, Table LM2* August 2007).

6.4.2 CATI Weighting

A similar procedure was followed. We understand that telephone numbers were originally selected with equal probability within stratum as RDD (random direct dialling), so an equal probability of household selection was deemed to apply. Accordingly only one prior weight was applied (number of eligible persons in household). While it is possible that greater than one phone line may exist in some households, and therefore that a household could be called more than once, this possibility is not currently accounted for in the CATI weighting.

6.4.3 Weighting (all samples combined)

Each sample was weighted separately to the population it represented, with the sum of the weights equal to, and therefore indicating, the population estimate. When the samples were combined the combination was done separately for each stratum. The contribution of each age/sex cell from each sample to the total stratum estimate was set to be the same as the proportion of interviews contributed by each age/sex cell for that sample in the stratum. However, where age/sex cells were been combined due to the absence of interviews (this occurs in 20 age/sex cells in the CATI data), the combined weights for the CATI respondents from the age/sex cell that gained the 'benefit' of the adjacent cell's weight needed to be further discounted by the adjacent cell's share of the two cells' combined population. Within each stratum each respondent was assigned a 'combined-sample' weight equal to the 'separate-sample' weight multiplied by the proportion contributed by the respondent's sample to the stratum total.

Separate combined-sample weights were produced for the all samples combined (weight 9) and for each sample by itself (weights 8a and 8b).

The proportionate contributions of the individual samples could be set at any judgementally-determined level. The raw numbers of interviews was used in past NDSH surveys as reflecting the priorities of the original design, and while this still seemed an appropriate approach, the presence of several empty CATI cells in 2007 meant that the former method would results in some minor discrepancies in the final data. The new method operates at the age/sex cell level, and was thus able to avoid these discrepancies.

It must be remembered that some questions are not included in the telephone survey, so that the combined sample will include areas of apparent 'missing data'. In analysing the combined sample due allowance must be made for this.

6.4.4 Use of the Weights

It is our understanding that subsequent analysis will be undertaken to explore variance estimates and similar measures. To allow the maximum flexibility of approach we provide as much information as possible about the final weights, decomposing them into their component parts. Six weights (1-6 below) represent the constituents or intermediate stages. The final weights (7-9) used for reporting all sum to the estimated population, in thousands. Only these weights should be used for tabulation as they alone provide the proper balance between strata.

All weighting is done separately within stratum. Weights 1-6 are calculated *within* sample (CATI, Drop & Collect) only.

Weights have real values but will be provided in integer form, with *implied* decimal places. Weights 1-6 are sample-balancing weights and will have four implied decimal places. Weights 7-12 are to be used as population estimation weights and should be treated as having either one implied decimal place when used to estimate the population in units or four when estimating the population in thousands.

The weight fields provided in the data set are as follows:

Personal Weights

1. CCD weight: mean number of interviews per CCD for the stratum, divided by actual number of useable interviews in CCD of interview (i.e. total number of interviews in stratum divided by number of CCDs used), further divided by number of interviews in respondent's CCD)¹. (In any CCD all respondents have the same weight.) For the CATI method, where the sample is un-clustered, all respondents have a weight of 1.0
2. Household-size weight: number of *eligible* persons in respondent's household, divided by the mean number of *eligible* persons per household for the stratum.
3. Net personal selection prior weight: weight 1 multiplied by weight 2 and re-scaled with unit mean (to allow for non-zero co-variance).
4. Demographic or non-response weight: *proportion* of estimated population in the respondent's age/sex category divided by the *proportion* of the sum of weight 3 in that category (within stratum). (N.B: mean weight = 1.0)
5. Within-sample-and-stratum relative weight: weight 3 multiplied by weight 4
6. Within-sample relative weight: weight 5 multiplied by proportion of population in respondent's stratum divided by proportion of sum of weight 5 in stratum
7. **Within-sample absolute weight:** weight 6 scaled to sum to stratum population for each sample separately. **Weight 7 should be used if results are required from either the Drop and Collect survey only, or the CATI survey only, but not both together.**
8. Weight **8a** is the Drop and Collect sample absolute weight (excluding CATI sample). Weight **8b** is the CATI sample absolute weight (excluding Drop and Collect). Weight 8a equals Weight 7 if Drop and Collect or zero if CATI, and Weight 8b equals Weight 7 if CATI or zero if Drop and Collect. **The respective Weight 8 should be used if results are required from either the Drop and Collect survey only, or the CATI survey only, but not both together.**
9. **Combined-sample absolute weight:** same as weight 7 but for the two samples combined. If no earlier combining of age/sex cells was required at weight 4, then weight 7 was multiplied by the *proportion* of all interviews in the age/sex/stratum cell that are in the respondent's sample. If two age/sex cells were combined for either sample at weight 4 then a further adjustment was needed at weight 9. The combined weights for the respondents from the age/sex cell that gained the 'benefit'

¹ Note: After discussion with the AIHW it was agreed that Weight 1 would have a cap of 4.0 to minimise distortions that could occur due to high individual weights where only a small number of interviews were completed in a CCD.

of the adjacent cell's weight are further discounted by the adjacent cell's share of the two cells' combined population. **Weight 9 is the weight that should be used for most purposes, i.e. to produce data when using both samples combined.**

Household weights

10. Drop and Collect sample only:

The household weight is the person weight (7) divided by the number of eligible persons in the household.

Weight 10 is set to zero for CATI sample households

11. CATI sample only: the household weight is the person weight (7) divided by the number of eligible persons in the household. Drop & Collect sample households have a value of zero.

12. **Combined household weight.** Combined-sample absolute household weight: same as household weight 10 and 11 but for the samples combined. Household weight 10 or 11 is multiplied by the *proportion* of all interviews in the stratum that are in the respondent's sample. **Weight 12 may be used when producing data for household level questions using both samples combined.**

6.5 Design Effects

Where a survey sample cannot be considered a true 'simple random sample' consideration must be given to the 'design effect'. This is the ratio of the variance of an estimate derived from the survey to the variance of an estimate of the same thing based on a true simple random sample of the same size. A related concept is the 'effective sample size', the size of a 'simple random' sample which would yield an estimate with equivalent variance. The 'effective sample size' is the *actual* sample size (number of interviews) divided by the design effect.

Departure from 'simple random' sampling may sometimes be due to specific requirements of the survey or the nature of the attributes or population being measured, as well as to the practical limitations of field sampling operations.

The design effect is the nett result of a number of factors affecting the purity of the sample, the principal ones being discussed below.

6.6 Stratification

Stratification is the advance determination and control of the proportions of interviews to be carried out among definable sub-populations, in this case geographical areas. This can be used to enhance the precision of overall estimates where it is known that the incidence of an attribute varies widely between identifiable sub-populations, which can be sampled separately. However, the objective in this case was to maximise that of estimates in specific regions and age groups, by either ensuring minimum sample numbers or by supplementing a basic proportionate sample with varying numbers of additional interviews in regions of particular interest.

The allocation of these additional interviews was compensated for by weighting at the analysis stage, so that in the final weighted results the regions and age groups were represented in their correct proportions (with a few minor variations reflecting some 'empty' age/sex cells in the CATI sample). The additional interviews reduced the standard errors of estimates in those boosted regions but did not have a commensurate effect on the standard errors of national estimates.

An indication of the range of weights applied can be gained by reference to Appendix 5, which presents average weights applicable to various sub-groups of the population.

6.7 Targeting of Population Segments

The sample design deliberately over-represented people in the territories and the smaller states. This resulted in a sample unrepresentative of the population in clearly defined ways and requiring weighting to redress the imbalance, irrespective of any other weighting which might have been required.

The resulting variation in the weight given to each person's responses, results in an increase in the variance, and hence the standard error of estimates.

The initial sample drawn was a sample of households such that each household within a stratum had as far as practicable an equal probability of selection. One individual was selected by an unbiased procedure from each household. The probability of any *individual's* being interviewed was therefore inversely proportional to the number of eligible persons in the household. This was corrected for at the analysis stage by weighting each interview according to the size of the household, which further increases the variance in the weights applied to the sample members.

6.8 Clustering

For practical, cost-related reasons the Drop & Collect interviewing was conducted in 'clusters', a cluster being a fixed number of questionnaire placements conducted within a very small area. Where the incidence of an attribute is not distributed evenly or randomly throughout the population, but is noticeably higher in some areas than in others, the effect of clustering will normally be to increase the variance of the estimate. Clustering will have the least potential effect on the measure of a low-incidence attribute, where the mean number of persons per cluster possessing that attribute is very small, especially where few clusters yield more than one such person, and the greatest potential effect where estimates are close to half the population.

6.9 Non-response

Even with the most careful design and administration of sampling the outcome is subject to practical limitations. Not all selected households may yield a response within the fieldwork constraints. For example not all persons selected will agree to be interviewed or successfully complete a questionnaire, while others may accept a questionnaire but return it blank etc. The non-response is unlikely to be representative of the population and the resulting sample is therefore likely to exhibit some bias relative to the known characteristics of the population being sampled.

As an example, the following table gives an indication of the profile of non-response based on those who returned the questionnaire blank (n=2,371). This form of non-response appears most obvious amongst those aged 60 years or over, particularly females. The profile of blanks is compared to the unweighted profile of those who returned useable/complete Drop & Collect Questionnaires and the ABS national population estimates from August 2007.

Age x Gender Profile of Blank Questionnaires Returned

Age x Gender	Blanks %	Completes/Usables %	Population Estimates (National) (ABS Labour Force – August 2007)%
Male 12-19	4.8	4.0	6.5
Male 20-29	7.1	5.3	8.3
Males 30-39	8.4	7.1	8.4
Males 40-49	8.5	7.2	8.5
Males 50-59	6.0	7.4	7.4
Males 60+	13.5	13.4	10.3
TOTAL Males	48.3	44.4	49.4
Female 12-19	2.9	4.5	6.2
Female 20-29	5.7	7.1	8.0
Females 30-39	6.7	10.7	8.5
Females 40-49	7.0	8.9	8.6
Females 50-59	6.4	9.0	7.5
Females 60+	21.8	15.5	11.7
TOTAL Females	50.5	55.6	50.5
TOTAL details not provided	1.2	-	-

The most obvious biases can be corrected by weighting, but the result is a further increase in the variance of the weights applied to sample members and therefore to the variance of estimates derived from them.

The tables in Appendix 1 will show the design effects calculated for key measures in the survey, using both samples together (as well as the Drop & Collect and CATI separately).

The tables accordingly show estimates for two components of the design effect. The stratification component reflects the planned disproportionate sampling of the geographic strata. Disproportionate sampling has an adverse and fairly uniform effect in general. However, where individual attributes vary in incidence between strata the stratification effect varies. Where estimates in over-sampled strata have a higher variance (proportions closer to 50%) the adverse effects of disproportionate sampling can be reduced and even negated. Conversely it can be exacerbated if the variance is higher in under-sampled strata. The 'Mean Stratum' design effect reflects variance *within* the strata. These two components

are estimated independently and the ‘National’ design effect is not exactly equal to their product.

The complexity of the factors influencing the design effects, and of their interactions, mean that pragmatic methods must be used in the estimation of those effects. Such methods, though developed in strict accord with sound statistical principles, yield design-effect estimates which are subject to a margin of error, especially within individual strata (where the number of clusters can be very low), and the figures are indicative only. The figures shown in the tables in Appendix 1 (for total population with both samples combined) are mean values across all strata where non-zero values were obtained for each measure.

6.10 Calculation of Standard Error and Design Effect

The main tool required for calculation of standard error and design effect is the variance of the estimate, for each variable. The formula for variance from Kish² (1995) was used. Let x be a variable of interest and let $x_{s,i,j}$ be its value for respondent j from CCD i within stratum s . Denote by letter $w_{s,i,j}$ the final weight of this respondent. Then the estimate of the mean

value within stratum s is $\hat{x}_s = \frac{\sum_{i,j} w_{s,i,j} x_{s,i,j}}{\sum_{i,j} w_{s,i,j}}$ and the final estimate of the mean value across

all strata is $\hat{x} = \sum_s p_s \hat{x}_s$, where p_s is the proportion of stratum s in the population.

Let $X_{s,i} = \sum_j w_{s,i,j} x_{s,i,j}$ and $W_{s,i} = \sum_j w_{s,i,j}$ be the corresponding sample totals for each CCD i in stratum s . Then the variance V of \hat{x} is computed by the formula

$$V = \sum_s p_s^2 \text{var}(\hat{x}_s) = \sum_s [p_s^2 \cdot \frac{1}{W_s^2} \cdot \frac{n_s}{(n_s - 1)} \sum_{i=1}^{n_s} (X_{s,i} - \hat{x}_s W_{s,i})^2],$$

² L Kish. Survey sampling, John Wiley & Sons, 1995.

where n_s is the number of CCDs in stratum s and $W_s = \sum_{i=1}^{n_s} W_{s,i}$. This formula is derived from, and equivalent to the, formulae 6.3.3 and 6.3.4 in Kish.

The standard error is then simply the square root of the variance: $s.e.(\hat{x}) = \sqrt{V}$.

To compute the design effect it is necessary also to know what the variance of the estimate would be if the sampling were simple random. This 'random' variance V_{ran} is easy to compute; for instance, if we estimate a proportion p and our estimate is $\hat{x} = \hat{p}$, then the variance of simple random sampling is computed by the well-known formula $V_{ran} = \frac{\hat{p}(1-\hat{p})}{n}$, where n is the total number of respondents in the sample. Consequently, the design effect is finally computed as ratio of the actual variance V to the 'random' variance V_{ran} . That is, $DE = \frac{V}{V_{ran}}$.

The design effect is therefore potentially different for different variables and even for different categories within a variable. Ideally, the design effect should be calculated individually for every single estimate produced from the data. From a practical point of view, however, it is inconvenient to have different design effects even for different variables. One solution to this problem is to use a conservative approach: to calculate design effect for several key variables and then choose the greatest one. Alternatively, a 'mean design effect' can be calculated across several key variables. This latter approach was adopted when providing estimates of standard error and relative standard error for the cross-tabulations.

It must be remembered that the design effect, however calculated, is itself only an estimate from a single survey of the true design effect inherent in the sampling methodology and measurement tools. It is therefore subject to its own margin of error (not readily calculable) and should therefore be treated as a guide rather than as an absolute value. This is particularly the case where the incidence of the attribute being measured is very low. For this reason the use of averaged or pooled design effect estimates are a more prudent approach to assessing small proportions.

Another useful statistic to compute is the 'effective sample size' which is the total number of respondents in the sample divided by the design effect, or the size of a simple random sample which would give estimates of equivalent precision.

The method described above relies on the variance of cluster means. As the CATI sample is not clustered we have calculated design effects for CATI by treating it as a single cluster (per stratum). However, an alternative approach is available. Where the CATI sample is considered in isolation the ‘weighting effect’, mentioned in Section 7.5, can be used as a surrogate. (The weighting effect for CATI by Strata is shown in Appendix 2). This is the same for all variables. Where the CATI sample is considered in conjunction with the Drop & Collect it is treated as a single cluster (per stratum) within the combined sample.

6.11 Testing Significance of Differences Between Groups

When considering the issue of whether observed differences between two groups (e.g. between States) are statistically significant, calculations based on either the fully weighted sample size or the completely unweighted sample size are likely to give misleading results for separate reasons. (For instance, using fully weighted sample size would imply an “n” value so high that almost any difference would appear to be “significant”, while using unweighted data would fail to account for the whole design of the sample, including, for example, the deliberate over-sampling of smaller states and territories).

A recommended approach, when calculating whether an observed difference between two estimates is statistically significant or not, is to use the estimates derived from the fully weighted data, but use the “effective sample sizes” (i.e. allowing for design effect). In other words, in the standard formula for a Z-test the sample sizes should be replaced by the effective sample sizes.

The effective sample size for an estimate can be obtained from the table in Appendix 3. The table shows sample size, design effect and effective sample size for all States/Territories for a range of sub-samples. (The design effects shown in this table are the mean design effects across the full range of core drug incidence measures). If a group of interest is not in the table, one should first find a cell in the table of which the group of interest is a subset. Then the assumption is that the group proportion has the same design effect as the estimate for the whole cell. Hence, the effective sample size for the group estimate is calculated as the unweighted sample size of the group divided by the design effect.

The procedure above is appropriate not only for Z-tests but for many other tests as well. However, this is not always true. One should be aware, for instance, that an appropriate modification of the chi-squared test is quite complicated and requires knowledge of design effects for all cell and marginal estimates in the contingency table. In the (usual) case when such design effects are not available, one can still use the overall design effect, i.e. replace the sample size by the effective sample size in the chi-squared formula but this would produce only an approximate P-value which is subject to error.

One should also be aware, as with any significance testing, that most formulae assume a null hypothesis of zero difference between groups – this may or may not be an appropriate null hypothesis to apply in a particular situation.

6.12 Range of Weights

As discussed above, the weights applied to respondents varied considerably. An indication of the range of average weights applied across various groups can be obtained from Appendix 5. Individual weights would of course show a greater range than average weights

6.13 Quality of Questionnaire Completion

In order to provide an indicator of the quality of answers collected, the Drop & Collect respondents were asked to indicate:

- whether anyone else was present when the questionnaire was being completed;
- whether the honesty of the answers was affected by the presence of others; and
- whether anyone else helped complete the questionnaire.

While recognising that the answers to these questions themselves are, of course, subjective and unable to be tested against a reliable indicator of quality, they remain nevertheless the best indicators available.

The following summary of the responses to these questions are based on unweighted respondent counts for the Drop & Collect survey.

6.13.1 Presence of Others (Drop and Collect data only)

Of all completed questionnaires:

- 62% were completed with no-one else present;
- 35% were completed with someone else present;
 - 24% were completed with a spouse/partner present;
 - 5% were completed with a child aged 6-17 present;
 - 4% were completed with a child aged 0-5 present;
 - 4% were completed with a parent present;
 - 3% were completed with a child aged 18 or more present;
 - 2% were completed with a friend/peer/close-age sibling present;
 - 1% were completed with an older relative present;
 - 1% were completed with a neighbour or someone other than the above present;
- 3% did not indicate whether anyone else was present.

6.13.2 Affect of Presence of Others on Honesty

Of the cases where someone else was present:

- 6,300 cases (31.8% of the D&C sample) indicated that the honesty of the interview was not at all affected;
- 151 cases (0.8% of the D&C sample) indicated that the honesty of the interview was affected *a little*;
- 85 cases (0.4% of the D&C sample) indicated that the honesty of the interview was affected *somewhat*;
- 236 cases (1.2% of the D&C sample) indicated that the honesty of the interview was affected *a great deal*; and
- 181 cases (0.9% of the D&C sample) could not/did not say whether the honesty of the interview was affected.

6.13.3 Assistance by Interviewer/Other Persons

Of all Drop & Collect interviews, as reported by the respondent:

- In 88% of cases no-one else helped them complete the questionnaire;
- In 1% of cases someone else helped *a great deal* with completing the questionnaire;
- In 1% of cases someone else helped *somewhat* with completing the questionnaire;
- In 6% of cases someone else helped *a little* with completing the questionnaire; and
- In 3% of cases the respondent could not say, or did not provide an answer.

These are almost identical findings to those reported in 2004.

6.13.4 Different Effects upon Honesty

Overall, 91% of cases where someone else was present indicated that this had no effect upon the honesty of the interview. For most types of people present this pattern remained constant, ranging from 79% for presence of neighbours to 93% for presence of children aged 0-5.

6.13.6 Differences by Sex of Respondent

Female respondents were less likely to have had a spouse/partner present (20%) than were male respondents (27%). However, females were more likely than men to have children present (10% cf 6%). These, again, are very similar to the findings from the 2004 survey.

6.13.7 Differences by Age of Respondent

As might be expected, 12-13 year olds were more likely than other respondents to have had parents present when completing their questionnaire (58% cf 4% overall).

The greatest rate of help with completing the questionnaire was reported by 12-13 year olds, with 41% indicating that they had received some sort of help (more than five times the overall average of 8%). However, the majority of this group (34%) claimed they only received a *little* help. However, they were also the most likely to say they received a great deal of help, albeit mentioned only by 2% (3% cf 1%).

With the higher incidence of assistance, respondents aged 12-13 did indicate more effect upon honesty than respondents in general. Almost 8% of the 12-13 year olds who received some sort of help (or 5% of 12-13s overall) claimed their honesty was affected – the majority of these, however, indicating it was affected only *a little*.

7. SAMPLE CHARACTERISTICS

7.1 Response Rates by Sample

7.1.1 Drop & Collect

A total of 55,515 households were called upon across Australia in order to complete a Drop & Collect questionnaire, of which 36,698 were contacted. This represents a contact rate of 66%.

The following table gives a detailed breakdown of all households approached:

Drop & Collect Sample Households Approached

Final response category	Number	Total households contacted as % of households approached	Total households contacted as % of in-scope households	As a % of in-scope households contacted
TOTAL Households contacted	36,698	66%	67%	100%
Questionnaire left at household	26,793	48%	49%	73%
Refused (including terminations)	8,635	16%	16%	24%
Foreign/No English	733	1%	1%	2%
Respondent not capable	280	1%	1%	1%
Other non-response	257	*	*	1%
TOTAL Households not contacted	18,817	34%	35%	
No contact with household after 3 attempts	5,896	11%	11%	
No contact with household 1-2 attempts	10,075	18%	19%	
Vacant Residence/Block	1,041	2%		
Locked Gate/Vicious Dog	1,717	3%	3%	
Other out of scope	88	*		
TOTAL 'in-scope' households approached	54,386	98%	100%	
TOTAL Households Approached	55,515	100%		

* Less than 0.5%

Not all households attempted were in scope. After allowing for those deemed ‘out of scope’ (mainly vacant dwellings/blocks) it can be reported that contact was made at 67% of in-scope households approached.

The following table gives a more detailed breakdown of the final response categories for the in-scope households contacted (and for those left a questionnaire to complete):

Drop & Collect Sample Final Response Categories

Final response category	Number	Questionnaires left as % of in-scope Households contacted	As % of all households that accepted Questionnaire
Questionnaire left at household	26,793	73%	100%
Questionnaire picked-up by fieldworker	21,030	57%	78%
Questionnaire – returned by reply-paid	1,850	5%	7%
Questionnaire not returned/destroyed/lost	3,913	11%	15%
<i>Total Received</i>	22,880	62%	85%
<i>Total received blank/incomplete</i>	3,043	8%	11%
<i>Total failed internal checks</i>	19	*	1%
<i>Total received that were useable</i>	19,818	54%	74%
Refused (including terminations)	8,635	24%	
No English, incapable	733	2%	
Other	537	1%	
TOTAL in-scope households contacted	36,698	100%	

* Less than 0.5%

The above table shows that not all households that were left a questionnaire returned it or returned it complete. The response rate is calculated using only those Drop & Collect questionnaires that were returned complete and useable. Of all the households that accepted a questionnaire, 74% returned it useable for the final data. When expressed as a percentage of all in-scope households contacted (which will allow for a better comparison with the figures to be provided by the CATI consultant) the response rate is 54%.

Thirteen per cent of all questionnaires either picked up by fieldworkers or mailed back by respondents (i.e. 3,062 out of the 22,880 received) turned out to be unusable for the following reasons:

- questionnaire entirely blank (n=2,371);
- questionnaire incomplete or did not contain the minimum demographic information (n=672);
- questionnaire, following internal checking, deemed to be bogus (n=19);

Response rates varied between States, with the lowest response rates evident in Victoria, New South Wales and Queensland and the highest in Tasmania. The response rates by state (based on complete useable questionnaire received) are set out in the table below:

Drop & Collect Final Response Rates by State

State	Useable questionnaires as a % of in-scope households contacted	Useable questionnaires as a % of households that accepted questionnaire
NSW	51%	69%
VIC	48%	75%
QLD	59%	79%
SA	58%	76%
WA	58%	76%
TAS	61%	78%
NT	55%	68%
ACT	65%	80%
TOTAL	54%	74%

Response rates also varied significantly by area type. In most states the rates amongst rural households were higher than those evident amongst their metro counterparts. These comparisons are outlined in the following two tables - firstly based on all in-scope households contacted and then on all households that accepted a questionnaire:

Drop & Collect Final Response Rates by Area (useable questionnaires as a % of in-scope households contacted)

State	Metro	Rural
NSW	47%	57%
VIC	45%	59%
QLD	60%	58%
SA	59%	58%
WA	57%	62%
TAS	58%	65%
NT	52%	60%
ACT	65%	n/a
TOTAL	51%	59%

Drop & Collect Final Response Rates by Area (useable questionnaires as a % of households that accepted questionnaires)

State	Metro	Rural
NSW	67%	73%
VIC	73%	79%
QLD	78%	79%
SA	76%	77%
WA	76%	77%
TAS	80%	76%
NT	65%	71%
ACT	80%	N/A
TOTAL	73%	76%

The number of questionnaires sent back unusable was lower than in 2004 (13% compared with 17%), and a more detailed analysis of this by State is outlined below:

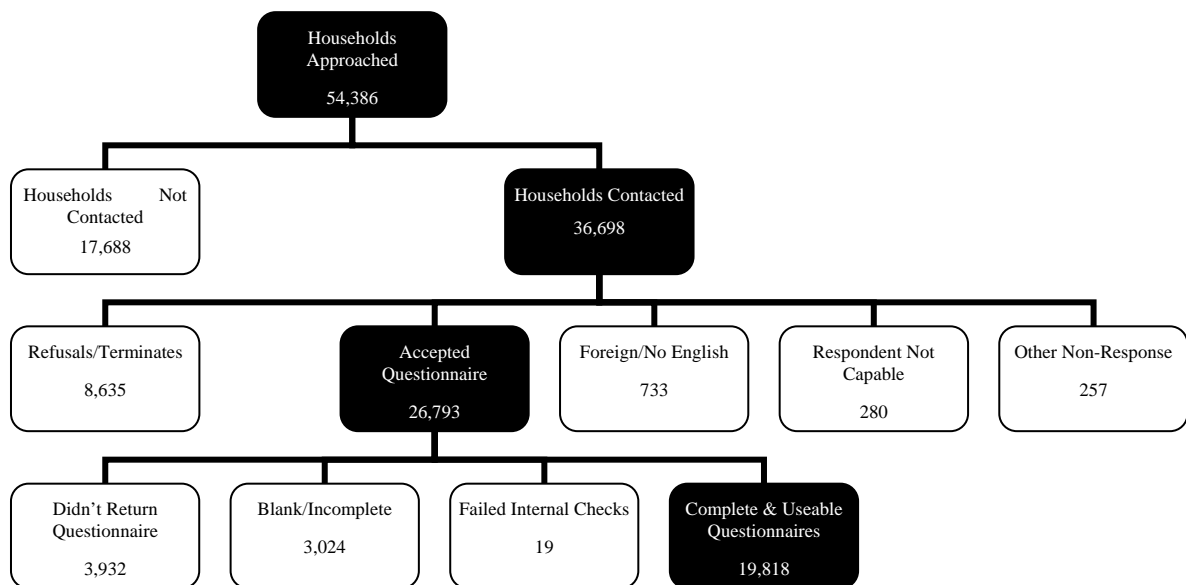
Drop & Collect Response Rates by State (%s based on number of questionnaires accepted)

State	In-scope Households contacted	Accepted Q'aires	Gross returned	Not complete	Failed Internal checks	Blank	Complete
NSW	11,082	8,109 (100%)	6,705 (79%)	273 (6%)	5 (1%)	828 (10%)	5,599 (62%)
VIC	8,592	5,567 (100%)	4,782 (79%)	100 (4%)	7 (*)	526 (9%)	4,149 (66%)
QLD	6,186	4,640 (100%)	4,102 (76%)	114 (4%)	3 (1%)	339 (6%)	3,646 (65%)
SA	2,775	2,134 (100%)	1,833 (81%)	36 (4%)	0 (*)	177 (7%)	1,620 (70%)
WA	3,476	2,657 (100%)	2,275 (81%)	51 (4%)	1 (1%)	198 (7%)	2,025 (69%)
TAS	1,558	1,226 (100%)	1,076 (83%)	25 (4%)	0 (*)	95 (8%)	956 (71%)
NT	1,500	1,228 (100%)	992 (77%)	33 (4%)	1 (*)	126 (10%)	832 (63%)
ACT	1,529	1,232 (100%)	1,096 (80%)	21 (3%)	2 (1%)	82 (6%)	991 (70%)
TOTAL	36,698	26,793 (100%)	22,861 (79%)	653 (4%)	19 (1%)	2,371 (8%)	19,818 (66%)

As can be seen from the previous table, the main reason for questionnaires being unusable was that they were either totally blank or insufficiently complete (9% and 2% of questionnaires dropped off respectively, or expressed another way 10% and 3% of all questionnaires returned). This level of incompleteness may be due to the sheer number and nature of questions being asked.

The following flow charts detail the final response categories for each sample:

Final Response Category Flow Chart Summary – Drop & Collect



7.3 Sample Distribution

Where the age and sex sample distributions refer to unweighted counts, only data from the Drop and Collect Sample has been included here (as the CATI data is to be reported upon in a second Technical Report).

As Roy Morgan Research was responsible for the weighting of the combined database, where age and sex sample distributions refer to the weighted counts, data for both the Drop and Collect and CATI samples are included.

The following table shows the age and sex distributions of the unweighted Drop & Collect sample when compared to the population.

Age group	Drop & Collect unweighted sample distribution			Population Estimates (National) (ABS Labour Force – August 2007)		
	Male %	Female %	Total %	Male %	Female %	Total %
12-19	4.0	4.5	8.5	6.5	6.3	12.8
20-29	5.3	7.1	12.4	8.3	8.0	16.3
30-39	7.1	10.7	17.8	8.4	8.5	16.9
40-49	7.2	8.9	16.1	8.5	8.6	17.1
50-59	7.4	9.0	16.4	7.4	7.5	14.9
60+	13.4	15.5	24.2	10.3	11.7	22
TOTAL	44.4	55.6	100.0	49.4	50.6	100.0

Both males and females aged 12-19 and 20-29 were under-represented in the Drop & Collect sample.

Males 30 – 39 and 40 – 49 were also under-represented. Females were over-represented in the unweighted Drop & Collect sample.

The following table shows the weighted age and sex distributions of both samples combined:

Combined Samples Weighted Age and Sex Distributions

Age group	All samples combined weighted sample distribution			Population Estimates (National) (ABS Labour Force –August 2007)		
	Male %	Female %	TOTAL %	Male %	Female %	TOTAL %
12-19	6.5	6.2	12.8	6.5	6.3	12.8
20-29	8.3	8.0	16.3	8.3	8.0	16.3
30-39	8.4	8.5	16.9	8.4	8.5	16.9
40-49	8.5	8.6	17.1	8.5	8.6	17.1
50-59	7.4	7.5	14.9	7.4	7.5	14.9
60+	10.3	11.7	22	10.3	11.7	22
TOTAL	49.4	50.6	100.0	49.4	50.6	100.0

The following table shows the age and sex distributions of the two samples as a percentage of the total combined weighted sample:

Age and Sex Distributions as a Percentage of Combined Weighted Sample

Age group	Drop & Collect			CATI			Total Sample		
	Male %	Female %	Total %	Male %	Female %	Total %	Male %	Female %	Total %
12-19	5.5	5.3	10.8	1.0	1.0	2	6.5	6.2	12.8
20-29	7.3	6.8	14.1	1.0	1.3	2.3	8.3	8.0	16.3
30-39	7.2	7.2	14.4	1.2	1.3	2.4	8.4	8.5	16.9
40-49	7.2	7.2	14.4	1.3	1.3	2.6	8.5	8.6	17.1
50-59	6.3	6.2	12.5	1.2	1.3	2.5	7.4	7.5	14.9
60+	8.9	9.9	18.8	1.4	1.8	3.2	10.3	11.7	22
Total	42.4	42.6	85.0	7.0	8.0	15.0	49.4	50.6	100.0

7.4 Demographic Profile

The following table gives a detailed comparison of the two samples. Age and sex are provided unweighted while the remainder of the items are provided weighted.

Demographic Characteristics

Demographic Characteristics	Drop & Collect	CATI
Sex (unweighted)		
Male	44%	41%
Female	56%	59%
Age (unweighted)		
12-13	2%	2%
14-19	7%	7%
20-29	12%	11%
30-39	18%	17%
40-49	16%	17%
50-59	16%	18%
60+	29%	28%
Employment status (weighted)		
Self Employed	11%	10%
Employed for Wages/Salary	43%	50%
Student/Studying	11%	10%
Unemployed	2%	2%
Home duties	7%	7%
Retired/pension	19%	19%
Unable to work/Other	3%	2%
Marital status (weighted)		
Married or living together	58%	59%
Divorced or separated	7%	8%
Widowed	4%	5%
Never married	27%	28%
Can't Say/Not Answered	4%	0%

7.5 Inter-Sample Reliability

A number of tests of the statistical significance of inter-sample differences on key measures have been conducted using a weighted Z test. The key measures covered mainly lifetime (both for medical and also for non-medical use where appropriate) and past 12-month usage of the specific drugs types measured.

For the tests involving weighted data, the weighting used was the agreed weighting described in Section 6 of this report.

In previous waves, as the design effect and effective sample size had not been calculated at the stage of undertaking the inter-sample significance testing, the 'weighting effect' had been used to get an approximate estimate of the effective sample size:

$$n_e = \frac{\left(\sum_{i=1}^n w_i\right)^2}{\sum_{i=1}^n w_i^2}$$

where w_i is the weight for respondent i and n is the unweighted sample size. This estimate of the effective sample size probably tends to underestimate the design effect. It does not allow for any clustering effect and the final weighting scheme was more complex than that used for the preliminary comparisons. The effective sample size calculated in this way relies only on the variance of weights and is thus constant for all measures among any subset of the sample. However, in previous waves it was practical to calculate final design estimates for selected key measures so that both sets of design effect estimates provide general guidelines only. The weight-based design effect estimates were considered an adequate surrogate for the limited purposes.

In 2007, as the statistical testing was undertaken at a later stage, the more comprehensive design effect measure, rather than the weighting effect measure, was used in the calculation of the statistical significance of inter-sample differences.

To compare proportions p_1 and p_2 in the Z-test, the following statistic was used:

$$Z = \frac{|p_1 - p_2|}{\sqrt{p(1-p)\left(\frac{1}{n_{e,1}} + \frac{1}{n_{e,2}}\right)}}$$

where $n_{e,1}, n_{e,2}$ are estimates (based on the previous formula) of the effective sample size for p_1, p_2 and p is the combined estimate. The statistic value was then converted into a P-value using the table for standard normal distribution.

Appendices

Appendix One

DESIGN EFFECT, STANDARD ERROR & EFFECTIVE SAMPLE SIZE ESTIMATES FOR KEY VARIABLES

(ALL SAMPLES COMBINED, PLUS DROP & COLLECT AND CATI SEPARATELY)

DRUGS EVER TRIED – ALL SAMPLES COMBINED (23,356 respondents)

Variable	Proportion (%)	Standard Error (%)	Relative Error (%)	Design Effect			Effective Sample Size
				National	Due to stratification	Mean stratum	
Tobacco	57.92	0.416	0.7	1.65	1.08	1.58	14088.5
Alcohol	93.32	0.25	0.3	2.33	1.1	1.86	10001.3
Pain Killers/ Analgesics	79.18	0.37	0.5	1.91	1.08	1.5	12025.6
Pain Killers/ Analgesics for non-medical purposes	4.3	0.165	3.8	1.51	1.07	1.39	15148
Tranquillisers/ Sleeping Pills	27.7	0.378	1.4	1.64	1.08	1.41	13995.3
Tranquillisers/ Sleeping Pills for non-medical purposes	3.15	0.148	4.7	1.65	1.08	1.45	13925.5
Steroids	7.09	0.199	2.8	1.38	1.07	1.35	16590.5
Steroids for non-medical purposes	0.33	0.048	14.6	1.62	1.07	1.23	14174
Barbiturates	1.86	0.104	5.6	1.35	1.09	1.15	16790.6
Barbiturates for non-medical purposes	0.87	0.076	8.7	1.51	1.08	1.28	15005
Meth/ampheta mine	6.09	0.214	3.5	1.84	1.07	1.7	12460.4
Marijuana	32.49	0.436	1.3	2	1.07	1.73	11526.9
Heroin	1.51	0.097	6.5	1.47	1.08	1.33	15646.9
Methadone or Buprenorphine	0.72	0.066	9.2	1.39	1.06	1.15	16472.8
Methadone or Buprenorphine for non-medical purposes	0.31	0.046	15.1	1.62	1.06	1.21	14203.3
Cocaine	5.71	0.216	3.8	2	1.09	1.82	11490.2
Hallucinogens	6.48	0.21	3.2	1.68	1.07	1.53	13681.1
Ecstasy	8.61	0.26	3	1.98	1.08	1.86	11645
Ketamine	1.09	0.095	8.7	1.88	1.12	1.43	11925.2
GHB	0.52	0.068	13	1.99	1.11	1.51	11265.9

Inhalants	0.04	0.016	37	1.35	1.11	1.15	17036.7
Other Opiates/ Opioids	3.02	0.143	4.7	1.61	1.07	1.37	14296.9
Other Opiates/ Opioids for non-medical purposes	17.16	0.313	1.8	1.56	1.07	1.39	14476.1
Injecting Drugs	0.93	0.079	8.4	1.51	1.05	1.39	14948.2

DRUGS TRIED IN LAST 12 MONTHS - ALL SAMPLES COMBINED (23,356 respondents)

Variable	Proportion (%)	Standard Error (%)	Relative Error (%)	Design Effect			Effective Sample Size
				National	Due to stratification	Mean stratum	
Tobacco	25.49	0.386	1.5	1.77	1.08	1.59	12741.4
Alcohol	85.99	0.337	0.4	2.08	1.09	1.62	10641.9
Pain Killers/ Analgesics	2.5	0.123	4.9	1.42	1.07	1.26	16077.8
Tranquillisers/ Sleeping Pills	1.32	0.103	7.8	1.87	1.09	1.36	12314.2
Steroids	0.12	0.031	26.4	1.9	1.11	1.28	12074.7
Barbiturates	0.12	0.027	23.1	1.4	1.06	1.47	16220.1
Meth/ampheta mine	2.22	0.137	6.2	1.97	1.07	1.72	11637.2
Marijuana	8.8	0.262	3	1.98	1.06	1.7	11668.8
Heroin	0.2	0.037	18.1	1.54	1.12	1.31	14993.6
Methadone or Buprenorphine	0.06	0.02	33.4	1.55	1.04	1.09	14768.1
Cocaine	1.58	0.124	7.8	2.27	1.11	1.99	10140.2
Hallucinogens	0.6	0.067	11.3	1.77	1.04	1.56	13027.4
Ecstasy	3.42	0.179	5.2	2.23	1.08	2.05	10304.6
Ketamine	0.19	0.039	20.8	1.84	1.1	1.64	12206.7
GHB	0.1	0.032	32.3	2.36	1.16	1.34	9510.2
Inhalants	0.01	0.009	70.9	1.46	1.16	1.25	15746.6
Other Opiates/ Opioids	0.39	0.052	13.4	1.62	1.09	1.25	14165.4
Injecting Drugs	0.2	0.036	17.8	1.45	1.06	1.1	15538.6

DRUGS EVER TRIED – TOTAL DROP & COLLECT (19,818 respondents)

Variable	Proportion (%)	Standard Error (%)	Relative Error (%)	Design Effect			Effective Sample Size
				National	Due to stratification	Mean stratum	
Tobacco	57.83	0.457	0.8	1.69	1.08	1.65	11693.1
Alcohol	92.97	0.281	0.3	2.38	1.1	1.82	8287.4
Pain Killers/ Analgesics	77.16	0.415	0.5	1.89	1.08	1.51	10255.4
Pain Killers/ Analgesics for non-medical purposes	4.72	0.187	4	1.5	1.07	1.41	12896.4
Tranquillisers/ Sleeping Pills	27.93	0.419	1.5	1.7	1.08	1.45	11475.5
Tranquillisers/ Sleeping Pills for non-medical purposes	3.3	0.164	5	1.65	1.08	1.46	11804.6
Steroids	7.2	0.22	3.1	1.41	1.07	1.37	13840.3
Steroids for non-medical purposes	0.33	0.051	15.4	1.52	1.06	1.17	12801.1
Barbiturates	1.75	0.11	6.3	1.34	1.08	1.14	14266.7
Barbiturates for non-medical purposes	0.76	0.076	10.1	1.48	1.08	1.28	12923
Meth/ampheta mine	6.02	0.233	3.9	1.87	1.07	1.74	10414.8
Marijuana	32.04	0.484	1.5	2.1	1.07	1.82	9287.6
Heroin	1.44	0.103	7.2	1.47	1.08	1.31	13293.3
Methadone or Buprenorphine	0.67	0.07	10.4	1.41	1.05	1.19	13757.5
Methadone or Buprenorphine for non-medical purposes	0.34	0.054	15.7	1.64	1.06	1.21	11845.1
Cocaine	5.64	0.238	4.2	2.07	1.09	1.88	9414.1
Hallucinogens	6.2	0.228	3.7	1.73	1.06	1.57	11236.8
Ecstasy	8.53	0.285	3.3	2.02	1.08	1.91	9637
Ketamine	1.07	0.102	9.5	1.87	1.12	1.39	10183.1
GHB	0.53	0.074	14	1.97	1.11	1.5	9619.9
Zanthanols	0.05	0.018	38.4	1.36	1.12	1.15	14329.6

Inhalants	3.29	0.163	4.9	1.62	1.07	1.36	12010.1
Other Opiates/ Opioids	14.42	0.316	2.2	1.55	1.07	1.38	12322.3
Other Opiates/ Opioids for non-medical purposes	0.88	0.083	9.4	1.51	1.05	1.39	12595.7
Injecting Drugs	1.88	0.121	6.4	1.51	1.07	1.41	12675.7

DRUGS TRIED IN LAST 12 MONTHS – TOTAL DROP & COLLECT (19,818 respondents)

Variable	Proportion (%)	Standard Error (%)	Relative Error (%)	Design Effect			Effective Sample Size
				National	Due to stratification	Mean stratum	
Tobacco	25.64	0.419	1.6	1.8	1.07	1.62	10861.4
Alcohol	85.63	0.375	0.4	2.16	1.09	1.63	8731
Pain Killers/ Analgesics	2.83	0.142	5	1.41	1.07	1.27	13689.6
Tranquillisers/ Sleeping Pills	1.44	0.116	8.1	1.85	1.09	1.36	10541.9
Steroids	0.12	0.033	27.4	1.78	1.09	1.25	10922.5
Barbiturates	0.1	0.027	26.5	1.39	1.03	1.42	13786
Meth/ampheta mine	2.3	0.149	6.5	1.92	1.07	1.73	10132
Marijuana	8.89	0.288	3.2	2.01	1.06	1.73	9731.8
Heroin	0.22	0.04	18.5	1.44	1.11	1.26	13548.1
Methadone or Buprenorphine	0.07	0.023	33.4	1.52	1.03	1.07	12790.2
Cocaine	1.62	0.136	8.4	2.26	1.11	1.96	8624.8
Hallucinogens	0.61	0.073	11.9	1.7	1.04	1.49	11452.2
Ecstasy	3.46	0.195	5.6	2.22	1.08	2.03	8776.5
Ketamine	0.17	0.035	20.9	1.41	1.09	1.37	13501.5
GHB	0.12	0.038	32.3	2.32	1.16	1.32	8176.6
Zanthanols	0.01	0.011	71	1.45	1.14	1.26	13365.2
Inhalants	0.44	0.06	13.6	1.59	1.09	1.24	12200.2
Other Opiates/ Opioids	0.23	0.042	18	1.44	1.05	1.1	13259.4
Injecting Drugs	0.51	0.062	12.1	1.44	1.07	1.28	13285.1

DRUGS EVER TRIED – TOTAL CATI (3,538 respondents)

Variable	Proportion (%)	Standard Error (%)	Relative Error (%)	Design Effect			Effective Sample Size
				National	Due to stratification	Mean stratum	
Tobacco	59.23	0.867	1.5	1.1	1.1	1	3214.2
Alcohol	95.06	0.386	0.4	1.12	1.12	1	3147.4
Pain Killers/ Analgesics	90.5	0.52	0.6	1.11	1.11	1	3181.2
Pain Killers/ Analgesics for non-medical purposes	1.87	0.24	12.8	1.11	1.11	1	3192.8
Tranquillisers/ Sleeping Pills	26.42	0.775	2.9	1.09	1.09	1	3233
Tranquillisers/ Sleeping Pills for non-medical purposes	2.23	0.261	11.7	1.1	1.1	1	3205.5
Steroids	6.24	0.431	6.9	1.12	1.12	1	3153
Steroids for non-medical purposes	0.32	0.102	31.5	1.14	1.14	1	3091.9
Barbiturates	2.41	0.275	11.4	1.13	1.13	1	3105.3
Barbiturates for non-medical purposes	1.46	0.214	14.6	1.11	1.11	1	3150.7
Meth/ampheta mine	6.79	0.442	6.5	1.09	1.09	1	3241.3
Marijuana	35.65	0.84	2.4	1.09	1.09	1	3250
Heroin	1.96	0.244	12.5	1.1	1.1	1	3224.8
Methadone or Buprenorphine	0.98	0.174	17.8	1.11	1.11	1	3182.4
Methadone or Buprenorphine for non-medical purposes	0.11	0.058	53	1.08	1.08	1	3265.9
Cocaine	6.38	0.435	6.8	1.12	1.12	1	3163.9
Hallucinogens	8.24	0.488	5.9	1.11	1.11	1	3171.6
Ecstasy	9.23	0.508	5.5	1.09	1.09	1	3252.1
Ketamine	1.12	0.187	16.8	1.09	1.09	1	3146.9
GHB	0.44	0.122	27.8	1.17	1.17	1	2948.9

Zanthanols	0.02	0.02	127.6	0.89	0.89	1	3937.6
Inhalants	1.49	0.214	14.3	1.1	1.1	1	3214.2
Other Opiates/ Opioids	32.3	0.833	2.6	1.1	1.1	1	3148.3
Other Opiates/ Opioids for non-medical purposes	1.37	0.208	15.2	1.11	1.11	1	3133.6
Injecting Drugs	2.1	0.256	12.1	1.1	1.1	1	3151.7

DRUGS TRIED IN LAST 12 MONTHS – TOTAL CATI (3,538 respondents)

Variable	Proportion (%)	Standard Error (%)	Relative Error (%)	Design Effect			Effective Sample Size
				National	Due to stratification	Mean stratum	
Tobacco	25.08	0.829	3.3	1.1	1.1	1	2732.1
Alcohol	87.82	0.6	0.7	1.11	1.11	1	2969.9
Pain Killers/ Analgesics	0.69	0.144	21	1.08	1.08	1	3276.6
Tranquillisers/ Sleeping Pills	0.63	0.143	22.6	1.14	1.14	1	3081.3
Steroids	0.06	0.049	77	1.34	1.34	1	2633.1
Barbiturates	0.17	0.075	43.7	1.15	1.15	1	3042.7
Meth/ampheta mine	1.8	0.229	12.7	1.05	1.05	1	3366.9
Marijuana	8.53	0.493	5.8	1.1	1.1	1	3210.5
Heroin	0.12	0.067	54.4	1.28	1.28	1	2757.4
Methadone or Buprenorphine	0	0	0	0	0	0	0
Cocaine	1.27	0.204	16.1	1.17	1.17	1	3003.8
Hallucinogens	0.49	0.122	24.9	1.08	1.08	1	3273.3
Ecstasy	3.16	0.31	9.8	1.11	1.11	1	3183.2
Ketamine	0.27	0.09	33.2	1.03	1.03	1	3327.3
GHB	0	0	0	0	0	0	0
Zanthanols	0	0	0	0	0	0	0
Inhalants	0.14	0.071	51.9	1.31	1.31	1	2698.4
Other Opiates/ Opioids	0.04	0.039	100.1	1.35	1.35	1	2564.5
Injecting Drugs	0.28	0.096	33.8	1.12	1.12	1	3085.2

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS EVER TRIED

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Tobacco	1.65	1.51	1.26	1.75	1.48	1.47	2.01	1.93	1.63
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.36	1.7	1.23	0.89	1.76	1.84	1.82	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Alcohol	2.33	1.27	1.73	3.16	1.72	1.76	1.59	1.54	1.21
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.32	2.4	1.31	1.75	1.42	2.71	3.05	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Painkillers/Analgesics	1.91	1.41	1.51	2.28	1.56	1.79	1.33	0.91	0.98
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.41	1.34	1.42	1.89	1.65	1.27	1.84	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Painkillers/Analgesics for non-medical purposes	1.51	1.52	1.42	1.39	1.13	1.48	1.39	0.86	1.2
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.92	1.23	1.24	1.4	1.44	1.38	1.94	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Tranquillisers/Sleeping Pills	1.64	1.64	1.35	1.65	1.43	1.74	1.34	2	1.4
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.21	1.44	1.29	1.39	1.13	1.29	0.8	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Tranquillisers/Sleeping Pills for non-medical purposes	1.65	1.6	1.68	1.54	1.24	1.62	2.14	1.78	0.94
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.04	1.06	1.43	1.04	1.21	1.95	1.45	

	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Steroids	1.38	1.11	1.38	1.41	1.28	1.28	1.31	1.81	1.45
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.38	1.42	1.14	0.89	1.13	1.63	1.67	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Steroids for non-medical purposes	1.62	1.51	1.31	1.81	1.28	1.43	1.82	0.46	0.42
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.87	0	1.42	1.62	1.13	1.36	0.8	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Barbiturates	1.35	1.51	1.31	1.2	1.29	1.34	0.74	1.42	0.78
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.16	1.63	0.81	1.33	0.94	0.88	0.93	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Barbiturates for non-medical purposes	1.51	1.95	1.42	1.15	1.32	1.54	0.92	2.02	0.41
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.21	1.86	1	1.31	1.2	0.78	1.09	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Methamphetamines/ Amphetamines/Speed	1.84	2.27	1.75	1.6	1.41	1.67	2.88	1.87	2.28
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.08	1.4	1.65	1.5	1.36	1.46	1.33	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Marijuana	2	1.92	2.07	1.92	1.82	1.86	1.83	1.26	1.59
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.61	1.71	1.73	2.04	1.58	1.49	1.53	

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS EVER TRIED -Continued

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Heroin	1.47	1.87	1.11	1.26	1.45	1.33	1.6	0.88	0.95
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.9	1.63	1.5	1.09	1.06	1.84	1.43	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Methadone or Buprenorphine	1.39	1.99	1.24	1.39	1.39	1.16	1.19	0.84	1.1
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.29	0.83	0.93	0.69	1.19	0.83	1.25	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Methadone or Buprenorphine for non-medical purposes	1.62	2.38	1.88	1.34	1.44	0.96	1.87	1.15	1.24
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.28	1.45	1.25	1.75	1.68	1.38	1.56	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Cocaine	2	2.77	1.97	1.81	1.59	1.73	2.24	2.51	1.61
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.26	1.54	1.61	1.64	1.61	1.68	1.68	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Hallucinogens	1.68	1.79	1.67	1.64	1.65	1.37	2.38	1.6	1.46
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.14	1.33	1.22	1.52	1.84	1.25	1.12	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Ecstasy	1.98	2.58	2.15	1.71	1.46	1.57	2.62	1.48	2.04
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.68	1.73	1.79	1.44	1.92	1.61	2.1	

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS EVER TRIED -Continued

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Ketamine	1.88	2.16	1.96	1.68	1.79	1.59	0.96	1.15	1.79
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.55	0	1.55	0.37	1.42	0.68	1.35	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
GHB	1.99	1.5	2.73	1.8	1.61	1.83	2.08	1.58	0.98
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.05	0	1.38	1.68	1.65	0.66	0.67	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Zanthanols	1.35	1.18	1.45	1.13	0	1.24	0	0.91	0
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0	0	0	0	0.99	0	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Inhalants	1.61	2.07	1.61	1.66	1.23	1.23	1.18	2.1	1.15
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.28	1.15	1.31	1.4	1.1	1	1.1	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Other Opiates/Opioids	1.56	1.42	1.25	1.43	1.44	1.48	2.18	1.42	1.4
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.29	1.39	1.22	1.29	1.32	0.97	1.33	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Other Opiates/Opioids for non-medical purposes	1.51	2.16	1.69	1.22	1.56	1.01	1.83	0.92	1.24
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.07	1.81	1.49	1.1	1.36	0.88	1.58	

	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Injecting Drugs	1.52	1.96	1.06	1.5	1.37	1.28	2.04	1.86	1.01
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.03	2.13	1.03	1.37	1.01	1.33	0.91	

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS TRIED IN LAST 12 MONTHS

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Tobacco	1.8	1.87	1.6	1.68	1.74	1.76	2.24	2.31	1.06
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.24	1.09	1.33	0.95	2.04	1.69	1.66	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Alcohol	2.16	1.53	1.93	2.89	1.57	1.88	1.6	0.79	0.96
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.18	1.44	1.39	1.35	1.61	1.53	2.82	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Painkillers/Analgesics	1.41	1.2	1.37	1.27	0.98	1.62	1.44	0.82	1.26
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.51	1.22	0.98	1.18	1.11	0.99	2.08	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Tranquillisers/ Sleeping Pills	1.85	1.41	1.62	1.8	1.59	1.98	1.43	1.62	0.75
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.38	1.21	1.59	0.66	1.26	1.82	0.29	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Steroids	1.78	1.59	1.35	2.21	0	1.3	1.12	0	0
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.67	0	0.5	1.14	1.36	0	0	

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS TRIED IN LAST 12 MONTHS - Continued

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Barbiturates	1.39	1.57	1.51	0.79	1.27	0.82	0	3.21	0
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0	0	0	1.44	1.73	0.43	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Methamphetamines/ Amphetamines/Speed	1.92	2.32	1.75	1.64	1.44	1.7	4.2	2.19	1.29
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.19	1.92	1.45	1.28	1.56	0.99	1.02	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Marijuana	2.01	2.36	2.03	2.11	1.82	1.49	2.33	1.34	1.48
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.72	1.66	1.82	1.39	1.6	1.27	1.5	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Heroin	1.44	2.01	1.08	1.25	0.52	1.06	1.58	1.02	0
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.68	0	1.72	0.93	0	2.02	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Methadone or Buprenorphine	1.52	2.01	0	1.02	0	1.02	0	1.19	0
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0	0	0.55	0.93	1.29	0.52	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Cocaine	2.26	3.6	2.05	1.95	1.34	1.48	4.55	1.69	1.36
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.88	1.84	1.93	1.61	1.82	1.1	1.24	

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS TRIED IN LAST 12 MONTHS - Continued

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Hallucinogens		1.47	1.9	1.65	1.74	1.63	1.4	1.34	0.87
	1.7	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.54	0.41	1.47	2.36	1.82	1.08	1.69	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Ecstasy		2.43	2.26	2.08	1.45	1.54	4.28	2.25	1.33
	2.22	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		2.59	1.94	1.7	1.4	2	1.84	1.29	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Ketamine		1.4	2.27	1.09	1.56	1.38	0	1.45	1.74
	1.41	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.89	0	1.03	0	0.93	0	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
GHB		0.45	0	1.7	1.27	3.67	0	0	0
	2.32	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		1.09	0	1.25	0	0.48	0.64	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Zanthanols		1.45	0	1.07	0	0	0	0	0
	1.45	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0	0	0	0	0	0	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Inhalants		1.11	1.25	1.92	1.62	1.38	1.45	1.78	1.65
	1.59	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.78	0.33	1.19	0	1.43	0.6	0.84	

DISTRIBUTION OF DESIGN EFFECT ACROSS STRATA (All samples combined)

DRUGS TRIED IN LAST 12 MONTHS - Continued

Variable	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Other Opiates/Opioids	1.44	2.19	1.28	1.25	1.03	1.27	0.46	0.97	0.98
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.77	0.9	1.14	0.9	1.32	0.88	0	
	Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
Injecting Drugs	1.44	1.71	1.28	1.22	1.19	1.28	2.16	0.95	0.99
		Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
		0.91	0	1.38	1.27	1.06	1.3	0	

Appendix Two

CATI WEIGHTING EFFECTS

CATI WEIGHTING EFFECT ACROSS STRATA

Total Effect	Bris	Rest of QLD	Syd	Rest of NSW	Mel	Rest of VIC	Hob	Rest of TAS
1.61	1.45	1.69	1.34	1.46	1.35	1.67	1.71	1.45
	Adel	Rest of SA	Perth	Rest of WA	ACT	Darwin	Rest of NT	
	1.42	1.33	1.48	1.67	1.71	1.46	1.42	

CATI WEIGHTING EFFECT ACROSS STATE

Total Effect	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
1.52	1.42	1.44	1.58	1.39	1.53	1.56	1.44	1.71

Appendix Three

SUMMARY TABLE OF EFFECTIVE SAMPLE SIZES

SUMMARY TABLE OF EFFECTIVE SAMPLE SIZES[^]

GROUP		AUST	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
CATI	Sample Size	3538	1028	693	594	362	401	200	198	62
	Design Effect	1.12	1.03	0.99	1	0.99	1	0.99	0.99	1
	Eff. Sample	3154	999	697	595	365	401	201	199	61
Drop & Collect	Sample Size	19818	5599	4149	3646	1620	2025	956	832	991
	Design Effect	1.71	1.59	1.6	1.73	1.3	1.31	1.4	1.36	1.42
	Eff. Sample	11570	3524	2585	2102	1245	1541	683	609	698
All Samples Combined	Sample Size	23356	6627	4842	4240	1982	2426	1156	1030	1053
	Design Effect	1.72	1.58	1.65	1.71	1.31	1.34	1.42	1.33	1.37
	Eff. Sample	13539	4191	2935	2485	1515	1812	812	774	766
Capital City (all samples)	Sample Size	14603	3980	3420	1895	1451	1768	502	534	1053
	Design Effect	1.72	1.6	1.55	1.78	1.28	1.32	1.52	1.25	1.37
	Eff. Sample	8479	2481	2208	1065	1131	1343	330	427	766
Country (all samples)	Sample Size	8753	2647	1422	2345	531	658	654	496	-
	Design Effect	1.7	1.45	1.97	1.62	1.39	1.3	1.25	1.39	-
	Eff. Sample	5159	1829	723	1444	381	507	521	357	-
Total Male (all samples)	Sample Size	10231	2870	2072	1845	867	1103	506	491	477
	Design Effect	1.63	1.5	1.56	1.52	1.26	1.3	1.26	1.27	1.23
	Eff. Sample	6270	1918	1326	1213	686	849	401	386	386
Total Female (all samples)	Sample Size	13125	3757	2770	2395	1115	1323	650	539	576
	Design Effect	1.4	1.26	1.35	1.35	1.24	1.24	1.14	1.07	1.47
	Eff. Sample	9364	2984	2045	1775	896	1065	571	504	392

[^] Based on mean design effect across the key measures of drugs ever tried and drugs tried in last 12 months.

Appendix Four

RESULTS OF INTER-SAMPLE RELIABILITY TEST

		TOTAL %	D&C %	CATI %	SIG DIFF? CATI v D&C)	DIFF BETWEEN ESTIMATES INCLUDING/ EXCLUDING CATI
	<i>Base (Sample Size)</i>	23,356	19,818	3,538		
D3	Proportion who have ever tried smoking	57.92	57.83	59.23		0.09
E1	Proportion who have ever tried alcohol	93.32	92.97	95.06	Y	0.35
E5	Proportion who have drunk alcohol in past 12 months	85.99	85.63	87.82	Y	0.35
F1	Proportion who have ever used painkillers/analgesics	79.18	77.16	90.5	Y	2.02
F2	Proportion who have ever used painkillers/analgesics for non-medical purposes	3.15	3.3	2.23	Y	-0.15
F4	Proportion who have used painkillers/analgesics in past 12 months	2.5	2.83	0.69	Y	-0.33
G1	Proportion who have ever used tranquilisers/sleeping pills	27.7	27.93	26.42		-0.23
G2	Proportion who have ever used tranquilisers/sleeping pills for non-medical purposes	3.15	3.3	2.23	Y	-0.15
G4	Proportion who have used tranquilisers/sleeping pills in past 12 months	1.32	1.44	0.63	Y	-0.12
H1	Proportion who have ever used steroids	7.09	7.2	6.24		-0.11
H2	Proportion who have ever used steroids for non-medical purposes	0.33	0.33	0.32		0
H4	Proportion who have used steroids in past 12 months	0.12	0.12	0.06		0
J1	Proportion who have ever used barbiturates	1.86	1.75	2.41		0.11
J2	Proportion who have ever used barbiturates for non-medical purposes	0.87	0.76	1.46	Y	0.12
J4	Proportion who have used barbiturates in past 12 months	0.12	0.1	0.17		0.01

K1	Proportion who have ever used Meth/amphetamines/Speed	6.09	6.02	6.79		0.07
K3	Proportion who have used meth/amphetamines/speed in past 12 months	2.22	2.3	1.8		-0.08
L1	Proportion who have ever used marijuana	32.49	32.04	35.65	Y	0.45
L3	Proportion who have used marijuana in past 12 months	8.8	8.89	8.53		-0.09
M1	Proportion who have ever used heroin	1.51	1.44	1.96		0.06
M3	Proportion who have used heroin in past 12 months	0.2	0.22	0.12		-0.01
N1	Proportion who have ever used methadone or buprenorphine	0.72	0.67	0.98		0.05
N2	Proportion who have ever used methadone or buprenorphine for non-medical purposes	0.31	0.34	0.11		-0.03
N4	Proportion who have used methadone or buprenorphine in past 12 months	0.06	0.07	0		-0.01
O1	Proportion who have ever used cocaine	5.71	5.64	6.38		0.07
O3	Proportion who have used cocaine in past 12 months	1.58	1.62	1.27		-0.04
P1	Proportion who have ever used any hallucinogen	6.48	6.2	8.24	Y	0.27
P3	Proportion who have used any hallucinogens in past 12 months	0.6	0.61	0.49		-0.02
Q1	Proportion who have ever used ecstasy	8.61	8.53	9.23		0.08
Q3	Proportion who have used ecstasy in past 12 months	3.42	3.46	3.16		-0.04
T1	Proportion who have ever used Zanthanols	0.04	0.05	0.02		0
T3	Proportion who have used Zanthanols in past 12 months	0.01	0.01	0		0

U1	Proportion who have ever used inhalants	3.02	3.29	1.49	Y	-0.27
U3	Proportion who have used inhalants in past 12 months	0.39	0.44	0.14		-0.05

		TOTAL	D&C	CATI	SIG DIFF? CATI v D&C)	DIFF BETWEEN ESTIMATES INCLUDING/ EXCLUDING CATI
	<i>Base (Sample Size 14+)</i>	22,912	19,443	3,469		
R1	Proportion who have ever used Ketamine	1.09	1.07	1.12		0.02
R3	Proportion who have used ketamine in past 12 months	0.19	0.17	0.27		0.02
S1	Proportion who have ever used GHB	0.52	0.53	0.44		-0.01
S3	Proportion who have used GHB in past 12 months	0.1	0.12	0		-0.02
V1	Proportion who have ever used other opiates/opioids	17.16	14.42	32.3	Y	2.75
V2	Proportion who have ever used other opiates/opioids for non-medical purposes	0.93	0.88	1.37		0.05
V3	Proportion who have used other opiates/opioids in past 12 months	0.2	0.23	0.04		-0.03
W1	Proportion who have ever injected illicit drugs	1.9	1.88	2.1		0.02
W4	Proportion who have injected illicit drugs in past 12 months	0.48	0.51	0.28		-0.03

Appendix Five

AVERAGE WEIGHTS BY AGE/SEX/STATE (ALL SAMPLES COMBINED)

AVERAGE WEIGHTS, BY AGE/SEX/STATE
(All samples combined)

State	Age Groups						
	Total	12 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 +
	Males						
NSW	1006.7	1550.6	1478.8	1101.2	1006.1	917.5	689.1
VIC	1042.1	1259.5	1594.3	1103.1	1152.9	937.8	724.5
QLD	938.5	1511.1	1442.5	1095.6	1022.6	793.7	583.6
SA	765	966.4	1177.3	944.3	760.1	756.2	515.8
WA	803.7	1055.5	1186.4	801.5	857.1	795	535
TAS	403.1	554.8	566	377.9	471.2	336.6	317.8
NT	174.3	327.2	209	174.5	165.3	136.5	122.3
ACT	285.9	546.4	352.2	252.5	313.9	217.1	226.6
TOTAL	855.8	1224.2	1240.7	913.7	895.8	759.7	594.1
	Females						
NSW	788.8	1255.1	1043.8	681.2	822.2	729.2	649
VIC	809.8	1184.4	1049.5	710.3	909.7	694.8	680.4
QLD	731.5	1176	902.2	635.3	762.9	682.2	593.7
SA	614.2	966.2	756.6	579.2	616.2	598.3	502
WA	669.5	939.9	818.1	677.2	753.8	597.7	503.8
TAS	327.1	645.1	399.3	285.2	399.7	279.1	259
NT	145.9	266.8	165	123.2	122.3	139.1	133.6
ACT	247.4	367.7	316.6	210.4	266.9	216.3	202.3
TOTAL	682.9	1057.8	856.1	601.1	721.4	617.1	569.1

The above table provides an indication of the range of weights applied across various groups. These average weights have been calculated by dividing the estimated population by the unweighted figure (i.e. actual number of respondents) for each cell.

The range of individual weights would, of course, be significantly greater than this. For details on the weighting process, please see Section 6.4.

The differences between States and Territories results from the disproportionate sampling required by the survey objectives. The smaller States and Territories were deliberately oversampled to provide adequate numbers of interviews for detailed analysis within each. The proper balance between the States and Territories was restored by the weighting. Differences within any State or Territory reflect variations in response rates.

Appendix Six

OVERVIEW OF RESPONSES TO AUDIT CALLS

All Drop and Collect respondents were asked whether they would mind being recontacted for verification of their interview. Approximately 10% of those who agreed were then randomly selected to be called back.

To provide an impression of the comments made by these respondents on the survey process, a random sample of 340 completed audit questionnaires from across Australia were selected and examined.

Approximately 72% of these respondents provided some comments on the questionnaire, the interviewer or the survey process in general. The most widely mentioned were comments praising the interviewer’s professionalism or manner (31%). A brief summary of the comments are outlined below follows:

A common response under “Other general comments” was that while the respondent themselves had answered honestly, they found it hard to believe that someone “on drugs” would answer the questions honestly.

Comments praising the interviewer’s professionalism or manner	31%
Comments indicating satisfaction with the overall process	9%
Comments praising the social value, use, or pertinence of the survey	15%
Comments indicating that the questionnaire was not relevant to the respondent	10%
Criticisms of the questionnaire for being hard to follow or understand	1%
Comments indicating that the survey was straightforward	8%
Comments indicating that the questionnaire covered all areas	4%
Comments indicating that the respondent found the survey interesting/informative	21%
Comments criticising the length of the questionnaire/interview	4%
Comments indicating that the respondent had no problems	20%
Other criticisms of the questionnaire	6%
Other general comments	16%
No comment made	28%

STATE	Number of respondents giving permission to be audited	Number of respondents Audited
VIC/TAS/NT	2,640	461
NSW/ACT	2,487	473
WA	1,082	273
SA	737	177
QLD	1,419	506
TOTAL	8,365	1,890

In total, 42.2% of D&C respondents provided their contact details and gave permission to be audited. Of these, 22.6% were audited (9.5% of the total number of D&C respondents). As noted earlier in this Technical report, the agreed requirement was for 10% of those respondents who provided their contact details to be audited, a figure which was easily met.

Appendix Seven

AUDIT QUESTIONNAIRE

R04630

2007 National Drug Strategy Household Survey - **AUDIT QUESTIONNAIRE**

State..... Interviewer Name

CCD No. Date: ___/___/2007

Respondent Name..... Telephone No

Good morning/afternoon/evening. My name is <SAY NAME> from Roy Morgan Research, the people who conduct the Morgan Poll. Could I please speak with <RESPONDENT NAME>? (*Repeat introduction if necessary*) Recently one of our interviewers may have visited you and asked you to take part in one of our surveys. Do you remember that? **CIRCLE**.

YES **NO**

If **NO**: Roy Morgan Research has recently been conducting the National Drug Strategy Household Survey on behalf of the Australian Institute of Health and Welfare and the Department of Health and Aged Care. The survey covers health and social issues and certain behaviour relating to tobacco, alcohol and drug use. Do you remember taking part in this survey? **CIRCLE**.

YES **NO Thank and Terminate**

If **TOOK PART**: We would like to thank you for participating in this survey and we would like to ask you a few questions to confirm that our survey procedures are being followed by our interviewers.

1. At the time that the interviewer visited, were you the person in the household who was to have their birthday next? **CIRCLE**.

YES **NO**

2. Did you receive a signed letter from the Australian Institute of Health and Welfare? **CIRCLE**.

YES **NO**

3. Approximately how long did it take (you) to complete the survey? (ask for time spent *completing* the questionnaire, NOT the total elapsed time) **RECORD TIME**.

Minutes

4. Did you receive an envelope labelled 'Strictly Confidential' in which to seal your completed questionnaire? **CIRCLE**.

YES **NO**

5. Did you receive a phone call from the interviewer to remind you when they were coming back to pick up the questionnaire? **CIRCLE**.

YES NO NO (didn't give phone number) CAN'T RECALL

ASK **ALL**:

6. Do you have any comments on the **survey** or the **interviewer**? **CIRCLE ALL APPLICABLE**.

Interviewing process -

Professionalism or manner of interviewer good/excellent.....1

Satisfied with the overall survey/interviewing process2

Late survey collection.....3

Other criticisms of interviewers/interviewing process – *please specify*4

.....4

Other praise of interviewers/interviewing process – *please specify*5

.....5

Survey/questionnaire/topic –

Survey relevant and worthwhile6

Survey interesting7

Survey informative9

Survey not relevant to the respondent9

Survey a waste of time/money.....10

No/few problems in completing the survey 11

Questionnaire comprehensive/covered all areas.....12

Questionnaire easy and straightforward to complete/answer13

Questionnaire hard to follow/answer/understand 14

Questionnaire/interview too long15

Questionnaire too repetitive.....16

Biased wording/leading questions17

Not enough options for answers18

Other criticisms of survey/ questionnaire – *please specify*19

.....19

Other praise of survey/ questionnaire – *please specify*.....20

.....20

Other –

Other comments – *please specify*.....21

.....21

No comment made 22

We very much appreciate your time. It is very helpful to have your comments.
Thank you again for your participation in the survey.

Auditor Name.....

Auditor Signature

Appendix Eight

DROP & COLLECT SCREENING QUESTIONNAIRE

IF HOUSEHOLD IS **WILLING** – Go to Q1

IF HOUSEHOLD **REFUSES** – Code as **RH** on Call Record Sheet
PROCEED TO NEXT DWELLING

Q1. Including yourself, how many people, aged 12 and over, live in this household? (Record Number)

If **01** – Go to Q2a

If **02 or more** – Go to Q2b

Q2a. Could you please tell me your first name and your approximate age?

Q2b. Could you please tell me the first name and the approximate age of the person in the household aged 12 or over whose birthday is next?

Q3. *Record First Name, Age and Gender*
First Name: _____ Age Male: or Female: (Mark 'X' in appropriate box)

IF SELECTED RESPONDENT IS 12-15, SAY:

Q4. May I please speak to an adult aged 18 or over who is responsible for the household at this time?

REPEAT INTRODUCTION TO ADULT AND SHOW LETTER

(NAME from Q3) has been selected as the respondent for this survey. Since he/she is under 16, I would like your permission for him/her to complete a questionnaire. (SHOW QUESTIONNAIRE IF NECESSARY)

PERMISSION GRANTED (CROSS)

RECORD RELATIONSHIP OF PERSON GIVING PERMISSION:

RESPONSIBLE ADULT TO SIGN TO INDICATE PERMISSION SOUGHT AND GRANTED:

NOW GO TO Q5. ➡

PERMISSION DENIED (CROSS)
Code as **RA** on Call Record Sheet
(NO MORE CALLS TO THIS HOME)

IF SELECTED RESPONDENT IS 16+ OR 12-15 AND ADULT HAS GIVEN CONSENT, SAY:

Q5. For the purposes of this survey I need to interview you/(name from Q3). Is it possible for me to speak with you/him/her now? (Mark 'X' ONE box only)

Selected respondent is available now

Selected respondent is not available

IF RESPONDENT IS AVAILABLE:
Q6a. Hand questionnaire to respondent

Ask respondent to complete the questionnaire
COMPLETE SHADED BOX

IF RESPONDENT NOT AVAILABLE:
Q6b. Hand questionnaire to householder

Ask householder to give the questionnaire to the respondent
COMPLETE SHADED BOX

ONLY Complete Once the Household Accepts Questionnaire

Date of placement (dd/mm/yyyy) / / 2007

CC Ref No (from Call Record Sheet)

Address: _____

City/Town: _____

State: _____ Postcode

Household ID (from front cover of Questionnaire)

SET TIME FOR PICK-UP

Time/Date for 1 st Attempt to pick-up Questionnaire	Time/Date for 2 nd Attempt to pick-up Questionnaire	Comments	Final Pick-up Result Code
____ : ____ AM/PM / / 2007	____ : ____ AM/PM / / 2007		

ASK EVERYONE WHO HAS ARRANGED A CALL-BACK TIME

It is likely that I will call you prior to the time arranged to either remind you of the pick-up time or to arrange another time to collect the questionnaire. Could I please have a contact telephone number for this purpose?

Telephone No (Home line no. or mobile no. is acceptable)

Won't say number (CROSS)