Drug Use in New Zealand

Key Results of the 2007/08 New Zealand Alcohol and Drug Use Survey

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Foreword

This publication, *Drug Use in New Zealand*, is the second release of results from the 2007/08 New Zealand Alcohol and Drug Use Survey. This report presents the key descriptive results about the use of drugs (other than alcohol and tobacco) for recreational purposes. The first release of results from the survey – *Alcohol Use in New Zealand* – was published in October 2009.

Drug use can cause harm to individuals, in almost every part of their life, including harm to health and wellbeing, social harm and financial harm. The aim of the *National Drug Policy 2007–2012* is to prevent and reduce the effects of harmful drug use (including alcohol, tobacco, illegal and other drugs) through several measures, which include limiting the use of drugs by individuals, reducing the harm caused by existing drug use, and controlling or limiting the availability of drugs. The findings of this report will inform the development of appropriate policy and services to address harm caused by New Zealanders' drug use.

This publication will be of interest to government agencies, crown organisations, non-government agencies, researchers in the drug and related fields, educators, industry and the general public.

I would like to acknowledge and express our thanks to the many people who freely gave their time to participate in the 2007/08 New Zealand Alcohol and Drug Use Survey. This report would not have been possible without them.

I invite any feedback on the content, relevance and direction of this publication. Please direct any comments to Health and Disability Intelligence, Ministry of Health, PO Box 5013, Wellington.

Dr Mark Jacobs
Director of Public Health
Ministry of Health

Authors

This report was written by Kylie Mason, Anthea Hewitt and Niki Stefanogiannis, with statistical analysis by Aloka Bhattacharya, Li-Chia Yeh and Miranda Devlin, of Health and Disability Intelligence, Health and Disability Systems Strategy Directorate, Ministry of Health.

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All Health and Disability Intelligence publications are subject to peer review by experts in their fields. This report was peer reviewed by internal and external reviewers, who provided valuable insight and contributions to this document. The following peer reviewers are acknowledged and thanked for their input: the National Drug Policy team within the Ministry of Health, including Sara McFall, Mark Heffernan and Bruce Atmore; Natalie Talamaivao of the Māori Health Directorate; Sally Faisandier (Department of Corrections); and Simon Adamson (Christchurch School of Medicine and Health Sciences, University of Otago).

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This report presents the key findings about drug use (other than alcohol and tobacco) for recreational purposes in the New Zealand adult population, from the 2007/08 New Zealand Alcohol and Drug Use Survey. A publication about alcohol use by New Zealand adults was released earlier in 2009.

The 2007/08 New Zealand Alcohol and Drug Use Survey measured alcohol and other drug use behaviours among 6784 New Zealanders aged 16–64 years. The survey included questions about lifetime and past-year use of alcohol and other drugs, frequency of use, harms related to the use of alcohol and other drugs, help-seeking for alcohol and/or other drug use, and harms experienced due to other people's alcohol and/or other drug use. The survey was carried out from August 2007 to April 2008 and had a weighted response rate of 60%.

Key findings

All results refer to drug use for recreational purposes among the New Zealand population aged 16–64 years in 2007/08.

Summary of drug use

The prevalence of having ever used drugs for recreational purposes was highest for the following drugs:

- cannabis (46.4%)
- BZP party pills (13.5%)
- LSD and other synthetic hallucinogens (7.3%)
- amphetamines (7.2%)
- kava (6.3%)
- ecstasy (6.2%).

The prevalence of having used drugs for recreational purposes in the last 12 months was highest for the following drugs:

- cannabis (14.6%)
- BZP party pills (5.6%)
- ecstasy (2.6%)
- amphetamines (2.1%)
- LSD and other synthetic hallucinogens (1.3%).

Use of any drug for recreational purposes

Nearly one in two adults (49.0%) had used drugs (excluding alcohol, tobacco and BZP party pills) for recreational purposes at some point in their lifetime, equating to about 1,292,700 people in the total population aged 16–64 years in New Zealand.

Among people who had ever used any drug, one in three (34.6%) had first used drugs when aged 15–17 years, and 27.8% had first used drugs when aged 18–20 years.

In the last year, one in six (16.6%) adults had used any drug for recreational purposes, equating to 438,200 people.

Cannabis

Almost half of New Zealand adults had used cannabis at some point in their lifetime (46.4%), which represents approximately 1,224,600 people.

Of those people who had ever used cannabis, one in six (16.2%) had first tried it when aged 14 years or younger, and one in three (35.7%) had first tried it when they were aged 15–17 years.

One in seven (14.6%) adults had used cannabis in the past year.

Among past-year cannabis users, 39.1% used cannabis at least weekly in the past year, and over half (54.0%) had used cannabis at least monthly.

Ecstasy

Six percent (6.2%) of adults had used ecstasy at some point in their lifetime.

About one in two people who had ever used ecstasy had first tried it when they were aged 21 years or older (51.5%).

About 2.6% of adults had used ecstasy in the past year, equating to 67,300 people.

Stimulants

Overall, 3.9% of the adult population had used any stimulant drug (amphetamine, cocaine or crack cocaine, prescription stimulants or ecstasy) for recreational purposes in the past year, equating to 104,000 people in New Zealand.

Amphetamines were the most commonly used stimulant (excluding ecstasy) in the last year, with 2.1% of adults having used amphetamines in the previous year, equating to about 54,900 people.

Among past-year amphetamine users, 54.1% reported having used the drug ‘P’ in the past year, equating to 1.0% of the adult population. Six in ten (58.2%) past-year amphetamine users reported having used ‘speed’ in the past year, equating to 1.1% of the adult population.

About 0.6% of the adult population had used cocaine or crack cocaine in the past year.

A small proportion of the adult population (0.5%) had used prescription stimulants for recreational purposes in the past year.

Hallucinogens

Overall, 3.2% of adults had used any hallucinogenic drug (LSD/DMT/other synthetic hallucinogens, naturally occurring hallucinogens, ketamine, or ecstasy) in the last year.

LSD and other synthetic hallucinogens were the hallucinogenic drugs used by the largest proportion of the population in the past year (excluding ecstasy), with 1.3% of the adult population aged 16–64 years having used these drugs in the past year.

Less than one percent (0.6%) of adults had used naturally occurring hallucinogens (such as magic mushrooms or peyote cactus) in the past year.

About 0.3% of adults had used ketamine for recreational purposes in the past year.

Sedatives

Overall, 1.7% of adults had used any sedative (kava, prescription sedatives or GHB) for recreational purposes in the past year.

Almost one percent (0.9%) of adults had used kava in the previous year.

A small proportion of adults had used prescription sedatives (such as barbiturates or benzodiazepines) (0.6%) or GHB (0.3%) for recreational purposes in the past year.

Opiates

Overall, 1.1% of the adult population had used any kind of opiate (including prescription painkillers and opiates) for recreational purposes in the past year.

Other drugs

Almost one percent (0.8%) of adults had used nitrous oxide (laughing gas) for recreational purposes in the past year.

There were very low prevalences of past-year use of inhalants (0.1%), solvents (0.1%) and steroids (< 0.1%) for recreational purposes, among the adult population.

About 0.3% of adults had injected drugs for recreational purposes in the past year.

BZP party pills

One in seven (13.5%) adults had used BZP party pills at some point in their lifetime.

About 5.6% of adults had used BZP party pills in the past year. (Note that BZP was classified as a Class C1 illegal drug on 1 April 2008, around the time of the conclusion of the survey.)

Risky behaviours and drug use

Among people who had used drugs (excluding alcohol, tobacco and BZP party pills) in the past year, one in three (34.5%) reported having driven a motor vehicle while feeling under the influence of drugs in the past 12 months. One in five (18.5%) reported having worked while feeling under the influence of drugs in the past 12 months.

Help-seeking for drug use

Almost 5% (4.5%) of people who had ever used drugs had received help to reduce their drug use at some point in their lifetime, equating to about 58,700 people in New Zealand.

Among people who had ever received help in their lifetime to reduce their level of drug use, the most common source of help was a drug and alcohol counsellor (58.8%), followed by a family member or friend (35.4%) and a general practitioner (GP) (30.3%).

About 2.6% of people who had ever used drugs had wanted help to reduce their level of drug use at some time in their life but not received it.

Among these people, the most commonly cited reasons for not receiving help were not knowing where to go (20.7%), and the service not being appropriate for their type of drug use (19.8%).

Three percent (3.2%) of past-year drug users had received help in the past year to reduce their level of drug use.

About 3.6% of past-year drug users had wanted help in the past year to reduce their level of drug use but had not received it.

Harmful effects due to drug use

The most common harmful effects experienced in the last 12 months by past-year drug users due to their drug use, were:

- harmful effects on their financial position (10.8%)
- harmful effects on their friendships or social life (8.5%)
- harmful effects on their home life (8.4%)
- having had one or more days off work or school (7.2%)
- harmful effects on their work, study or employment opportunities (6.5%).

Key findings for specific population groups

The following section present results about drug use and drug-related harm by gender, age group, ethnic group and neighbourhood socioeconomic deprivation (NZDep2006 quintiles). The results also refer to the key population groups of youth, Māori and Pacific peoples, who are identified in the National Drug Policy as being at greater risk of experiencing harms from the use of alcohol and other drugs.

These results should be interpreted within the context of the broader determinants of health, which include the social and physical environment, socioeconomic status, inequalities in the distribution of and access to material resources such as health care, and other determinants of health (such as education, employment and housing). Some of the results are adjusted for age (for gender, ethnicity and NZDep2006 analyses), to account for differences in the age structures of different population groups.

Trends by gender

Overall, men were significantly more likely than women to have used any drug (excluding alcohol, tobacco and BZP party pills) for recreational purposes in the past year, when adjusted for age.

After adjusting for age, men were significantly more likely than women to have used the following individual drugs in the past year: cannabis, ecstasy, amphetamines, cocaine/crack cocaine, LSD and/or other synthetic hallucinogens, ketamine, kava and prescription sedatives. There were no drugs that women were significantly more likely to have used in the past year than men.

Trends by age group

Generally, past-year drug use was higher in the younger age groups (16–17 years, 18–24 years, and/or 25–34 years) than in the older age groups.

For both men and women, those aged 25–34 years were significantly more likely to have ever used drugs than people in other age groups.

People aged 18–24 years also had generally higher rates of past-year drug use. Four in ten (38.1%) men aged 18–24 years had used any drug (excluding alcohol, tobacco and BZP party pills) for recreational purposes in the past year, and three in ten (29.8%) women in this age group had done so.

Trends by ethnic group

After adjusting for age, European/Other and Māori men and women had significantly higher rates of having used any drug in the past year, compared with men and women in the total population. People of Pacific or Asian ethnicity had significantly lower rates of past-year drug use.

Compared with people in the total population, people of European/Other ethnicity had higher rates of having used the following drugs in the past year: cannabis, ecstasy, amphetamines, prescription stimulants (men only), LSD/DMT/other synthetic hallucinogens (men only), naturally occurring hallucinogens, ketamine, GHB, nitrous oxide and BZP party pills. They were also significantly more likely to have injected drugs for recreational purposes in the past year, compared with the total population.

Māori men and women had significantly higher rates of having used cannabis and BZP party pills in the past year, compared with men and women in the total population. There were no other drugs that Māori men and women were significantly more likely to have used in the past year than men and women in the total population.

Among those people who had used cannabis in their lifetime, Māori and non-Māori had similar rates of first starting cannabis when aged 15–17 years, but Māori were significantly more likely than non-Māori to have been aged 14 years or younger when they first tried cannabis, when adjusted for age.

Overall, Pacific men and women were less likely to have used drugs in the past year than men and women in the total population. The exception was kava, with Pacific men being almost six times more likely to have used kava in the past year, compared with men in the total population.

Asian men and women had very low rates of past-year drug use, compared with men and women in the total population.

Trends by neighbourhood socioeconomic deprivation

Men and women living in more socioeconomically deprived neighbourhoods (NZDep2006 quintile 5) were significantly more likely to have used any drug for recreational purposes in the past year than people living in less socioeconomically deprived neighbourhoods (quintile 1).

For many specific drugs, there was no overall trend by neighbourhood socioeconomic deprivation in past-year drug use. However, people living in quintiles 3 or 4 were often more likely than other people to have used drugs in the past year.

Conclusions

This report shows that one in six (16.6%) New Zealanders aged 16–64 years had used drugs recreationally in the past year. The majority of these people had used cannabis, with 14.6% of all New Zealanders aged 16–64 years having used cannabis in the past year. Although some population groups – in particular men, people in younger age groups, and those of European/Other or Māori ethnicity – were more likely to have used any drugs in the past year, this survey found that drug use is relatively common in many parts of society. Given that the effects of drug use include dependence problems, health problems, financial and social harm, as well as presenting a risk to people's lives, it continues to be important to address drug use and drug-related harm in New Zealand.

Chapter 1: Introduction and Methods

This report, *Drug Use in New Zealand,* presents the key descriptive results about the use of drugs (other than alcohol and tobacco) for recreational purposes, from the 2007/08 New Zealand Alcohol and Drug Use Survey. This survey measured alcohol and other drug use behaviours among over 6500 New Zealand adults. A publication reporting the findings on alcohol use by New Zealand adults was released earlier in 2009 (Ministry of Health 2009a).

This report focuses on the recreational use of drugs with psychoactive effects, including illegal and other drugs. Illegal drugs are those that are classified as controlled drugs under the Misuse of Drugs Act 1975, including some pharmaceuticals that can be used for psychoactive purposes. Other drugs include medicines that are diverted from their legitimate purpose, restricted substances listed in the Misuse of Drugs Amendment Act 2005, products (eg, volatile substances) that are manufactured and marketed for domestic or industrial purposes but are capable of being used to achieve a psychoactive effect, and emerging drugs that are not classified under the Misuse of Drugs framework.

The report includes results about lifetime and past-year drug use, frequency of use, harms related to the use of drugs and help-seeking for drug use. This report presents results about the use of the following drugs:

- cannabis
- BZP party pills
- ecstasy
- stimulants (including amphetamines, methamphetamines, cocaine/crack cocaine and prescription stimulants)
- hallucinogens (including LSD and other synthetic hallucinogens, naturally occurring hallucinogens and ketamine)
- sedatives (including prescription sedatives, GHB and kava)
- opiates (including opiates and prescription painkillers)
- other drugs (including nitrous oxide, inhalants, solvents and steroids).

The overall key findings of this report are summarised and discussed in Chapter 11. A glossary of key terms used in this report is provided at the end of the publication.

Information about drug use behaviour of New Zealand adults provides valuable evidence for developing, implementing and evaluating policy and services, including the *National Drug Policy 2007–2012* (Ministerial Committee on Drug Policy 2007). The *National Drug Policy 2007–2012* aims to reduce the effects of harmful substance use (including alcohol, tobacco, illegal and other drugs) through measures such as reducing the demand for drugs, reducing the harm from existing drug use, and controlling or limiting the availability of drugs.

The findings of this report should be considered alongside results from reports on alcohol use (Ministry of Health 2009a) and tobacco use (Ministry of Health 2009b, 2009c) for an overall picture of the use of drugs for recreational purposes in New Zealand.

Overview of the survey

The 2007/08 New Zealand Alcohol and Drug Use Survey (NZADUS) was carried out from August 2007 to April 2008, collecting information on 6784 New Zealanders aged 16–64 years. The survey included 1825 Māori and 817 Pacific respondents.

The 2007/08 NZADUS measured self-reported alcohol and other drug use behaviours among the usually resident New Zealand population living in private dwellings. The survey included questions about lifetime and past-year use, frequency of use, harms related to the use of alcohol and other drugs, help-seeking for alcohol and/or other drug use, and harms experienced due to other people's alcohol and/or other drug use.

A final weighted response rate of 60% was achieved for the survey, with similar rates of participation across ethnic groups. This response rate is lower than the 70% standard that is normally targeted. However, given the sensitive nature of the subject matter, the response rate was considered a reasonable outcome. All results have been weighted in order to be representative of New Zealand's estimated resident population living in permanent private dwellings.

This chapter covers the following topics.

- Why do a survey?
- What questions were asked?
- How were survey participants selected?
- Who agreed to take part?
- How well does the survey represent the total population?
- What has been analysed and reported?
- What is the quality of these results?
- Key points for interpreting results.

Why do a survey?

The 2007/08 NZADUS is a key component of the New Zealand Health Monitor, an integrated programme of household surveys and cohort studies, which is managed by Health and Disability Intelligence (HDI, formerly Public Health Intelligence) and monitors the health of the New Zealand population (Ministry of Health 2005). The 2007/08 NZADUS is valuable because it collected information on New Zealanders' alcohol and other drug use behaviours that is not available through other means, such as analyses of health system records. For most of the topics in this report the 2007/08 NZADUS is the best current source of information at a population level.

HDI developed the objectives and content of the 2007/08 NZADUS, in consultation with stakeholders and an external technical group. The data collection was carried out by a specialist survey company, CBG Health Research Ltd, which undertook the interviewing and prepared the data sets. HDI undertook the analysis and dissemination of the data.

The key objectives of the survey were to provide information on the:

- prevalence of the use of alcohol, and illicit and other drugs for recreational purposes in the resident New Zealand population aged 16–64 years
- quantity and frequency of alcohol use, by type
- frequency of risky drinking
- frequency of illicit and other drug use for recreational purposes, by type of drug
- types of harm to self from own alcohol and drug use
- types of harm to self from others' alcohol and drug use
- risk-taking and help-seeking behaviour for alcohol and illicit drug use
- unmet need for related services
- differences between population groups categorised by age (16–17, 18–24, 25–34, 35–44, 45–54, 55–64 years), gender, ethnicity (Māori, non-Māori) and socioeconomic position.

What questions were asked?

The 2007/08 NZADUS collected information on the broad topics of alcohol and other drug use, and sociodemographics (see Table 1 for a summary). Where possible, questions were used from previous surveys. The full questionnaire for the 2007/08 NZADUS is available online on the Ministry of Health website (see www.moh.govt.nz).

Table 1: Summary of the content of the 2007/08 New Zealand Alcohol and Drug Use Survey

Module	Topics
Alcohol use	Lifetime alcohol use, past-year alcohol use (including frequency of use in past year, types of alcohol consumed, age of first use), amount consumed on typical drinking occasion, risky drinking behaviour, risk-taking behaviour, harms and health problems due to alcohol use, moderating drinking behaviours when drinking, receiving help for alcohol use, unmet need for help
BZP party pill use	Lifetime BZP party pill use, past-year BZP party pill use (including frequency of use in past year, age of first use), typical occasion, risk-taking behaviour, harms and health problems due to BZP use, receiving help for BZP use, unmet need for help
Cannabis use	Lifetime cannabis use, past-year cannabis use (including frequency of use in past year, age of first use), risk-taking behaviour, harms and health problems, receiving help for cannabis use, unmet need for help
Amphetamine use	Lifetime amphetamine use, past-year amphetamine use (including frequency of use in past year, age of first use), risk-taking behaviour, harms and health problems, receiving help for amphetamine use, unmet need for help

Module	Topics
Other drug use	Use of other drugs (eg, lifetime use, past-year use, frequency of use in past year, age of first use), risk-taking behaviour, harms and health problems, receiving help for drug use, unmet need for help
Needle use	Use of needles (ever and in last 12 months)
Harm caused by other people's alcohol and drug use	Harmful effects due to someone else's alcohol or drug use (on friendships or social life, home life, financial position) in lifetime and last 12 months, involvement in motor vehicle accident or other accident involving someone else's drinking, assaulted by someone while they were under the influence of alcohol and/or drugs
Alcohol and drug use while pregnant or breastfeeding	Use of alcohol or other drugs while pregnant or breastfeeding
Sociodemographic and related questions	Sex, age, ethnic groups, education, income, income support, employment, tobacco use

Note: BZP = benzylpiperazine

How were survey participants selected?

Overview of the sample design

Like other surveys in the New Zealand Health Monitor, the 2007/08 NZADUS used a multi-stage, stratified, probability proportional to size (PPS) sample design, with increased sampling of some ethnic groups, primarily through a 'screened' sample. This sample design was developed for the Ministry of Health by the Centre for Statistical and Survey Methodology, University of Wollongong, New South Wales, Australia.

Small geographic areas (meshblocks) were randomly chosen throughout New Zealand, with larger areas having a slightly increased chance of selection. Both the core and screened samples were drawn from the same selection of meshblocks. The core sample was drawn by selecting an average of 10 households from each meshblock, using systematic selection and interviewing one adult aged 16–64 years randomly selected from the household. The screened sample was drawn by selecting 10 further households using a systematic random selection from each meshblock and conducting a screening interview with one adult randomly selected from the household. If the selected adult belonged to the target population group (eg, of Māori or Pacific ethnicity), then the full interview was conducted. There was no substitution of households or participants if the selected household or participant refused, was not contactable or was unavailable.

The sample design ensured that:

- robust national estimates for key indicators of alcohol and recreational drug use could be produced
- all population groups of interest, in particular, Māori and Pacific peoples, were included in sufficient numbers to enable estimates that are accurate for all groups and allow enough depth of analyses for all groups

- interviewer travel costs were reduced because the sample was geographically clustered or 'clumped'.

Note that Pacific peoples were treated as one group, rather than as separate ethnicities, due to sample size issues.

A full methodology report for the 2007/08 NZADUS will be made available online in 2010 (see www.moh.govt.nz).

Data collection

Interviews for the 2007/08 NZADUS were conducted from August 2007 to April 2008. The interview team consisted of approximately 98 interviewers.

Participation in the 2007/08 NZADUS was voluntary, relying on the goodwill of participants, and consent was obtained without coercion. Due to a low response rate, a trial was carried out during the final two months of the survey whereby a small number of respondents were offered a small incentive to complete the survey questionnaire in order to increase participation in the survey. All people selected for the survey were given a letter of invitation from the Ministry of Health and an information brochure. If they agreed to take part, they were asked to sign a consent form.

Interviews were conducted in respondents' homes. The survey was administered in three parts. The first part of the survey was carried out using a face-to-face computer-assisted personal interview (CAPI), with the interviewer asking questions on alcohol and BZP party pill use. Interviewers typed responses directly into a laptop computer, and show cards with predetermined response categories were used to assist the participant where appropriate. The second part of the interview involved questions on sensitive topics related to personal patterns of alcohol and drug use, and this was completed by participants on the laptop computer (using audio computer-assisted self-interview, or A–CASI). The third and final part of the questionnaire was conducted by the interviewer using the CAPI method, and covered standard demographic questions, as well as re-contact details for follow-up, for example if the interviewers' supervisor wanted to confirm that the respondent was happy with the way the interview was conducted, or to contact the respondent for future surveys if the respondent had agreed to this.

Ethical approval

The New Zealand Health and Disability Multi-Region Ethics Committee granted approval for the 2007/08 NZADUS (MEC/07/03/034), confirming that the study met ethical principles.

Who agreed to take part?

A total sample size of 6784 people aged 16–64 years was achieved, with a weighted response rate of 60%. This total included 1825 Māori respondents and 817 Pacific respondents.

How well does the survey represent the total population?

Survey 'weights' were used in all of the results presented in this report so that estimates of population totals, averages and proportions can be said to be representative of the total resident population of New Zealand. Survey weights can be thought of as the number of population members represented by each survey participant. Using weights in analyses ensures that no population group is under- or over-represented in estimates from the survey. The process used to calculate the survey weights is described in more detail below, and in the methodology report.

A method called 'calibrated weighting' (Deville and Sarndal 1992) was used for calculating a survey weight for every respondent in the 2007/08 NZADUS. Calibrated survey weights were calculated using population counts from the 2006 Census, broken down by age, gender and ethnic group, and adjusted to 2008 population estimates. By using these variables in the calibration, the weighting corrects for the discrepancy if the sample differed from the population according to any of these categories. For example, if young men are under-represented in the sample relative to the Census counts (as can often be the case due to non-response), the survey weights for young male participants are increased so that this group is correctly represented in estimates.

What has been analysed and reported?

This report presents the key descriptive results on drug use (other than alcohol and tobacco use) from the 2007/08 NZADUS. These results include data on key drug-related topics, particularly those that align with the Ministry of Health's priority monitoring and policy areas, as stated in the *National Drug Policy 2007–2012* (Ministerial Committee on Drug Policy 2007).

Data in this report have been presented for the total adult population aged 16–64 years, by gender and age group. Analyses by ethnic group and neighbourhood socioeconomic deprivation (NZDep2006) have also been reported where possible.

Important information about the analyses presented in this report is set out below.

Age-standardised rates

Unadjusted rates have been presented in this report for estimates of the prevalence in the total population and by age group. However, age is an important determinant of health, so populations with different age structures (such as men and women, due to women having a longer life expectancy, or Māori and Pacific peoples, who have a much younger population than other ethnic groups) will have different rates due to these age differences.

The statistical method of standardising for age has been used to adjust for the effects of any differences in the age distributions within population groups for some analyses. For this report, age standardisation was performed by the direct method using the World Health Organization (WHO) world population age distribution (Ahmad et al 2000). This approach allows for comparisons across different population groups.

Gender analyses

Data in this report have been presented by gender. Where statements regarding differences between genders are made, the data have been age-standardised to account for the different age structures of the male and female populations.

Ethnic group analyses

Ethnicity is self-defined, and in the survey questionnaire respondents were able to report affiliation with up to nine different groups, using the Statistics New Zealand standard ethnicity question.

In this report, descriptive results have been presented by **total response ethnic group**. This method involves allocating each person to each ethnic group they identify with out of the following four main ethnic groups: European/Other, Māori, Pacific and Asian. These ethnic groups are the most appropriate for representing valid multiple ethnic group data in the restricted space of this report (Callister et al 2007). In analyses presented in this report, the 'Other' ethnic group (comprising mainly Middle Eastern, Latin American and African ethnicities) has been combined with 'European' due to small numbers in the 'Other' ethnic group.

Using total response ethnicity can result in overlapping groups, where one person is included in several ethnic groups. For this reason, rate ratios are presented that compare each ethnic group with the total New Zealand adult population by gender (ie, the reference group). The reference group does not represent 'the best health outcome group', but provides an indication of the overall prevalence in New Zealand for comparison. Note that ethnic groups should not be compared with each other (eg, comparing Māori and Pacific data) using these analyses. An example of how to interpret a rate ratio graph is provided at the end of this chapter. These rate ratios have been age-standardised to adjust for different age structures of the ethnic groups. In some cases, graphs have not been presented, and instead the standardised rate ratios are reported in the text (with the abbreviation 'SRR').

In addition to rate ratios, this report also presents prevalence rates for total response ethnic groups for most indicators. These rates show the burden on different population groups and present population counts of the number of people affected.

Some analyses have been presented for Māori and non-Māori only, due to small numbers in some ethnic groups for certain analyses. For these analyses, everyone who identified with being of Māori ethnicity has been included as Māori, and everyone else has been included as non-Māori.

Socioeconomic deprivation analyses

Analyses in this report have been presented by neighbourhood socioeconomic deprivation, as measured by the NZDep2006 Index of Deprivation (NZDep2006) quintiles. NZDep2006 is an area-based index of deprivation that measures the level of socioeconomic deprivation for each neighbourhood (meshblock) according to a combination of the following 2006 Census variables: household income, means-tested benefit status, access to car, household crowding, home ownership, unemployment,

qualifications, sole-parent families and access to a telephone (land-line or mobile) (Salmond et al 2007). The predecessors of NZDep2006 (NZDep91, NZDep96 and NZDep2001) have been validated. This means that the index accurately describes levels of socioeconomic deprivation in small areas and is highly correlated with key health outcomes and behaviours, such as mortality and smoking (Crampton et al 2004).

All analyses using NZDep2006 in this report have been adjusted for the differing age distributions within NZDep2006 quintile populations and are presented as age-standardised rates (as described below).

Population estimates

Population estimates have been given for some analyses. These numbers reflect the estimated number of people affected by the outcome in the total population aged 16–64 years. However, the survey only covered the usually resident population living in permanent private dwellings; it did not include people living in institutions (such as prisons, hospitals, IHC and rest homes, and boarding schools), the homeless, short-term visitors and tourists. Given that the latter groups are not included in the analyses, the estimated populations presented in this report may be an underestimate of the total number of people in New Zealand using drugs and/or experiencing drug-related harm.

Comparisons with previous surveys

The 2007/08 NZADUS is the first national survey of alcohol and drug use carried out by face-to-face and self-completed computerised interviews in the New Zealand adult population. Although previous surveys have examined recreational drug use in New Zealand, there are many limitations to making comparisons over time, due to changes in survey methodologies and questionnaires.

Previous national Health Behaviours Surveys on alcohol and drug use were carried out on the population aged 12–65 years by the Centre for Social and Health Outcomes Research and Evaluation (SHORE) and Te Ropu Whariki (Massey University). These surveys, which included a 2003 survey on drug use and a 2004 survey on alcohol use, were computer-assisted telephone interviews (CATI). There are a number of differences between the Health Behaviours Surveys and the New Zealand Alcohol and Drug Use Survey that limit their comparability. First, the survey collection modes were different for the two surveys, with telephone interviews for the Health Behaviour Surveys and self-completed computerised interviews for the 2007/08 NZADUS. Second, there were differences in the questionnaire between the Health Behaviours Surveys and the 2007/08 NZADUS.

Additionally the 2002/03 New Zealand Health Survey (NZHS) collected data on the adult population aged 15 years and over, including a question on marijuana use, which was not directly comparable with the cannabis question in the 2007/08 NZADUS. Furthermore, the 2002/03 NZHS survey used face-to-face interviews, as compared with the self-completed computerised interviews used in the 2007/08 NZADUS.

These differences in survey methodologies and questionnaires mean that any changes in prevalence estimates over time may be due to the different mode of collection rather than to an underlying change in prevalence. As a result, reliable comparisons cannot necessarily be made between the surveys. Due to these limitations, only a small number of analyses from these previous surveys have been presented in the Appendix of this report. To ensure as much comparability as possible, the previous survey datasets were reweighted and limited to 16- to 64-year-olds. However, the results presented in the Appendix should be interpreted with caution, as any changes in prevalence estimates over time may be due to the different mode of collection and/or survey question, rather than to an underlying change in prevalence.

It is intended that future surveys will examine alcohol and drug use using a methodology consistent with the 2007/08 NZADUS in order to give reliable and comparable estimates.

Small numbers

Small numbers can affect both the reliability and the confidentiality of results. Problems with reliability generally arise when the denominator (the number of people in the sample for a population group) is small, and consequently random variation is high, resulting in estimates that might change substantially if the survey were repeated, and large confidence intervals. Problems with confidentiality can occur when it becomes possible to identify an individual, usually someone in a sub-group of the population within a small geographical area.

In order to ensure the reliability of the survey data presented and to protect the confidentiality of the participants, data have only been presented when at least 30 respondents were in the population group who were asked the question. In some cases, to obtain an adequate sample size, data have been presented in a sufficiently aggregated form and, in a small number of cases, results for some cells in a table have been suppressed. Care has been taken to ensure that no participant can be identified in the results.

What is the quality of these results?

As a signatory to the Protocols of Official Statistics, HDI has used best-practice survey techniques throughout the 2007/08 NZADUS. Many steps have been taken to ensure that data collected are of high quality and robust as much as possible, including through the establishment of advisory groups to advise on questionnaire content. External peer review of the sample design and this report has contributed to maintaining the high quality of the survey results.

However, errors can come about due to sampling errors (due to the selection of only some people in a population) or for other reasons (non-sampling errors). The quantifying of sampling errors and the prevention of non-sampling errors are discussed below.

Sampling error

Sampling error results from selecting a small number of people (a sample) in the population to represent the entire population, and is influenced by the complex design of the survey (resulting in some people having a higher chance of selection than others). That is, the estimates in this survey may differ from those estimates that would have been produced if the information had been obtained for all the people in the population. Sampling errors for survey estimates from this survey were calculated using a replicate method, called the delete-a-group jackknife method (Kott 1998).

95% confidence intervals

For prevalence estimates

Ninety-five percent confidence intervals (95% CI) have been used in this report to quantify the sampling errors for estimates. If multiple survey samples were obtained, even at the same time, they would provide results that differed. The 95% confidence interval is the interval that would be expected to contain the true population value 95% of the time if many samples were taken. It should be noted that the confidence interval is influenced by the sample size of the group. When the sample size is small, the confidence interval becomes wider.

Ninety-five percent confidence intervals have been presented in brackets after estimates in the text and as error bars in graphs. The differences between variables are commented on in the text when they were found to be statistically significant at the 5% level. When the confidence intervals of two groups do not overlap, the difference in rates between the groups is statistically significant at the 5% level.

However, in some cases, when the confidence intervals of two groups overlap there may still be a statistically significant difference in rates, which can be formally tested using a two-tailed t-test. In this report, if the confidence intervals overlap but the text reports the difference as being statistically significant (indicated by a p-value < 0.05), this indicates that the difference has been tested with a t-test and is statistically significant at the 5% level of significance.

For rate ratios

In rate ratio graphs, the 95% confidence intervals are presented as lines on the graph. If the line includes 1, then there is no statistically significant difference. If the 95% confidence interval does not include 1, then the rate ratio is statistically significantly different from the reference group. For more information, see the example rate ratio graph at the end of this chapter.

Statistical significance

In this report the term ‘significant’ (or ‘significance’) is used to refer to statistical significance.

Non-sampling errors

Non-sampling errors may occur in any enumeration, regardless of whether it is a sample or full enumeration. Possible non-sampling errors include coverage errors, response bias and measurement errors. Although these elements cannot be measured, it is useful to be aware of them when interpreting the results of the survey. Considerable effort is made to reduce non-sampling errors by carefully designing and testing the survey, questionnaire and processes, and by ensuring quality control of procedures and data.

In the 2007/08 NZADUS coverage errors may have occurred; for example, because a small proportion of the population could not be covered by the survey (including people living in meshblocks with fewer than nine occupied dwellings, and people not living in the North Island, South Island or Waiheke Island). Response bias may have occurred if there was differential non-response; that is, if the survey was less likely to be answered by certain people, such as a certain population group (eg, young males) or people who were not often home. The interview introduction was an important part of trying to ensure that people take part in the survey.

Measurement error might also have occurred in this survey. Many of the analyses in this report used self-reported information, which may have resulted in some inaccuracies. Measurement errors include recall error (eg, mistakes made when respondents recall how often they have done something over the last 12 months), under- and over-reporting (which may be influenced by the respondent's perception of what is socially desirable) and item non-response (if the respondent chooses not to answer certain questions).

The methodology report contains more information on questionnaire development, interviewer training and operational processes, and will be made available online (see www.moh.govt.nz).

Response rates

The main measure used to assess the overall quality of a survey is the final weighted response rate. The response rate is a measure of how many people who were invited to take part in the survey actually participated. A high response rate means that we can be more confident that the survey results are representative of the New Zealand population.

The overall weighted response rate for the 2007/08 NZADUS was 60%, with similar rates of participation across ethnic groups. The online methodology report contains a detailed explanation of the response rate calculations.

Key points for interpreting results

The 2007/08 NZADUS is a sample survey at one point in time, and can be used to examine associations between alcohol and drug use and sociodemographic characteristics. However, associations do not necessarily imply causality. For example, if the survey finds that a particular behaviour is more common in people living in more socioeconomically deprived areas, an association has been identified. But this association does not mean the behaviour has been **caused** by living in a socioeconomically deprived area.

The survey only included the usually resident population living in private dwellings; that is, about 94% of the population aged 16–64 years. People living in institutions (hospitals, IHC and rest homes, prisons, boarding schools), the homeless, short-term visitors and tourists were not included. Furthermore, many of the survey results are based on the assumption that participants can accurately recall previous events, and that they are providing correct information.

Comparisons with other data sources (such as the Census, health system administrative and other survey data) that are not presented in this report should be made with caution, as there are many potential inaccuracies related to making comparisons.

How can readers access more survey results?

Data for all analyses presented in this report are available in data tables online in Excel format, on the publication web page (see www.moh.govt.nz).

The analyses presented in this report are only a small proportion of those that could be undertaken, and in many ways pose more questions than they answer. HDI encourages researchers to use New Zealand Health Monitor survey data sets to explore topics of interest. The 2007/08 New Zealand Alcohol and Drug Use Survey CURF (confidentialised unit record file), with accompanying documentation and user guides, will be available in 2010.

Researchers may apply to access CURF data sets. CURFs have had all identifying information about individuals removed, and have been modified to protect individual information. Approval is subject to certain criteria, terms and conditions, and the researcher's organisation must sign a microdata access agreement with the Ministry of Health.

Refer to HDI's Microdata Access Protocol online for more information and to download the application form (see the link provided on the publication web page, available through the Ministry of Health website: www.moh.govt.nz).

How to interpret graphs in this report

Bar graphs

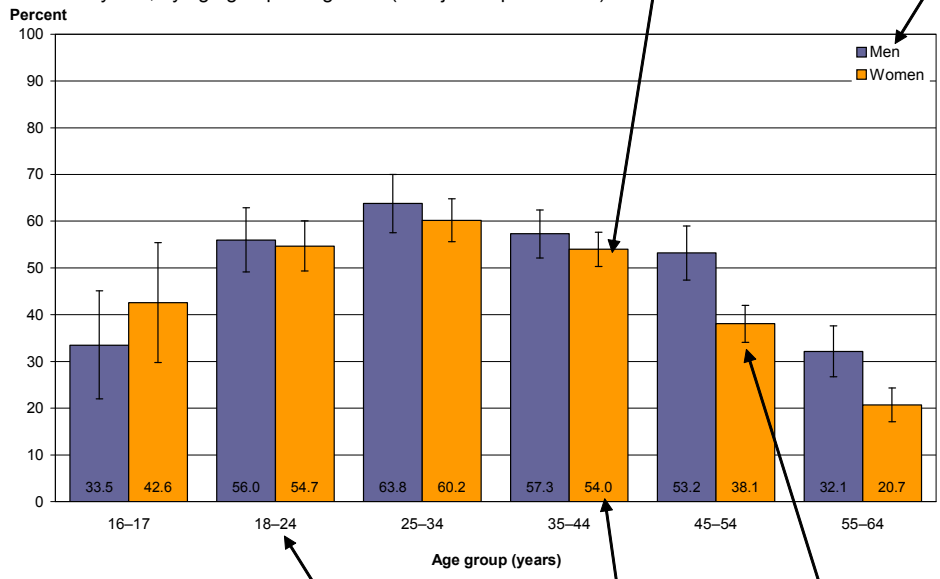
The following diagram shows how to interpret the bar graphs presented in this report.

The caption provides information about what the graph is about, and whether the data are unadjusted or age-standardised

The wide bar indicates the prevalence for each population group

The legend shows who is represented by the different colours on the graph

Figure X: Ever used any drugs for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey
Note: Drugs exclude alcohol, tobacco and BZP party pills.

The text under the graph provides essential information about the graph, such as the data source

This is the population group the results are for

This number is the value for the prevalence (%) for each data point

The vertical line indicates the 95% confidence interval for the prevalence estimate. If two confidence intervals do not overlap, the difference between the two prevalence estimates is statistically significant. However, in some cases, two prevalences can be statistically significant even if the confidence intervals overlap. In these cases the difference can be tested for statistical significance using a t-test. If this has been done, this is reported in the text with a p-value (where a p-value < 0.05 is considered statistically significant).

Rate ratio graphs

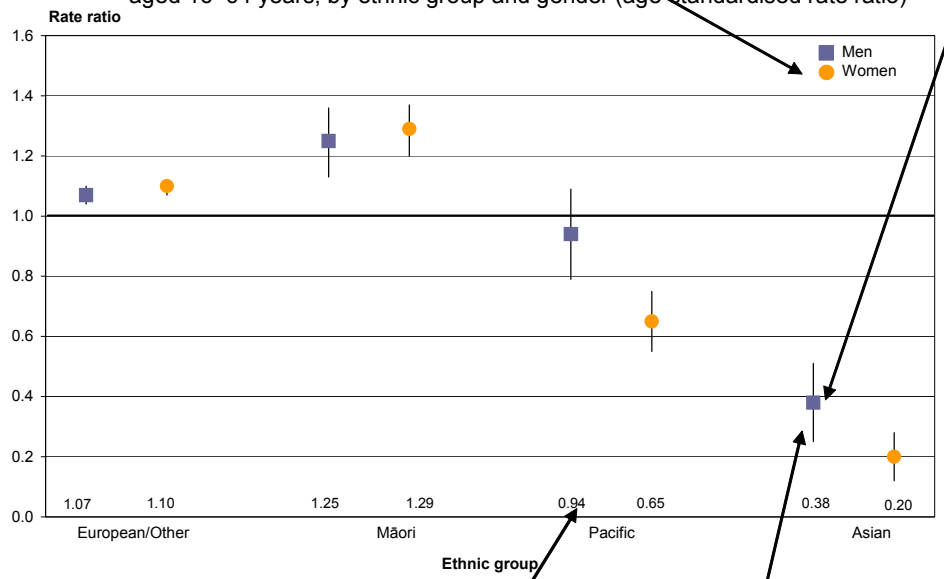
The following diagram shows how to interpret the rate ratio graphs presented in this report.

The caption provides information about what the graph is about, and wehther the data are age-standardised

The legend shows who is represented by the different shapes and colours on the graph

This point indicates where the data point lies compared with all men or women in the total population. In this example, the point indicates where Asian men lie in comparison with men in the total population.

Figure Y: Ever used any drugs for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey
Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

The text under the table provides essential information about the graph, such as the standard pouplation used in age-standardisation, the reference group the rates are compared with, and what measure of ethnicity has been used

This number is the value for the standardised rate ratio (SRR) for each data point. A value **less** than 1 means that the population group is **less** likely to have the outcome than the reference group, whereas a value **greater** than 1 means the population group is **more** likely to have the outcome

This vertical line is the 95% confidence interval. If this line does not cross the bold line at 1.0, there is a statistically significant difference between the rate for this group and the rate for all men or women in the total population. In this example, the graph shows that Asian men were significantly less likely to have ever used drugs, compared with men in the total population.

Chapter 2: Overview of Drug Use

Summary of drug use for recreational purposes

Table 2 presents a summary of drug use for recreational purposes in the last 12 months and in people's lifetime, among the total population aged 16–64 years.

Table 2: Summary of drug use for recreational purposes in the last 12 months and in lifetime, among the total population aged 16–64 years (unadjusted prevalence)

Type of drug	Drug	Prevalence (%) (95% CI)	
		Used in past year	Used in lifetime
Any drug	Any drug (excluding alcohol, tobacco and BZP party pills)	16.6 (15.4–17.7)	49.0 (47.1–50.8)
Cannabis	Cannabis	14.6 (13.4–15.7)	46.4 (44.6–48.2)
BZP party pills	BZP party pills	5.6 (4.9–6.3)	13.5 (12.4–14.6)
Ecstasy	Ecstasy	2.6 (2.0–3.1)	6.2 (5.4–7.1)
Stimulants	Any stimulant (amphetamines, cocaine/crack cocaine, prescription stimulants, ecstasy*)	3.9 (3.3–4.5)	10.8 (9.6–12.0)
	Amphetamines	2.1 (1.6–2.5)	7.2 (6.2–8.1)
	Cocaine/crack cocaine	0.6 (0.3–0.8)	3.6 (3.1–4.2)
	Prescription stimulants	0.5 (0.3–0.7)	1.7 (1.3–2.0)
Hallucinogens	Any hallucinogen (LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine, ecstasy*)	3.2 (2.6–3.8)	10.5 (9.4–11.6)
	LSD and other synthetic hallucinogens	1.3 (0.9–1.6)	7.3 (6.3–8.3)
	Naturally occurring hallucinogens	0.6 (0.3–0.9)	4.7 (4.0–5.4)
	Ketamine	0.3 (0.1–0.5)	1.2 (0.8–1.5)
Sedatives/ hypnotics	Any sedative (kava, prescription sedatives, GHB)	1.7 (1.4–2.1)	8.3 (7.5–9.1)
	Kava	0.9 (0.7–1.2)	6.3 (5.5–7.0)
	Prescription sedatives	0.6 (0.4–0.8)	2.2 (1.8–2.6)
	GHB	0.3 (0.2–0.6)	1.1 (0.7–1.4)
Opiates	Any opiate (prescription painkillers or opiates)	1.1 (0.8–1.4)	3.6 (3.0–4.1)
Other drugs	Nitrous oxide	0.8 (0.5–1.1)	4.6 (3.8–5.4)
	Inhalants	0.1 (0.0–0.2)	2.2 (1.8–2.7)
	Solvents	0.1 (0.0–0.2)	1.0 (0.7–1.3)
	Steroids	0.0 (0.0–0.1)	0.1 (0.1–0.2)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Further descriptions of the drugs listed in this table are provided in the relevant chapters and in the glossary.

* Ecstasy has both stimulant and hallucinogenic properties.

Use of any drug for recreational purposes

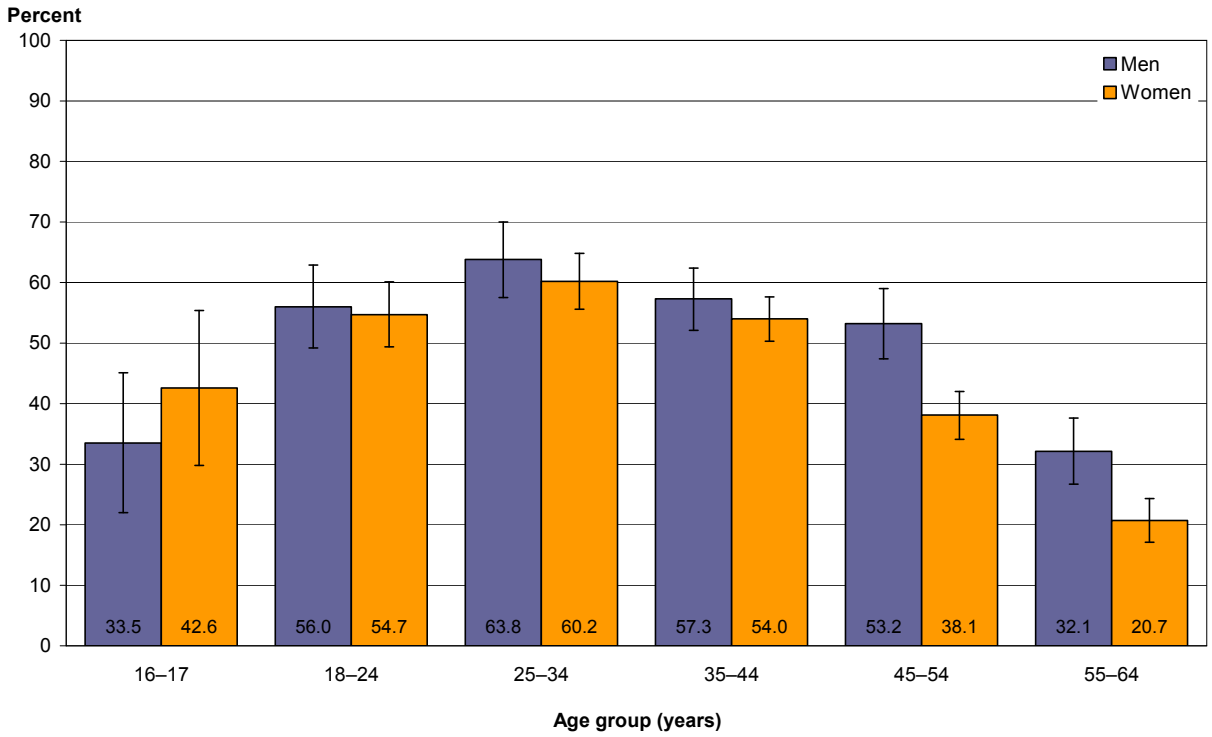
This section examines the use of any drug for recreational purposes in the past year and in people's lifetime. For the purposes of this chapter, the term **drugs** does not include alcohol, tobacco and BZP party pills, as the focus is on illegal drug use; alcohol and tobacco are legal, and BZP party pills, although illegal now, were legal at the time of the survey.

Prevalence of having ever used any drug (except alcohol, tobacco and BZP party pills) for recreational purposes in lifetime

Overall, about one in two adults aged 16–64 years had used drugs for recreational purposes at some time in their life (49.0%, 47.1–50.8). This proportion equates to about 1,292,700 adults aged 16–64 years in New Zealand who had ever used drugs in their lifetime. After adjusting for age, men were significantly more likely to have ever used drugs (54.5%, 51.7–57.2) than women (49.6%, 47.2–52.0) (p-value < 0.05).

For both men and women, the prevalence of having ever used drugs peaked in the 25–34 years age group (Figure 1).

Figure 1: Ever used any drugs for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Table 3 gives the prevalence of lifetime drug use among adults in New Zealand's main ethnic population groups.

Table 3: Ever used any drugs for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

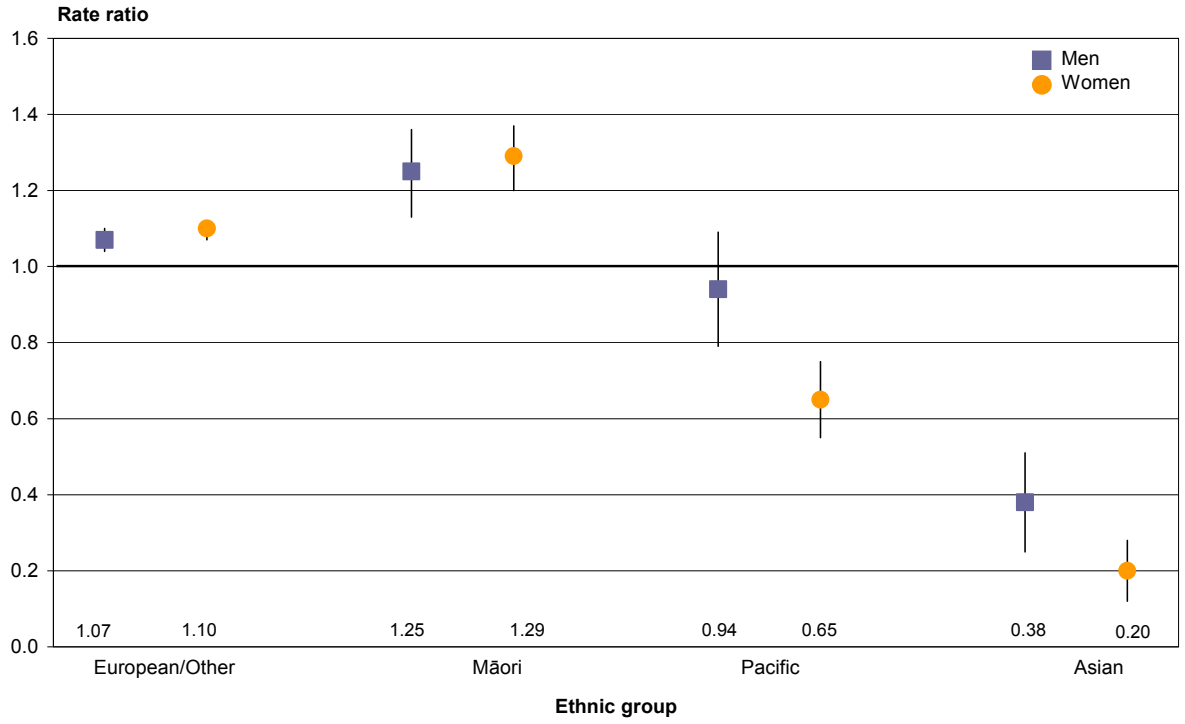
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	51.5 (49.5–53.6)	1,071,900
Māori	64.6 (61.2–67.9)	211,400
Pacific	41.6 (37.3–45.9)	64,300
Asian	15.7 (11.1–20.2)	34,700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

After adjusting for age, European/Other and Māori men and women were significantly more likely to have ever used drugs in their lifetime, compared with men and women in the total population (Figure 2). By contrast, Asian men, and Pacific and Asian women, were significantly less likely to have used drugs in their lifetime, compared with men and women in the total population.

Figure 2: Ever used any drugs for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

For both men and women, there were no significant differences in the prevalence of having ever used drugs by neighbourhood deprivation, after adjusting for age.

Age of first use of any drug

Overall, the most common age of first using drugs was 15–17 years (34.6%, 32.6–36.6) and 18–20 years (27.8%, 26.3–29.3), among those people who had ever used drugs (Table 4). Almost one in five people who had ever used drugs had first done so when they were aged 14 years or younger (17.0%, 15.5–18.6).

Table 4: Age of first use of drugs for recreational purposes, among people aged 16–64 years who had ever used drugs (unadjusted prevalence)

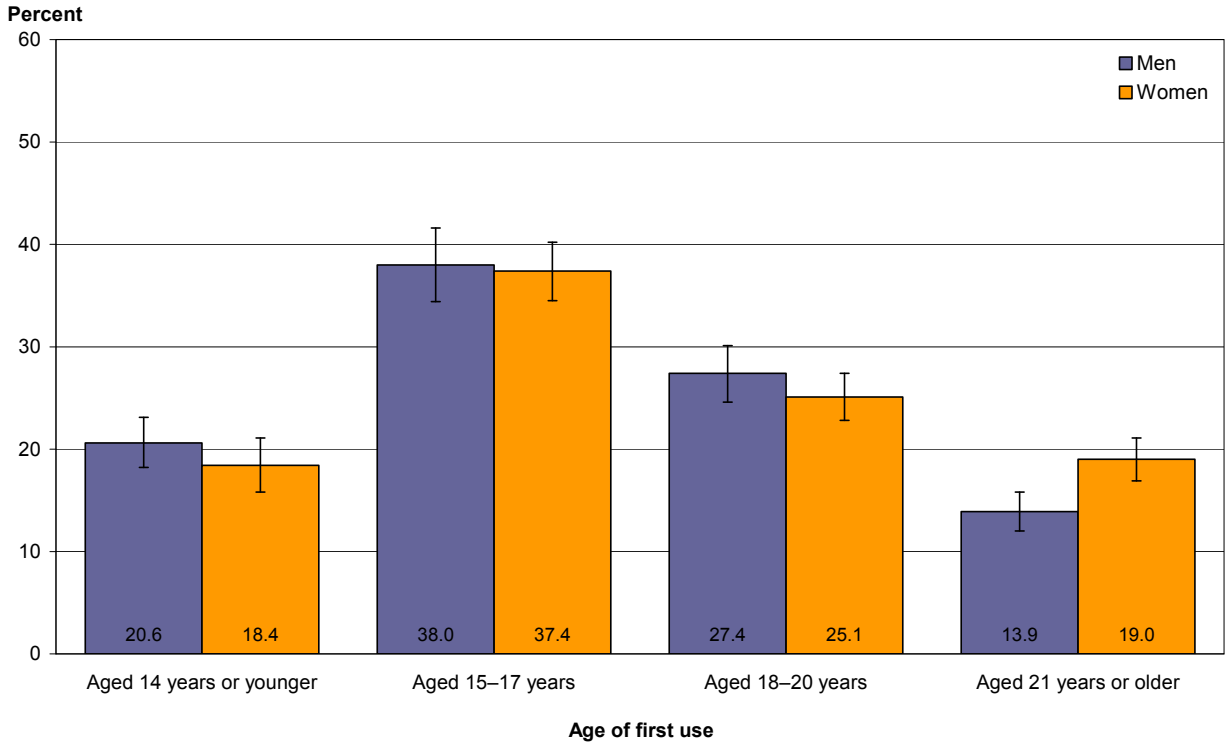
Age of first use of drugs	Prevalence (%) (95% CI)
14 years or younger	17.0 (15.5–18.6)
15–17 years	34.6 (32.6–36.6)
18–20 years	27.8 (26.3–29.3)
21 years or older	20.4 (18.9–22.0)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Among people who had ever used drugs, women were significantly more likely than men to have first used drugs when aged 21 years or older, after adjusting for age (Figure 3). There were no other significant differences by gender.

Figure 3: Age of first use of drugs for recreational purposes, among people aged 16–64 years who had ever used drugs, by gender (age-standardised prevalence)

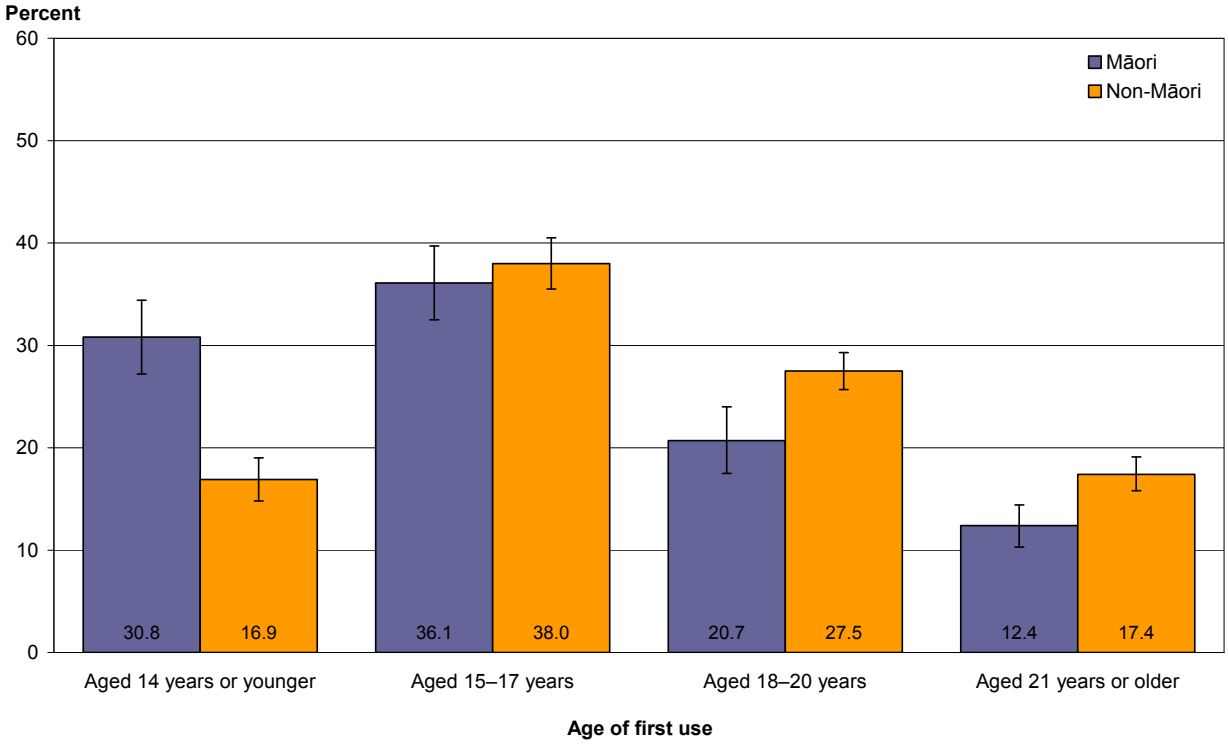


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

Among people who had ever used drugs in their lifetime, the most common age of first use of drugs was 15–17 years for both Māori and non-Māori, when adjusting for age (p-values < 0.05) (Figure 4). Compared with non-Māori, Māori were significantly less likely to have first used drugs when aged 18–20 years or 21 years or older, but were almost twice as likely to have first used drugs when aged 14 years or younger.

Figure 4: Age of first use of drugs for recreational purposes, among people aged 16–64 years who had ever used drugs, by Māori/non-Māori ethnicity (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

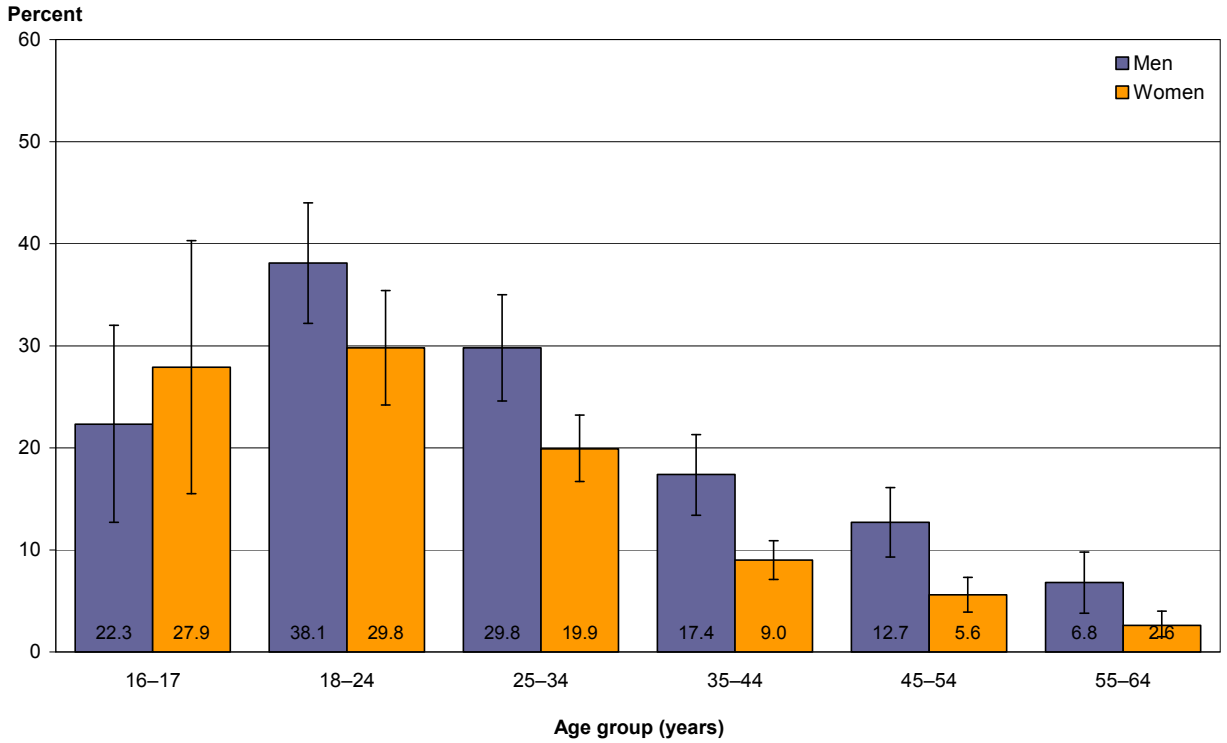
Prevalence of using any drug for recreational purposes in the last 12 months

Overall, one in six adults aged 16–64 years had used any drugs (excluding alcohol, tobacco and BZP party pills) in the last 12 months (16.6%, 15.4–17.7). This represents one in three of the people who had ever used drugs (33.8%, 31.9–35.8), and equates to about 438,200 people in New Zealand.

After adjusting for age, men were significantly more likely to have used drugs in the past year (23.4%, 21.3–25.5) than women (16.1%, 14.3–17.8).

For both men and women, the prevalence of having used drugs in the past year peaked in the 18–24 years age group (Figure 5). Over one in three men aged 18–24 years, and about one in three women in this age group, had used drugs in the past year.

Figure 5: Used any drugs in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Table 5 gives the prevalence of past-year drug use among adults in New Zealand's main ethnic population groups.

Table 5: Used any drugs in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

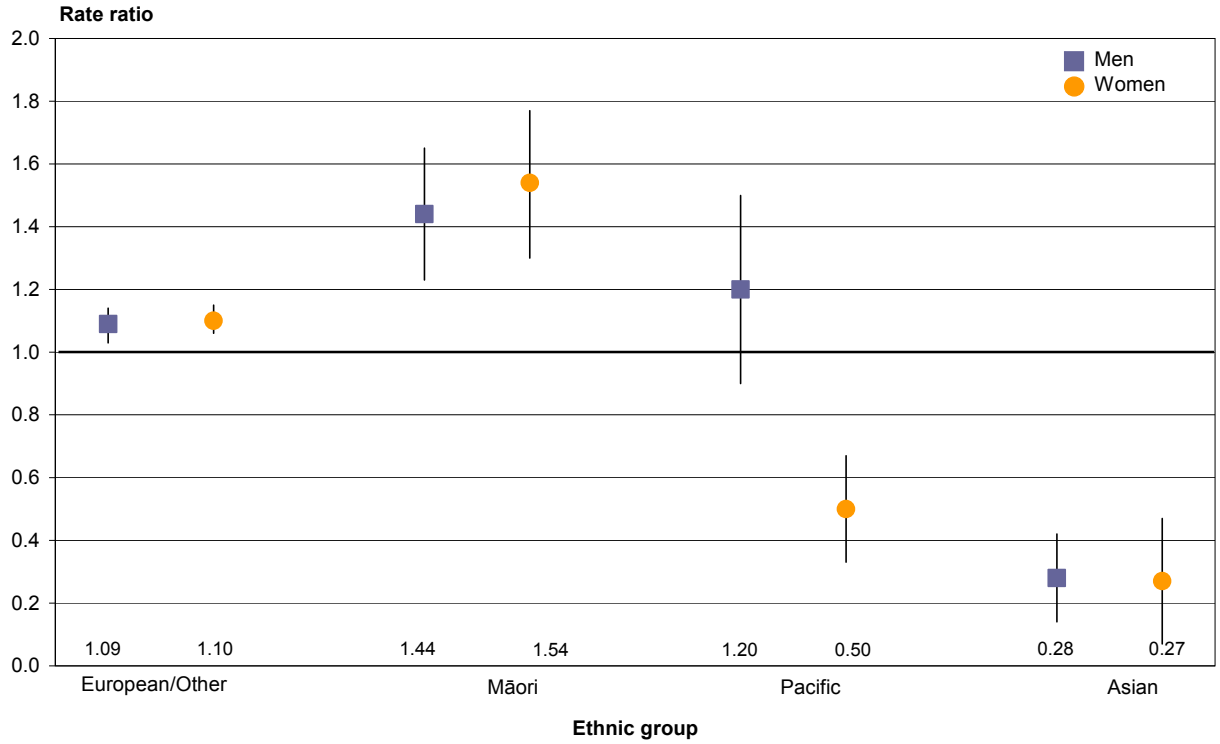
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	17.0 (15.6–18.4)	353,400
Māori	28.0 (25.2–30.8)	91,700
Pacific	17.9 (14.4–21.4)	27,700
Asian	5.7 (3.4–8.1)	12,700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

After adjusting for age, European/Other and Māori men and women were significantly more likely to have used drugs in the past 12 months, compared with men and women in the total population (Figure 6). Asian men, and Pacific and Asian women, were significantly less likely to have used drugs in the previous year, compared with men and women in the total population.

Figure 6: Used any drugs in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

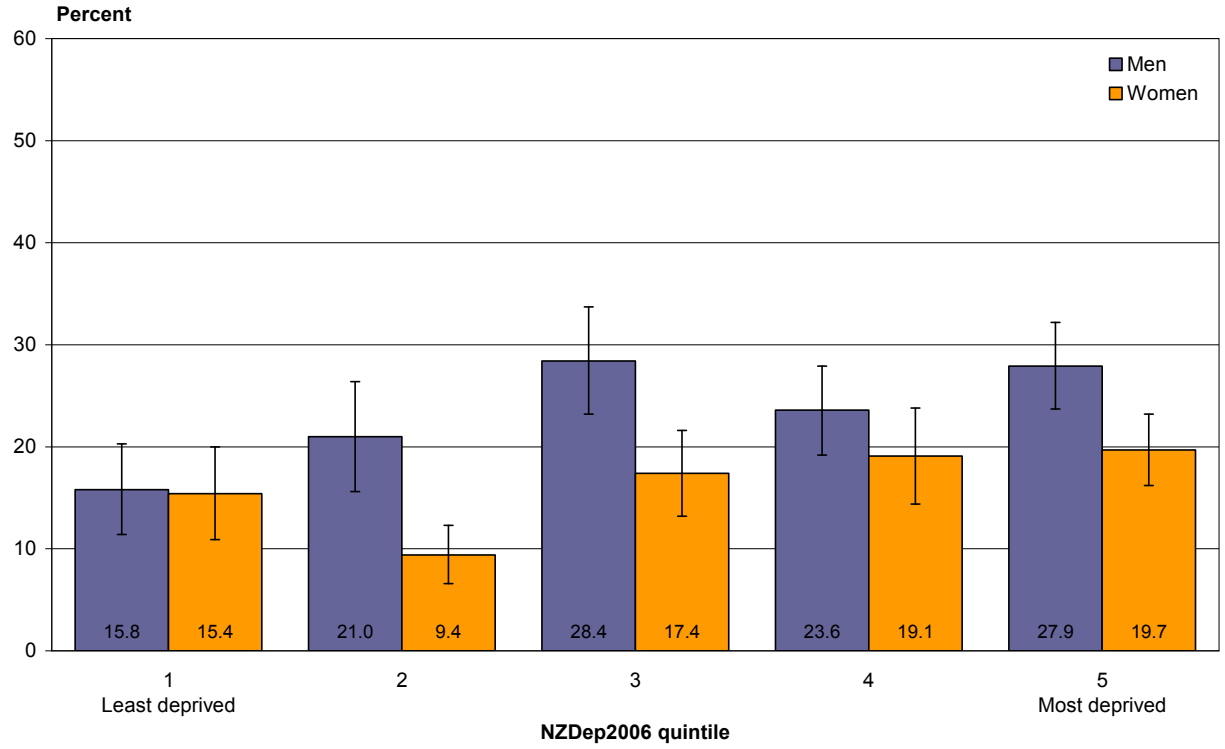


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

For men (but not for women), people living in more socioeconomically deprived areas (NZDep2006 quintile 5) were significantly more likely to have used drugs in the past year, compared with people living in less deprived areas (quintile 1), after adjusting for age (Figure 7).

Figure 7: Used any drugs in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

Number of different drugs used in the last 12 months

Overall, seven in ten (71.8%, 68.2–75.4) past-year drug users had used one drug in the past year, and a further 14.6% (11.8–17.4) of past-year drug users had used two different drugs in the past year (Table 6).

Table 6: Number of different drugs used in the last 12 months, among past-year drug users and total population aged 16–64 years (unadjusted prevalence and estimated number of adults)

Number of drugs used in the past year	Prevalence (%) for past-year drug users (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
0	0.0	83.5 (82.3–84.6)	2,204,600
1	71.8 (68.2–75.4)	11.9 (10.9–12.9)	314,500
2	14.6 (11.8–17.4)	2.4 (1.9–2.9)	63,900
3	6.2 (4.3–8.1)	1.0 (0.7–1.3)	27,000
4	2.9 (1.7–4.5)	0.5 (0.3–0.7)	12,500
5–7	3.6 (2.0–5.1)	0.6 (0.3–0.9)	15,700
8 or more	1.0 (0.4–2.1)	0.2 (0.1–0.4)	4,500

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Location of using drugs in the last 12 months

Among past-year drug users aged 16–64 years, the most frequently reported places where they had used drugs in the past year were at their own home (63.1%, 59.1–67.0) and at someone else's home (60.3%, 56.6–64.0) (Table 7).

Table 7: Location of using drugs in the last 12 months, among past-year drug users aged 16–64 years (unadjusted prevalence)

Location of drug use	Prevalence (%) for past-year drug users (95% CI)
Own home	63.1 (59.1–67.0)
Someone else's home	60.3 (56.6–64.0)
Outdoor public places	20.7 (17.5–23.9)
Special events	20.2 (17.0–23.4)
Nightclubs and bars	17.5 (14.4–20.5)
Private motor vehicles	16.9 (14.0–19.7)
Pubs and hotels	12.6 (9.9–15.4)
Sports clubs or events	5.8 (4.1–7.6)
Groups, workplaces or meetings	5.4 (3.8–7.1)
Theatres or cinemas	2.8 (1.7–3.9)
Restaurants or cafes	2.8 (1.5–4.0)
School, university or polytechnics	1.9 (1.1–3.1)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Risky behaviours and drug use

Past-year drug users were asked whether they had driven, worked or operated machinery while feeling under the influence of drugs in the past year. The following results are reported for all past-year drug users, including those people who had not driven, worked or operated machinery at all in the past year.

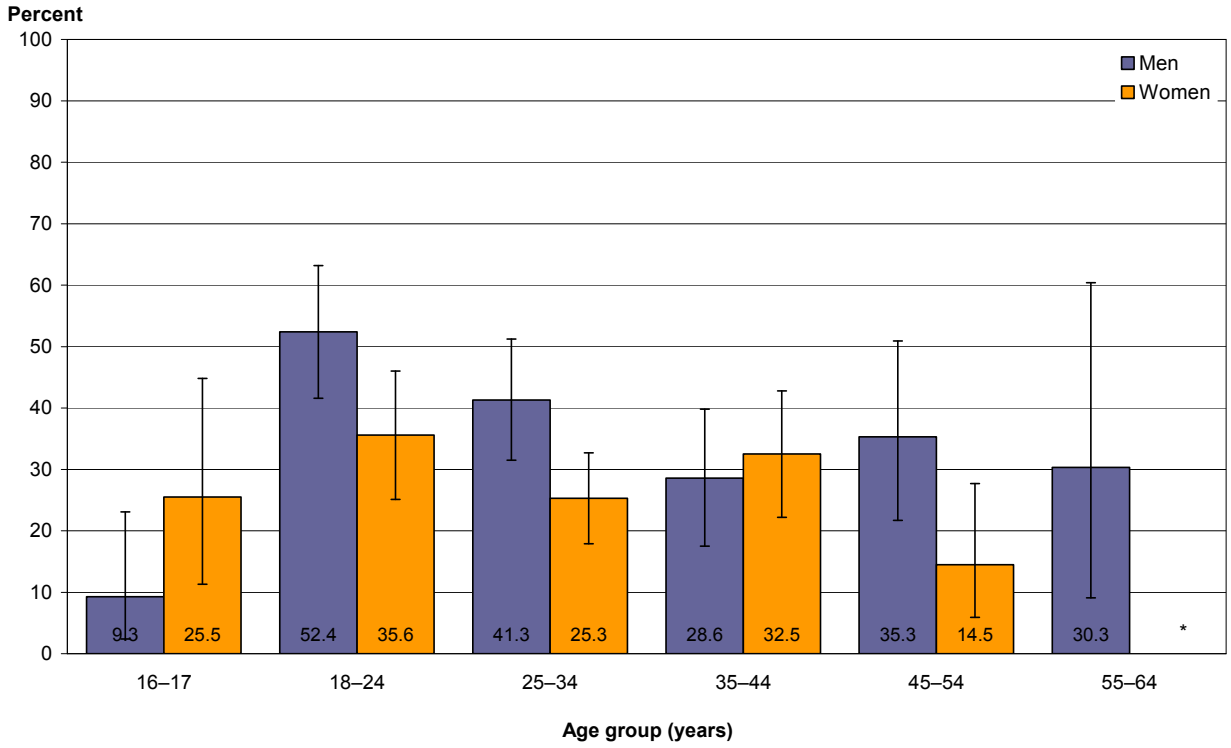
Having driven while feeling under the influence of drugs in the last 12 months

One in three past-year drug users reported having driven a car or another motor vehicle (such as a motorcycle or boat) while feeling under the influence of drugs in the past 12 months (34.5%, 30.5–38.6). This proportion represents 5.8% (5.1–6.6) of the total adult population aged 16–64 years who had driven a motor vehicle while feeling under the influence of drugs in the past year, equating to about 154,300 people.

Among past-year drug users, men were significantly more likely to report having driven while feeling under the influence of drugs in the past year (40.0%, 34.2–45.8) than women (29.3%, 23.8–34.9), after adjusting for age.

Among male past-year drug users, the prevalence of reporting having driven while feeling under the influence of drugs in the past 12 months peaked for those aged 18–24 years: one in two male past-year drug users in this age group reported having driven while feeling under the influence of drugs in the past year (Figure 8).

Figure 8: Reported having driven while feeling under the influence of drugs in the last 12 months, among past-year drug users aged 16–64 years, by age group and gender (unadjusted prevalence)



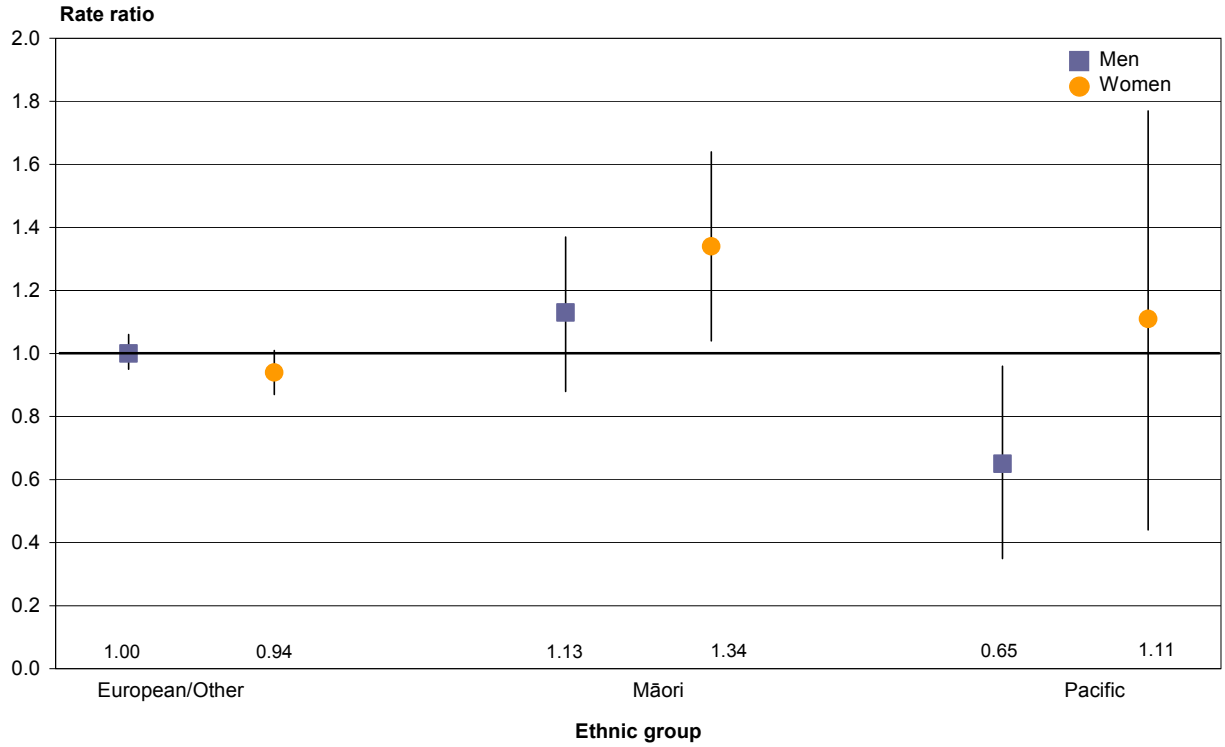
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Drugs exclude alcohol, tobacco and BZP party pills.

* Numbers for female past-year drug users aged 55–64 years were too low for reliable estimation.

Among past-year drug users, Pacific men were significantly less likely to report having driven while feeling under the influence of drugs in the past year, compared with men in the total population, when adjusted for age (Figure 9). Māori women were significantly more likely to report having driven while feeling under the influence of drugs in the past year, compared with women in the total population.

Figure 9: Reported having driven while feeling under the influence of drugs in the last 12 months, among past-year drug users aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills. Numbers for Asian male and female past-year drug users were too low for reliable estimation.

For male and female past-year drug users, there were no significant differences by neighbourhood deprivation in the prevalence of reporting having driven while feeling under the influence of drugs in the past year, after adjusting for age.

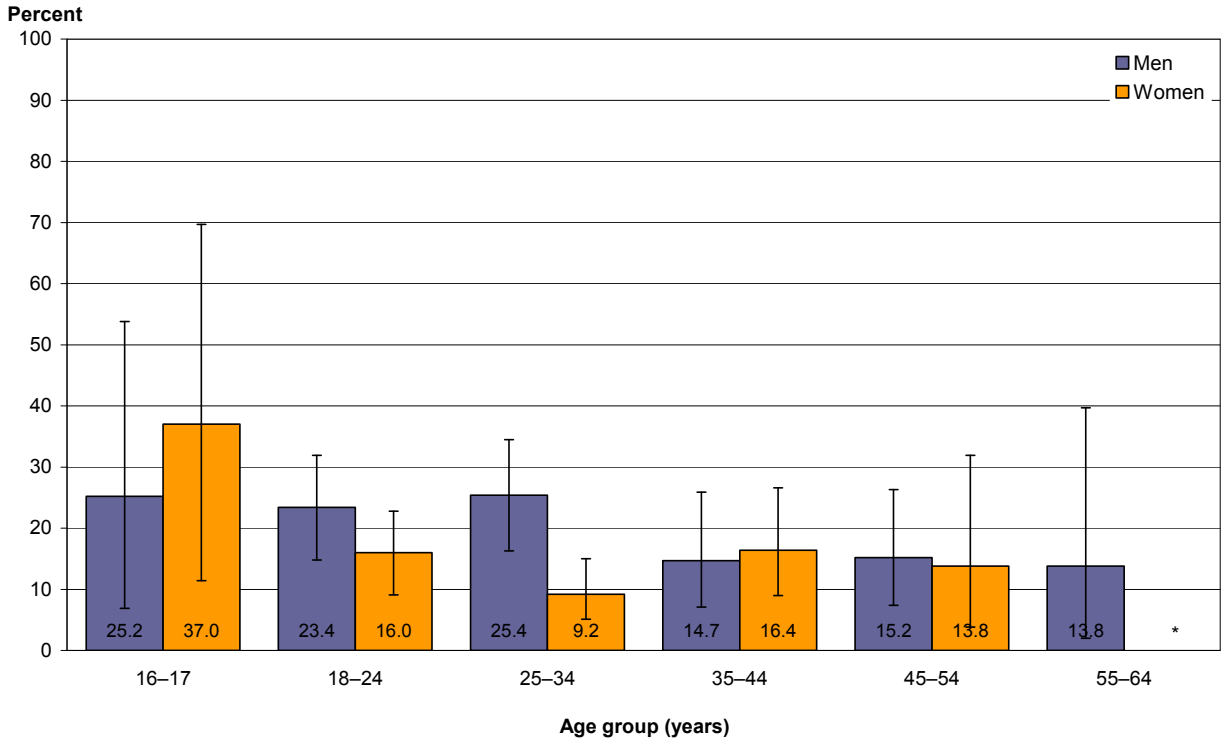
Having worked while feeling under the influence of drugs in the last 12 months

Almost one in five past-year drug users reported having worked while feeling under the influence of drugs in the past year (18.5%, 15.8–21.2). This proportion represents 3.1% (2.6–3.6) of the total population aged 16–64 years who had worked while feeling under the influence of drugs in the past year, equating to about 81,600 people.

Among past-year drug users, there was no significant difference between men (21.7%, 17.2–26.2) and women (16.0%, 11.5–20.5) in the prevalence of reporting having worked while feeling under the influence of drugs in the past year, after adjusting for age.

There was little variation among past-year drug users by age group in the prevalence of reporting having worked while feeling under the influence of drugs in the past year, although female past-year drug users aged 16–17 years had a somewhat higher prevalence (Figure 10).

Figure 10: Reported having worked while feeling under the influence of drugs in the last 12 months, among past-year drug users aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Drugs exclude alcohol, tobacco and BZP party pills.Numbers for female past-year drug users aged 55–64 years were too low for reliable estimation.

Among past-year drug users, Pacific men were significantly less likely to have reported working while feeling under the influence of drugs in the past year (SRR: 0.47, 0.15–0.78), compared with men in the total population, after adjusting for age. There were no other significant differences in the prevalence of reporting having worked while feeling under the influence of drugs in the past year by ethnic group and gender.

There were no significant differences by neighbourhood deprivation in the prevalence of reporting having worked while feeling under the influence of drugs in the past year, for male and female past-year drug users, when adjusted for age.

Having operated machinery while feeling under the influence of drugs in the last 12 months

One in ten past-year drug users reported having operated machinery while feeling under the influence of drugs in the past 12 months (10.0%, 7.7–12.4). This proportion represents 1.7% (1.3–2.1) of the total adult population aged 16–64 years who had operated machinery while feeling under the influence of drugs in the past 12 months, equating to about 44,700 people.

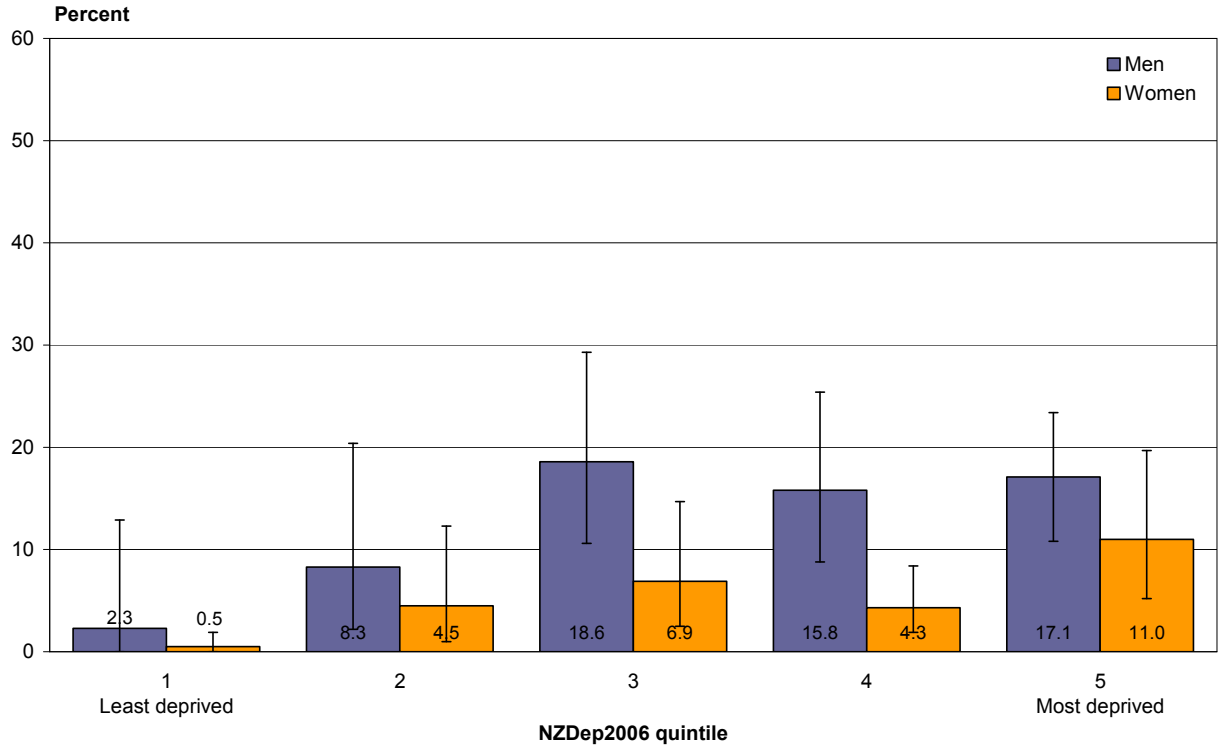
Among past-year drug users, men were significantly more likely to report having operated machinery while feeling under the influence of drugs in the past year (13.7%, 10.1–17.2) than women (5.7%, 3.6–7.8), after adjusting for age.

There were no significant differences by age group in the prevalence of reporting having operated machinery while feeling under the influence of drugs in the past year, for either male or female past-year drug users.

Among male past-year drug users, Māori men (SRR: 1.58, 1.15–2.02) were significantly more likely to report having operated machinery in the past year while feeling under the influence of drugs, compared with men in the total population, after adjusting for age. There were no other significant differences by ethnic group, for either men or women.

Among both male and female past-year drug users, people living in more socioeconomically deprived neighbourhoods (NZDep2006 quintile 5) were significantly more likely to report having operated machinery while feeling under the influence of drugs in the past year than people living in less deprived areas (quintile 1), when adjusted for age (p-values < 0.05) (Figure 11).

Figure 11: Reported having operated machinery while feeling under the influence of drugs in the last 12 months, among past-year drug users aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

Help-seeking for drug use

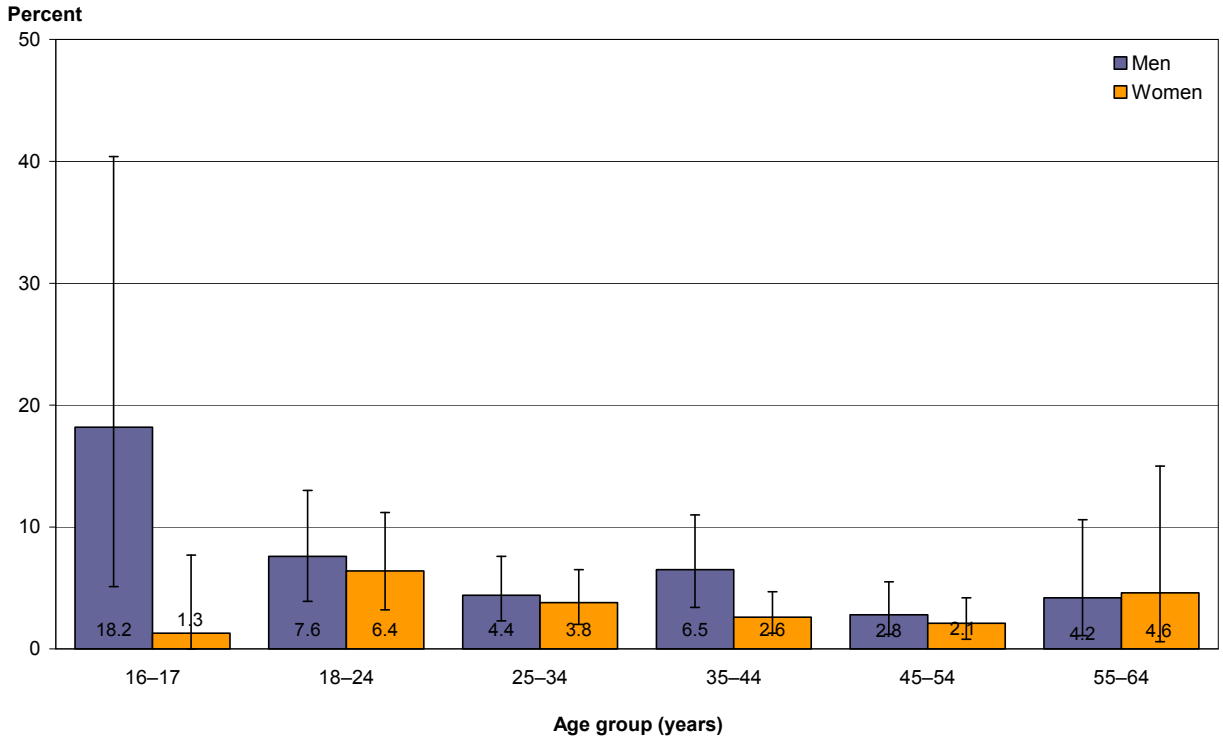
Ever received help in lifetime to reduce level of drug use

About 4.5% (3.6–5.4) of people who had ever used drugs had received help to reduce their level of drug use at some point in their lifetime, equating to about 58,700 people in New Zealand. This represents 2.2% (1.8–2.7) of the total population aged 16–64 years, and 9.2% (7.2–11.1) of past-year drug users.

Among people who had ever used drugs, men were significantly more likely to have ever received help for their drug use (5.8%, 4.3–7.4) than women (3.7%, 2.6–4.9), after adjusting for age (p-value < 0.05).

Among men, the prevalence of having ever received help to reduce the level of drug use peaked in the younger age groups (including 16- to 17-year-olds) and decreased with increasing age (Figure 12). For women, there was a similar pattern, with higher rates among 18- to 24-year-olds, and decreasing prevalence with increasing age.

Figure 12: Ever received help in lifetime to reduce the level of drug use, among people aged 16–64 years who had ever used drugs, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Table 8 gives the prevalence of having ever received help to reduce the level of drug use among adults in New Zealand's main ethnic population groups.

Table 8: Ever received help in lifetime to reduce the level of drug use, among people who had ever used drugs and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for people who had ever used drugs (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	4.3 (3.2–5.4)	2.2 (1.7–2.8)	46,000
Māori	6.8 (4.8–8.7)	4.4 (3.1–5.7)	14,300
Pacific	5.3 (3.1–8.4)	2.2 (1.3–3.5)	3,400
Asian	4.2 (0.8–12.6)	0.7 (0.1–2.0)	1,500

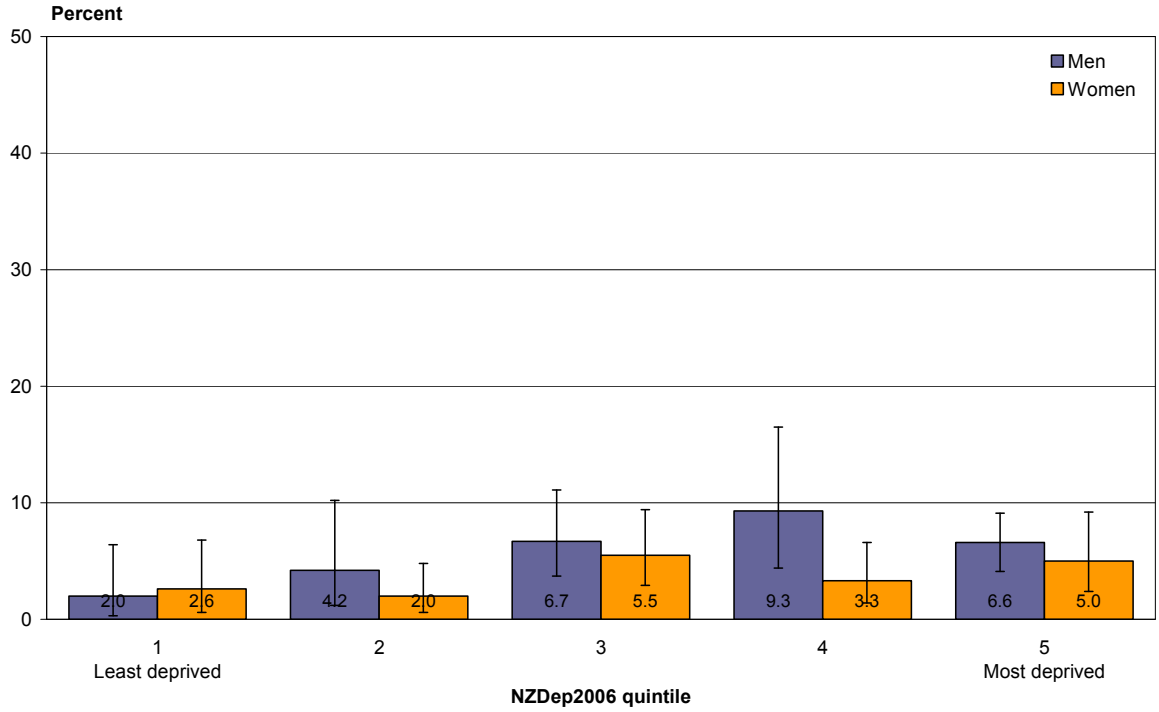
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

Among people who had ever used drugs, there were no significant differences by ethnic group for either men or women in the prevalence of having ever received help to reduce their level of drug use, after adjusting for age. The numbers for Asian women who had ever used drugs were too low for reliable estimation.

Among men who had ever used drugs, the prevalence of having ever received help to reduce the level of drug use increased with increasing socioeconomic deprivation (NZDep2006 quintiles), and peaked for men living in quintile 4, after adjusting for age (Figure 13). There were no significant differences between women living in quintile 1 and those living in quintile 5.

Figure 13: Ever received help in lifetime to reduce the level of drug use, among people aged 16–64 years who had ever used drugs, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

Sources of help

Among those people who had ever received help in their lifetime to reduce their level of drug use, the most common source of help that people reported was from a drug and alcohol counsellor (58.8%, 48.5–69.1) (Table 9).

Table 9: Sources of help to reduce the level of drug use in lifetime, among people aged 16–64 years who had ever received help to reduce their level of drug use (unadjusted prevalence)

Sources of help	Prevalence (%) (95% CI)
Drug and alcohol counsellor	58.8 (48.5–69.1)
Family member or friend	35.4 (25.1–45.8)
General practitioner (GP)	30.3 (19.2–41.5)
Psychiatrist, psychologist or mental health service	26.1 (15.8–36.3)
Narcotics Anonymous or other support group	25.8 (15.5–36.2)
Detoxification programme	24.4 (15.2–33.6)
Natural or alternative therapist	5.6 (1.1–15.9)
Māori or Pacific health service	3.0 (0.9–7.4)
Emergency department at a public hospital	2.1 (0.3–7.0)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

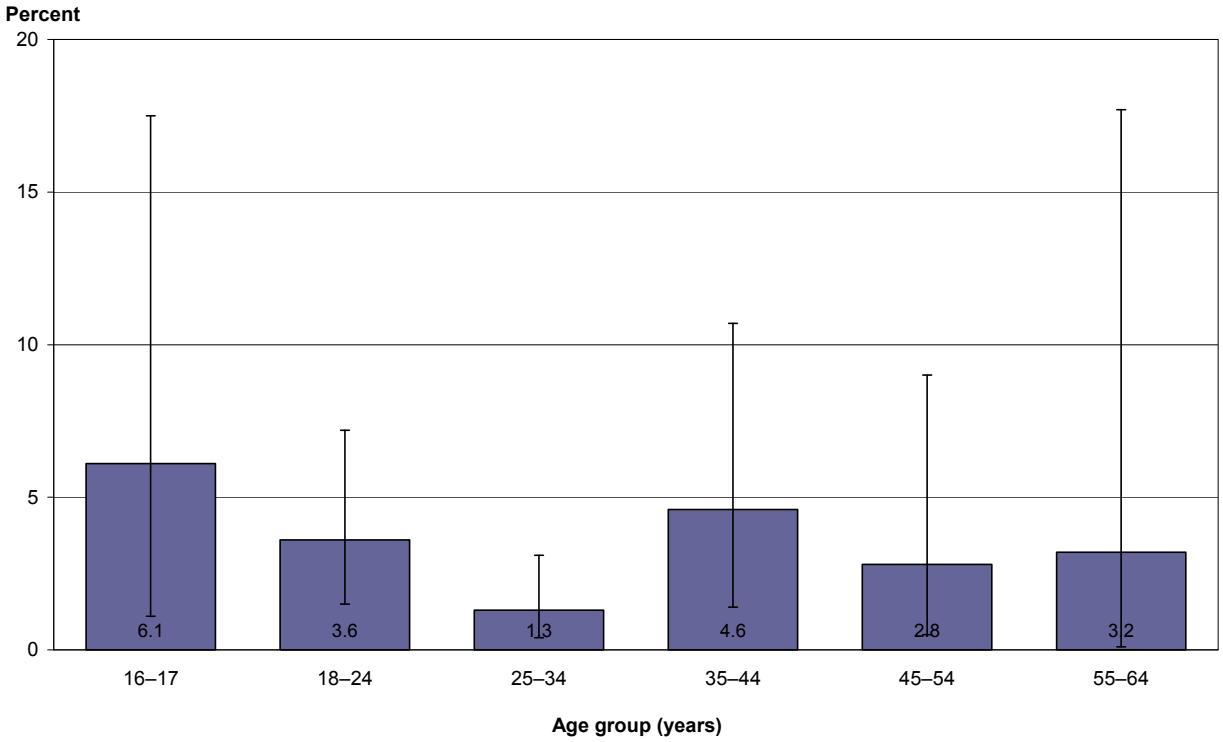
Received help to reduce level of drug use in last year

About three percent (3.2%, 1.9–4.4) of past-year drug users had received help in the last 12 months to reduce their level of drug use. This proportion represents 0.6% (0.4–0.8) of the total adult population aged 16–64 years who had received help in the last 12 months to reduce their level of drug use, equating to about 15,400 people.

Among past-year drug users, there was no significant difference in the prevalence of having received help in the past year to reduce the level of drug use, between men (3.5%, 2.1–5.7) and women (2.6%, 1.0–5.3), after adjusting for age.

Among past-year drug users, people aged 25–34 years had a somewhat lower prevalence of having received help in the past year to reduce their level of drug use, compared with other age groups (Figure 14).

Figure 14: Received help in the last 12 months to reduce the level of drug use, among past-year drug users aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Table 10 gives the prevalence of having received help in the last 12 months to reduce the level of drug use among adults in New Zealand's main ethnic population groups.

Table 10: Received help in last 12 months to reduce the level of drug use, among past-year drug users and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for past-year drug users (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	3.0 (1.7–5.0)	0.6 (0.3–0.9)	11,600
Māori	4.3 (2.2–7.5)	1.4 (0.7–2.4)	4,600
Pacific	4.2 (1.4–9.6)	1.0 (0.4–2.0)	1,500
Asian	1.6 (0.0–9.7)	0.1 (0.0–0.5)	200

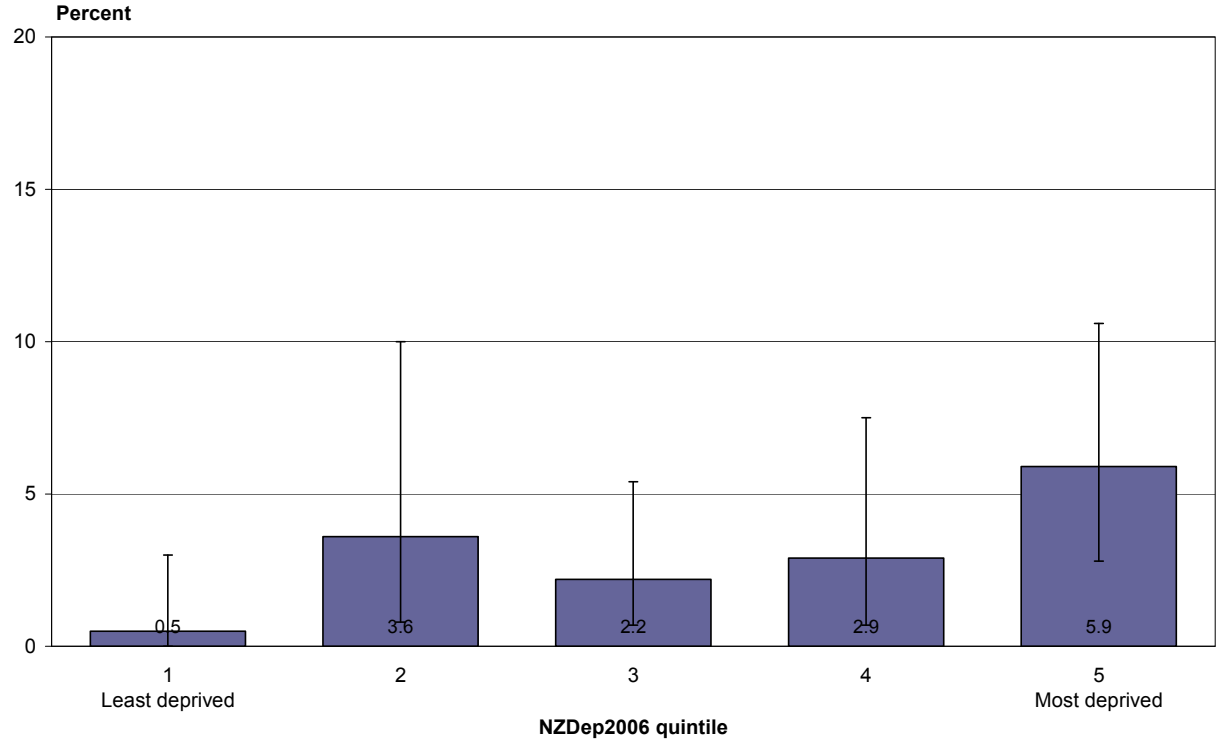
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

Among past-year drug users, there were no significant differences by ethnic group for either men or women in the prevalence of having received help in the past year to reduce the level of drug use, when adjusted for age. Numbers for Asian male and female past-year drug users were too low for reliable estimation.

Among past-year drug users, the prevalence of having received help in the past year to reduce the level of drug use was significantly higher for people living in neighbourhoods of higher socioeconomic deprivation (NZDep2006 quintile 5) compared with people living in the least deprived areas (quintile 1), after adjusting for age (p-value < 0.05) (Figure 15).

Figure 15: Received help in the last 12 months to reduce the level of drug use, among past-year drug users aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

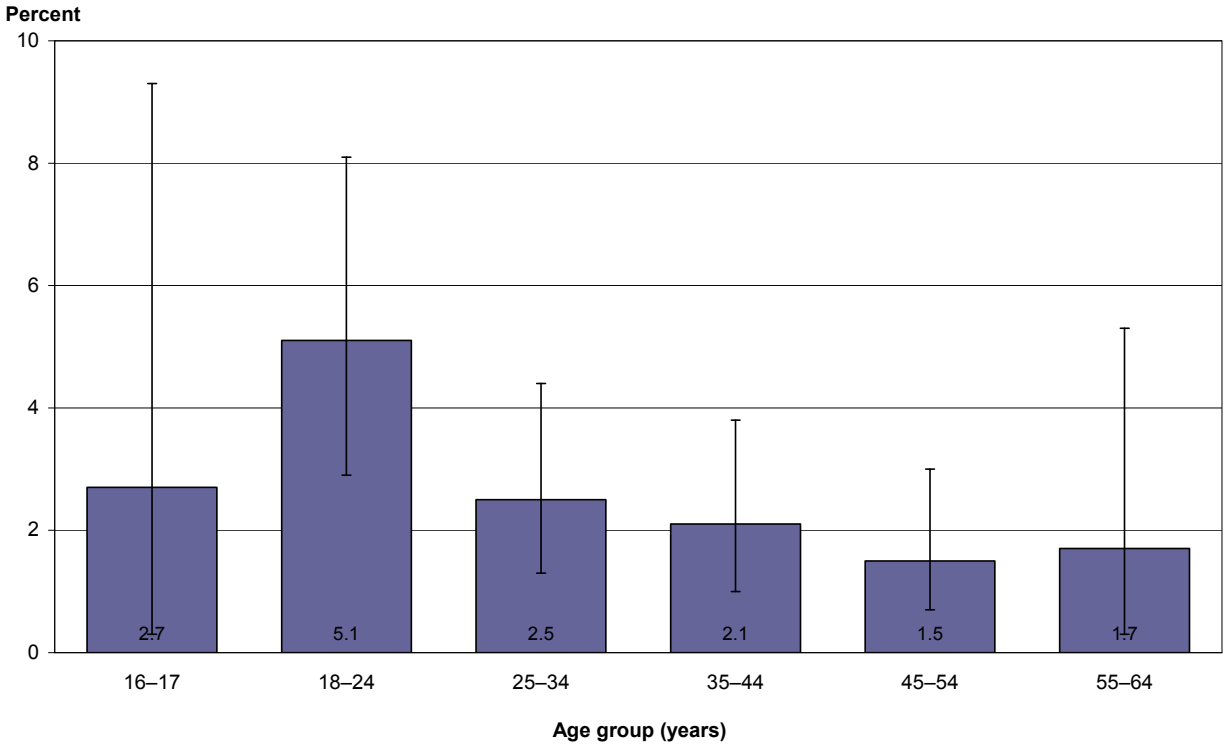
Ever wanted help in lifetime but not received it

Overall, 2.6% (1.9–3.2) of people who had ever used drugs had wanted help to reduce their level of drug use at some time in their life but not received it. This proportion represents 1.3% (0.9–1.6) of adults aged 16–64 years in the total population who had wanted help to reduce their level of drug use at some point in their lifetime but not received it, equating to about 33,000 people.

Among people who had used drugs in their lifetime, there were no significant differences between men (3.0%, 1.9–4.1) and women (2.6%, 1.5–3.6) in the prevalence of having ever wanted help to reduce their level of drug use but not received it, after adjusting for age.

Among people who had ever used drugs, the prevalence of having wanted help to reduce the level of drug use at some time in their life but not received it peaked for people aged 18–24 years, and decreased with increasing age (Figure 16).

Figure 16: Ever wanted help in lifetime to reduce the level of drug use but not received it, among people aged 16–64 years who had ever used drugs, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Table 11 gives the prevalence of having ever wanted help to reduce the level of drug use but having not received it among adults in New Zealand's main ethnic population groups.

Table 11: Ever wanted help in lifetime to reduce the level of drug use but not received it, among people who had ever used drugs and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for people who had ever used drugs (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	2.3 (1.6–3.0)	1.2 (0.8–1.6)	24,600
Māori	4.4 (3.0–5.8)	2.8 (1.9–3.8)	9,300
Pacific	2.3 (1.1–4.2)	0.9 (0.4–1.8)	1,500
Asian	2.7 (0.3–10.3)	0.4 (0.0–1.6)	900

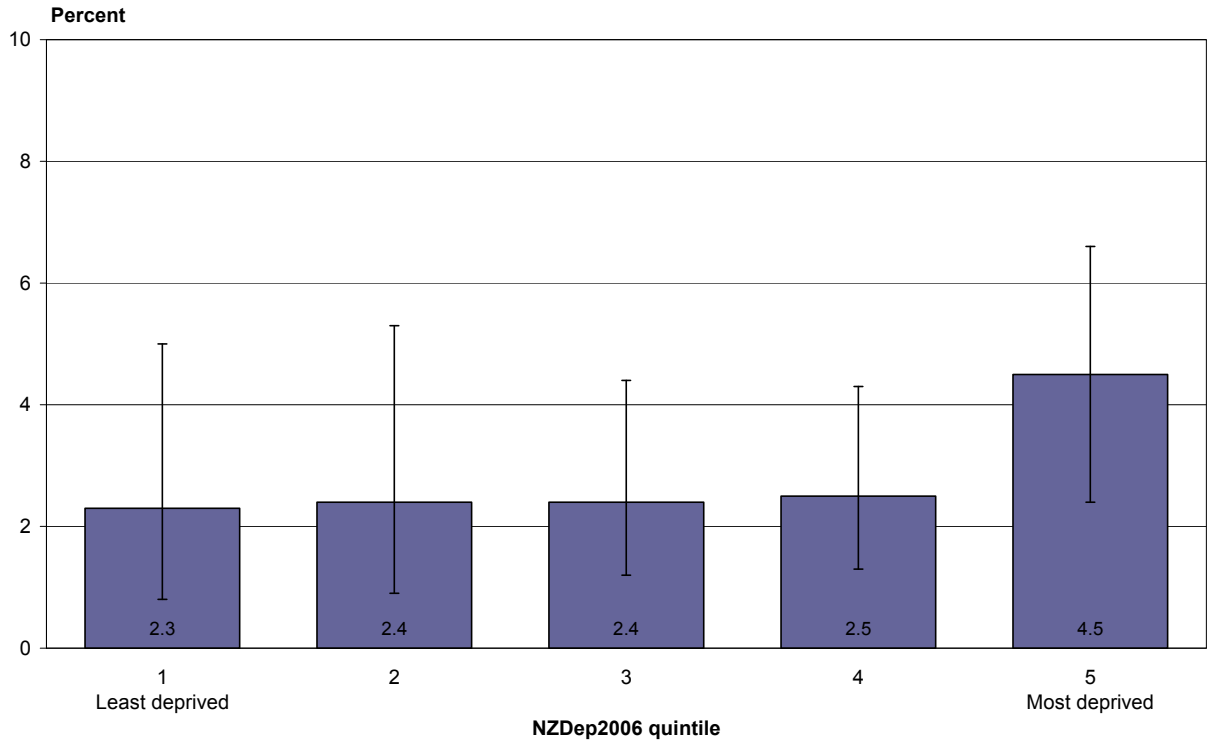
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Drugs exclude alcohol, tobacco and BZP party pills.

Among people who had ever used drugs, Māori (SRR: 1.57, 1.01–2.13) were significantly more likely to have wanted help to reduce their level of drug use in their lifetime but not received it, compared with people in the total population, after adjusting for age. There were no other significant differences by ethnic group.

After adjusting for age, among those people who had ever used drugs, people living in neighbourhoods of high socioeconomic deprivation (NZDep2006 quintile 5) were somewhat more likely to have wanted help to reduce their level of drug use at some time but not received it, compared with people living in neighbourhoods of low deprivation (quintile 1), although this was not statistically significant (p-value > 0.05) (Figure 17).

Figure 17: Ever wanted help in lifetime to reduce the level of drug use but not received it, among people aged 16–64 years who had ever used drugs, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Drugs exclude alcohol, tobacco and BZP party pills.

Reason for not receiving help

Among people who had wanted help to reduce their level of drug use at some point in their lifetime but not received it, the most common reasons for not receiving help were not knowing where to go (20.7%, 10.1–35.3) and the service not being appropriate for their type of drug use (19.8%, 8.7–35.8) (Table 12).

Table 12: Reasons for not having received help to reduce the level of drug use in lifetime, among people aged 16–64 years who had ever wanted help to reduce their level of drug use but not received it (unadjusted prevalence)

Reasons for not having received help	Prevalence (%) (95% CI)
Did not know where to go	20.7 (10.1–35.3)
Service not appropriate for their type of drug use	19.8 (8.7–35.8)
Afraid of what might happen once contact made with the service	18.5 (8.8–32.4)
Afraid of losing friends	18.0 (7.4–33.8)
Social pressure to keep using drugs	16.8 (8.1–29.4)
Afraid of the law or police	16.5 (6.6–31.9)
Could not spare the time	11.0 (2.0–30.6)
Did not want to make a fuss	9.3 (2.0–24.6)
Cost	8.2 (1.0–26.8)
No local service available	7.2. (2.5–15.7)
Could not get in touch with doctor or service	6.8 (0.8–23.2)
No transport to get there, or lack of child care	5.0 (1.2–13.0)
Could not get appointment soon enough or at a suitable time	0.7 (0.1–2.5)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Drugs exclude alcohol, tobacco and BZP party pills.

Wanted help in the past year but did not receive it

Overall, 3.6% (2.2–5.0) of past-year drug users had wanted help in the past year to reduce their level of drug use, but not received it. This proportion represents 0.6% (0.4–0.9) of adults aged 16–64 years in the total population who had wanted help in the past year to reduce their level of drug use, but not received it, equating to about 16,400 people.

Among past-year drug users, there was no significant difference between men (4.1%, 2.2–6.9) and women (3.2%, 1.6–5.9) in the prevalence of having wanted help in the past year to reduce their level of drug use but not received it, when adjusted for age.

Someone showed concern about drug use in past year

Overall, one in ten past-year drug users (9.4%, 7.6–11.3) reported that a relative or friend, or a doctor or another health worker had been concerned about the respondent's drug use or suggested they cut down in the last 12 months. This proportion represents 1.6% (1.3–1.9) of adults aged 16–64 years in the total population, equating to about 42,700 people.

Among past-year drug users, there was no significant difference between men (11.4%, 8.5–14.3) and women (7.9%, 5.3–10.6) in the prevalence of having had someone show concern about their drug use in the past year, after adjusting for age.

Harmful effects from drug use

Summary of harmful effects experienced in lifetime

Overall, one in five (22.2%, 20.3–24.1) people who had ever used drugs had experienced any harmful effect in their lifetime due to their drug use (Table 13). The most commonly experienced harm due to drug use in people's lifetime was harm to friendships or social life. One in eight (13.2%, 11.7–14.7) people who had ever used drugs reported that their drug use had affected their friendships or social life at some point in their life.

Table 13: Harmful effects experienced in lifetime due to own drug use, among people who had ever used drugs and total population aged 16–64 years (unadjusted prevalence and estimated number of adults)

Harmful effects due to drug use	Prevalence (%) (95% CI)		Estimated number of adults
	For people who had ever used drugs	For total adults	
Any harmful effect	22.2 (20.3–24.1)	11.1 (10.0–12.2)	293,100
Harmful effects on friendships or social life	13.2 (11.7–14.7)	6.5 (5.7–7.3)	170,900
Harmful effects on work, study or employment opportunities	11.7 (10.3–13.1)	5.7 (5.0–6.5)	151,000
Harmful effects on home life	11.1 (9.9–12.4)	5.5 (4.8–6.1)	144,100
Harmful effects on financial position	10.2 (8.9–11.5)	5.0 (4.3–5.7)	131,700
Had learning difficulties	8.6 (7.5–9.8)	4.2 (3.6–4.8)	111,600
Had a legal problem	5.8 (4.8–6.7)	2.8 (2.3–3.3)	74,400

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Drugs exclude alcohol, tobacco and BZP party pills. 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

In addition, 3.9% (3.1–4.7) of people who had ever used drugs had experienced injuries in their lifetime due to their drug use. This proportion represents 1.9% (1.5–2.3) of the total population aged 16–64 years, equating to 49,800 people.

Summary of harmful effects experienced in past year

Overall, about one in five past-year drug users (18.6%, 15.5–21.7) had experienced any harmful effect in the past year due to their drug use (Table 14). The most commonly reported harmful effect experienced in the past year due to drug use was harm to financial position, with one in ten (10.8%, 8.5–13.1) past-year drug users reporting this harm. Other harms experienced by past-year drug users included harm to friendships or social life (8.5%, 6.5–10.5) and to home life (8.4%, 6.5–10.4).

Table 14: Harmful effects experienced in the last 12 months due to own drug use, among past-year drug users and total population aged 16–64 years (unadjusted prevalence and estimated number of adults)

Harmful effects due to drug use	Prevalence (%) (95% CI)		Estimated number of adults
	For past-year drug users	For total adults	
Any harmful effect	18.6 (15.5–21.7)	3.5 (2.9–4.1)	91,200
Harmful effects on financial position	10.8 (8.5–13.1)	1.8 (1.4–2.2)	48,000
Harmful effects on friendships or social life	8.5 (6.5–10.5)	1.5 (1.1–1.8)	38,600
Harmful effects on home life	8.4 (6.5–10.4)	1.5 (1.1–1.8)	38,700
Harmful effects on work, study or employment opportunities	6.5 (4.5–8.5)	1.1 (0.8–1.5)	30,000
Had learning difficulties	5.6 (3.9–7.3)	1.0 (0.7–1.3)	26,200
Had a legal problem	2.9 (1.6–4.1)	0.5 (0.3–0.7)	12,700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Drugs exclude alcohol, tobacco and BZP party pills. 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally, 7.2% (5.2–9.2) of past-year drug users reported having had one or more days off work or school in the past year due to their drug use. This proportion represents 1.3% (1.0–1.7) of the total population aged 16–64 years, equating to about 34,700 people.

Furthermore, 2.5% (1.4–3.6) of past-year drug users had experienced injuries in the past year due to their drug use, representing 0.4% (0.2–0.6) of the total population aged 16–64 years, and equating to about 11,000 people.

Generally, younger past-year drug users were somewhat more likely than older past-year drug users to have experienced harmful effects in the past year due to their drug use, although this was not a consistent trend.

For both male and female past-year drug users, there were no differences by ethnic group in the prevalence of having experienced any of the harmful effects due to drug use in the past year, after adjusting for age.

Overall, past-year drug users living in NZDep2006 quintiles 3–5 were somewhat more likely to have experienced harmful effects due to their drug use in the past year, compared with past-year drug users living in less deprived neighbourhoods (quintiles 1 and 2).

More detailed results for each of the harmful effects in Table 14 by gender, age group, ethnic group and neighbourhood deprivation are available in data tables online in Excel format, on the publication web page (see www.moh.govt.nz).

Chapter 3: Cannabis

Introduction

Cannabis is the most widely used illegal drug in New Zealand, and is the third most widely used recreational drug after alcohol and tobacco. It comes in a variety of forms from the *Cannabis sativa* plant, including marijuana (dried leaves and flowers), hashish (resin) and hash oil.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried cannabis (which included all types of marijuana, pot, grass, weed, hash and hash oil). If they had, they were asked how old they were when they first used cannabis and whether, in the last 12 months, they had used cannabis.

Participants who had used cannabis in the last year were asked how many times they had used cannabis in that period. Past-year cannabis users were also asked where they had used cannabis in the last 12 months (multiple locations could be selected).

Participants who had used cannabis in the past year were also asked, in the last 12 months, how often they had driven a car or another motor vehicle such as a motorcycle or boat when they felt under the influence of cannabis, how often they had operated machinery when they felt under the influence of cannabis, and how often they had worked when they felt under the influence of cannabis. They were also asked, in the last 12 months, how many days, if any, they were away from work or school because of their cannabis use. Past-year cannabis users were also asked whether they had used each of the following together with cannabis, on at least one occasion in the last 12 months: tobacco; alcohol; BZP party pills; amphetamine/methamphetamine; antidepressants; painkillers; sedatives (including sleeping pills); ecstasy; heroin; cocaine/crack; other; none of the above.

Participants who had ever used cannabis were asked about the experiences they had had as a result of using cannabis. These participants were asked whether there had ever been a time when they felt their cannabis use had a harmful effect on: their friendships or social life; their home life; their work, studies or employment opportunities; their financial position; or whether they had ever had legal problems, difficulty learning things, injuries, or other health problems because of their cannabis use. For each situation, participants selected from the following responses: yes, during the last 12 months; yes, but not in the last 12 months; no.

Participants who had ever used cannabis in their lifetime were also asked a series of questions about help-seeking. These participants were asked whether they had ever received help to reduce their level of cannabis use and, if so, whether this was in the last 12 months, and where they received help from (multiple sources could be selected). These participants were also asked whether they had ever wanted help to reduce their level of cannabis use but did not get it. Participants who answered 'yes' to this question were asked whether this was in the last 12 months, and what their reasons were for not getting help. Additionally they were asked whether a relative or friend, or a doctor or another health worker had been concerned about the participant's cannabis use or suggested that they cut down. Participants selected from the following answers: yes, but not in the last year; yes, during the last year; no.

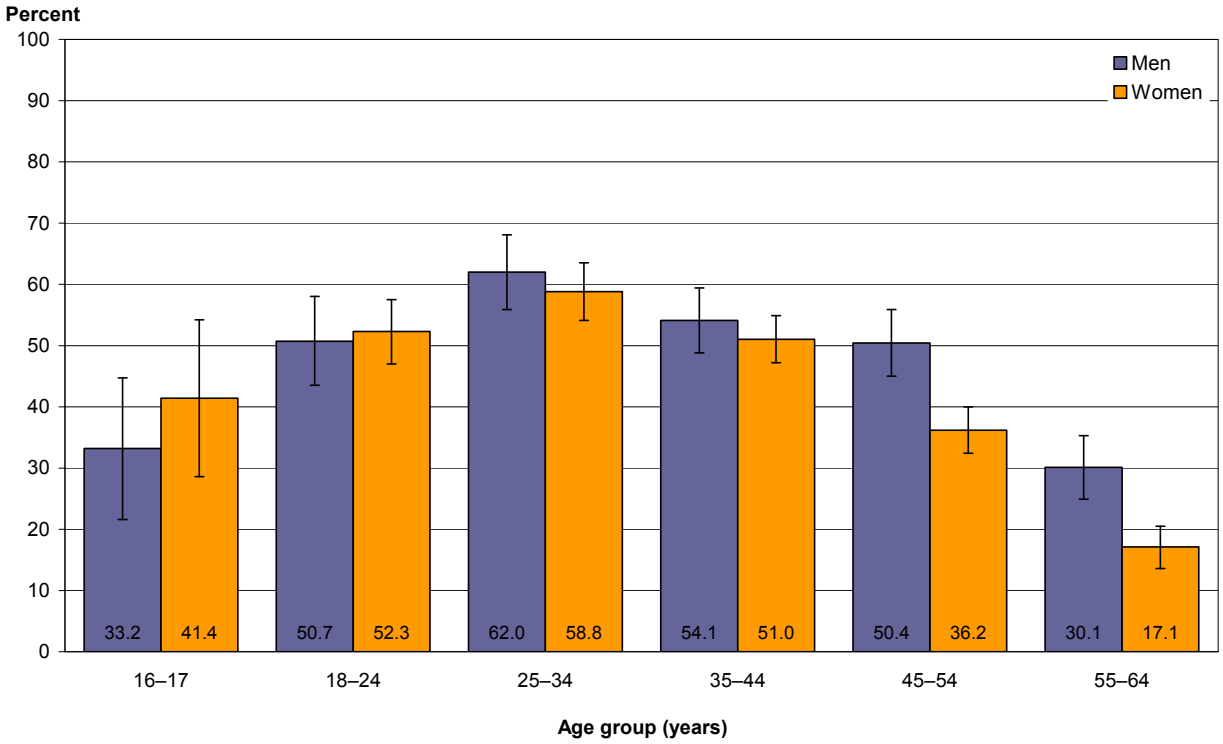
Prevalence of having ever used cannabis in lifetime

Almost half of the New Zealand population aged 16–64 years (46.4%, 44.6–48.2) had used cannabis at some point in their lifetime. This proportion represents 1,224,600 people aged 16–64 years in New Zealand who had ever used cannabis.

Men were significantly more likely to have ever used cannabis (51.3%, 48.6–53.9) than women (47.2%, 44.7–49.6), when adjusted for age (p-value < 0.05).

The prevalence of having ever used cannabis peaked in the 25–34 years age group for both men and women, and decreased with increasing age thereafter (Figure 18). About six in ten people aged 25–34 years had tried cannabis in their lifetime.

Figure 18: Ever used cannabis in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 15 gives the prevalence of lifetime cannabis use among adults in New Zealand's main ethnic population groups.

Table 15: Ever used cannabis in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

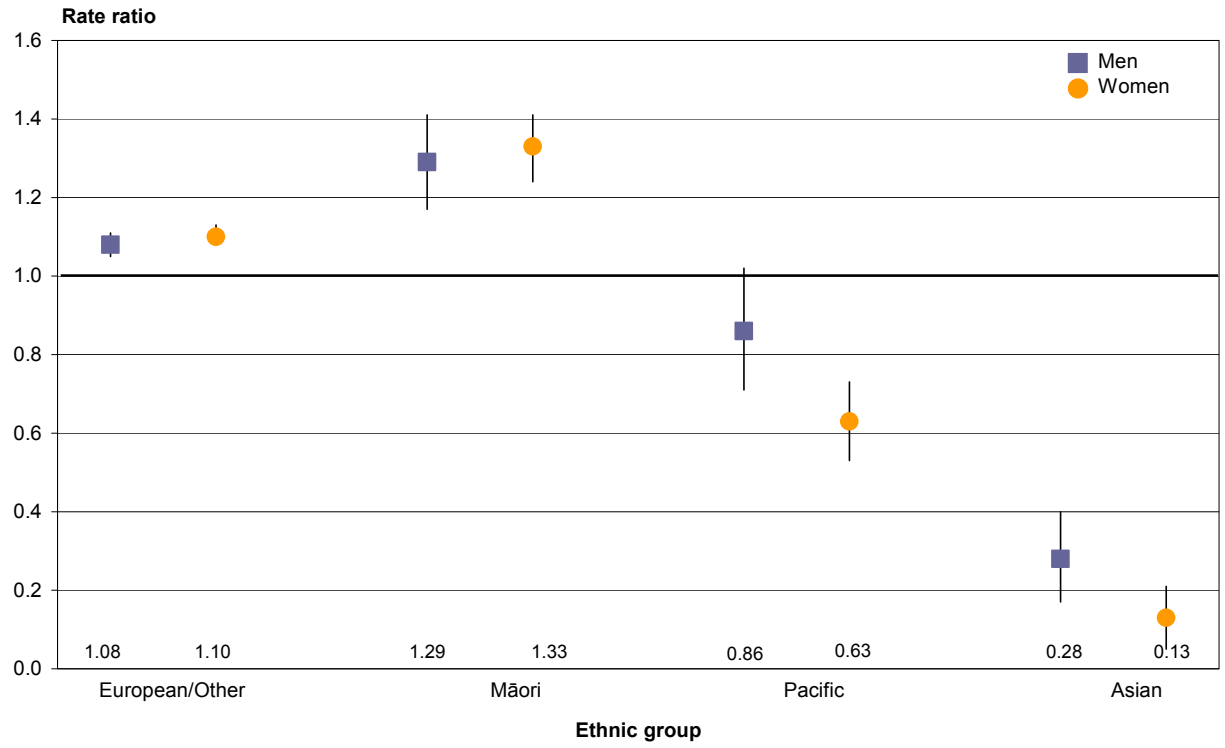
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	49.2 (47.2–51.2)	1,023,200
Māori	63.4 (60.1–66.7)	207,600
Pacific	37.1 (32.9–41.4)	57,400
Asian	10.8 (7.1–14.5)	24,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other and Māori men and women were significantly more likely to have ever used cannabis, compared with men and women in the total population (Figure 19). Asian men, and Pacific and Asian women were significantly less likely to have ever used cannabis, compared with men and women in the total population.

Figure 19: Ever used cannabis in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

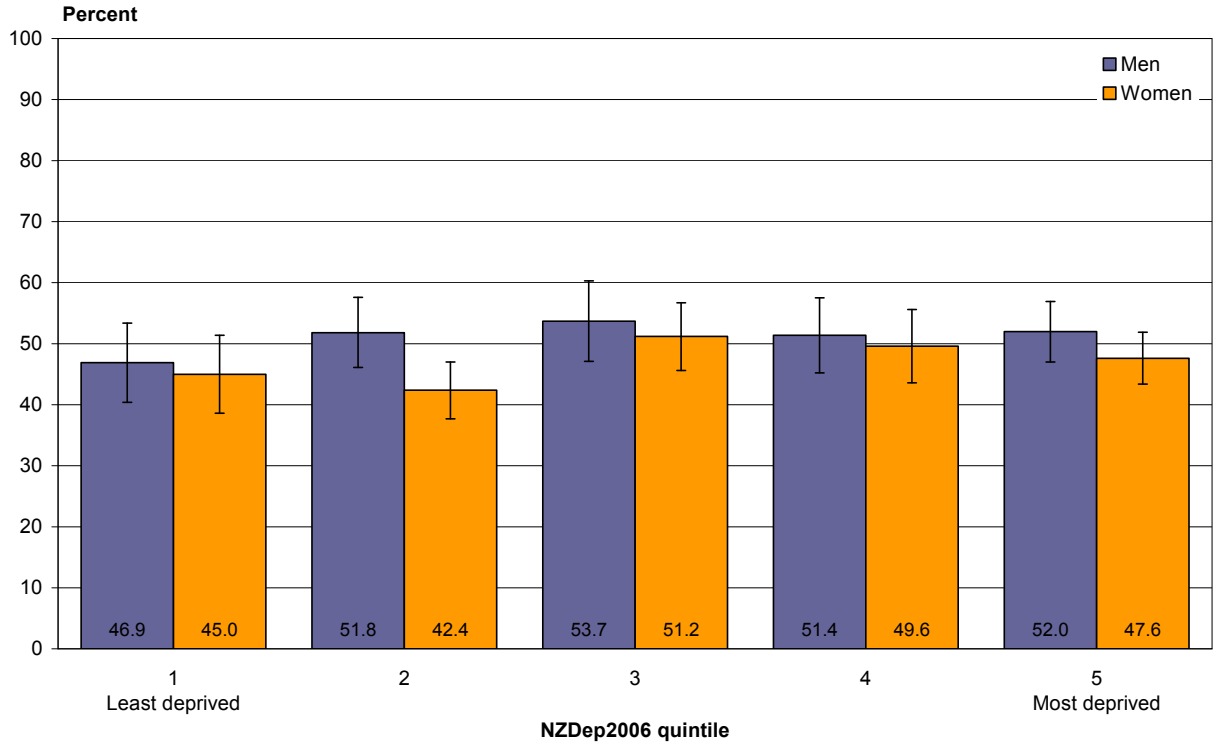


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there were no significant differences in the prevalence of having used cannabis between people living in the least socioeconomically deprived neighbourhoods (NZDep2006 quintile 1) and most deprived neighbourhoods (quintile 5), when adjusted for age (Figure 20).

Figure 20: Ever used cannabis in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of cannabis

For adults aged 16–64 years who had ever used cannabis, the median age at which they had first tried cannabis was 17 years.

Overall, one in three (35.7%, 33.5–37.8) people who had ever used cannabis had first tried it when they were aged 15–17 years (Table 16). One in six (16.2%, 14.6–17.8) had first tried cannabis when aged 14 years or younger.

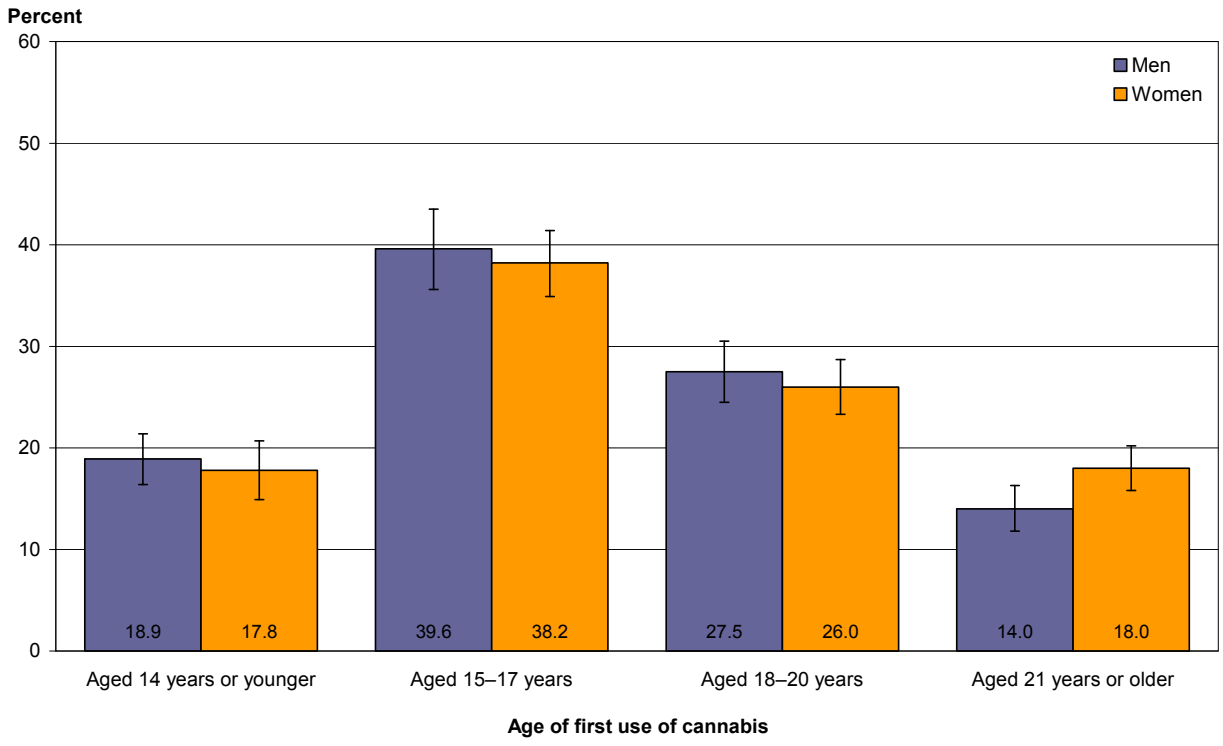
Table 16: Age of first use of cannabis, among people aged 16–64 years who had ever used cannabis (unadjusted prevalence)

Age of first use of cannabis	Prevalence (%) (95% CI)
14 years or younger	16.2 (14.6–17.8)
15–17 years	35.7 (33.5–37.8)
18–20 years	28.4 (26.8–30.0)
21 years or older	19.7 (18.1–21.4)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Among people who had ever used cannabis, women were significantly more likely than men to have been aged 21 years or older when first trying cannabis, when adjusted for age (p-value < 0.05) (Figure 21).

Figure 21: Age of first use of cannabis, among people aged 16–64 years who had ever used cannabis, by gender (age-standardised prevalence)

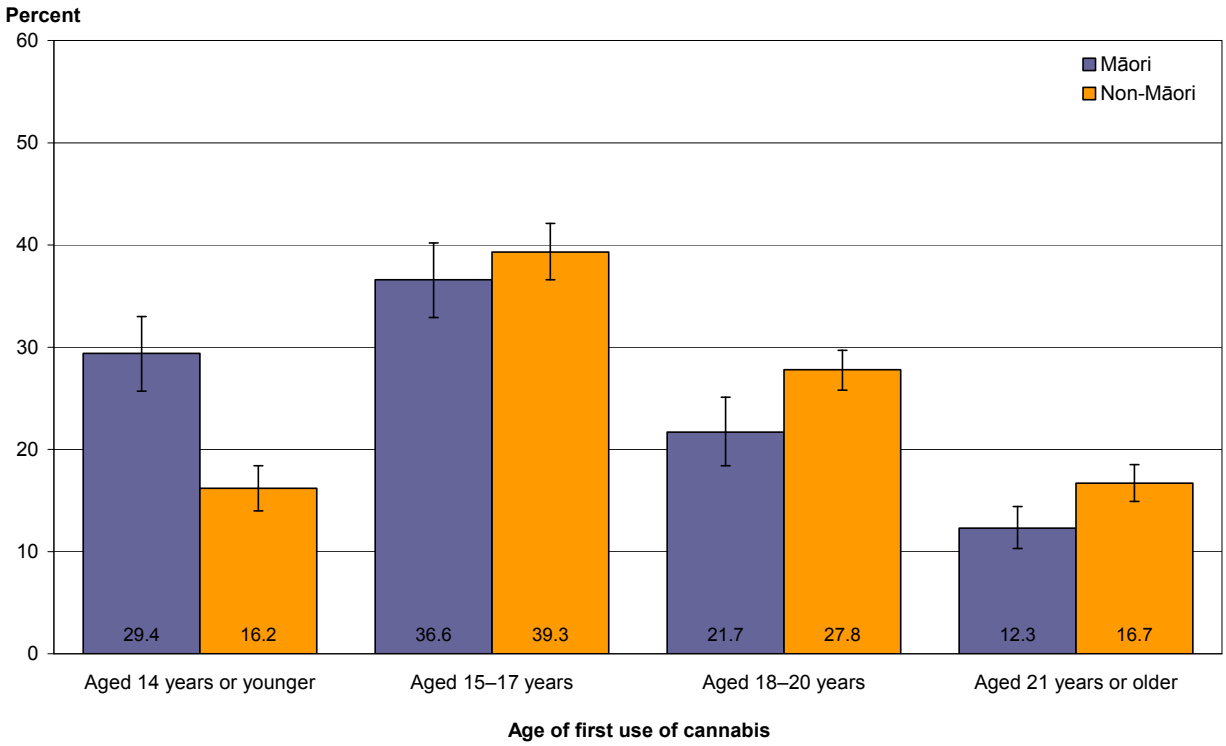


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Among Māori and non-Māori who had used cannabis in their lifetime, the most common age of first using cannabis was 15–17 years, when adjusting for age (p-values < 0.05) (Figure 22). Māori were significantly more likely to have been aged 14 years or younger when they had first tried cannabis, compared with non-Māori.

Figure 22: Age of first use of cannabis, among people aged 16–64 years who had ever used cannabis, by Māori/non-Māori ethnicity (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

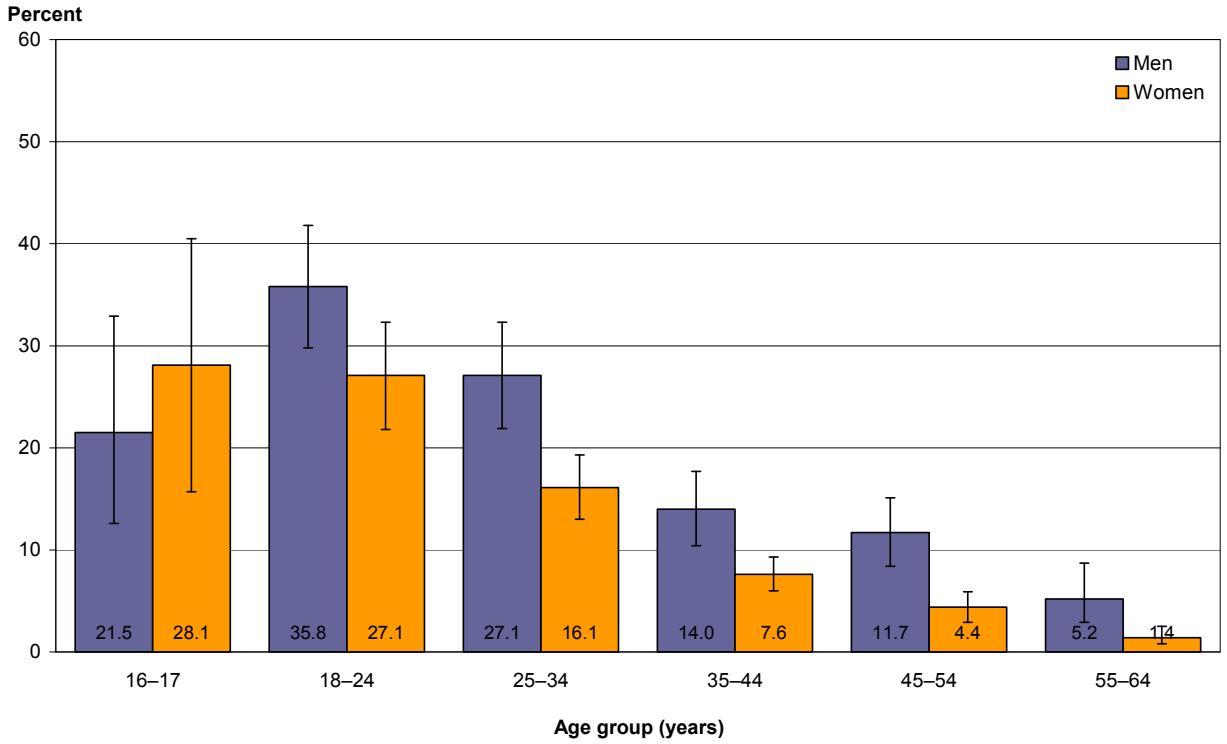
Prevalence of cannabis use in the last 12 months

One in seven (14.6%, 13.4–15.7) adults aged 16–64 years had used cannabis in the past 12 months, representing an estimated 385,000 people. One in three (31.5%, 29.5–33.4) of those people who had ever used cannabis had used cannabis in the past year.

Men (21.0%, 18.8–23.2) were significantly more likely to have used cannabis in the past year than women (13.9%, 12.2–15.6), when adjusted for age.

The prevalence of past-year cannabis use was highest for men in the 18–24 years age group, and for women in the 16–17 and 18–24 years age groups, with the prevalence decreasing with increasing age for both genders (Figure 23).

Figure 23: Used cannabis in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 17 gives the prevalence of past-year cannabis use among adults in New Zealand's main ethnic population groups.

Table 17: Used cannabis in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

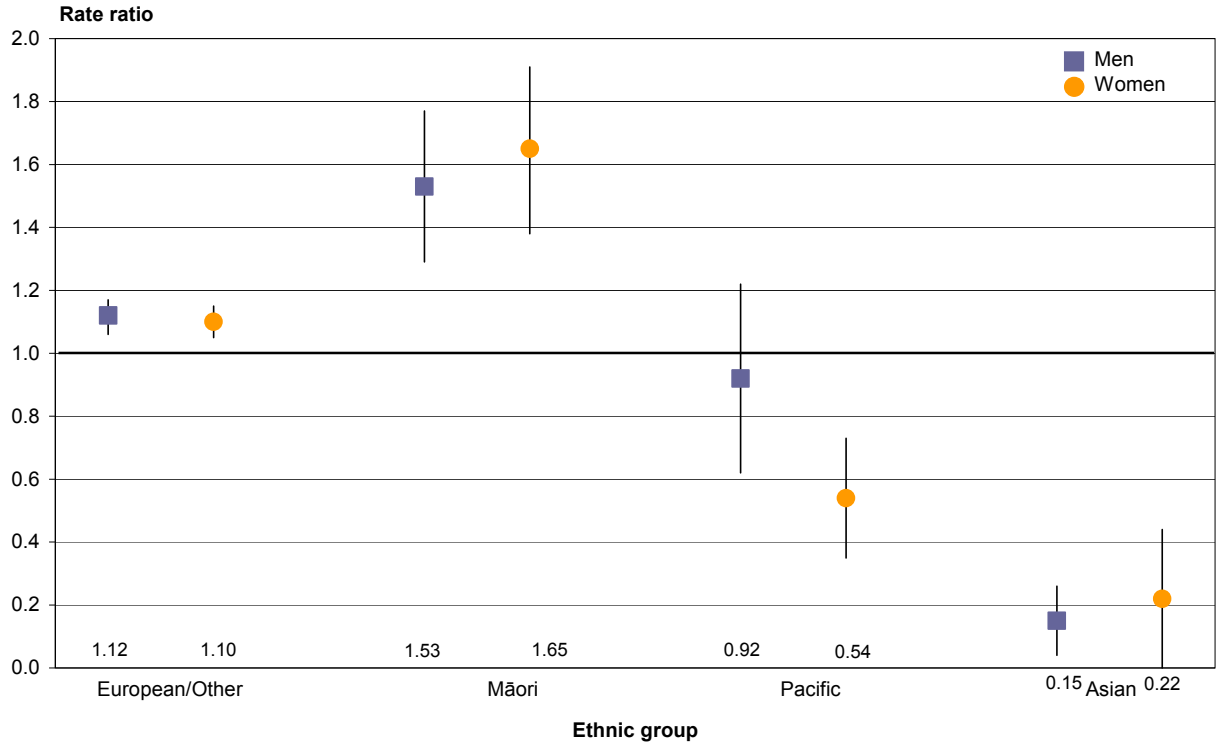
Ethnic group	Prevalence (%) (95% CI)	Estimated number of adults
European/Other	15.1 (13.7–16.5)	314,300
Māori	26.4 (23.6–29.2)	86,400
Pacific	13.1 (9.8–16.5)	20,300
Asian	3.4 (1.7–6.1)	7,500

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other and Māori men and women were significantly more likely to have used cannabis in the past year, compared with men and women in the total population (Figure 24). Māori men and women were over 50% more likely to have used cannabis in the previous year than men and women in the total population.

Figure 24: Used cannabis in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

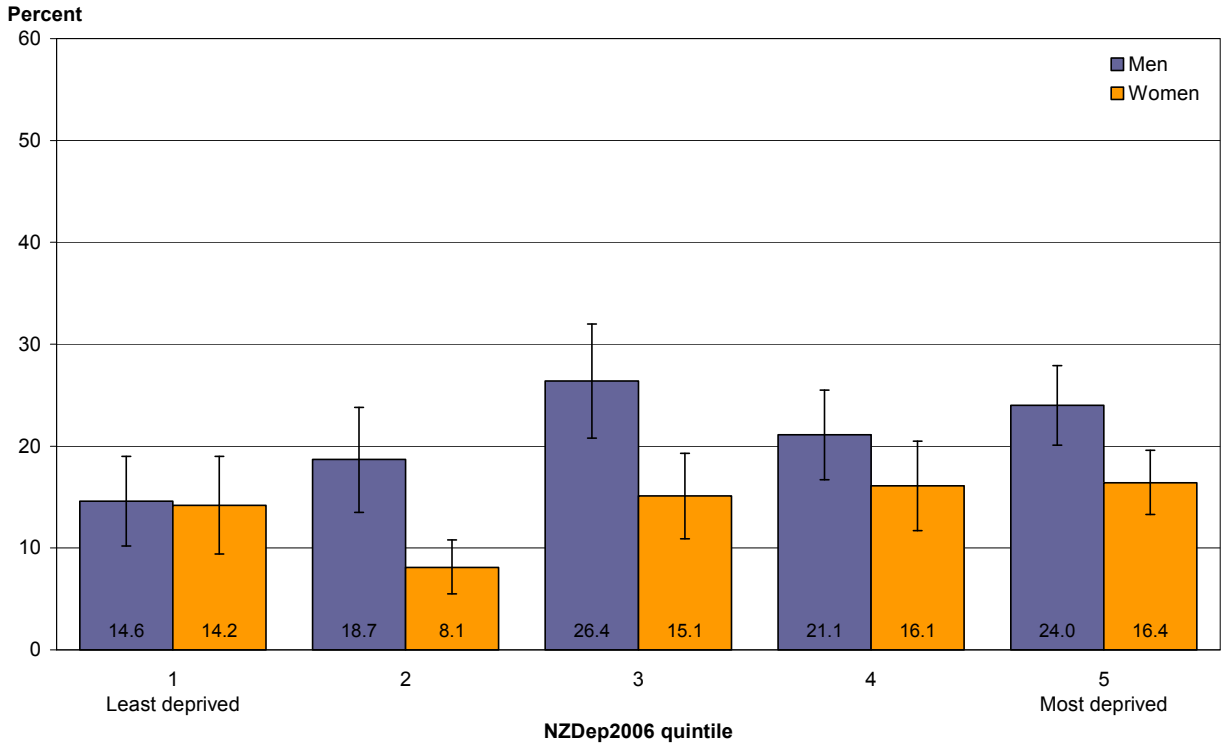


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

Among men, the prevalence of having used cannabis in the past year was significantly higher for men in the more socioeconomically deprived neighbourhoods (NZDep2006 quintiles 3, 4 and 5) than men living in the least deprived neighbourhoods (quintile 1), after adjusting for age (p-values < 0.05) (Figure 25). There was no significant difference between women living in the least deprived areas (quintile 1) and those living in the most deprived areas (quintile 5).

Figure 25: Used cannabis in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Location of cannabis use in the last 12 months

Six in ten past-year cannabis users had used cannabis at their own home (62.8%, 58.3–67.2) or at someone else's home (61.7%, 57.7–65.7) in the past year (Table 18).

Table 18: Location of using cannabis in the last 12 months, among past-year cannabis users aged 16–64 years (unadjusted prevalence)

Location of cannabis use	Prevalence (%) for past-year cannabis users (95% CI)
Own home	62.8 (58.3–67.2)
Someone else's home	61.7 (57.7–65.7)
Outdoor public places	22.2 (18.7–25.6)
Special events	17.7 (14.5–20.9)
Pubs, hotels, restaurants or cafes	10.3 (7.8–12.8)
Nightclubs or bars	10.0 (7.4–12.7)
Sports clubs or events	5.1 (3.5–6.8)
Groups, workplaces or meetings	5.1 (3.3–6.8)
Theatres or cinemas	2.5 (1.4–3.6)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Frequency of cannabis use in the last 12 months

Frequency of cannabis use in the last 12 months

Two in five past-year cannabis users had used cannabis at least once a week in the past year (39.1%, 34.9–43.2), and over half had used cannabis at least monthly (54.0%, 49.7–58.4) (Table 19).

Table 19: Frequency of cannabis use in the last 12 months, among past-year cannabis users and total population aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of cannabis use	Prevalence (%) for past-year cannabis users (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
Daily	13.4 (10.3–16.5)	1.9 (1.4–2.4)	50,800
3–6 times a week	13.0 (9.9–16.1)	1.9 (1.4–2.3)	49,200
1–2 times a week	12.6 (10.0–15.2)	1.8 (1.4–2.2)	47,800
1–3 times a month	15.0 (12.3–17.7)	2.2 (1.7–2.6)	56,700
3–11 times a year	20.7 (17.5–24.0)	3.0 (2.5–3.5)	78,500
1–2 times a year	25.2 (21.2–29.2)	3.6 (3.0–4.2)	95,600
At least weekly	39.1 (34.9–43.2)	5.6 (4.9–6.4)	147,800
At least monthly	54.0 (49.7–58.4)	7.8 (6.8–8.7)	204,500

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Daily use of cannabis in the last 12 months

Among past-year cannabis users, one in seven (13.4%, 10.3–16.5) were daily cannabis users. This represents 1.9% (1.4–2.4) of the total population aged 16–64 years, or about 50,800 people.

Among past-year cannabis users, after adjusting for age, there was no significant difference in daily use of cannabis between men (13.5%, 9.0–17.9) and women (13.0%, 8.6–17.5). There was no significant difference by age group in the prevalence of daily cannabis use, among past-year cannabis users.

Table 20 gives the prevalence of daily cannabis use among adults in New Zealand's main ethnic population groups.

Table 20: Used cannabis daily in the last 12 months, among past-year cannabis users and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for past-year cannabis users (95% CI)	Prevalence (%) for total population (95% CI)	Estimated number of adults
European/Other	12.7 (9.0–16.4)	1.9 (1.3–2.5)	39,400
Māori	17.3 (13.1–21.5)	4.5 (3.3–5.7)	14,800
Pacific	9.3 (4.0–17.7)	1.2 (0.6–2.3)	1900
Asian	*	0.3 (0.0–1.3)	700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

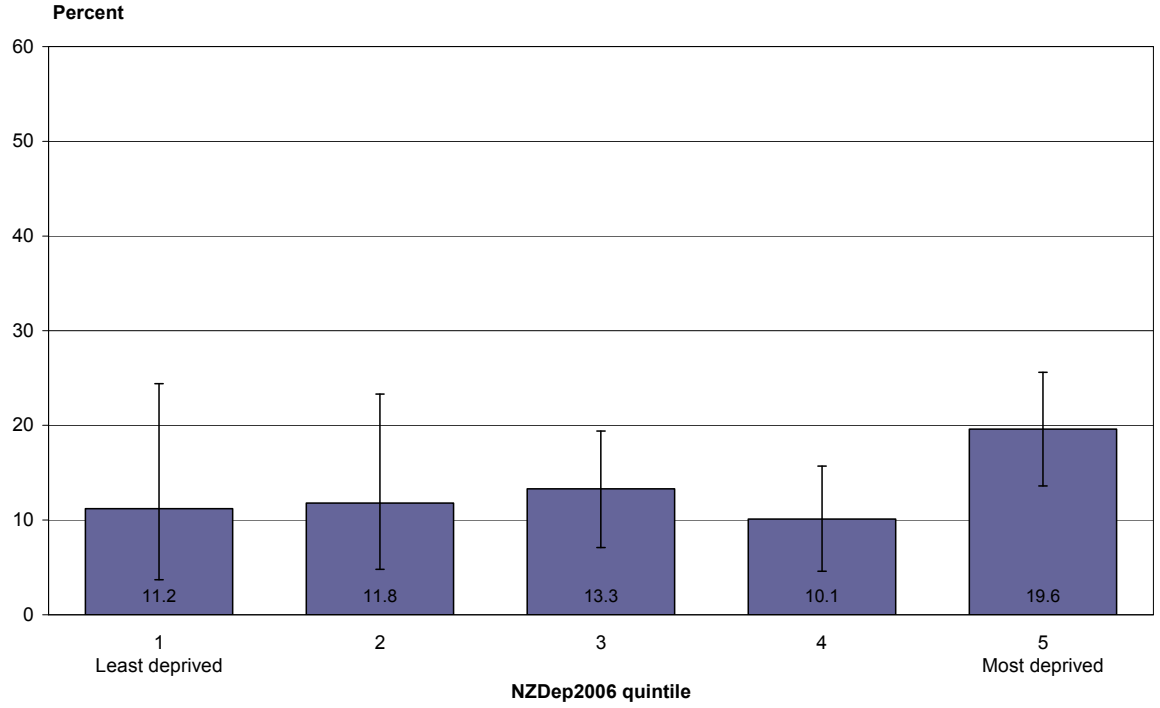
Notes: Total response standard output for ethnic groups has been used.

* Numbers for Asian past-year cannabis users were too low for reliable estimation.

Among past-year cannabis users, Pacific women (SRR: 0.42, 0.00–0.97) were significantly less likely to be daily cannabis users, compared with women in the total population, after adjusting for age. There were no other significant differences by ethnic group, for either men or women. Numbers for Asian male and female past-year cannabis users were too low for reliable estimation.

There was no significant difference in the prevalence of daily cannabis use among past-year cannabis users, between people living in the least socioeconomically deprived neighbourhoods (NZDep2006 quintile 1) and those in the most deprived neighbourhoods (quintile 5), when adjusted for age (Figure 26).

Figure 26: Used cannabis daily in the last 12 months, among past-year cannabis users aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

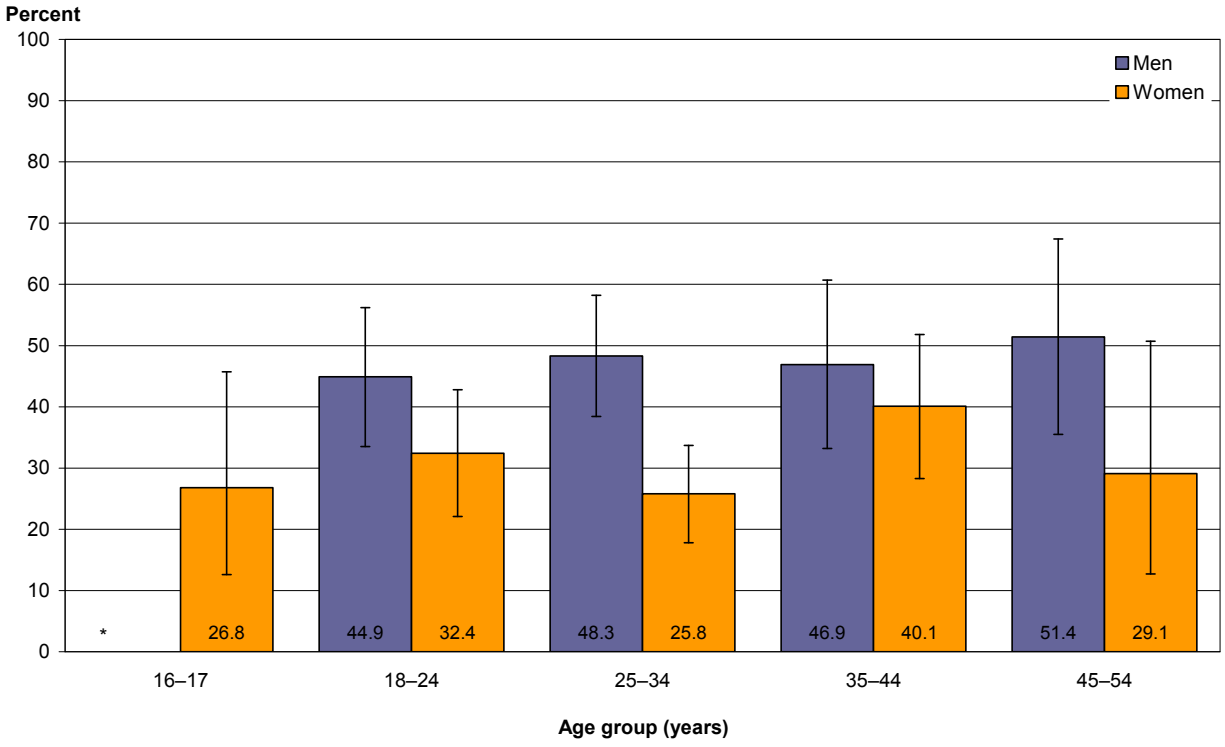
At least weekly use of cannabis in the last 12 months

Two in five past-year cannabis users reported using cannabis at least weekly in the past year (39.1%, 34.9–43.2). This proportion represents 5.6% (4.9–6.4) of adults aged 16–64 years in the total population who had used cannabis at least weekly in the past year, equating to about 147,800 people.

Among past-year cannabis users, men were significantly more likely to have used cannabis at least weekly (44.8%, 38.6–51.1) than women (29.9%, 24.5–35.4), after adjusting for age.

Among male past-year cannabis users, there was little variation by age group in the prevalence of using cannabis at least weekly in the past year (Figure 27). Among female past-year cannabis users, those aged 35–44 years were significantly more likely to have used cannabis at least weekly in the past year, compared with those aged 25–34 years.

Figure 27: Used cannabis at least weekly in the last 12 months, among past-year cannabis users aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: * Numbers for male past-year cannabis users aged 16–17 years, and for male and female past-year cannabis users aged 55–64 years, were too low for reliable estimation.

Table 21 gives the prevalence of using cannabis at least weekly in the past year among adults in New Zealand's main ethnic population groups.

Table 21: Used cannabis at least weekly in the last 12 months, among past-year cannabis users and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for past-year cannabis users (95% CI)	Prevalence (%) for total population (95% CI)	Estimated number of adults
European/Other	38.0 (33.0–42.9)	5.7 (4.7–6.6)	117,600
Māori	41.3 (35.6–46.9)	10.7 (9.0–12.5)	35,200
Pacific	34.8 (23.0–46.7)	4.6 (2.8–6.3)	7,100
Asian	*	1.0 (0.3–2.4)	2,200

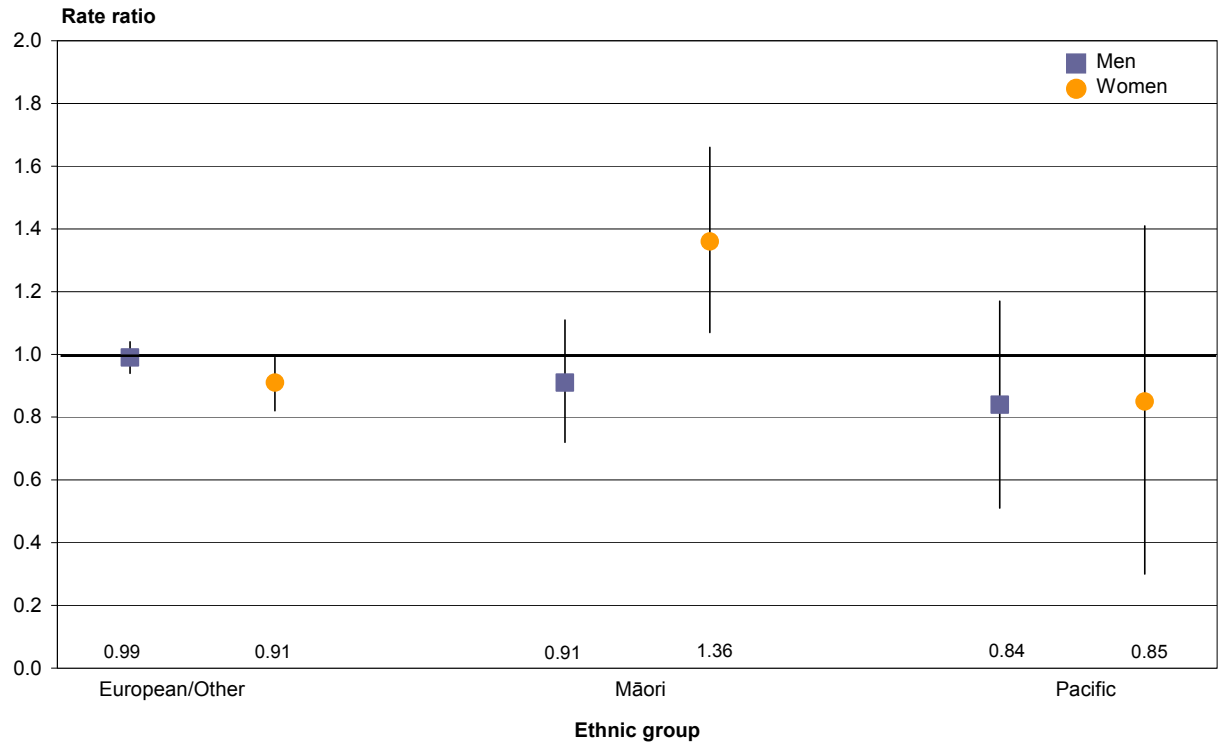
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used.

* Numbers for Asian past-year cannabis users were too low for reliable estimation.

Among past-year cannabis users, Māori women were significantly more likely, and European/Other women significantly less likely, to have used cannabis at least weekly in the past year, compared with women in the total population, when adjusted for age (Figure 28). There were no other significant differences by ethnic group.

Figure 28: Used cannabis at least weekly in the last 12 months, among past-year cannabis users aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

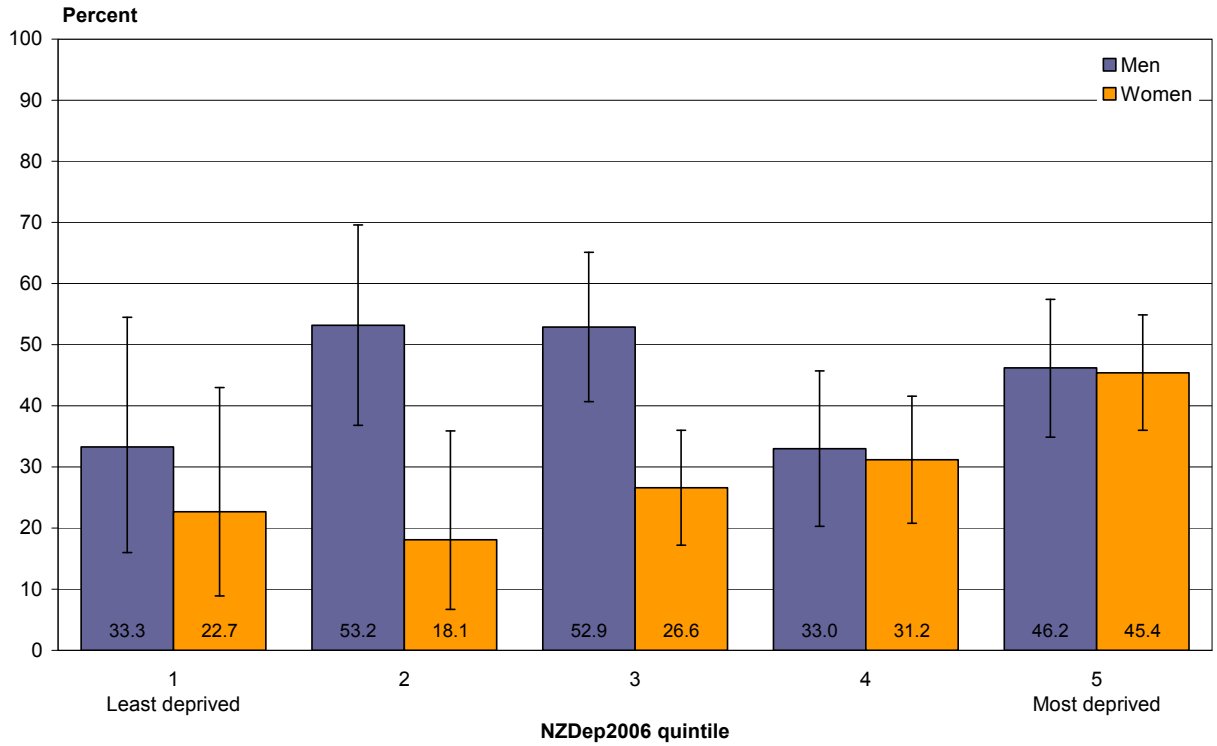


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Numbers for Asian male and female past-year cannabis users were too low for reliable estimation.

Among past-year cannabis users, there was no consistent trend in the prevalence of using cannabis at least weekly in the past year by neighbourhood deprivation, although women living in the most socioeconomically deprived areas (NZDep2006 quintile 5) were significantly more likely to use cannabis at least weekly than women living in the least deprived areas (quintile 1), after adjusting for age (p-value < 0.05) (Figure 29).

Figure 29: Used cannabis at least weekly in the last 12 months, among past-year cannabis users aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

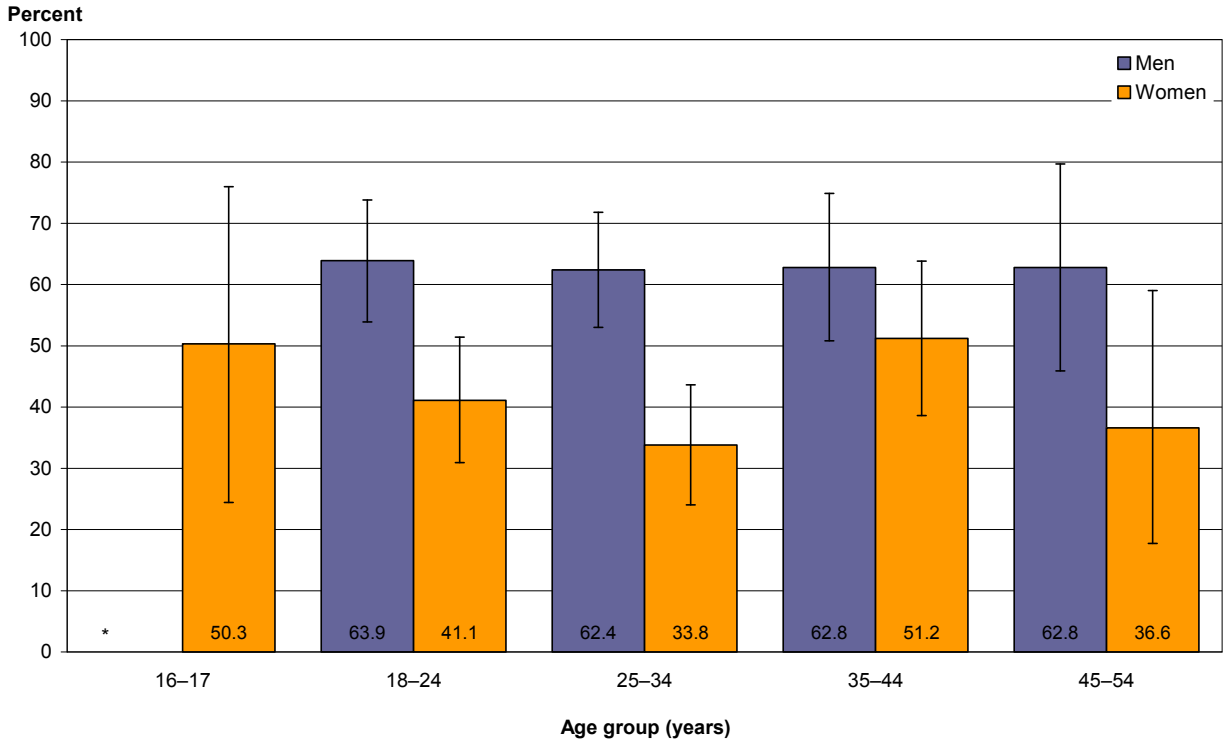
At least monthly use of cannabis in the last 12 months

One in two past-year cannabis users had used cannabis at least monthly in the past year (54.0%, 49.7–58.4). This proportion represents 7.8% (6.8–8.7) of the total population aged 16–64 years who had used cannabis at least monthly in the past year, equating to about 204,500 people.

Among past-year cannabis users, men were significantly more likely to have used cannabis at least monthly (62.2%, 56.9–67.6) than women (40.8%, 34.3–47.4), after adjusting for age.

Among male past-year cannabis users, there were no significant differences by age group in the prevalence of having used cannabis at least monthly (Figure 30). Among female past-year cannabis users, those aged 25–34 years had a somewhat lower prevalence of using cannabis at least monthly than women in other age groups.

Figure 30: Used cannabis at least monthly in the last 12 months, among past-year cannabis users aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: * Numbers for male past-year cannabis users aged 16–17 years, and male and female past-year cannabis users aged 55–64 years, were too low for reliable estimation.

Table 22 gives the prevalence of using cannabis at least monthly among adults in New Zealand's main ethnic population groups.

Table 22: Used cannabis at least monthly in the last 12 months, among past-year cannabis users and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for past-year cannabis users (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	53.2 (47.9–58.6)	7.9 (6.8–9.1)	165,000
Māori	57.6 (51.3–63.9)	15.0 (12.5–17.4)	49,000
Pacific	51.9 (37.6–66.2)	6.8 (4.2–9.4)	10,500
Asian	*	1.5 (0.5–3.4)	3,400

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

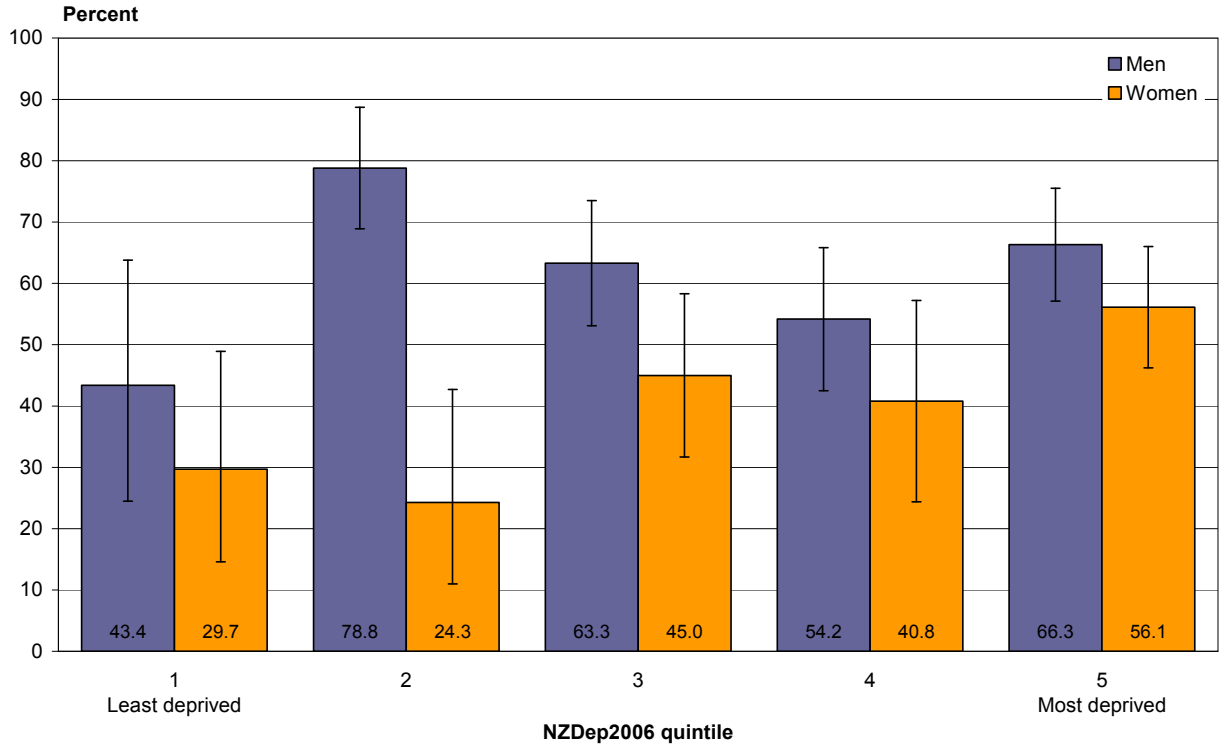
Notes: Total response standard output for ethnic groups has been used.

* Numbers for Asian past-year cannabis users were too low for reliable estimation.

Among past-year cannabis users, Māori women (SRR: 1.29, 1.04–1.55) were significantly more likely to have used cannabis at least monthly in the past year, compared with women in the total population, after adjusting for age. There were no other significant differences by ethnic group and gender. Numbers for Asian male and female past-year cannabis users were too low for reliable estimation.

Among male past-year cannabis users, those living in NZDep2006 quintiles 2 and 5 appeared to have higher rates of having used cannabis at least monthly in the past year than other people, when adjusted for age (Figure 31). Among female past-year cannabis users, the prevalence of having used cannabis at least monthly in the past year appeared to increase with increasing socioeconomic deprivation.

Figure 31: Used cannabis at least monthly in the last 12 months, among past-year cannabis users aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Risky behaviours and cannabis use

Past-year cannabis users were asked whether they had driven, worked or operated machinery while feeling under the influence of cannabis in the past year. The following results are reported for all past-year cannabis users, including those people who had not driven, worked or operated machinery at all in the past year.

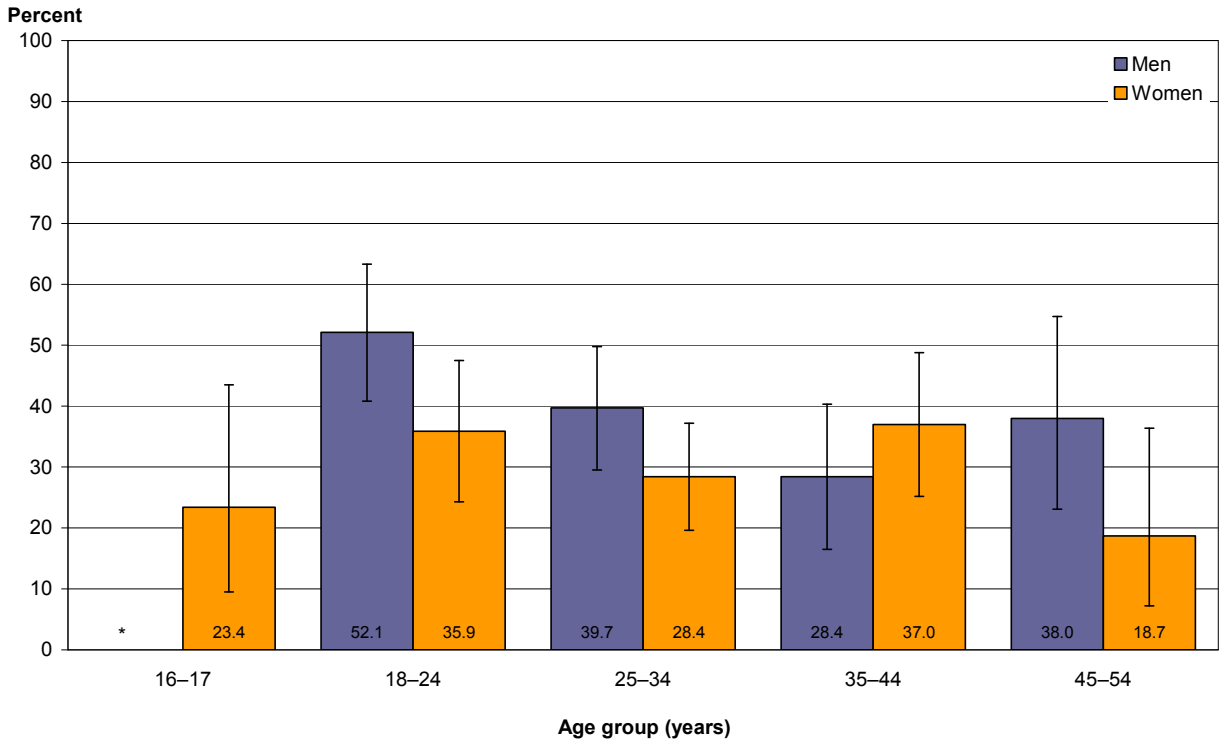
Having driven while under the influence of cannabis in the last 12 months

One in three (35.8%, 31.6–40.1) past-year cannabis users reported having driven while feeling under the influence of cannabis in the last year. This represents one in twenty (5.2%, 4.5–5.8) people in the total population aged 16–64 years, or approximately 136,200 adults.

Among past-year cannabis users, men were significantly more likely to report having driven under the influence of drugs in the past year (39.9%, 34.1–45.7) than women (31.2%, 25.0–37.4), when adjusted for age (p-value < 0.05).

About half of all male past-year cannabis users aged 18–24 years reported having driven while feeling under the influence of cannabis in the past year (Figure 32).

Figure 32: Reported having driven while feeling under the influence of cannabis in the last 12 months, among past-year cannabis users aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: * Numbers for male past-year cannabis users aged 16–17 years, and for male and female past-year cannabis users aged 55–64 years, were too low for reliable estimation.

Among past-year cannabis users, Māori women (SRR: 1.30, 1.02–1.59) were significantly more likely to report having driven while feeling under the influence of cannabis in the past year, compared with women in the total population, when adjusted for age. There were no other significant differences by ethnic group. Numbers for Asian male and female past-year cannabis users were too low for reliable estimation.

There were no significant differences in the prevalence of reporting having driven while feeling under the influence of cannabis in the last year by NZDep2006 quintiles, when adjusted for age.

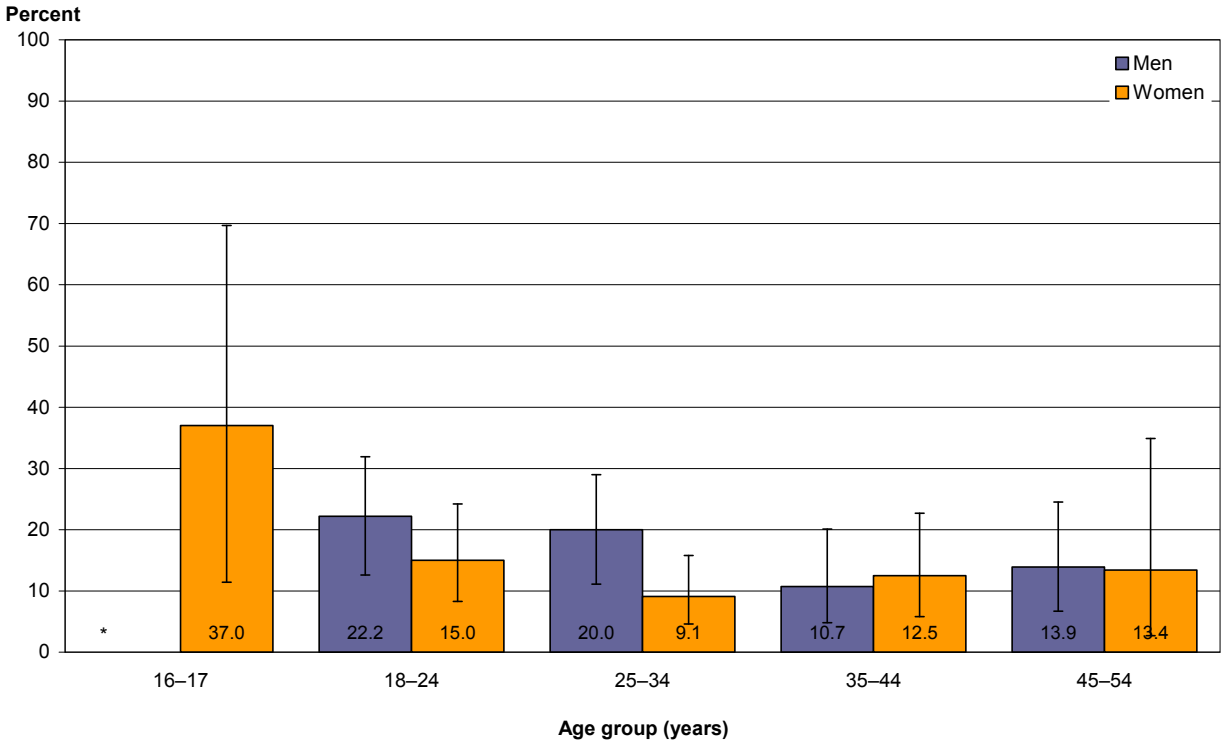
Having worked while under the influence of cannabis in the last 12 months

One in six past-year cannabis users (16.7%, 13.8–19.6) reported having worked while feeling under the influence of cannabis in the past year. This represents 2.4% (1.9–2.9) of the total population aged 16–64 years, or 63,500 people.

Among past-year cannabis users, there were no significant differences in the prevalence of reporting having worked while feeling under the influence of cannabis in the past year, by gender, ethnic group or NZDep2006 quintiles, when adjusted for age.

Female past-year cannabis users aged 16–17 years had the highest prevalence of reporting having worked while under the influence of cannabis in the past year, although the confidence intervals were wide, indicating uncertainty in this estimate (Figure 33).

Figure 33: Reported having worked while feeling under the influence of cannabis in the last 12 months, among past-year cannabis users aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: * Numbers for male past-year cannabis users aged 16–17 years, and for male and female past-year cannabis users aged 55–64 years were too low for reliable estimation.

Having operated machinery while under the influence of cannabis in the last 12 months

One in ten past-year cannabis users (10.0%, 7.5–12.5) reported having operated machinery while feeling under the influence of cannabis in the past year. This proportion represents 1.4% (1.1–1.8) of the total population aged 16–64 years who had operated machinery while feeling under the influence of cannabis in the past year, equating to about 37,900 people.

Among past-year cannabis users, men (13.2%, 9.3–17.0) were significantly more likely to report having operated machinery while under the influence of cannabis than women (5.7%, 3.3–8.0), when adjusted for age. Due to wide confidence intervals, results have not been presented by age group, ethnic group or neighbourhood deprivation.

Having used other drugs with cannabis in the last 12 months

Three in four past-year cannabis users (76.1%, 72.4–79.8) had used alcohol at the same time as using cannabis, at some point in the past year (Table 23). This proportion equates to about 291,200 people in New Zealand who had used alcohol at the same time as using cannabis in the past year.

Six in ten past-year cannabis users (60.2%, 56.0–64.4) had used tobacco at the same time as cannabis in the past year. Other drugs that had been used at the same time as cannabis in the past year by cannabis users included: BZP party pills (15.3%, 12.1–18.5); ecstasy, amphetamines, cocaine or heroin (11.3%, 8.6–14.1); and painkillers, antidepressants or sedatives (8.4%, 6.1–10.8).

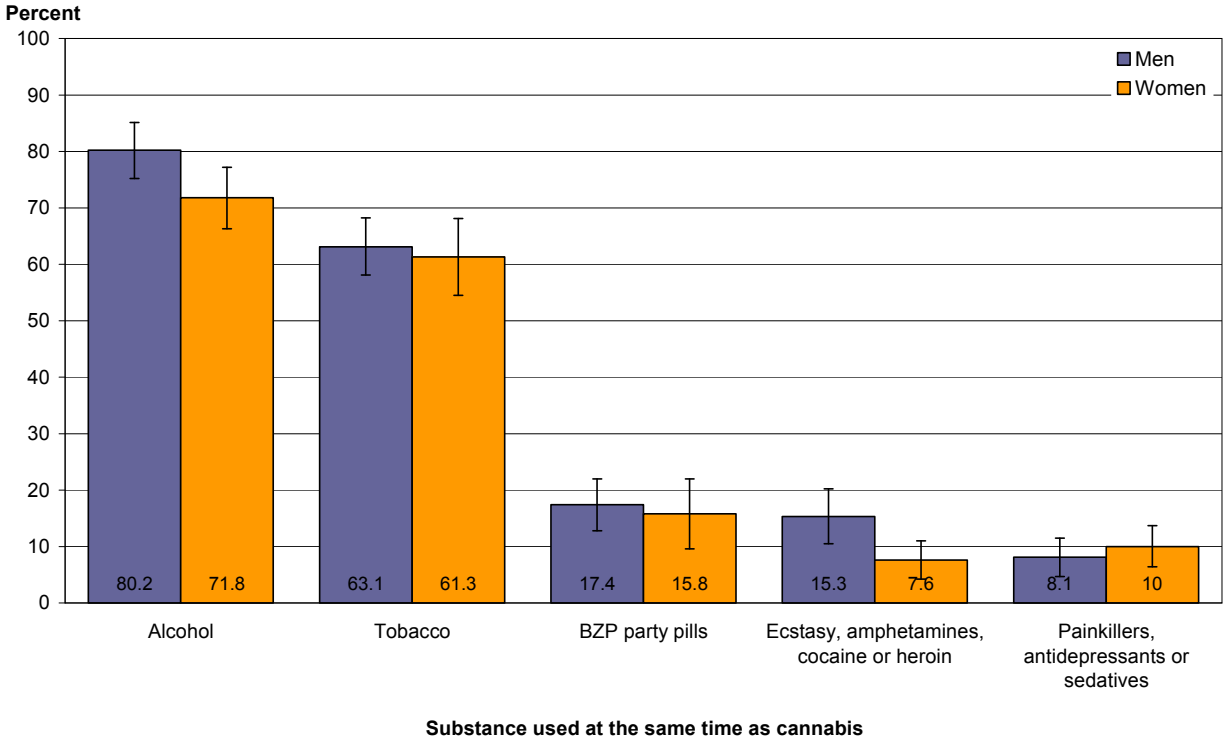
Table 23: Used cannabis at the same time as other drugs at least once in the last 12 months, among past-year cannabis users and total population aged 16–64 years, by drug type (unadjusted prevalence and estimated number of adults)

Drug used with cannabis	Prevalence (%) for past-year cannabis users (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
Alcohol	76.1 (72.4–79.8)	11.0 (9.9–12.1)	291,200
Tobacco	60.2 (56.0–64.4)	8.7 (7.8–9.7)	230,400
BZP party pills	15.3 (12.1–18.5)	2.2 (1.7–2.7)	58,500
Ecstasy, amphetamines, cocaine or heroin	11.3 (8.6–14.1)	1.6 (1.2–2.1)	43,300
Ecstasy	9.2 (6.5–11.9)	1.3 (0.9–1.7)	35,200
Painkillers, antidepressants or sedatives	8.4 (6.1–10.8)	1.2 (0.9–1.6)	32,300
Amphetamines	6.1 (3.9–8.3)	0.9 (0.6–1.2)	23,400
Painkillers	5.1 (3.3–6.8)	0.7 (0.5–1.0)	19,400
Antidepressants	4.8 (3.0–6.5)	0.7 (0.4–1.0)	18,300
Cocaine	2.3 (1.1–4.0)	0.3 (0.2–0.6)	8,700
Sedatives	1.6 (0.8–2.9)	0.2 (0.1–0.4)	6,200
Heroin	0.5 (0.2–1.0)	0.1 (0.0–0.1)	1,800

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Among past-year cannabis users, men were significantly more likely than women to have used cannabis at the same time as using alcohol and/or ecstasy, amphetamines, cocaine or heroin in the past year, after adjusting for age (p-values < 0.05) (Figure 34).

Figure 34: Used cannabis at the same time as other drugs at least once in the last 12 months, among past-year cannabis users aged 16–64 years, by drug type and gender (age-standardised prevalence)

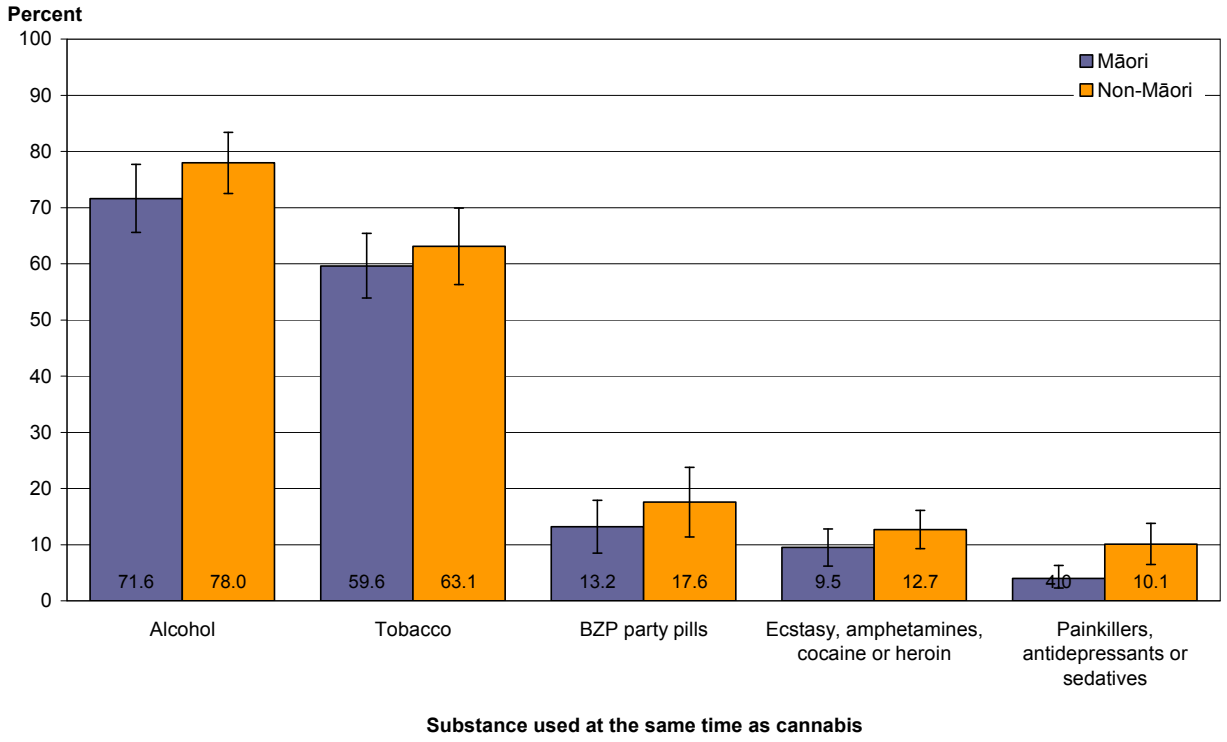


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Among past-year cannabis users, Māori were significantly less likely than non-Māori to have used cannabis at the same time as antidepressants, painkillers or sedatives in the past year (Figure 35).

Figure 35: Used cannabis at the same time as other drugs at least once in the last 12 months, among past-year cannabis users aged 16–64 years, by drug type and Māori/non-Māori ethnicity (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Help-seeking for cannabis use

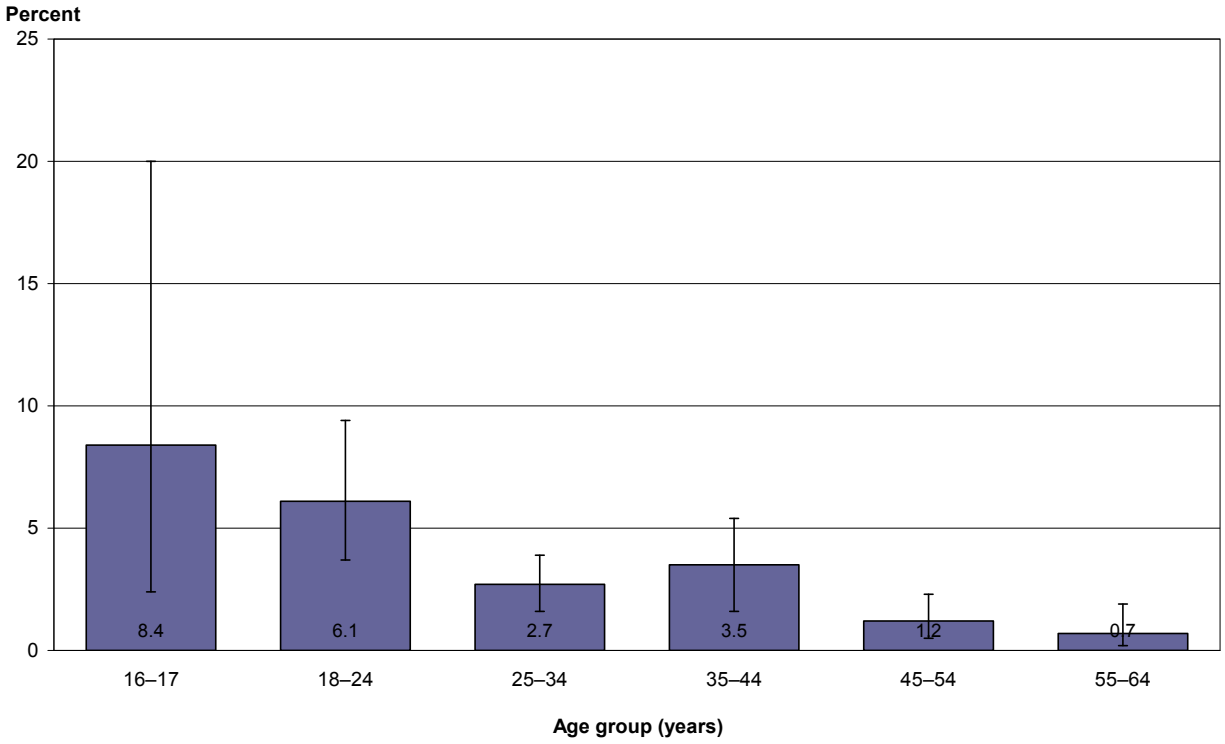
Ever received help to reduce level of cannabis use in lifetime

About 1.5% (1.1–1.9) of people aged 16–64 years had received help to reduce their level of cannabis use at some point of their lifetime, equating to about 39,200 people in New Zealand. This represents 3.2% (2.3–4.1) of those people who had ever used cannabis, and 6.4% (4.5–8.3) of past-year cannabis users.

Among people who had ever used cannabis, there was no significant difference between men (4.1%, 2.6–5.5) and women (3.1%, 1.9–4.3) in the prevalence of having ever received help to reduce their level of cannabis use, when adjusted for age.

Among people who had ever used cannabis, the prevalence of having ever received help to reduce the level of cannabis use peaked in the younger age groups (including 16–24-year-olds) and generally decreased with increasing age (Figure 36).

Figure 36: Ever received help in lifetime to reduce the level of cannabis use, among people aged 16–64 years who had ever used cannabis, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 24 gives the prevalence of having ever received help to reduce the level of cannabis use among adults in New Zealand's main ethnic population groups.

Table 24: Ever received help in lifetime to reduce the level of cannabis use, among people who had ever used cannabis and total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

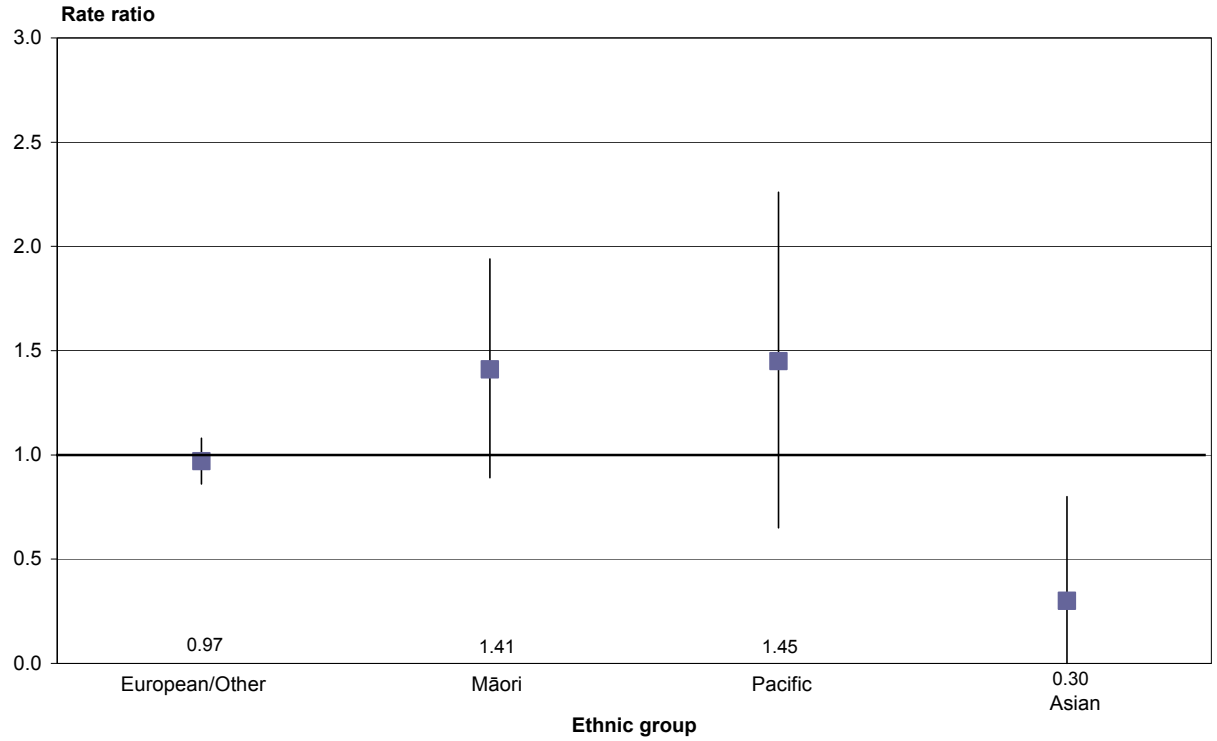
Ethnic group	Prevalence (%) for people who had ever used cannabis (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	3.0 (2.0–4.0)	1.5 (1.0–2.0)	30,400
Māori	5.1 (3.6–6.7)	3.2 (2.2–4.3)	10,600
Pacific	5.1 (2.8–8.6)	1.9 (1.0–3.1)	2,900
Asian	1.2 (0.1–5.1)	0.1 (0.0–0.5)	300

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

Among people who had used cannabis in their lifetime, Asian people were significantly less likely to have ever received help to reduce their level of cannabis use, compared with people in the total population, after adjusting for age (Figure 37).

Figure 37: Ever received help in lifetime to reduce the level of cannabis use, among people aged 16–64 years who had ever used cannabis, by ethnic group (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used.

Among people who had ever used cannabis, there was no significant difference by neighbourhood socioeconomic deprivation (NZDep2006 quintiles) in the prevalence of having ever received help to reduce the level of cannabis use, when adjusting for age.

Sources of help

Among people who had ever received help to reduce their level of cannabis use, two in three (66.0%, 55.3–76.7) had received help from a drug and alcohol counsellor (Table 25).

Table 25: Sources of help to reduce the level of cannabis use in lifetime, among people aged 16–64 years who had ever received help to reduce their level of cannabis use (unadjusted prevalence)

Sources of help	Prevalence (%) (95% CI)
Drug and alcohol counsellor	66.0 (55.3–76.7)
Family member or friend	29.6 (17.1–42.2)
Narcotics Anonymous or other support group	26.9 (15.0–42.0)
Psychiatrist, psychologist or mental health service	22.8 (12.2–36.7)
Detoxification programme	17.5 (8.2–30.8)
General practitioner (GP)	17.2 (8.3–30.1)
Natural or alternative therapist	8.0 (1.3–24.0)
Māori or Pacific health service	1.7 (0.3–5.6)
Emergency department at a public hospital	0.4 (0.0–2.1)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Received help to reduce level of cannabis use in past year

About 2.4% (1.2–3.6) of past-year cannabis users had received help to reduce their level of cannabis use in the last year. This proportion represents 0.4% (0.2–0.6) of the total population aged 16–64 years who had received help to reduce their level of cannabis use in the last year, equating to about 10,000 people.

Among past-year cannabis users, there was no significant difference between men (2.3%, 1.1–4.2) and women (2.9%, 1.1–6.1) in the prevalence of having received help in the past year to reduce their level of cannabis use, when adjusted for age.

Ever wanted help in lifetime but not received it

Almost two percent (1.9%, 1.3–2.5) of people who had ever used cannabis had wanted help to reduce their level of cannabis use at some point in their lifetime but had not received it, equating to about 23,400 people in New Zealand. This represents 0.9% (0.6–1.2) of adults aged 16–64 years and 4.1% (2.6–5.5) of past-year cannabis users.

Among people who had ever used cannabis, there was no significant difference between men (2.1%, 1.1–3.1) and women (2.3%, 1.3–3.3) in the prevalence of having ever wanted help to reduce their level of cannabis use but not receiving it, when adjusted for age.

Reason for not receiving help

Among people who had wanted help to reduce their level of cannabis use at some point in their lifetime but not received it, the most common reasons cited for having never received help were social pressure (24.9%, 11.7–42.9) and not knowing where to go (23.3%, 9.3–43.5) (Table 26).

Table 26: Reasons for not having received help to reduce the level of cannabis use in lifetime, among people aged 16–64 years who had ever wanted help to reduce their level of cannabis use but not received it (unadjusted prevalence)

Reasons for not having received help	Prevalence (%) (95% CI)
Social pressure to keep using drugs	24.9 (11.7–42.9)
Did not know where to go	23.3 (9.3–43.5)
Afraid of the law or police	15.1 (4.2–34.7)
Afraid of what might happen once contact was made with the service	14.5 (4.4–32.2)
Service not appropriate for their type of drug use	10.1 (2.1–26.8)
Afraid of losing friends	9.7 (1.6–28.4)
Could not spare the time	9.5 (1.2–29.8)
Could not get in touch with the service	7.6 (0.2–36.3)
No local service available	6.0 (1.3–16.0)
No transport to get there	3.9 (0.4–13.8)
Could not get appointment soon enough or at a suitable time	0.9 (0.1–3.5)
Lack of child care	0.4 (0.0–2.2)
Cost	0.0 (0.0–5.4)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Wanted help but not received it in past year

Overall, 2.8% (1.4–4.1) of past-year cannabis users reported having wanted help to reduce their level of cannabis use in the last year but had not received it. This proportion represents 0.4% (0.2–0.6) of the total population aged 16–64 years who had wanted help to reduce their level of cannabis use in the last year but had not received it, equating to about 10,700 people.

Among past-year cannabis users, there was no significant difference between men (2.8%, 1.2–5.5) and women (3.1%, 1.2–6.4) in the prevalence of having wanted help in the past year to reduce the level of cannabis use, but not receiving it.

Someone showed concern about cannabis use in past year

Overall, 7.9% (6.1–9.8) of past-year cannabis users had had a relative or friend, or a doctor or another health worker show concern or suggest they cut down their cannabis use, in the past year.

After adjusting for age, among past-year cannabis users there was no significant difference between men (9.1%, 6.3–11.9) and women (7.2%, 4.2–10.2) in the prevalence of having had someone show concern in the past year.

Harmful effects from cannabis use

Summary of harmful effects due to cannabis use in lifetime

One in five (20.0%, 18.1–21.9) people who had ever used cannabis reported having experienced any harmful effect due to their cannabis use in their lifetime (Table 27). About one in ten people who had ever used cannabis reported having experienced harmful effects on their friendships or social life due to their cannabis use in their lifetime (10.7%, 9.2–12.2).

Table 27: Harmful effects experienced in lifetime due to cannabis use, among people who had ever used cannabis and total population aged 16–64 years (unadjusted prevalence)

Harmful effects due to cannabis use	Prevalence in lifetime (%) (95% CI)	
	For people who had ever used cannabis	For total adults
Any harmful effect	20.0 (18.1–21.9)	9.3 (8.3–10.3)
Harmful effects on friendships or social life	10.7 (9.2–12.2)	5.0 (4.2–5.7)
Harmful effects on home life	8.8 (7.6–10.1)	4.1 (3.5–4.7)
Harmful effects on work, study or employment opportunities	9.2 (7.7–10.7)	4.2 (3.5–5.0)
Harmful effects on financial position	7.7 (6.4–9.0)	3.5 (2.9–4.2)
Had a legal problem	5.1 (4.2–6.1)	2.4 (1.9–2.8)
Had learning difficulties	7.3 (6.1–8.6)	3.4 (2.8–4.0)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally, 2.5% (1.8–3.3) of people who had ever used cannabis reported having experienced injuries in their lifetime due to their cannabis use, representing 1.2% (0.8–1.5) of the total population aged 16–64 years.

Summary of harmful effects due to cannabis use in past year

Overall, one in six (16.1%, 12.9–19.4) past-year cannabis users had experienced any harmful effect in the past year due to their cannabis use (Table 28). Almost one in ten (9.0%, 6.7–11.2) past-year cannabis users reported that their cannabis use had had a harmful effect on their financial position in the past year.

Table 28: Harmful effects experienced in the last 12 months due to cannabis use, among past-year cannabis users and total population aged 16–64 years (unadjusted prevalence)

Harmful effects due to cannabis use	Prevalence in past 12 months (%) (95% CI)	
	For past-year cannabis users	For total adults
Any harmful effect	16.1 (12.9–19.4)	2.5 (2.0–3.0)
Harmful effects on financial position	9.0 (6.7–11.2)	1.3 (1.0–1.6)
Harmful effects on friendships or social life	7.0 (4.9–9.0)	1.1 (0.7–1.4)
Harmful effects on home life	6.8 (4.7–8.9)	1.0 (0.7–1.4)
Harmful effects on work, study or employment opportunities	5.6 (3.7–7.5)	0.9 (0.6–1.2)
Had learning difficulties	5.1 (3.3–6.9)	0.8 (0.5–1.1)
Had a legal problem	2.9 (1.7–4.6)	0.4 (0.2–0.6)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally, 3.2% (1.8–4.6) of past-year cannabis users reported having had one or more days off work or school in the past year due to their cannabis use. This proportion represents 0.5% (0.3–0.7) of the total population aged 16–64 years, equating to about 12,200 people.

Furthermore, 2.0% (1.0–3.4) of past-year cannabis users reported having experienced injuries in the past 12 months due to their cannabis use, which represents 0.3% (0.1–0.5) of the total population aged 16–64 years.

Among past-year cannabis users, there were generally no significant differences by gender or ethnic group in the prevalence of having experienced harmful effects, as identified in Table 21, in the past year due to their cannabis use, after adjusting for age.

The prevalence of experiencing harmful effects in the past year due to cannabis use was generally somewhat higher among the younger past-year cannabis users (16–24 years), compared with those who were older.

Overall, there was generally a slight increase with increasing neighbourhood socioeconomic deprivation in the prevalence of having experienced harmful effects in the past year due to cannabis use, when adjusted for age. However, this trend was not consistent for all kinds of harmful effects.

More detailed results for each of the harmful effects identified in Table 28 by gender, age group, ethnic group and neighbourhood deprivation are available in data tables online in Excel format, on the publication web page (see www.moh.govt.nz).

Chapter 4: Ecstasy

Introduction

Ecstasy is one of the more commonly used recreational drugs in New Zealand. Generally, the main component of ecstasy is the component MDMA (3,4-methylenedioxy- N-methylamphetamine). However, due to the nature of the illegal market, the active constituents in products sold as ecstasy pills can vary considerably.

For some purposes, ecstasy can be considered as both a stimulant and a hallucinogen. For this reason, ecstasy has also been included in the analyses of overall use of stimulants (in Chapter 5) and overall use of hallucinogens (in Chapter 6).

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried ecstasy for recreational purposes. If the participant reported having ever used ecstasy, they were asked how old they were when they first used ecstasy and whether, in the last 12 months, they had used ecstasy. Participants who had used ecstasy in the last year were asked how many times in that period they had used it.

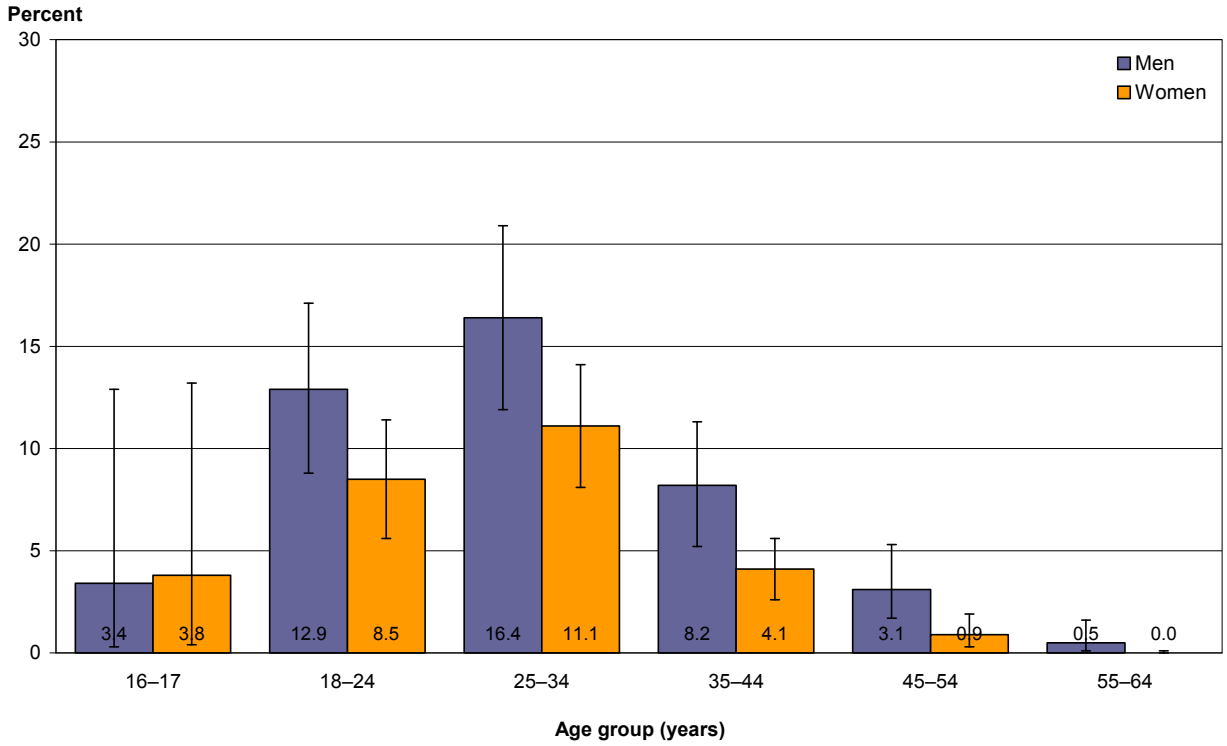
Participants who had used alcohol, cannabis and/or BZP party pills in the last year were asked whether they had used ecstasy together with that drug on at least one occasion in the last 12 months.

Prevalence of having ever used ecstasy in lifetime

About six percent of adults aged 16–64 years had used ecstasy at some point in their lifetime (6.2%, 5.4–7.1). This proportion equates to about 164,600 people aged 16–64 years in New Zealand who had ever used ecstasy. Men were significantly more likely to have ever used ecstasy (9.4%, 7.8–11.0) than women (5.8%, 4.7–7.0), when adjusted for age.

For both men and women, the prevalence of having ever used ecstasy peaked in the 25–34 years age group, and decreased with increasing age thereafter (Figure 38).

Figure 38: Ever used ecstasy in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 29 gives the prevalence of lifetime ecstasy use among adults in New Zealand's main ethnic population groups.

Table 29: Ever used ecstasy in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

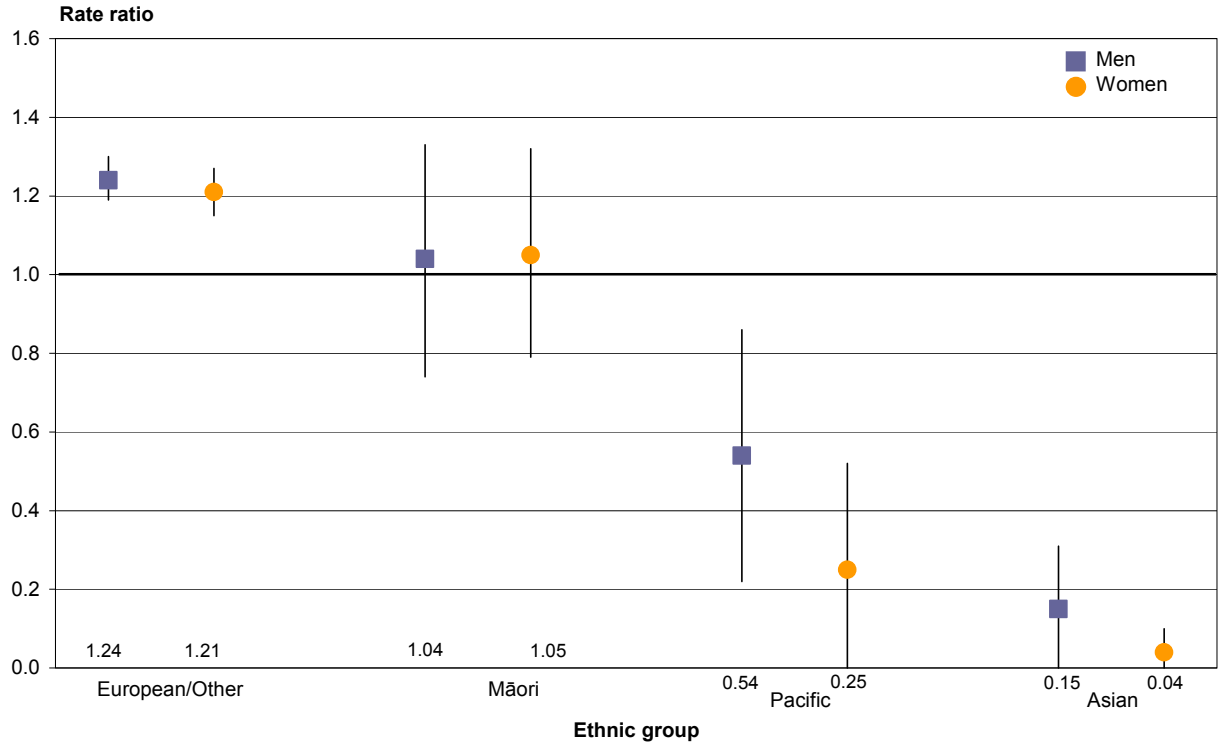
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	7.2 (6.2–8.2)	149,200
Māori	7.4 (6.0–8.9)	24,400
Pacific	3.3 (1.8–5.5)	5,100
Asian	0.9 (0.3–2.3)	2,100

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have used ecstasy in their lifetime, compared with men and women in the total population (Figure 39). Pacific and Asian men and women were significantly less likely to have ever used ecstasy.

Figure 39: Ever used ecstasy in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

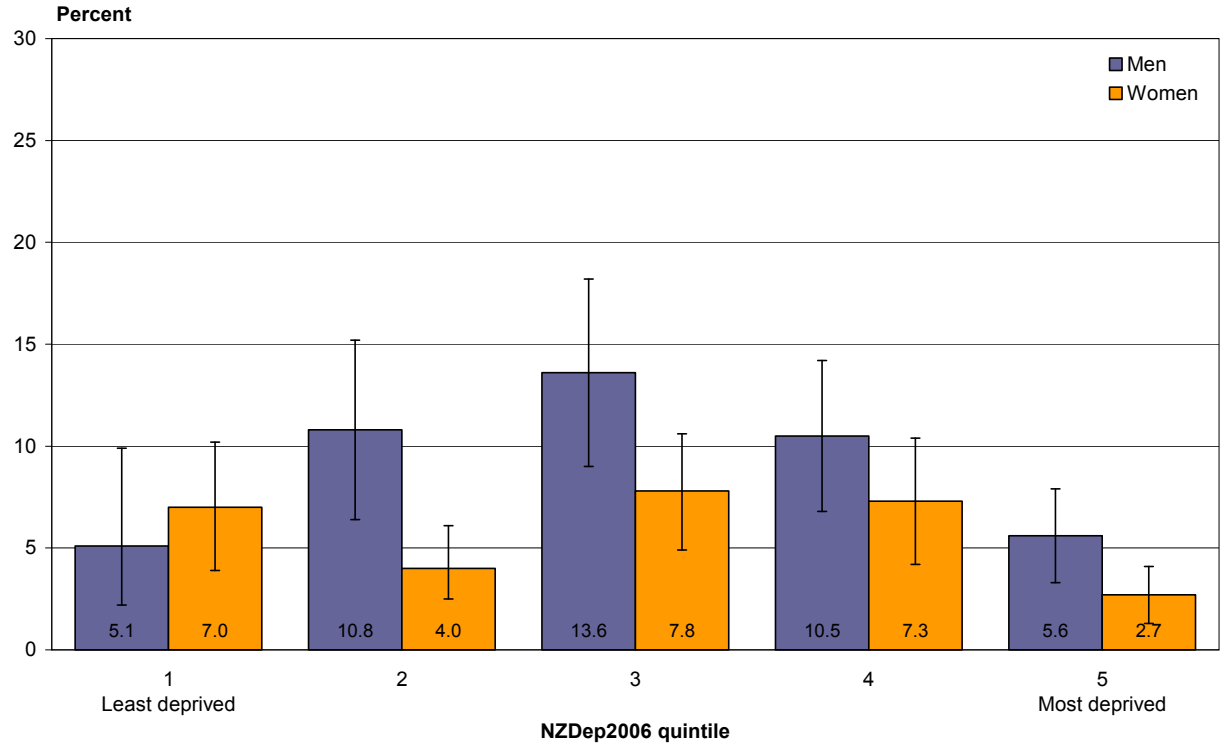


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

Among women, the prevalence of having ever used ecstasy was significantly higher for those living in the least socioeconomically deprived neighbourhoods (NZDep2006 quintile 1) than for those living in the most deprived neighbourhoods (quintile 5), after adjusting for age (p-value < 0.05) (Figure 40). There was no similar trend for men, although the prevalence of having ever used ecstasy peaked for men living in quintile 3.

Figure 40: Ever used ecstasy in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of ecstasy

For adults aged 16–64 years who had ever used ecstasy, the median age at which they had first tried this drug was 21 years.

Overall, one in two (51.5%, 45.1–58.0) people who had ever used ecstasy had first tried it when they were aged 21 years or older (Table 30).

Table 30: Age of first use of ecstasy, among people aged 16–64 years who had ever used ecstasy (unadjusted prevalence)

Age of first use of ecstasy	Prevalence (%) (95% CI)
14 years or younger	1.1 (0.3–2.9)
15–17 years	14.2 (9.3–19.1)
18–20 years	33.1 (27.0–39.3)
21 years or older	51.5 (45.1–58.0)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

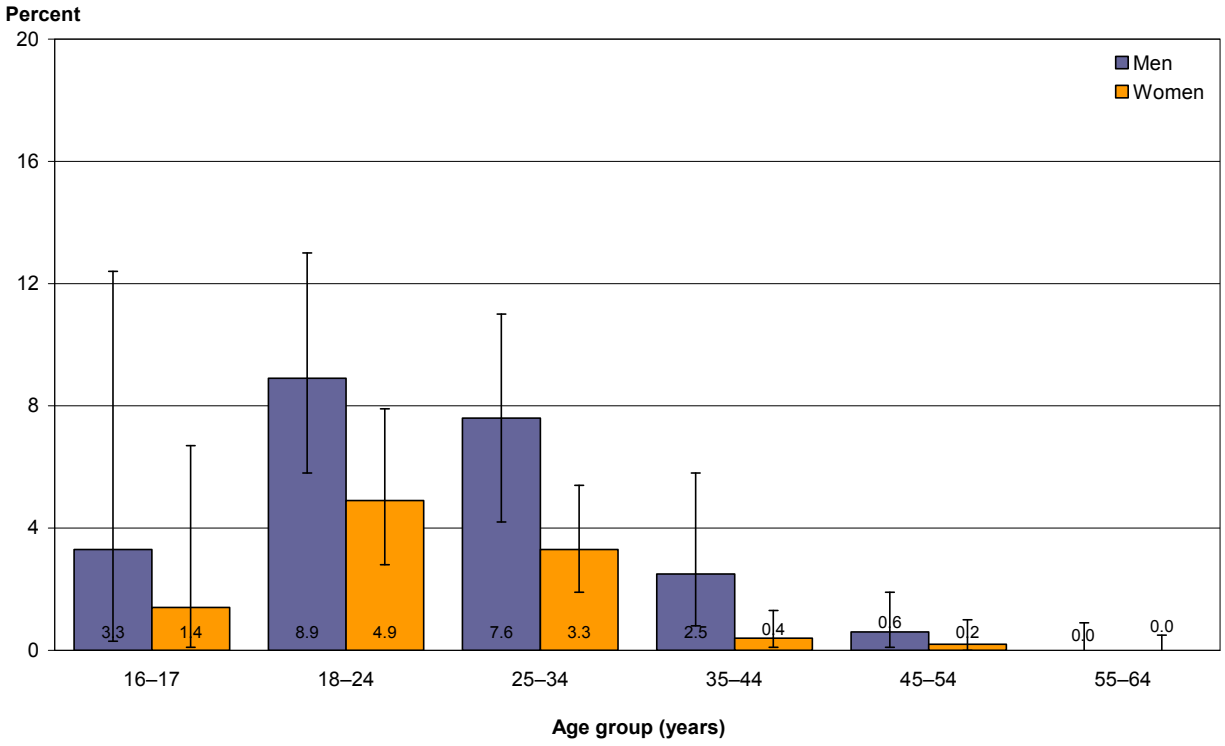
Among people who had used ecstasy in their lifetime, there were no differences between men and women in the age when they had first tried ecstasy, after adjusting for age.

Prevalence of ecstasy use in the last 12 months

About 2.6% (2.0–3.1) of the population aged 16–64 years had used ecstasy in the past year, equating to about 67,300 people in New Zealand. Men were significantly more likely to have used ecstasy in the past year (4.6%, 3.4–5.8) than women (2.0%, 1.4–2.7), when adjusted for age.

For both men and women, the prevalence of using ecstasy in the past year peaked in the 18–24 years age group (Figure 41).

Figure 41: Used ecstasy in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 31 gives the prevalence of past-year ecstasy use among adults in New Zealand's main ethnic population groups.

Table 31: Used ecstasy in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

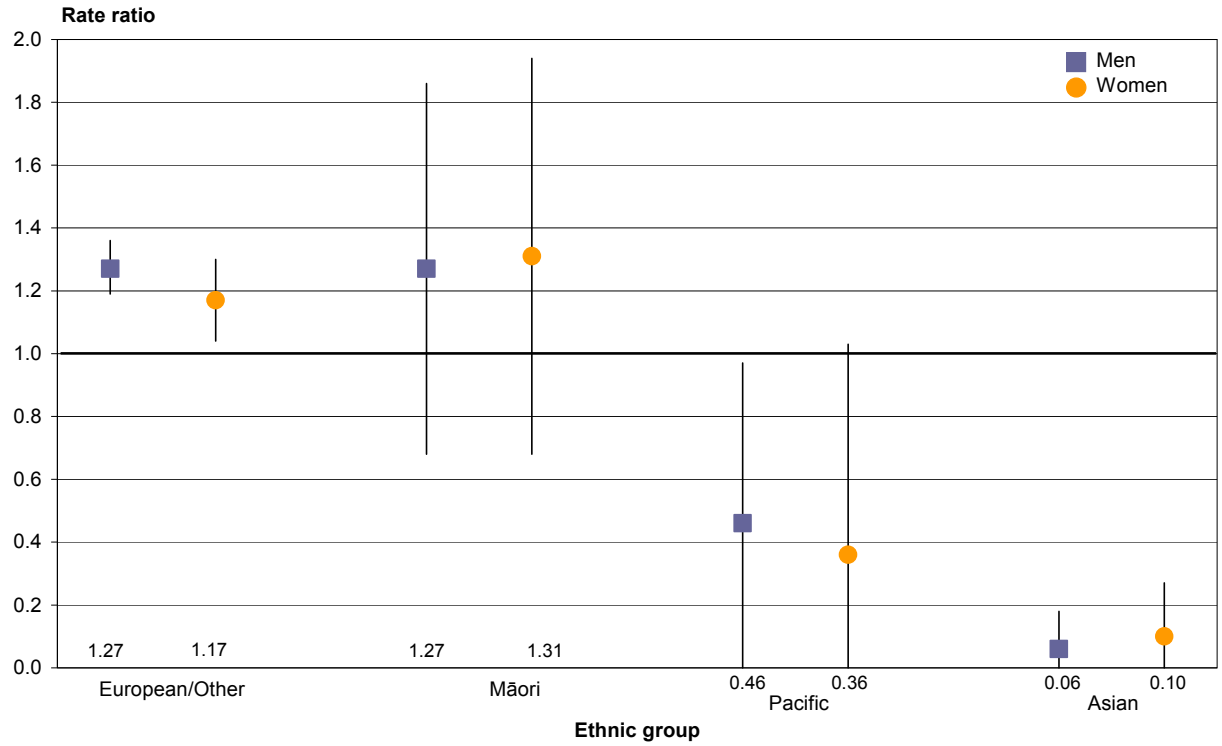
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	2.9 (2.3–3.5)	60,700
Māori	4.0 (2.7–5.3)	13,000
Pacific	1.5 (0.4–3.7)	2,300
Asian	0.3 (0.0–0.9)	600

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have used ecstasy in the past year, compared with men and women in the total population (Figure 42). Pacific and Asian men, and Asian women were significantly less likely to have used ecstasy in the last 12 months, compared with men and women in the total population.

Figure 42: Used ecstasy in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

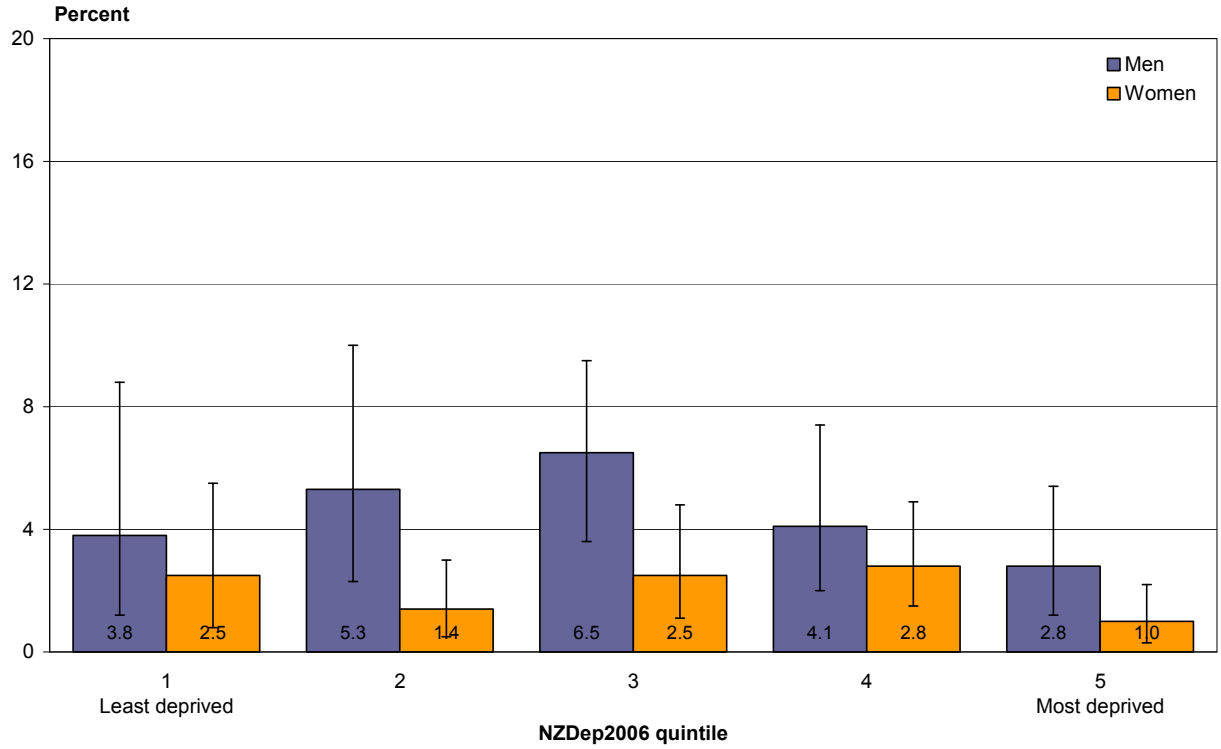


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there were no significant differences in the prevalence of past-year ecstasy use between people living in the least socioeconomically deprived neighbourhoods (NZDep2006 quintile 1) and those living in the most deprived neighbourhoods (quintile 5), when adjusted for age (Figure 43).

Figure 43: Used ecstasy in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Frequency of ecstasy use in the last 12 months

Among past-year ecstasy users, a very small proportion had used ecstasy at least weekly in the past year (1.1%, 0.1–4.2) (Table 32). Six in ten past-year ecstasy users had used ecstasy once or twice in the past year (60.4%, 49.7–71.2).

Table 32: Frequency of using ecstasy for recreational purposes in past year, among past-year ecstasy users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of use	Prevalence (%) for past-year ecstasy users (95% CI)	Estimated number of adults
At least weekly	1.1 (0.1–4.2)	700
At least monthly	14.3 (7.1–24.7)	9,600
3–11 times a year	25.2 (16.7–33.7)	16,800
1–2 times a year	60.4 (49.7–71.2)	40,800

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Having used ecstasy with other drugs

Table 33 presents the prevalence of using ecstasy at the same time as other drugs, at least once in the last 12 months, among past-year ecstasy users.

Overall, the most common combination was using ecstasy and alcohol together, with eight in ten past-year ecstasy users having used alcohol while using ecstasy at least once in the past year (78.9%, 69.3–88.4). Two in five past-year ecstasy users had used cannabis at the same time as using ecstasy in the past year (42.8%, 31.4–54.3).

Table 33: Used ecstasy and other drugs at the same time at least once in the last 12 months, among past-year ecstasy users aged 16–64 years, by type of other drugs (unadjusted prevalence and estimated number of adults)

Drug used in combination with ecstasy	Prevalence (%) for past-year ecstasy users (95% CI)	Estimated number of adults
Alcohol	78.9 (69.3–88.4)	69,700
Cannabis	42.8 (31.4–54.3)	11,800
BZP party pills	13.5 (7.3–22.2)	35,200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Chapter 5: Stimulants

Any stimulants

This section examines the use of any stimulants, including:

- amphetamines
- cocaine or crack cocaine
- prescription stimulants
- ecstasy.

Ecstasy has been included in the overall analysis of use of stimulants, as for some purposes, ecstasy can be considered as both a stimulant and a hallucinogen. See Chapter 4 for an analysis of survey results specific to ecstasy.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried the following drugs for recreational purposes:

- cocaine or crack
- prescription stimulants (eg, Ritalin®, Adderal®, Modafinil)
- amphetamines (including 'P', meth, ice and speed, as well as any drug containing amphetamine as an ingredient, including 'pure' methamphetamine, crystal methamphetamine, Duromine® (described in the survey as diet pills containing amphetamines) and dexamphetamine (Dexedrine®, Dextrostat®)
- ecstasy.

If the participant reported having ever used any of these drugs, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used that specific drug in the last year were asked how many times in that period they had used it.

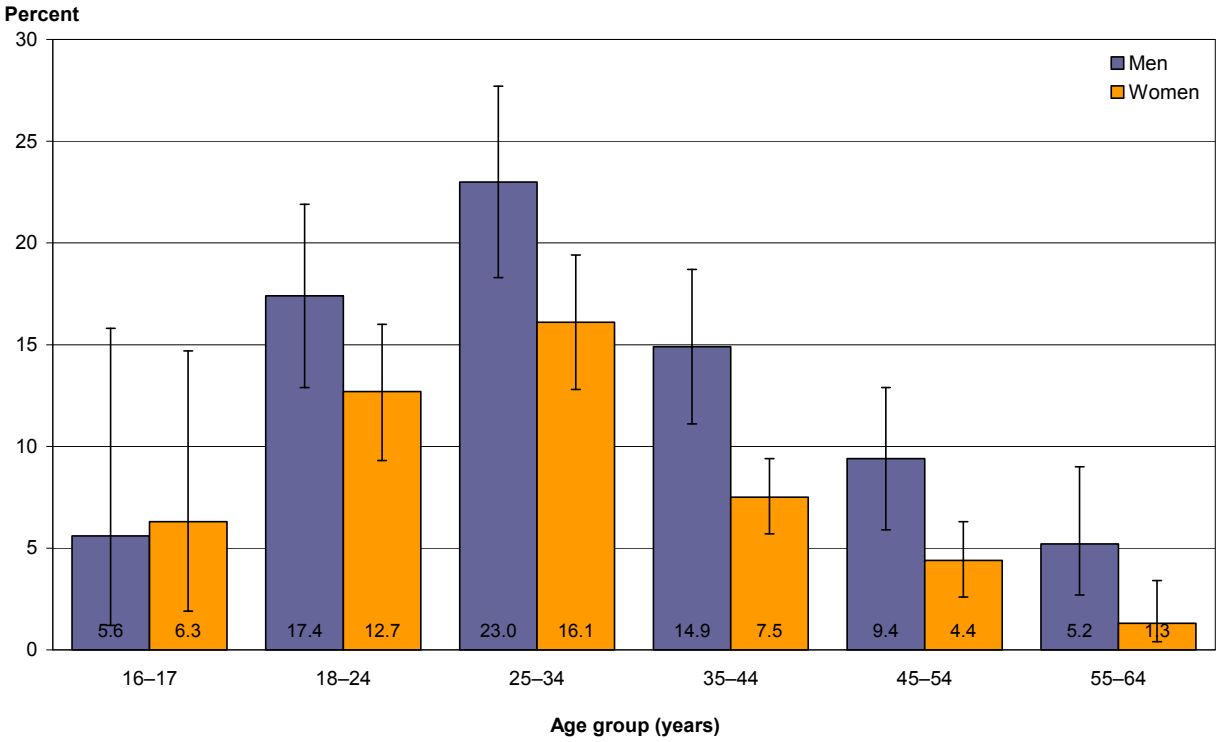
Prevalence of having ever used any stimulants for recreational purposes in lifetime

Overall, one in ten (10.8%, 9.6–12.0) adults aged 16–64 years had used a stimulant (amphetamines, cocaine/crack cocaine, prescription stimulants or ecstasy) for recreational purposes at some point in their lifetime. This proportion represents 285,400 people in New Zealand who had ever used a stimulant drug.

After adjusting for age, men were significantly more likely to have ever used stimulants (15.1%, 13.0–17.2) than women (9.6%, 8.3–11.0).

For both men and women, the prevalence of having ever used stimulants peaked in the 25–34 years age group, and decreased with increasing age thereafter (Figure 44).

Figure 44: Ever used any stimulant for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

Table 34 gives the prevalence of having ever used any stimulant for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 34: Ever used any stimulant for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

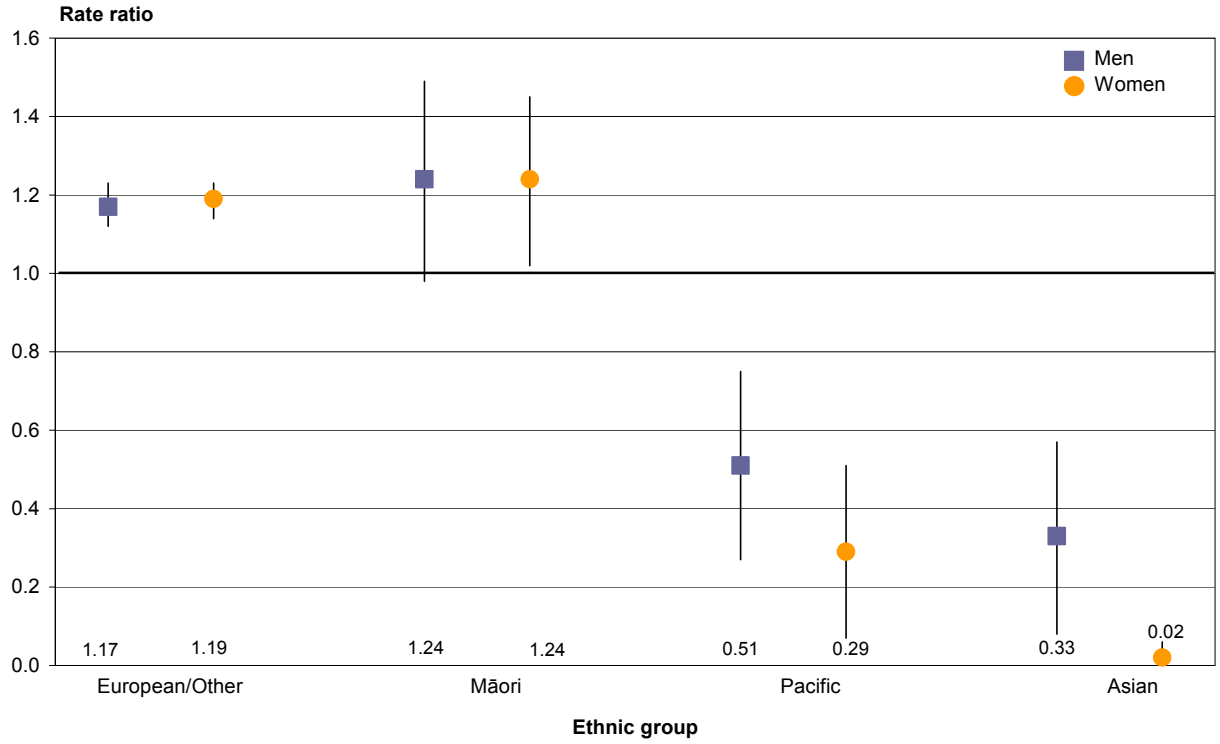
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	12.1 (10.8–13.5)	252,000
Māori	14.5 (12.5–16.6)	47,600
Pacific	5.3 (3.1–7.4)	8,100
Asian	2.8 (1.2–5.5)	6,200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy. Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men, and European/Other and Māori women were significantly more likely to have ever used a stimulant for recreational purposes, compared with men and women in the total population (Figure 45). Pacific and Asian men and women were significantly less likely to have done so.

Figure 45: Ever used any stimulant for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

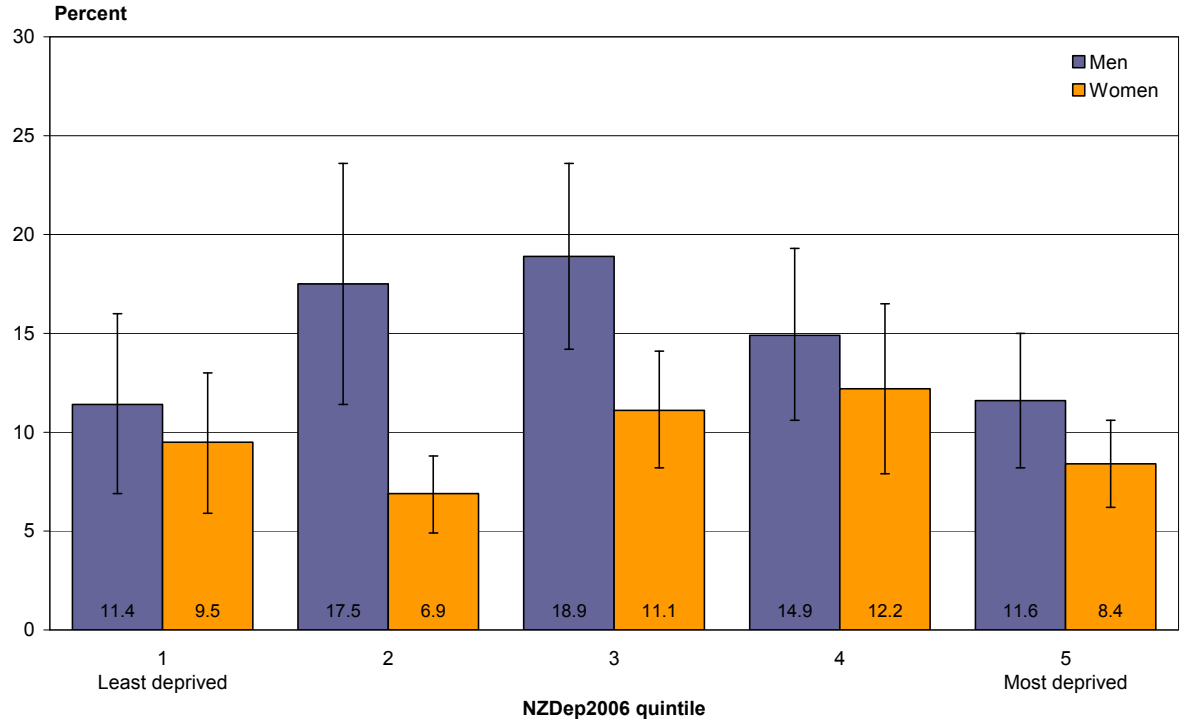


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

Among men, the prevalence of having ever used a stimulant for recreational purposes peaked in NZDep2006 quintiles 2 and 3, after adjusting for age (Figure 46). A similar pattern was not seen for women.

Figure 46: Ever used any stimulant for recreational purposes in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

Age of first use of any stimulants for recreational purposes

For adults aged 16–64 years who had ever used a stimulant for recreational purposes, the median age at which they had first used this drug was 20 years.

Overall, four in ten (42.7%, 38.5–46.8) people who had ever used any stimulants for recreational purposes had first done so when they were aged 21 years or older (Table 35). A small proportion (3.5%, 2.0–5.8) had first tried any stimulants when aged 14 years or younger.

Table 35: Age of first use of any stimulants for recreational purposes, among people aged 16–64 years who had ever used any stimulants (unadjusted prevalence)

Age of first use of any stimulants	Prevalence (%) (95% CI)
14 years or younger	3.5 (2.0–5.8)
15–17 years	20.5 (16.8–24.2)
18–20 years	33.3 (28.6–38.0)
21 years or older	42.7 (38.5–46.8)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

After adjusting for age, there were no differences between men and women in the age when they had first tried stimulants.

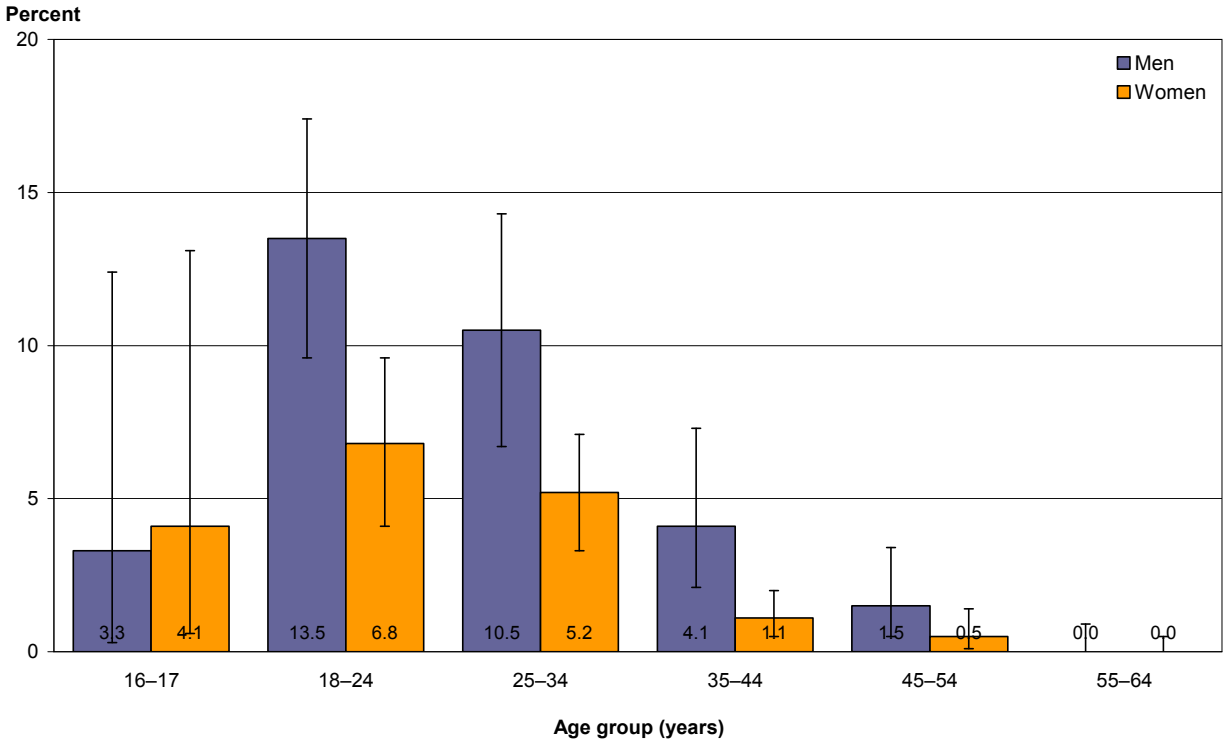
Prevalence of using any stimulants for recreational purposes in the last 12 months

Overall, 3.9% (3.3–4.5) adults aged 16–64 years had used a stimulant for recreational purposes in the last 12 months, representing 104,000 people.

After adjusting for age, men were significantly more likely to have used stimulants in the previous year (6.8%, 5.4–8.1) than women (3.3%, 2.5–4.1).

For both men and women, the prevalence of having used stimulants in the past year peaked in the 18–24 years age group, and decreased with increasing age thereafter (Figure 47).

Figure 47: Used any stimulant for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

Table 36 gives the prevalence of having used any stimulants for recreational purposes in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 36: Used any stimulant for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

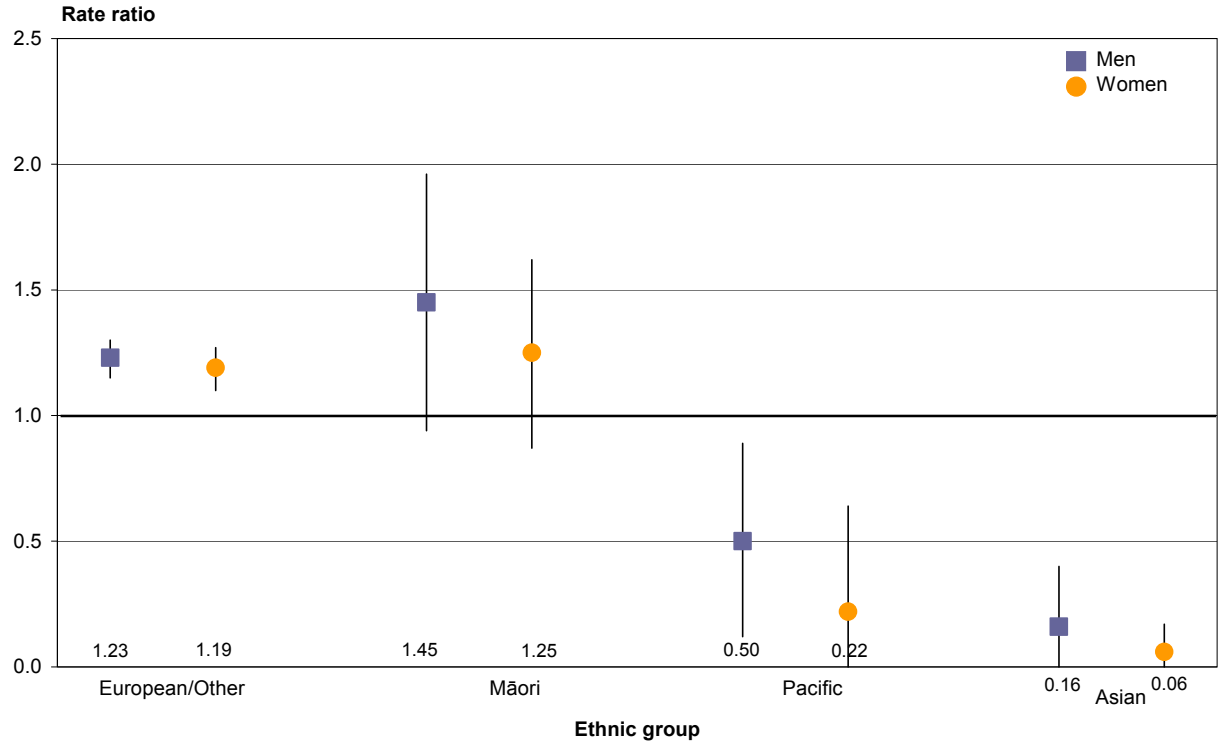
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	4.4 (3.7–5.1)	91,900
Māori	6.5 (4.8–8.2)	21,300
Pacific	2.1 (0.7–4.6)	3,200
Asian	0.7 (0.1–2.6)	1,600

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy. Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have used any stimulant for recreational purposes in the past year, compared with men and women in the total population (Figure 48). Pacific and Asian men and women were significantly less likely to have used stimulants in the past year.

Figure 48: Used any stimulant for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

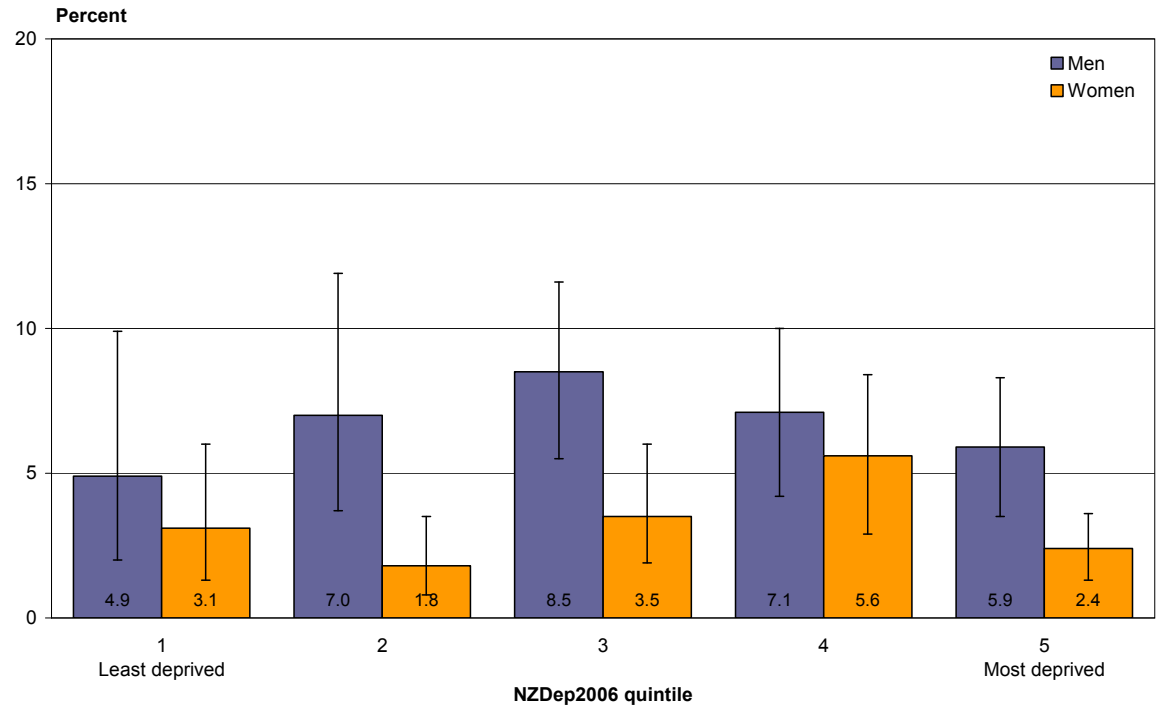


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

Among men, the prevalence of past-year use of stimulants for recreational purposes peaked in NZDep2006 quintile 3, after adjusting for age (Figure 49). Among women, the prevalence appears to peak in quintile 4.

Figure 49: Used any stimulant for recreational purposes in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy.

Frequency of using any stimulants for recreational purposes in the last 12 months

One in nine (11.3%, 6.3–18.2) past-year stimulant users had used at least one type of stimulant at least weekly in the past year (Table 37).

Table 37: Frequency of stimulant use in the last 12 months, among past-year stimulant users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of stimulant use	Prevalence (%) for past-year stimulant users (95% CI)	Estimated number of adults
At least weekly	11.3 (6.3–18.2)	11,100
At least monthly	24.4 (16.6–32.3)	23,900
3–11 times a year	21.9 (14.7–29.0)	21,400
1–2 times a year	53.7 (44.5–62.9)	53,200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Stimulants include amphetamines, cocaine/crack cocaine, prescription stimulants and ecstasy. 'Frequency of stimulant use' is the most common frequency of use of any one specific type of stimulant drug.

Amphetamines

Amphetamines are a group of stimulant drugs. One of the most commonly used types of amphetamines in New Zealand is methamphetamine, which is also known as 'P', 'meth', 'ice' or 'crystal meth'.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried amphetamines for recreational purposes. The term 'amphetamines' referred to drugs known by the street names 'P', 'meth', 'ice' and 'speed', and also included any type of drug that contained amphetamine as an ingredient, including 'pure' methamphetamine, crystal methamphetamine, Duromine® (described in the survey as diet pills containing amphetamines) and dexamphetamine (Dexedrine®, Dextrostat®), but excluding ecstasy. If the participant reported having ever used amphetamines, they were asked how old they were when they first used amphetamines and whether, in the past year, they had used any amphetamines.

Participants who had used amphetamines in the last year were asked which types of amphetamines they had used in that period for recreational purposes. They selected from the following: 'P' (pure); 'ice' (crystal meth); speed (amphetamine sulphate); other, including Duromine® (described as diet pills containing amphetamines) and dexamphetamine (Dexedrine®, Dextrostat®). For each type of amphetamine the participant had used, they were asked how many times in the last 12 months they had used that drug. Past-year amphetamine users were also asked where they had used any type of amphetamines in the last 12 months (multiple locations could be selected).

Participants who had used amphetamines in the past year were also asked, in the last 12 months, how often they had driven a car or another motor vehicle such as a motorcycle or boat when they felt under the influence of amphetamines, how often they had operated machinery when they felt under the influence of amphetamines, and how often they had worked when they felt under the influence of amphetamines.

Participants who had ever used amphetamines were asked about the experiences they had had as a result of using amphetamines. These participants were asked whether there had ever been a time when they felt their amphetamine use had a harmful effect on: their friendships or social life; their home life; their work, studies or employment opportunities; their financial position; or whether they had ever had legal problems, difficulty learning things or injuries because of their amphetamine use. For each situation, participants selected from: yes, during the past year; yes, but not in the past year; no. Past-year amphetamine users were also asked, in the past year, how many days, if any, they were away from work or school because of their amphetamine use.

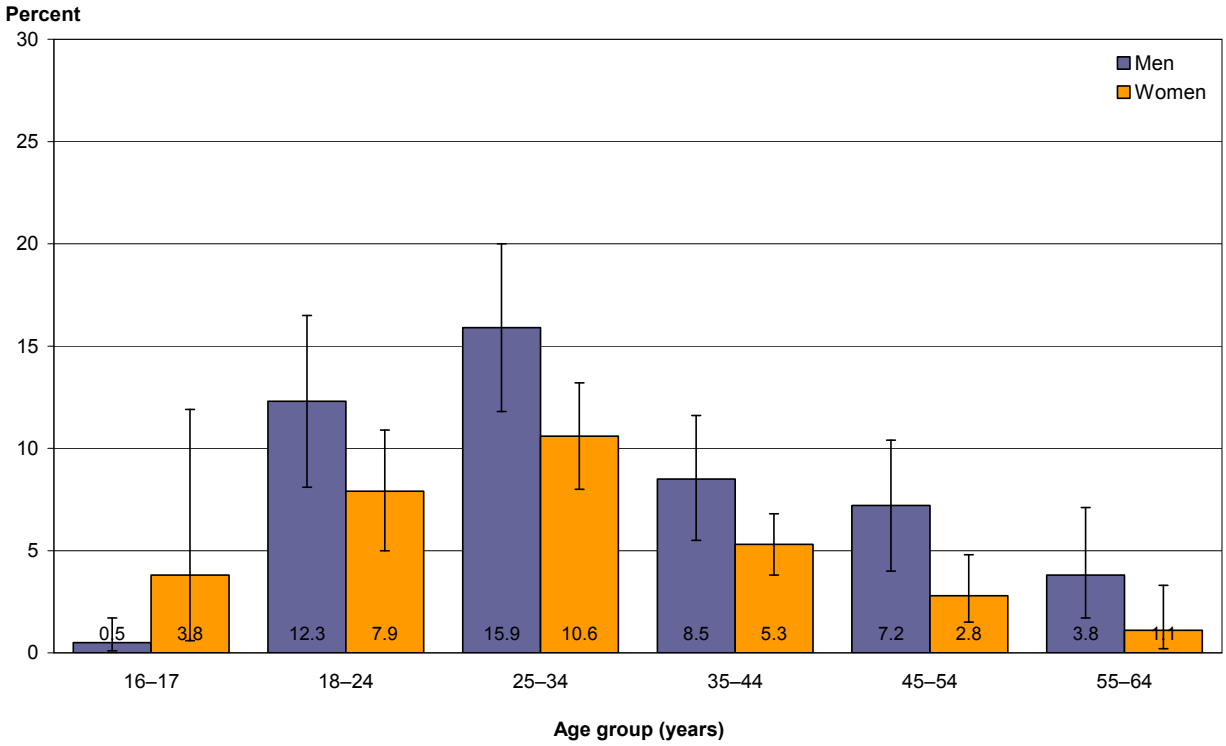
Participants who had ever used amphetamines in their lifetime were also asked a series of questions about help-seeking. These participants were asked whether they had ever received help to reduce their level of amphetamine use and, if so, whether this was in the last 12 months, and where they received help from (multiple sources could be selected). These participants were also asked whether they had ever wanted help to reduce their level of amphetamine use but did not get it. Participants who answered ' yes' to this question were asked whether this was in the last 12 months, and what their reasons were for not getting help. Additionally they were asked whether a relative or friend, or a doctor or another health worker, had been concerned about their amphetamine use or suggested that they cut down. Participants selected from the following answers: yes, but not in the last year; yes, during the last year; no.

Prevalence of having ever used amphetamines in lifetime

The prevalence of having ever used amphetamines was 7.2% (6.2–8.1) among the total population aged 16–64 years, which equates to approximately 189,500 people in New Zealand. Among people aged 16–64 years, men were significantly more likely to have ever used amphetamines in their lifetime (10.0%, 8.3–11.7) than women (6.3%, 5.2–7.4), when adjusted for age.

The prevalence of having ever used amphetamines peaked in the 25–34 years age group for both men and women, and decreased with increasing age thereafter (Figure 50).

Figure 50: Ever used amphetamines in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 38 gives the prevalence of having ever used amphetamines among adults in New Zealand's main ethnic population groups.

Table 38: Ever used amphetamines in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

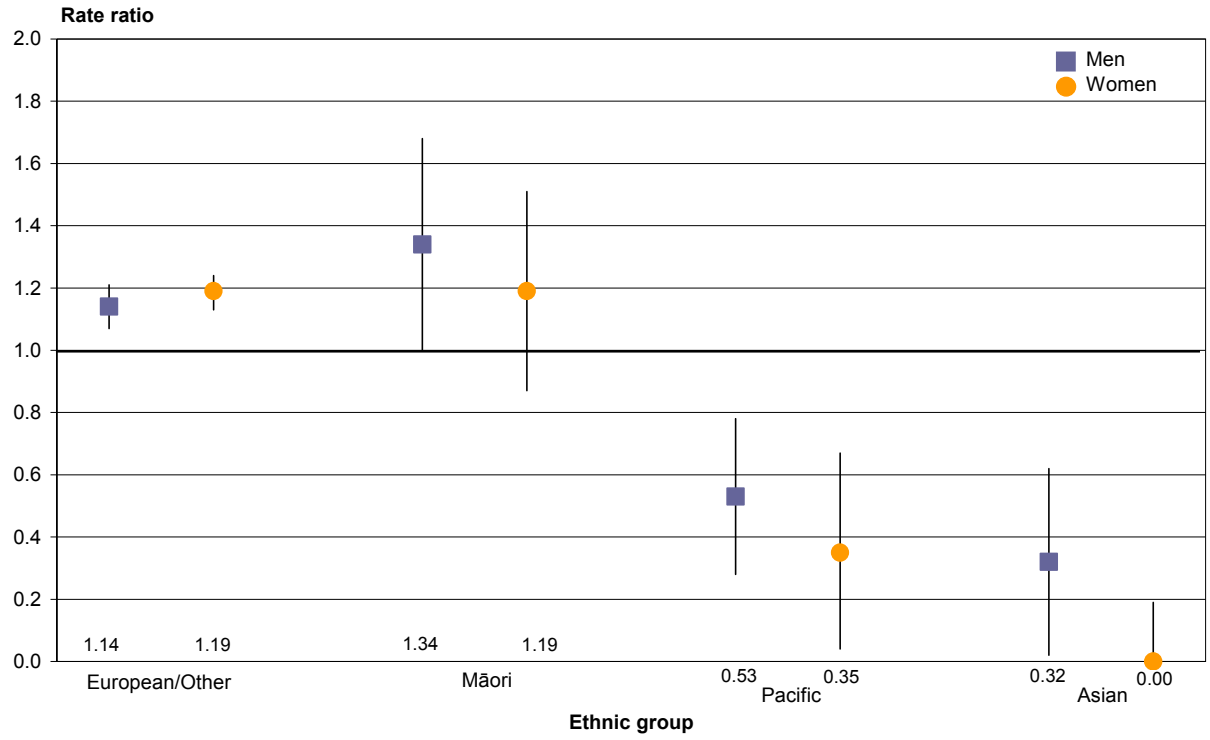
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	7.9 (6.8–9.0)	164,300
Māori	9.8 (8.0–11.6)	32,200
Pacific	3.7 (2.0–5.4)	5,700
Asian	1.8 (0.5–4.4)	4,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have ever used amphetamines, compared with men and women in the total population (Figure 51). Pacific and Asian men and women were significantly less likely to have used amphetamines in their lifetime, compared with men and women in the total population.

Figure 51: Ever used amphetamines in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

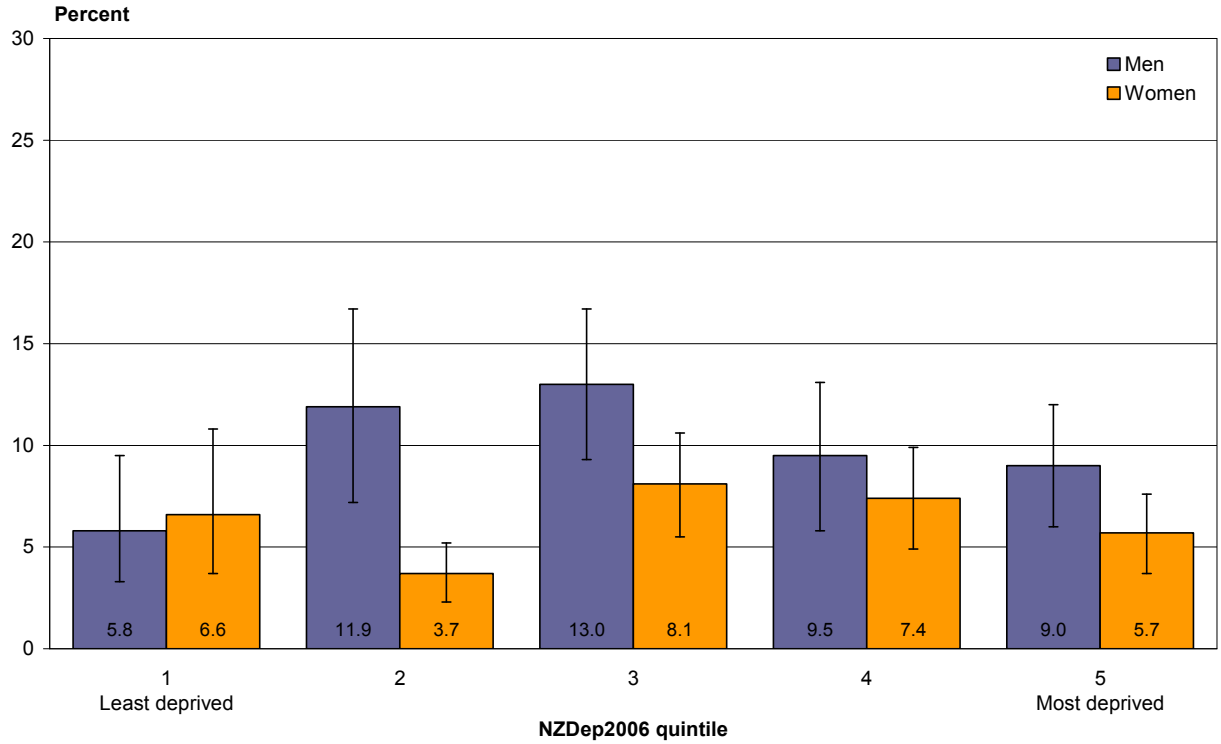


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there was no significant difference in the prevalence of having ever used amphetamines between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and most deprived areas (quintile 5), when adjusted for age (Figure 52). However, for both men and women, the prevalence appeared to peak in quintile 3.

Figure 52: Ever used amphetamines in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of amphetamines

For adults aged 16–64 years who had ever used amphetamines, the median age at which they had first tried amphetamines was 20 years.

The majority of people who had ever used amphetamines had first used amphetamines when aged 21 years or older (40.6%, 34.9–46.4) or when aged 18–20 years (39.7%, 33.0–46.5) (Table 39).

Table 39: Age of first use of amphetamines, among people aged 16–64 years who had ever used amphetamines (unadjusted prevalence)

Age of first use of amphetamines	Prevalence (%) (95% CI)
14 years or younger	2.5 (0.9–5.4)
15–17 years	17.1 (13.1–21.1)
18–20 years	39.7 (33.0–46.5)
21 years or older	40.6 (34.9–46.4)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

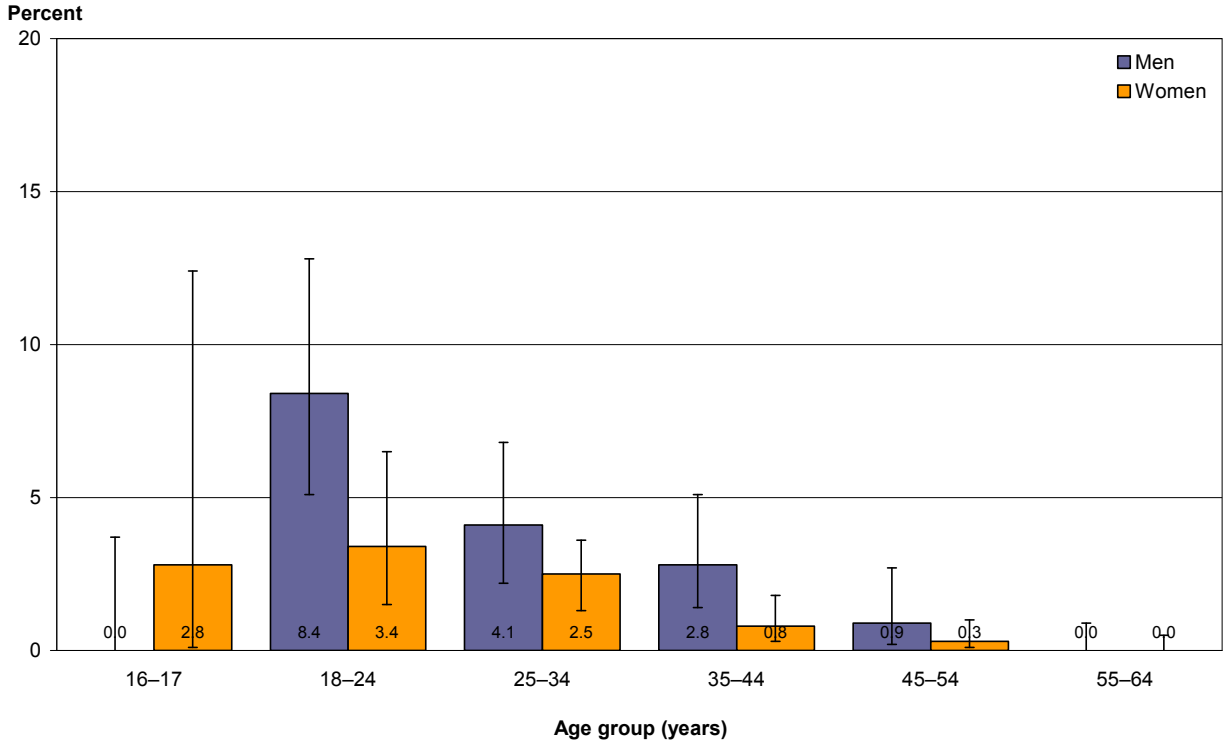
There were no significant differences between men and women, or between Māori and non-Māori, in the age of first using amphetamines, when adjusted for age.

Prevalence of amphetamine use in the last 12 months

The prevalence of having used amphetamines in the past year was 2.1% (1.6–2.5) among the total population aged 16–64 years, which equates to about 54,900 people in New Zealand. Men were significantly more likely to have used amphetamines in the past year (3.5%, 2.4–4.6) than women (1.7%, 1.1–2.4), when adjusted for age.

Among men, those aged 18–24 years were significantly more likely than men in all other age groups to have used amphetamines in the past year (p-value < 0.05) (Figure 53). For both men and women, the prevalence of past-year amphetamine use decreased with increasing age.

Figure 53: Used amphetamines in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 40 gives the prevalence of having used amphetamines in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 40: Used amphetamines in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

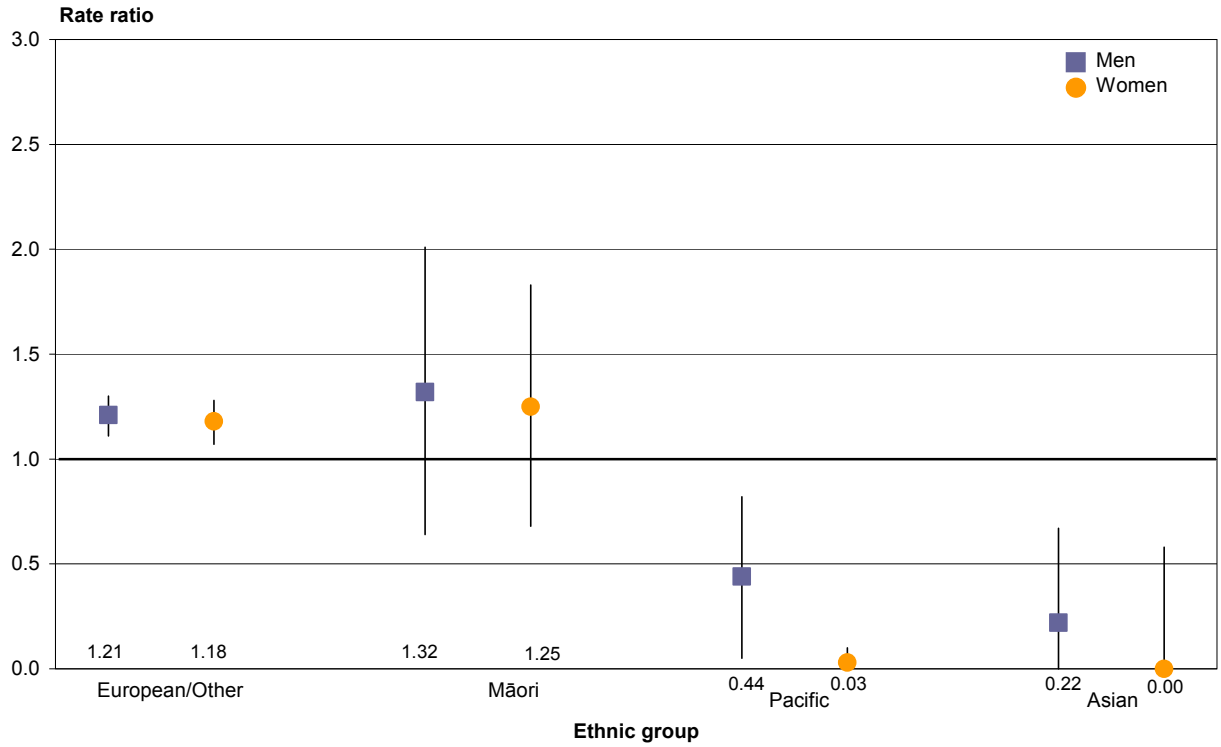
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	2.3 (1.7–2.9)	47,900
Māori	3.2 (2.1–4.3)	10,600
Pacific	0.8 (0.3–1.6)	1,200
Asian	0.5 (0.0–2.6)	1,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have used amphetamines in the past year, compared with men and women in the total population (Figure 54). Pacific and Asian men and women were significantly less likely to have used amphetamines in the past year. There were no other significant differences by ethnic group.

Figure 54: Used amphetamines in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

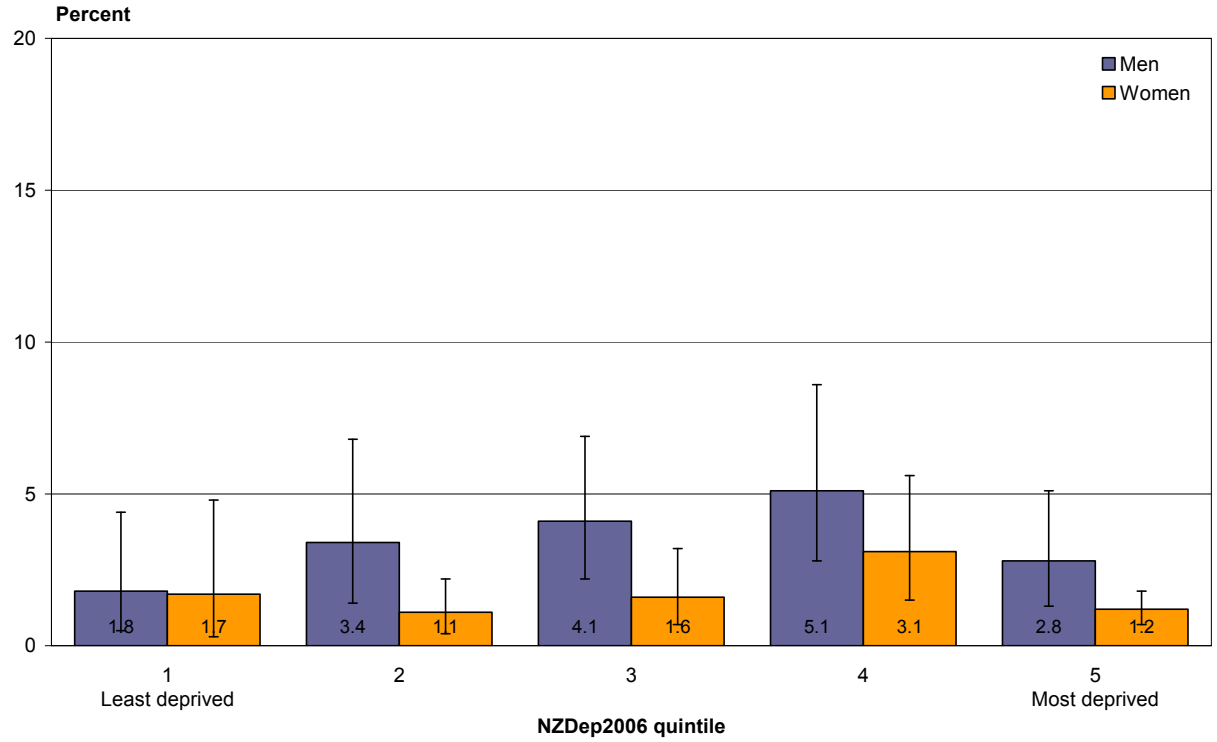


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there were no significant differences between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5) in the prevalence of having used amphetamines in the past year, after adjusting for age (Figure 55).

Figure 55: Used amphetamines in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Prevalence of amphetamine use in last 12 months, by type of amphetamine

In the total population aged 16–64 years, the most common types of amphetamines reported as used for recreational purposes in the past year were 'speed' (1.1%, 0.8–1.4) and 'P' (1.0%, 0.7–1.3) (Table 41).

Table 41: Used amphetamines in the last 12 months, among past-year amphetamine users and total population aged 16–64 years, by type of amphetamine (unadjusted prevalence)

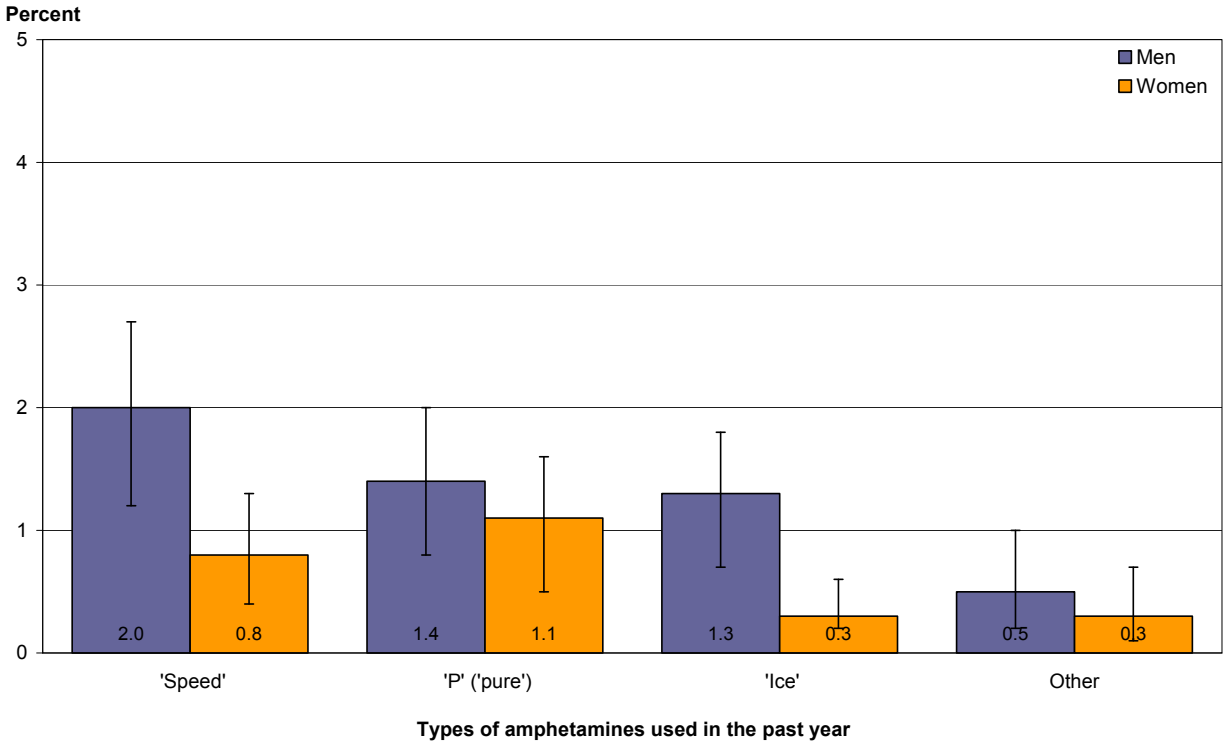
Type of amphetamine	Prevalence (%) (95% CI)	
	For past-year amphetamine users	For total adults
'Speed' (amphetamine sulphate)	58.2 (46.9–69.5)	1.1 (0.8–1.4)
'P' (pure methamphetamine)	54.1 (42.7–65.5)	1.0 (0.7–1.3)
'Ice' (crystal methamphetamine)	34.7 (23.7–45.6)	0.6 (0.4–0.9)
Other	18.0 (9.5–29.4)	0.3 (0.2–0.6)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: In New Zealand, 'speed' may not contain amphetamine sulphate, and may often be closer to methamphetamine in terms of purity and the chemicals used in manufacture. 'Other' amphetamines include diet pills (such as Duromine®) containing an amphetamine-type substance, and dexamphetamine (Dexedrine®, Dextrostat®).

Men were significantly more likely than women to report having used ‘speed’, and to report having used ‘ice’ in the past year, after adjusting for age (p-values < 0.05) (Figure 56). There were no significant differences by gender in the prevalence of reporting having used ‘P’ or other types of amphetamines in the past year.

Figure 56: Used amphetamines in the last 12 months, among total population aged 16–64 years, by type of amphetamine and gender (age-standardised prevalence)

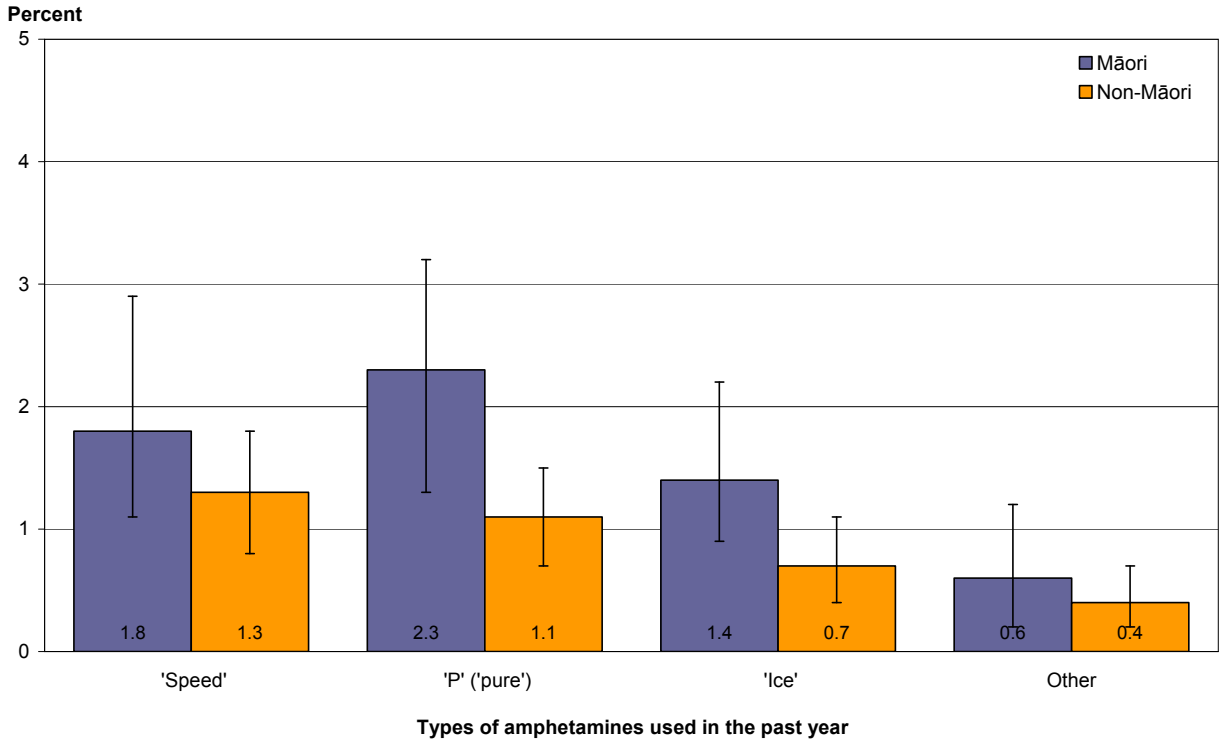


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. In New Zealand, ‘speed’ may not contain amphetamine sulphate, and may often be closer to methamphetamine in terms of purity and the chemicals used in manufacture. ‘Other’ amphetamines include diet pills (such as Duromine®) containing an amphetamine-type substance, and dexamphetamine (Dexedrine®, Dextrostat®).

Māori were significantly more likely than non-Māori to report having used ‘P’ and to have used ‘ice’ in the past year, after adjusting for age (p-values < 0.05) (Figure 57).

Figure 57: Used amphetamines in the last 12 months, among total population aged 16–64 years, by type of amphetamine and Māori/non-Māori ethnicity (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. In New Zealand, 'speed' may not contain amphetamine sulphate, and may often be closer to methamphetamine in terms of purity and the chemicals used in manufacture. 'Other' amphetamines include diet pills (such as Duromine®) containing an amphetamine-type substance, and dexamphetamine (Dexedrine®, Dextrostat®).

Location of amphetamine use in the last 12 months

Among past-year amphetamine users, the most common locations where they had used amphetamines in the past year were at someone else's house (57.3%, 45.2–69.3) and at their own house (50.0%, 38.8–61.2) (Table 42).

Table 42: Location of using amphetamines in the last 12 months, among past-year amphetamine users aged 16–64 years (unadjusted prevalence)

Location	Prevalence (%) for past-year amphetamine users (95% CI)
Someone else's home	57.3 (45.2–69.3)
Own home	50.0 (38.8–61.2)
Nightclubs and bars	27.0 (19.0–35.0)
Special events	18.6 (10.8–28.9)
Pubs, hotels, restaurants or cafes	9.3 (4.5–16.6)
Sports clubs or events	5.6 (1.5–14.0)
Private motor vehicles	5.1 (1.7–11.6)
Outdoor public places	4.3 (1.2–10.5)
Groups, workplaces or meetings	3.4 (1.0–8.2)
Theatres or cinemas	0.0 (0.0–2.7)
School, university or polytechnic	0.0 (0.0–2.7)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Frequency of amphetamine use in the last 12 months

Among all past-year amphetamine users, one in seven (13.9%, 7.0–23.8) had used amphetamines at least weekly, and one in four (25.8%, 15.3–36.3) had used amphetamines at least monthly in the previous year (Table 43). One in two (49.1%, 36.7–61.5) had used amphetamines once or twice in the past year.

When examining the different types of amphetamines, one in three (32.5%, 18.7–46.4) past-year 'P' users had used 'P' at least monthly in the past year.

Table 43: Frequency of using amphetamines for recreational purposes in past year, among past-year users aged 16–64 years, by type of amphetamine (unadjusted prevalence)

Frequency of use	Prevalence (%) by type of amphetamine (95% CI)			
	Any amphetamine, for past-year amphetamine users	'P', for past-year 'P' users	'Ice', for past-year 'ice' users	'Speed', for past-year 'speed' users
At least weekly	13.9 (7.0–23.8)	18.7 (8.6 – 33.0)	18.0 (6.6–35.7)	6.4 (1.8–15.6)
At least monthly	25.8 (15.3–36.3)	32.5 (18.7–46.4)	41.8 (23.2–62.2)	21.9 (10.1–38.2)
3–11 times a year	25.1 (13.8–36.5)	21.7 (10.2–37.6)	14.1 (3.6–33.8)	26.9 (11.1–48.6)
1–2 times a year	49.1 (36.7–61.5)	45.8 (27.3–65.1)	44.1 (24.2–65.5)	51.3 (32.3–70.2)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Risky behaviours and amphetamine use

Having driven, worked or operated machinery while under the influence of amphetamines in the last 12 months

Past-year amphetamine users were asked whether they had driven, worked or operated machinery while feeling under the influence of amphetamines in the past year. The following results are reported for all past-year drug users, including those people who had not driven, worked or operated machinery at all in the past year.

One in three (35.9%, 24.1–47.6) past-year amphetamine users reported having driven a vehicle while feeling under the influence of amphetamines in the past year. This proportion represents 0.7% (0.5–1.0) of people aged 16–64 years in New Zealand who had driven while feeling under the influence of amphetamines in the past year, equating to about 19,100 people.

One in four (24.4%, 14.9–34.0) past-year amphetamine users reported having worked while feeling under the influence of amphetamines in the past year. This proportion represents 0.5% (0.3–0.7) of the total population aged 16–64 years in New Zealand who had worked while feeling under the influence of amphetamines in the past year, equating to 13,600 people.

One in nine (11.9%, 6.8–18.9) past-year amphetamine users reported having operated machinery while feeling under the influence of amphetamines in the past year. This proportion represents 0.2% (0.1–0.4) of the total population aged 16–64 years in New Zealand who had operated machinery while feeling under the influence of amphetamines in the past year, which equates to about 6300 people.

Among past-year amphetamine users, there were no significant differences by gender in the prevalence of reporting any of the above risky behaviours – that is, of driving, working or operating machinery while feeling under the influence of amphetamines in the past year, after adjusting for age.

Having used other drugs together with amphetamines in the last 12 months

Table 44 presents the prevalence of using amphetamines at the same time as other drugs, at least once in the last 12 months, among past-year amphetamine users.

Overall, the most common combination was using amphetamines and cannabis together, with about four in ten past-year amphetamine users having used cannabis while using amphetamines at least once in the past year (37.8%, 25.2–50.4).

Table 44: Used amphetamines and other drugs at the same time at least once in the last 12 months, among past-year amphetamine users aged 16–64 years, by type of other drug (unadjusted prevalence and estimated number of adults)

Drug used in combination with amphetamines	Prevalence (%) for past-year amphetamine users (95% CI)	Estimated number of adults
Cannabis	37.8 (25.2–50.4)	20,600
Alcohol	11.5 (5.2–21.2)	6,300
BZP party pills	10.7 (5.7–18.0)	5,900

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Help-seeking for amphetamine use

Ever received help to reduce level of amphetamine use

Among people who had ever used amphetamines, about eight percent had received help to reduce their level of amphetamine use at some time in their life (8.0%, 4.6–11.3), equating to about 15,100 people. This proportion represents 0.6% (0.3–0.8) of the total population aged16–64 years who had ever received help to reduce their level of amphetamine use, and almost one in ten (9.2%, 3.4–19.0) past-year amphetamine users, who had ever received help.

Results by gender, age group, ethnic group and socioeconomic deprivation have not been presented due to wide confidence intervals.

Sources of help

Among those people who had ever received help to reduce their level of amphetamine use, the most common source of help was from a drug and alcohol counsellor (57.9%, 33.2–80.0) (Table 45).

Table 45: Sources of help to reduce the level of amphetamine use in lifetime, among people aged 16–64 years who had ever received help to reduce their level of amphetamine use (unadjusted prevalence)

Sources of help	Prevalence (%) (95% CI)
Drug and alcohol counsellor	57.9 (33.2–80.0)
Detoxification programme	39.2 (17.8–64.1)
Family member or friend	37.1 (16.1–62.4)
Narcotics Anonymous or other support group	35.1 (14.8–60.4)
General practitioner (GP)	34.7 (13.0–62.3)
Psychiatrist, psychologist or mental health service	28.2 (10.6–52.6)
Natural or alternative therapist	10.2 (1.6–29.8)
Emergency department at a public hospital	2.0 (0.2–7.8)
Māori or Pacific health service	0.0 (0.0–9.5)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Received help to reduce level of amphetamine use in the past year

In the past year, 1.4% (0.4–3.3) of past-year amphetamine users had received help to reduce their level of amphetamine use, equating to about 800 people in the total population.

Ever wanted help but not received it

Among people who had ever used amphetamines, 1.8% (0.7–3.6) had wanted help to reduce their level of amphetamine use at some time in their life but not received it. This proportion represents 3.0% (0.8–7.5) of past-year amphetamine users, and 0.1% (0.1–0.3) of the total adult population aged 16–64 years, equating to about 3300 people. Results by gender, age group, ethnic group and socioeconomic deprivation have not been presented due to wide confidence intervals.

Someone showed concern about your amphetamine use in past year

Among past-year amphetamine users, 8.0% (3.8–14.3) reported that a relative or friend, or a doctor or another health worker had been concerned about them or suggested they cut down their use of amphetamines in the last 12 months. This proportion represents 0.2% (0.1–0.3) of the total population aged 16–64 years.

Harmful effects from amphetamine use

Harmful effects experienced in lifetime

Overall, three in ten (29.3%, 23.9–34.8) people who had ever used amphetamines had experienced any harmful effect in their lifetime due to their amphetamine use (Table 46). Among people who had ever used amphetamines, one in five reported that their amphetamine use had had a harmful effect on their friendships or social life (22.5%, 17.0–28.0) or on their home life (20.0%, 15.4–24.5) at some point during their life.

Table 46: Harmful effects experienced due to own amphetamine use in lifetime, among people who had ever used amphetamines and total population aged 16–64 years (unadjusted prevalence)

Harmful effects due to amphetamine use	Prevalence (%) in lifetime (95% CI)	
	For people who had ever used amphetamines	For total adults
Any harmful effect	29.3 (23.9–34.8)	2.1 (1.7–2.5)
Harmful effects on friendships or social life	22.5 (17.0–28.0)	1.6 (1.2–2.0)
Harmful effects on home life	20.0 (15.4–24.5)	1.4 (1.1–1.8)
Harmful effects on financial position	17.1 (13.1–21.1)	1.2 (0.9–1.5)
Harmful effects on work, study or employment opportunities	15.2 (10.9–19.5)	1.1 (0.8–1.4)
Had learning difficulties	9.9 (6.3–13.4)	0.7 (0.4–1.0)
Had a legal problem	4.7 (2.3–7.2)	0.3 (0.2–0.5)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally, 4.6% (2.4–7.9) of people who had ever used amphetamines had experienced injuries in their lifetime due to their amphetamine use, representing 0.3% (0.2–0.6) of the total population aged 16–64 years.

Harmful effects experienced in the past year

One in five (19.4%, 11.6–27.2) past-year amphetamine users had experienced any harmful effect in the past year due to their amphetamine use (Table 47). The most common harmful effects experienced by past-year amphetamine users in the past year due to their amphetamine use were effects on their home life (13.6%, 6.9–23.2) and on their friendships or social life (12.5%, 6.1–21.8).

Table 47: Harmful effects experienced due to own amphetamine use in last 12 months, among past-year amphetamine users and total population aged 16–64 years (unadjusted prevalence)

Harmful effects due to amphetamine use	Prevalence (%) in the last 12 months (95% CI)	
	For past-year amphetamine users	For total adults
Any harmful effect	19.4 (11.6–27.2)	0.4 (0.2–0.6)
Harmful effects on home life	13.6 (6.9–23.2)	0.3 (0.2–0.5)
Harmful effects on friendships or social life	12.5 (6.1–21.8)	0.3 (0.1–0.5)
Harmful effects on financial position	10.4 (5.4–17.6)	0.2 (0.1–0.4)
Harmful effects on work, study or employment	6.9 (1.9–16.9)	0.1 (0.0–0.4)
Had difficulty learning things	6.0 (1.2–16.9)	0.1 (0.0–0.4)
Had legal problems	3.3 (1.1–7.4)	0.1 (0.0–0.2)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally one in seven (14.1%, 7.1–24.0) past-year amphetamine users had taken one or more days off work or school in the past year due to their amphetamine use. This proportion represents 0.3% (0.1–0.5) of the total population aged 16–64 years, equating to about 7600 people.

Furthermore, 2.4% (0.5–6.7) of past-year amphetamine users had experienced injuries in the past year due to their amphetamine use, representing 0.1% (0.0–0.1) of the total population aged 16–64 years.

Cocaine and crack cocaine

Cocaine is produced from the leaves of the coca plant, and comes in a powder form (cocaine hydrochloride) or as crack cocaine, a solid form of cocaine that has been prepared for smoking.

In this section, cocaine also refers to crack cocaine.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried cocaine or crack for recreational purposes.

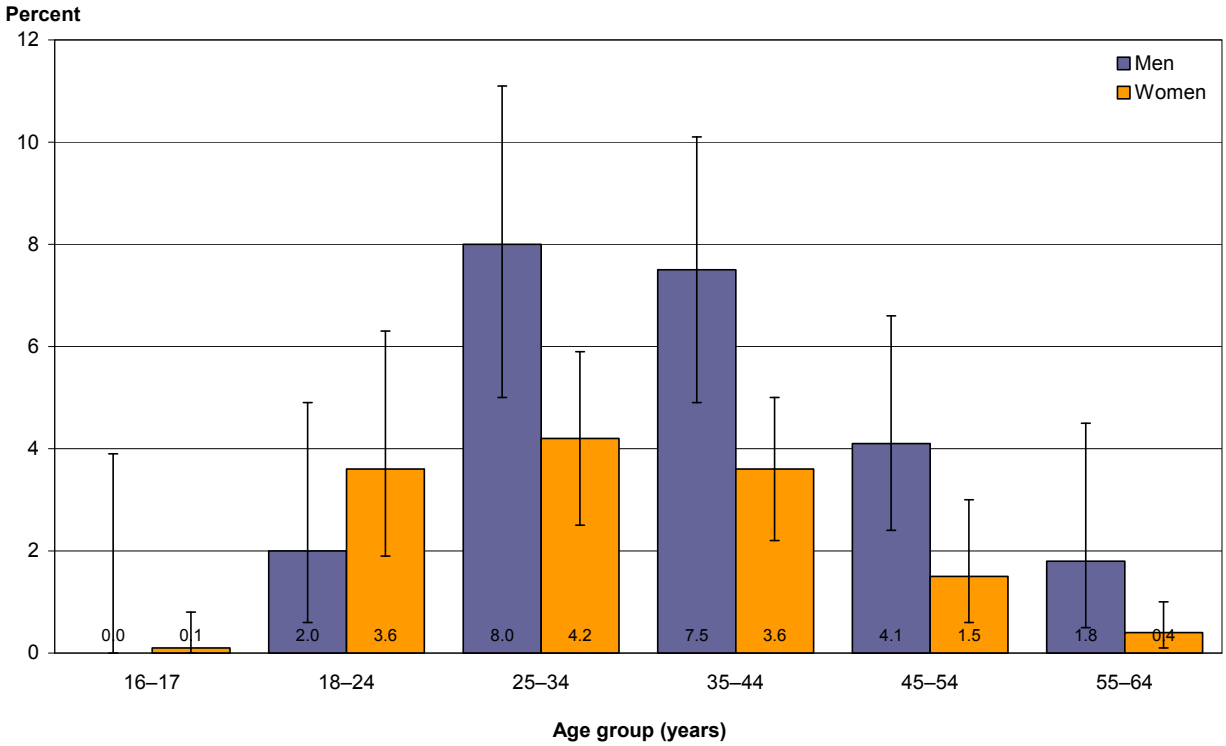
If the participant reported having ever used cocaine or crack, they were asked how old they were when they first used cocaine/crack and whether, in the last 12 months, they had used it. Participants who had used cocaine/crack in the last year were asked how many times in that period they had used it.

Prevalence of having ever used cocaine in lifetime

Nearly four percent of adults aged 16–64 years had used cocaine at some point in their lifetime (3.6%, 3.1–4.2), which equates to about 95,600 people in New Zealand who had ever used cocaine. Men were significantly more likely to have ever used cocaine (5.0%, 4.0–6.1) than women (2.9%, 2.2–3.6), when adjusted for age.

For both men and women, the prevalence of having ever used cocaine peaked for people aged 25–34 years, and decreased with increasing age thereafter (Figure 58).

Figure 58: Ever used cocaine in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Cocaine also includes the solid form 'crack cocaine'.

Table 48 gives the prevalence of having ever used cocaine among adults in New Zealand's main ethnic population groups.

Table 48: Ever used cocaine in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

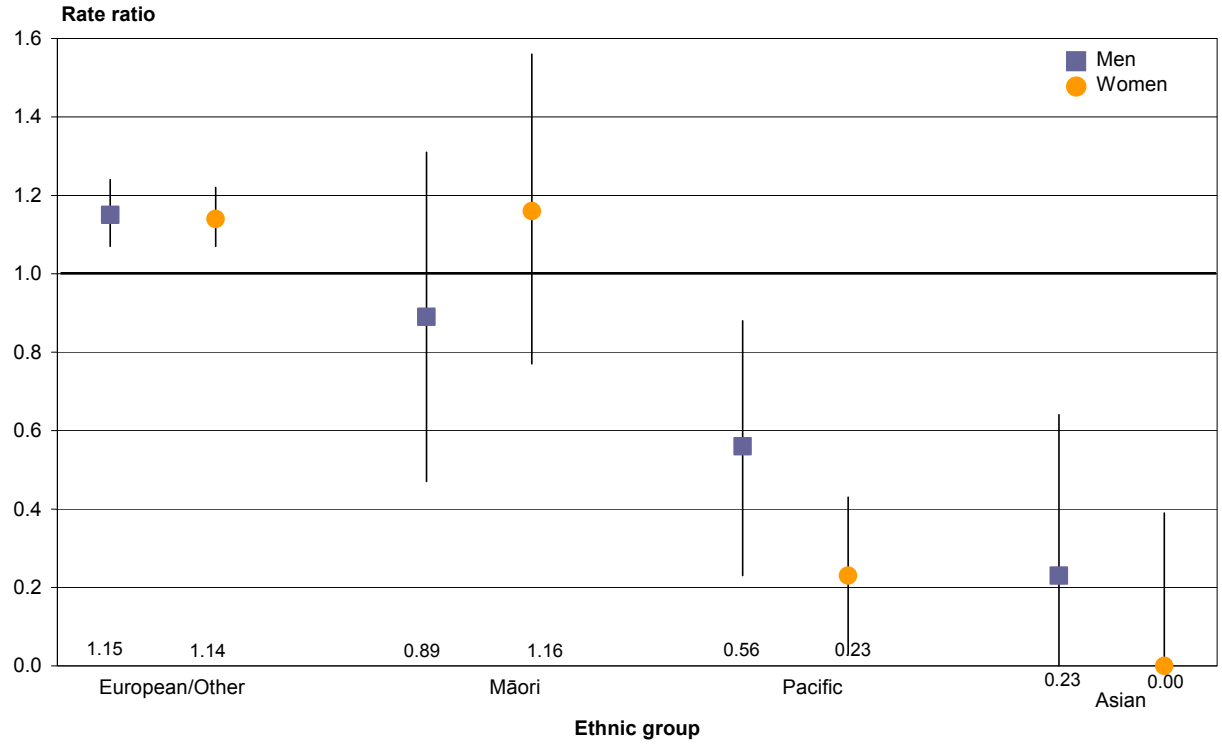
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	4.1 (3.4–4.7)	84,200
Māori	3.8 (2.8–4.7)	12,300
Pacific	1.7 (0.9–2.8)	2,600
Asian	0.5 (0.0–2.3)	1,100

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Cocaine also includes the solid form 'crack cocaine'.

The prevalence of having ever used cocaine was significantly higher for European/Other men and women, compared with men and women in the total population, after adjusting for age (Figure 59). Pacific and Asian men and women were significantly less likely to have ever used cocaine, compared with men and women in the total population.

Figure 59: Ever used cocaine in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

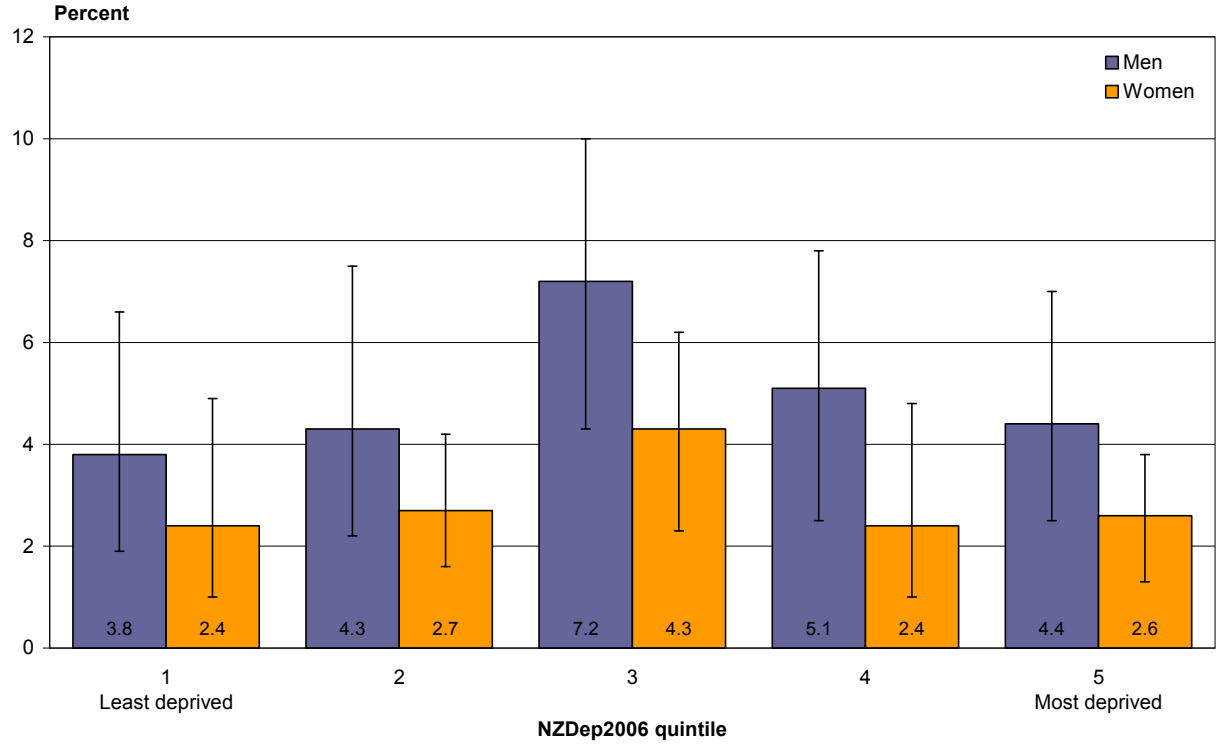


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Cocaine also includes the solid form 'crack cocaine'.

For both men and women, there were no significant differences by neighbourhood socioeconomic deprivation (NZDep2006 quintiles) in the prevalence of having ever used cocaine, after adjusting for age (Figure 60). However, for both men and women, the prevalence appeared to peak for those living in quintile 3.

Figure 60: Ever used cocaine in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Cocaine also includes the solid form 'crack cocaine'.

Age of first use of cocaine

For adults aged 16–64 years who had ever used cocaine, the median age at which they had first tried this drug was 22 years.

The majority of people (60.2%, 52.3–68.2) who had ever used cocaine had first tried it when they were 21 years or older (Table 49). A small proportion (1.8%, 0.6–4.0) had first tried cocaine when aged 14 years or younger.

Table 49: Age of first use of cocaine, among people aged 16–64 years who had ever used cocaine (unadjusted prevalence)

Age of first use of cocaine	Prevalence (%) (95% CI)
14 years or younger	1.8 (0.6–4.0)
15–17 years	8.8 (5.2–13.8)
18–20 years	29.2 (21.2–37.3)
21 years or older	60.2 (52.3–68.2)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Cocaine also includes the solid form 'crack cocaine'.

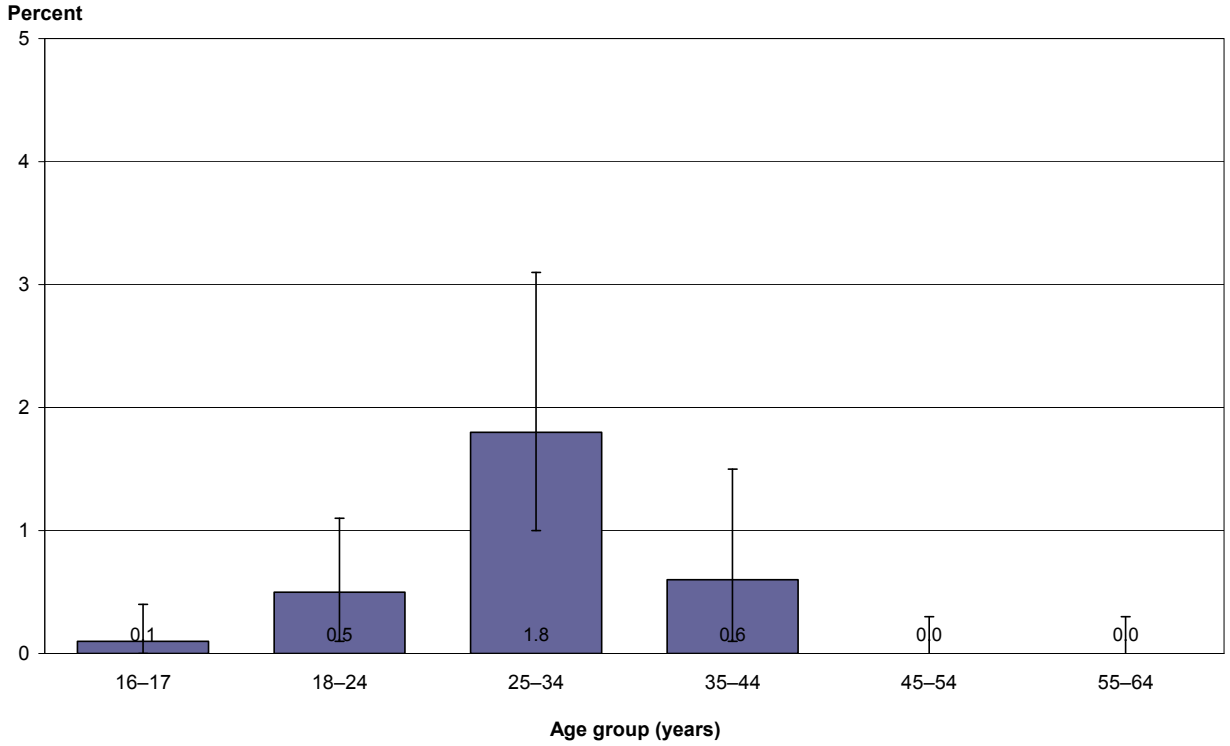
Among those people who had ever used cocaine, there were no differences between men and women in the age when they had first tried cocaine, after adjusting for age.

Prevalence of cocaine use in the last 12 months

About 0.6% (0.3–0.8) of the total population aged 16–64 years had used cocaine in the past-year, equating to about 14,700 people in New Zealand. Men were significantly more likely to have used cocaine in the past year (1.1%, 0.6–1.8) than women (0.3%, 0.2–0.6), when adjusted for age.

The prevalence of past-year cocaine use peaked for people aged 25–34 years (Figure 61).

Figure 61: Used cocaine in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Cocaine also includes the solid form 'crack cocaine'.

Table 50 gives the prevalence of having used cocaine in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 50: Used cocaine in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	0.6 (0.3–0.9)	11,900
Māori	1.0 (0.4–1.8)	3,200
Pacific	0.2 (0.0–0.7)	400
Asian	0.0 (0.0–0.8)	0

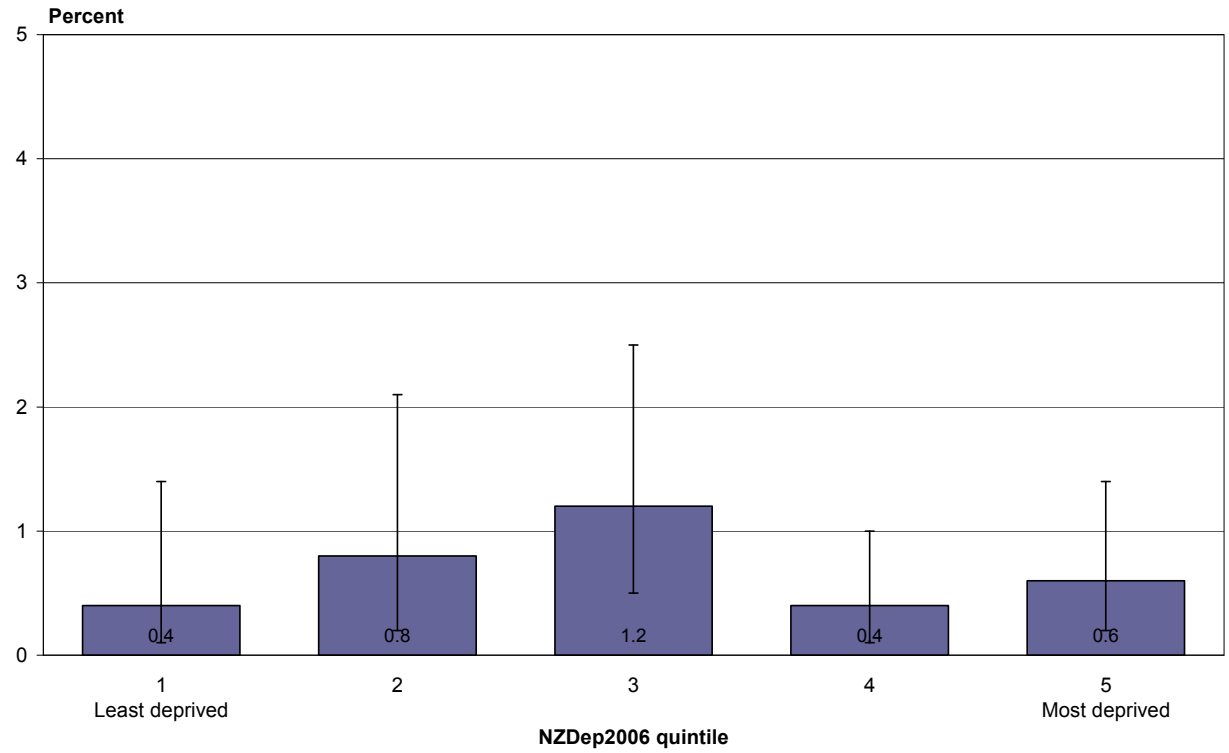
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used. Cocaine also includes the solid form 'crack cocaine'.

After adjusting for age, people of Pacific (SRR: 0.34, 0.00–0.75) and Asian (SRR: 0.00, 0.00–0.80) ethnicity were significantly less likely to have used cocaine in the past year, compared with the total population. There were no other significant differences by ethnic group.

The prevalence of past-year cocaine use appeared to peak for people living in NZDep2006 quintile 3, after adjusting for age (Figure 62).

Figure 62: Used cocaine in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Cocaine also includes the solid form 'crack cocaine'.

Frequency of cocaine use in the last 12 months

One in seven (14.7%, 1.2–48.4) past-year cocaine users had used cocaine at least weekly in the past year (Table 51). Approximately half of past-year cocaine users had used cocaine once or twice in the past year (51.6%, 27.5–75.1).

Table 51: Frequency of cocaine use in the last 12 months, among past-year cocaine users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of cocaine use	Prevalence (%) for past-year cocaine users (95% CI)	Estimated number of adults
At least weekly	14.7 (1.2–48.4)	2,200
At least monthly	25.9 (7.3–54.3)	3,800
3–11 times a year	22.5 (6.0–49.6)	3,300
1–2 times a year	51.6 (27.5–75.1)	7,500

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Cocaine also includes the solid form 'crack cocaine'.

Having used cocaine in combination with other drugs

Table 52 presents the prevalence of using cocaine at the same time as other drugs, at least once in the last 12 months, among past-year cocaine users.

Overall, the most common combination was using cocaine and alcohol together, with six in ten (61.1%, 34.9–83.3) past-year cocaine users having used alcohol while using cocaine at least once in the past year. One in three (38.7%, 16.6–65.0) past-year cocaine users had used cannabis at the same time as using cocaine in the past year.

Table 52: Used cocaine and other drugs at the same time at least once in the last 12 months, among past-year cocaine users aged 16–64 years, by type of other drug (unadjusted prevalence and estimated number of adults)

Drug used in combination with cocaine	Prevalence (%) for past-year cocaine users (95% CI)	Estimated number of adults
Alcohol	61.1 (34.9–83.3)	11,500
Cannabis	38.7 (16.6–65.0)	8700
BZP party pills	3.9 (0.5–13.2)	1400

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Cocaine also includes the solid form 'crack cocaine'.

Prescription stimulants

A number of stimulant drugs are commonly prescribed for medical purposes, including decongestants, appetite suppressants, some asthma treatments and treatments for attention deficit hyperactivity disorder (ADHD). Some of these drugs are diverted for recreational purposes, such as methylphenidate (eg Ritalin®).

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried prescription stimulants (eg, Ritalin®, Modafinil, Adderal®) for recreational purposes.

If the participant reported having ever used a prescription stimulant for recreational purposes, they were asked how old they were when they first used it and whether, in the last 12 months, they had used it. Participants who had used a prescription stimulant for recreational purposes in the last year were asked how many times in that period they had used it.

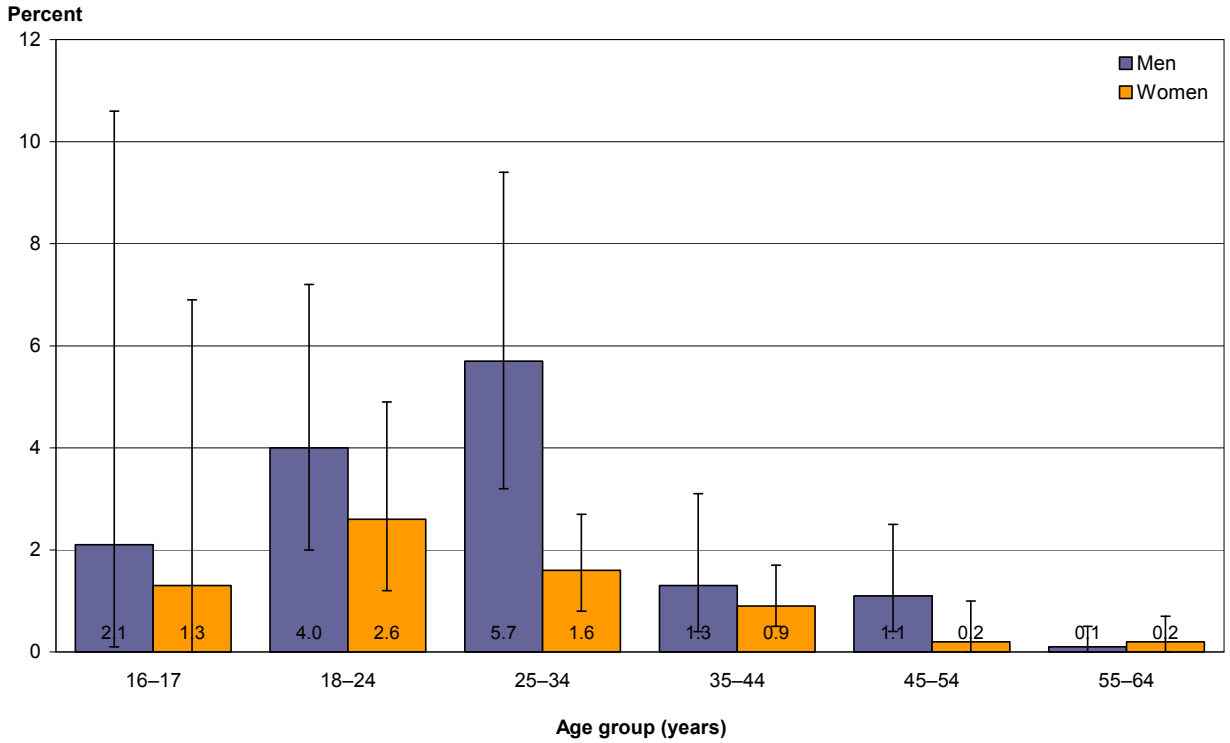
Prevalence of having ever used prescription stimulants for recreational purposes

Nearly two percent of adults aged 16–64 years had used prescription stimulants for recreational purposes at some point in their lifetime (1.7%, 1.3–2.0), equating to about 43,900 people in New Zealand.

Men were significantly more likely to have ever used prescription stimulants for recreational purposes (2.9%, 2.0–3.8) than women (1.3%, 0.8–1.7), when adjusted for age.

Among men, the prevalence of having ever used prescription stimulants for recreational purposes peaked in the 25–34 years age group, and decreased with increasing age (Figure 63). Among women, the prevalence peaked in the 18–24 years age group, and also decreased with increasing age.

Figure 63: Ever used prescription stimulants for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: The wide confidence intervals for men and women aged 16–17 years indicate uncertainty for these estimates.

Table 53 gives the prevalence of having ever used prescription stimulants for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 53: Ever used prescription stimulants for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

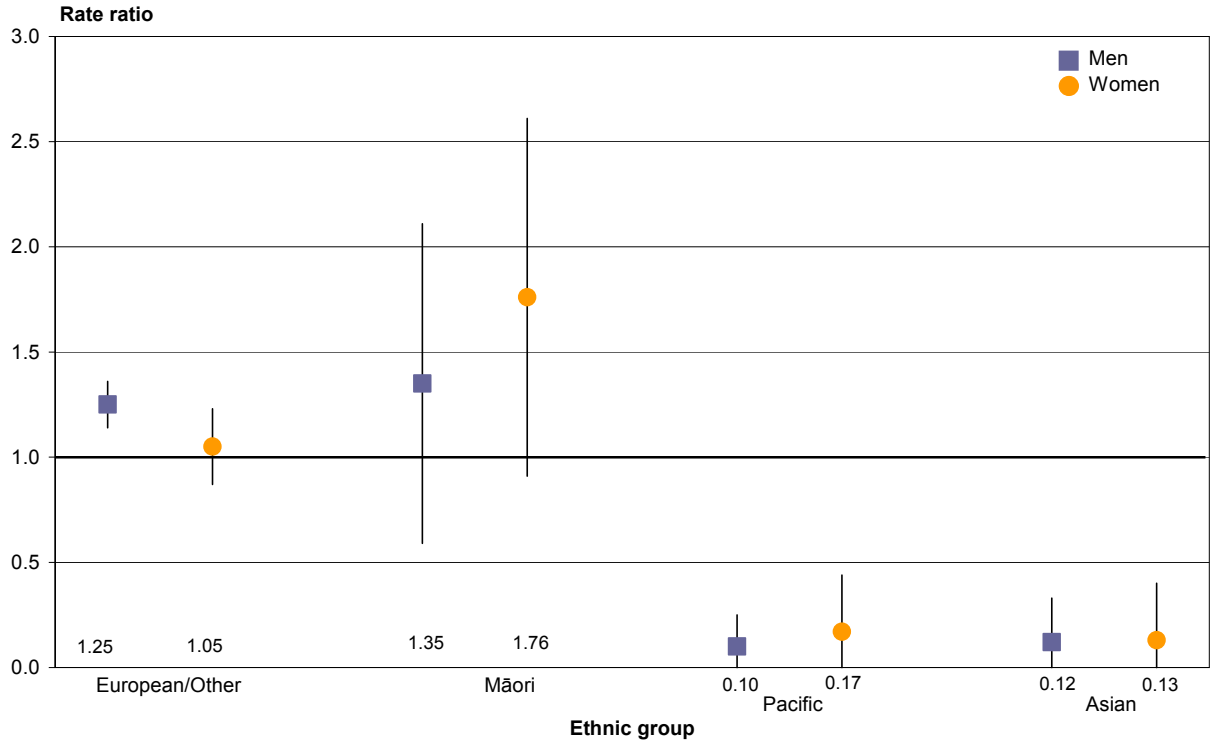
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.8 (1.4–2.3)	38,100
Māori	2.9 (1.7–4.1)	9,500
Pacific	0.2 (0.1–0.6)	400
Asian	0.3 (0.0–1.0)	600

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men were significantly more likely to have ever used prescription stimulants for recreational purposes, compared with men in the total population (Figure 64). Pacific and Asian men and women were significantly less likely to have ever used prescription stimulants, compared with men and women in the total population.

Figure 64: Ever used prescription stimulants for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there were no significant differences between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and people living in the most deprived neighbourhoods (quintile 5), in terms of the prevalence of having ever used prescription stimulants for recreational purposes, after adjusting for age.

Age of first use of prescription stimulants for recreational purposes

For adults aged 16–64 years who had ever used prescription stimulants for recreational purposes, the median age at which they had first tried these drugs was 19 years.

Overall, the majority of people who had ever used prescription stimulants for recreational purposes had first tried them when they were aged 20 years or younger (Table 54). One in eight (12.5%, 5.3–23.9) had first tried prescription stimulants when aged 14 years or younger.

Table 54: Age of first use of prescription stimulants for recreational purposes, among people aged 16–64 years who had ever used prescription stimulants (unadjusted prevalence)

Age of first use of prescription stimulants	Prevalence (%) (95% CI)
14 years or younger	12.5 (5.3–23.9)
15–17 years	29.8 (17.7–41.9)
18–20 years	23.2 (14.1–32.3)
21 years or older	34.5 (22.0– 47.0)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

After adjusting for age, there were no differences between men and women in the age when they had first tried prescription stimulants for recreational purposes, among those who had ever used these drugs.

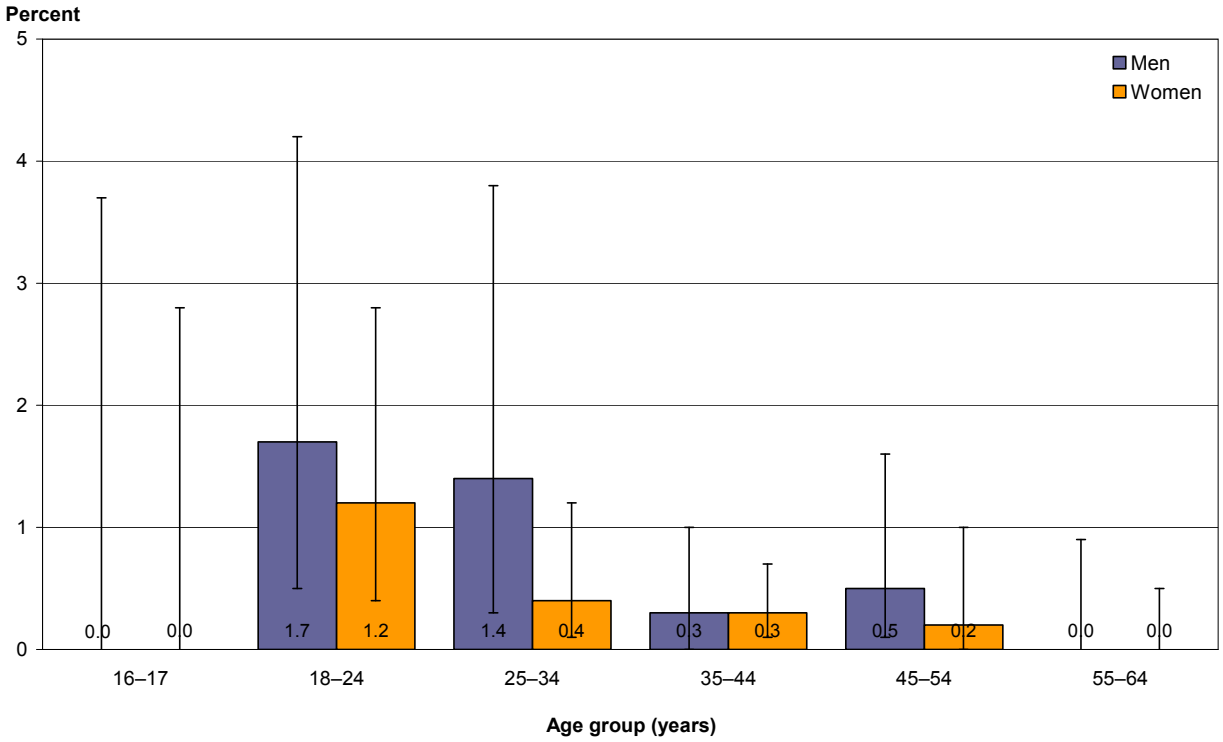
Prevalence of using prescription stimulants for recreational purposes in the last 12 months

About 0.5% (0.3–0.7) of the population aged 16–64 years had used prescription stimulants in the past year, equating to about 13,500 people in New Zealand.

There was no significant difference in the prevalence of having used prescription stimulants in the past 12 months between men (0.8%, 0.4–1.5) and women (0.4%, 0.2–0.8), when adjusted for age.

For both men and women, the prevalence of having used prescription stimulants in the past year peaked in the 18–24 years age group, and decreased with increasing age thereafter (Figure 65).

Figure 65: Used prescription stimulants for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: The wide confidence intervals for men and women aged 16–17 years indicate uncertainty for these estimates.

After adjusting for age, European/Other men (SRR: 1.22, 1.03–1.42) were significantly more likely to have used prescription stimulants for recreational purposes in the past year, compared with men in the total population. Pacific men (SRR: 0.00, 0.00–0.80) and women (SRR: 0.14, 0.00–0.42) were significantly less likely to have used prescription stimulants in the past year, compared with men and women in the total population. There were no other significant differences by ethnic group and gender.

After adjusting for age, there were no significant differences by neighbourhood socioeconomic deprivation in the prevalence of past-year use of prescription stimulants for recreational purposes.

Frequency of using prescription stimulants for recreational purposes in the last 12 months

Two in five (39.4%, 17.4–65.1) past-year prescription stimulant users had used prescription stimulants at least once a week in the past year (Table 55). Almost half of users had used prescription stimulants at least once a month.

Table 55: Frequency of prescription stimulant use in the last 12 months, among past-year users of prescription stimulants aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of prescription stimulant use	Prevalence (%) for past-year prescription stimulant users (95% CI)	Estimated number of adults
At least weekly	39.4 (17.4–65.1)	4,300
At least monthly	46.0 (23.0–70.3)	5,000
3–11 times a year	22.3 (5.9–49.4)	2,400
1–2 times a year	31.7 (13.7–54.9)	3,500

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Chapter 6: Hallucinogenic Drugs

Any hallucinogenic drug

This section examines the use of any hallucinogenic drug, including:

- LSD, DMT and other synthetic hallucinogens (including semi-synthetic hallucinogens)
- naturally occurring hallucinogens
- ketamine
- ecstasy.

Ecstasy has been included in the overall analysis of use of hallucinogens, as for some purposes, ecstasy can be considered as both a stimulant and a hallucinogen. See Chapter 4 for an analysis of survey results specific to ecstasy.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried any of the following drugs for recreational purposes:

- LSD, DMT or synthetic hallucinogens (eg, acid, trips)
- naturally occurring hallucinogens (eg, blue meanies, gold tops, mushies, magic mushrooms, datura, angel's trumpet, cactus, morning glory, peyote)
- ketamine (eg, K, special K, vitamin K, kitkat, ket)
- ecstasy.

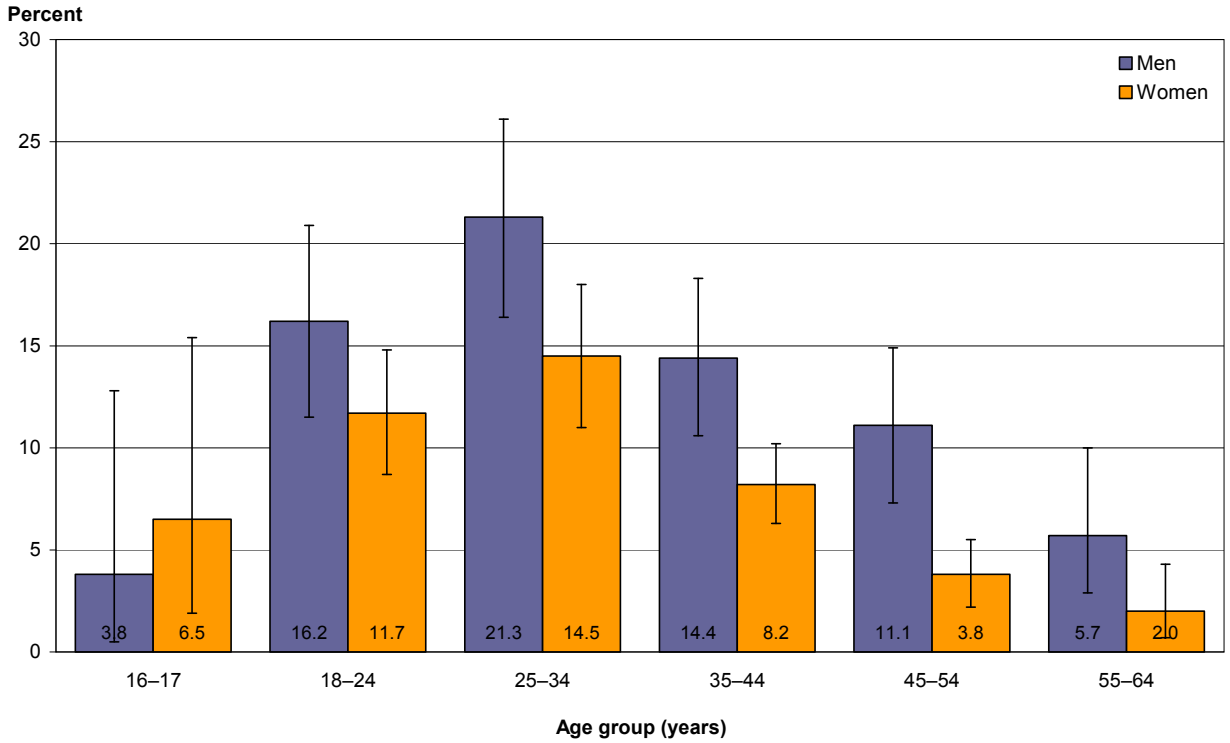
If the participant reported having ever used any of the above drugs, they were asked how old they were when they first used that drug and whether, in the last 12 months, they had used it. Participants who had used that drug in the last year were asked how many times in that period they had used it.

Prevalence of having ever used any hallucinogenic drug in lifetime

Overall, one in ten people aged 16–64 years had used a hallucinogenic drug at some point in their lifetime (10.5%, 9.4–11.6), equating to about 277,600 people in New Zealand. After adjusting for age, men were significantly more likely to have used a hallucinogenic drug in their lifetime (14.6%, 12.5–16.6) than women (9.1%, 7.8–10.4).

For both men and women, the prevalence of having ever used a hallucinogenic drug peaked for people aged 25–34 years, and decreased with increasing age thereafter (Figure 66).

Figure 66: Ever used any hallucinogenic drug in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

Table 56 gives the prevalence of having ever used a hallucinogenic drug among adults in New Zealand's main ethnic population groups.

Table 56: Ever used any hallucinogenic drug in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

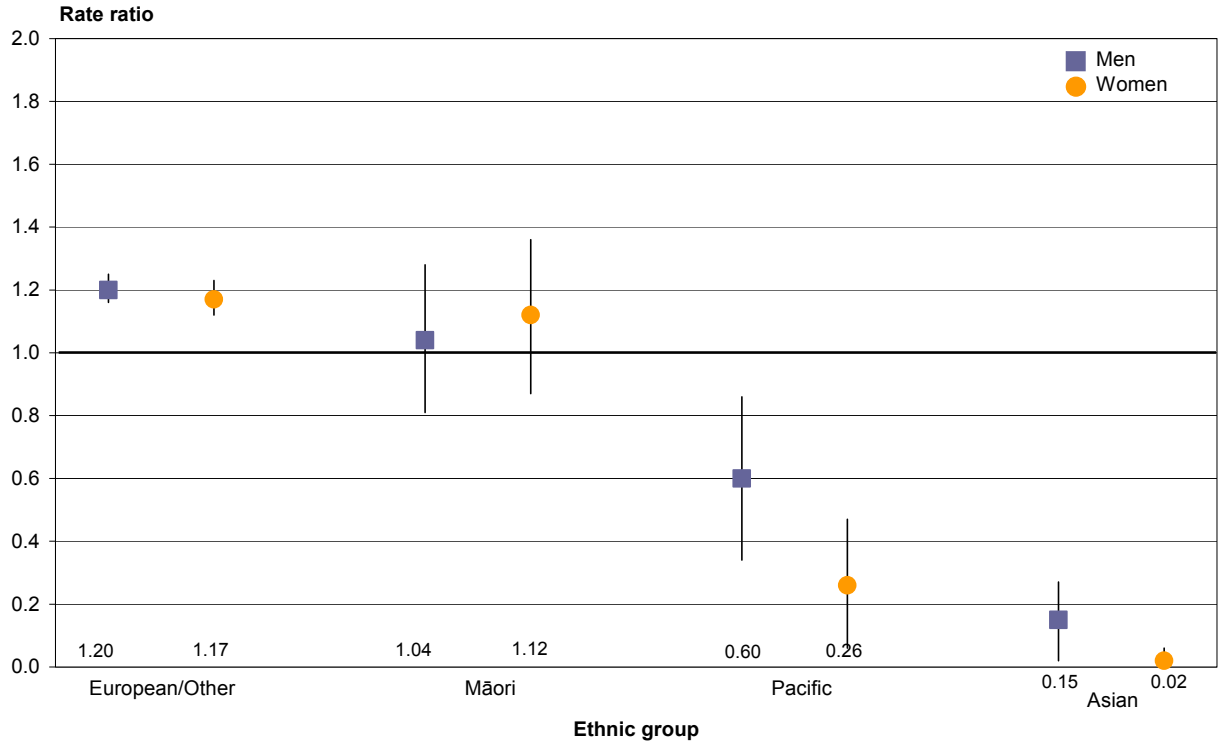
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	12.0 (10.6–13.4)	249,000
Māori	12.1 (10.3–13.8)	39,500
Pacific	5.6 (3.5–7.6)	8,600
Asian	1.2 (0.5–2.6)	2,700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

After adjusting for age, European/Other men and women were significantly more likely to have ever used a hallucinogenic drug for recreational purposes, compared with men and women in the total population (Figure 67). Pacific and Asian men and women were significantly less likely to have ever used a hallucinogenic drug.

Figure 67: Ever used any hallucinogenic drug in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

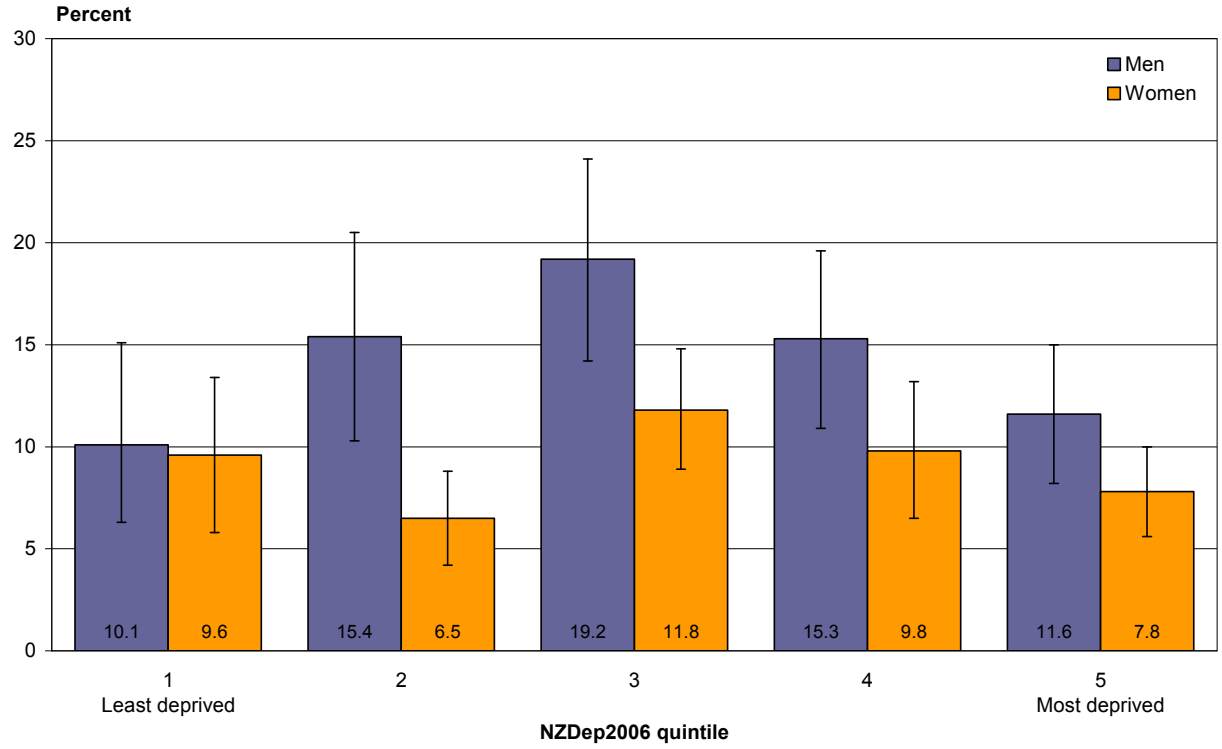


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

For both men and women, the prevalence of having ever used a hallucinogenic drug peaked for people living in NZDep2006 quintile 3, after adjusting for age (Figure 68).

Figure 68: Ever used any hallucinogenic drug in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

Age of first use of any hallucinogenic drug

For adults aged 16–64 years who had ever used a hallucinogenic drug, the median age at which they had first tried this drug was 19 years.

Overall, one in three (34.7%, 30.6–38.9) people who had ever used a hallucinogenic drug had first done so when they were aged 21 years or older (Table 57). One in twenty (4.9%, 2.7–7.1) had first tried a hallucinogen when aged 14 years or younger.

Table 57: Age of first use of any hallucinogenic drug, among people aged 16–64 years who had ever used a hallucinogenic drug (unadjusted prevalence)

Age of first use of any hallucinogenic drug	Prevalence (%) (95% CI)
14 years or younger	4.9 (2.7–7.1)
15–17 years	24.8 (20.7–29.0)
18–20 years	35.5 (31.0–40.1)
21 years or older	34.7 (30.6–38.9)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

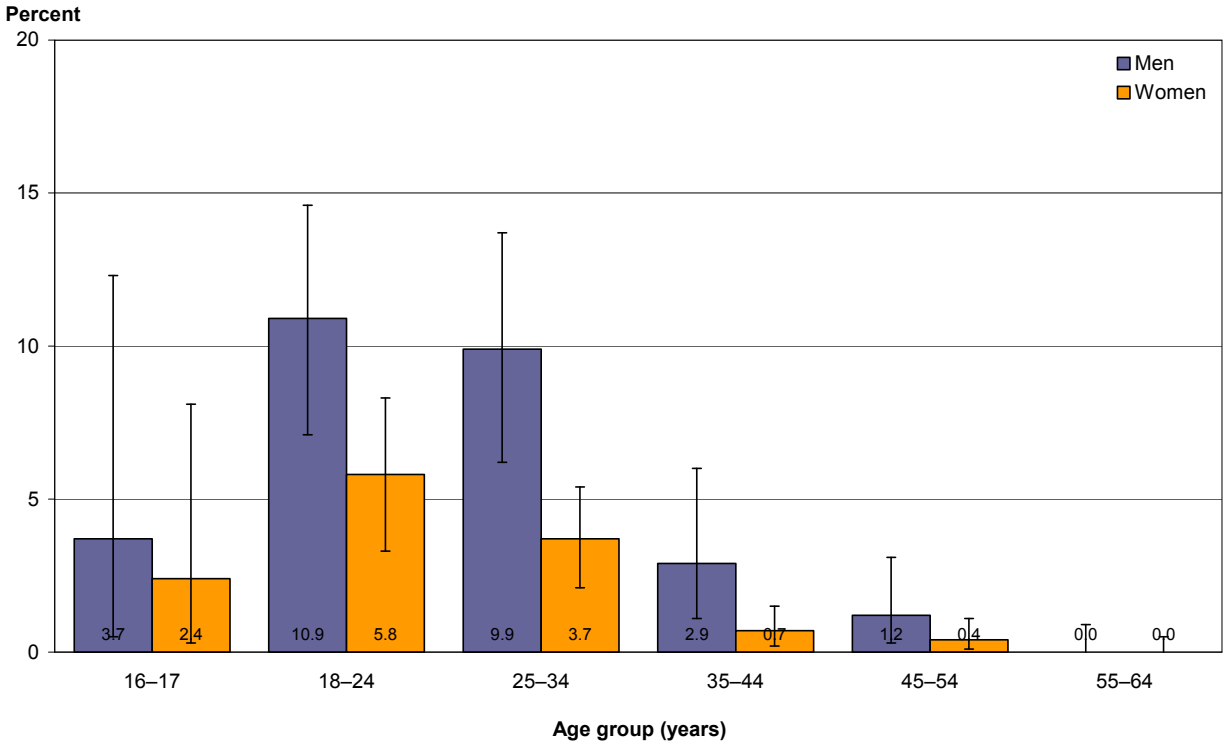
Among those people who had ever used hallucinogenic drugs, after adjusting for age, there were no significant differences by gender in the age of first using hallucinogenic drugs.

Prevalence of using any hallucinogenic drug in the last 12 months

About three percent of adults aged 16–64 years had used a hallucinogenic drug in the last 12 months (3.2%, 2.6–3.8), equating to about 84,700 people in New Zealand. Men were significantly more likely to have used a hallucinogenic drug in the last 12 months (5.8%, 4.5–7.1) than women (2.5%, 1.8–3.2), after adjusting for age.

For both men and women, the prevalence of past-year use of a hallucinogenic drug peaked in the 18–24 years age group, and decreased with increasing age thereafter (Figure 69).

Figure 69: Used any hallucinogenic drug in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

Table 58 gives the prevalence of having used a hallucinogenic drug in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 58: Used any hallucinogenic drug in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

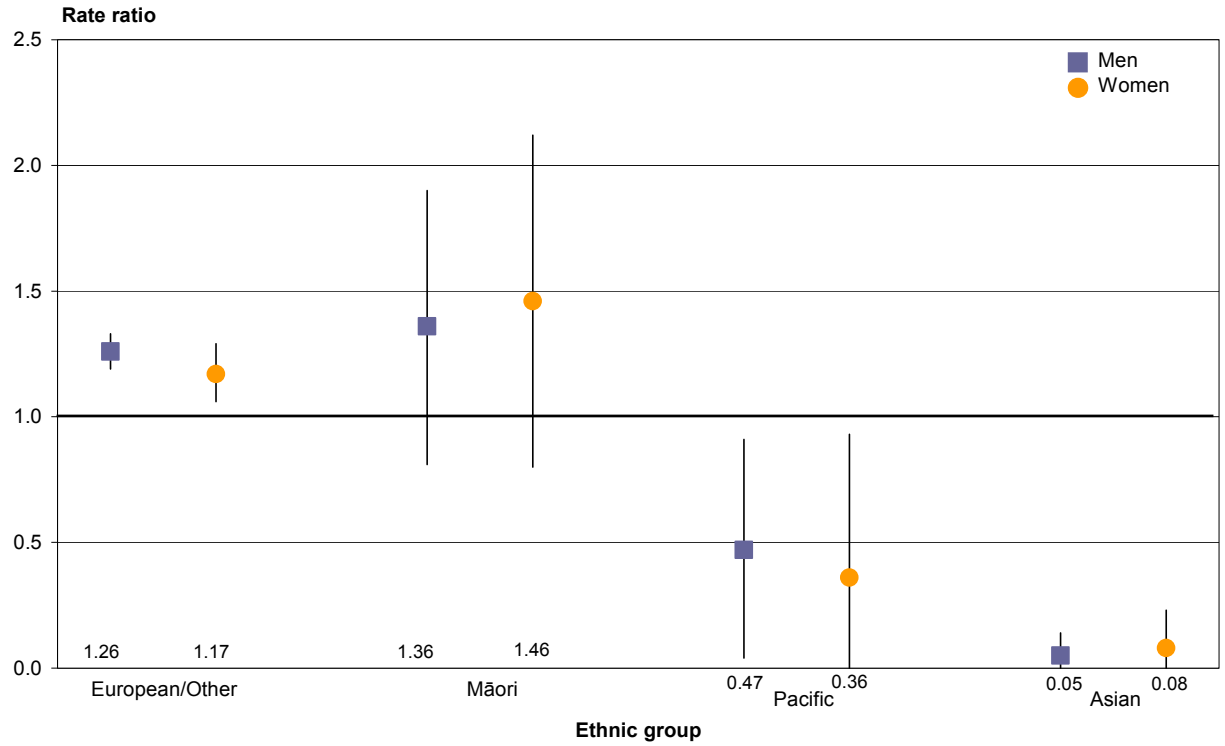
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	3.7 (2.9–4.4)	76,100
Māori	5.3 (3.7–6.9)	17,500
Pacific	1.8 (0.7–4.1)	2,800
Asian	0.3 (0.0–0.9)	600

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

After adjusting for age, European/Other men and women were significantly more likely to have used a hallucinogenic drug in the past year, compared with men and women in the total population (Figure 70). Pacific and Asian men and women were significantly less likely to have used a hallucinogenic drug in the previous 12 months, compared with men and women in the total population.

Figure 70: Used any hallucinogenic drug in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

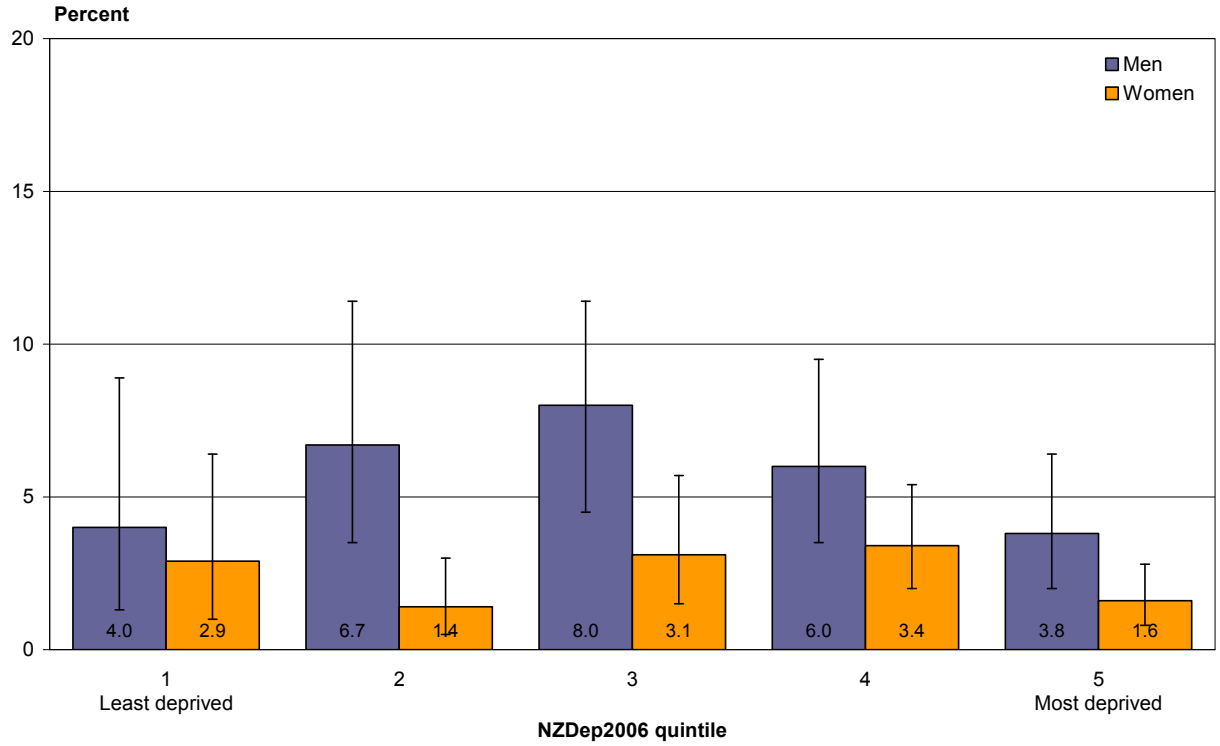


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

Among men, after adjusting for age, the prevalence of having used any hallucinogenic drug in the past year peaked for those living in NZDep2006 quintile 3 (Figure 71). There was no clear trend by neighbourhood socioeconomic deprivation for women.

Figure 71: Used any hallucinogenic drug in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy.

Frequency of using any hallucinogenic drug in the last 12 months

Six in ten (60.4%, 50.7–70.1) past-year hallucinogen users had used hallucinogenic drugs once or twice in the past year (Table 59).

Table 59: Frequency of hallucinogen use in the last 12 months, among past-year hallucinogenic drug users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of hallucinogen use	Prevalence (%) for past-year hallucinogen users (95% CI)	Estimated number of adults
At least weekly	1.4 (0.3–4.1)	1,100
At least monthly	13.8 (7.6–22.3)	11,600
3–11 times a year	25.8 (17.2–34.4)	21,700
1–2 times a year	60.4 (50.7–70.1)	51,200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Hallucinogenic drugs include LSD and other synthetic hallucinogens, naturally occurring hallucinogens, ketamine and ecstasy. 'Frequency of hallucinogen use' is the most common frequency of use of any one specific type of hallucinogenic drug.

LSD and other synthetic hallucinogens

Synthetic (and semi-synthetic) hallucinogens such as LSD (d-lysergic acid diethylamide) and DMT (dimethyltryptamine) are chemically synthesised. LSD is a colourless liquid synthesised from ergot (a fungus) and is generally prepared for ingestion by infusing into blotter paper.

For the purposes of this report, synthetic hallucinogens also refer to semi-synthetic hallucinogens.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried LSD, DMT or synthetic hallucinogens (eg Acid, Trips) for recreational purposes.

If the participant reported having ever used LSD, DMT or synthetic hallucinogens, they were asked how old they were when they first used that drug, and whether, in the last 12 months, they had used it. Participants who had used that drug in the last year were asked how many times in that period they had used it.

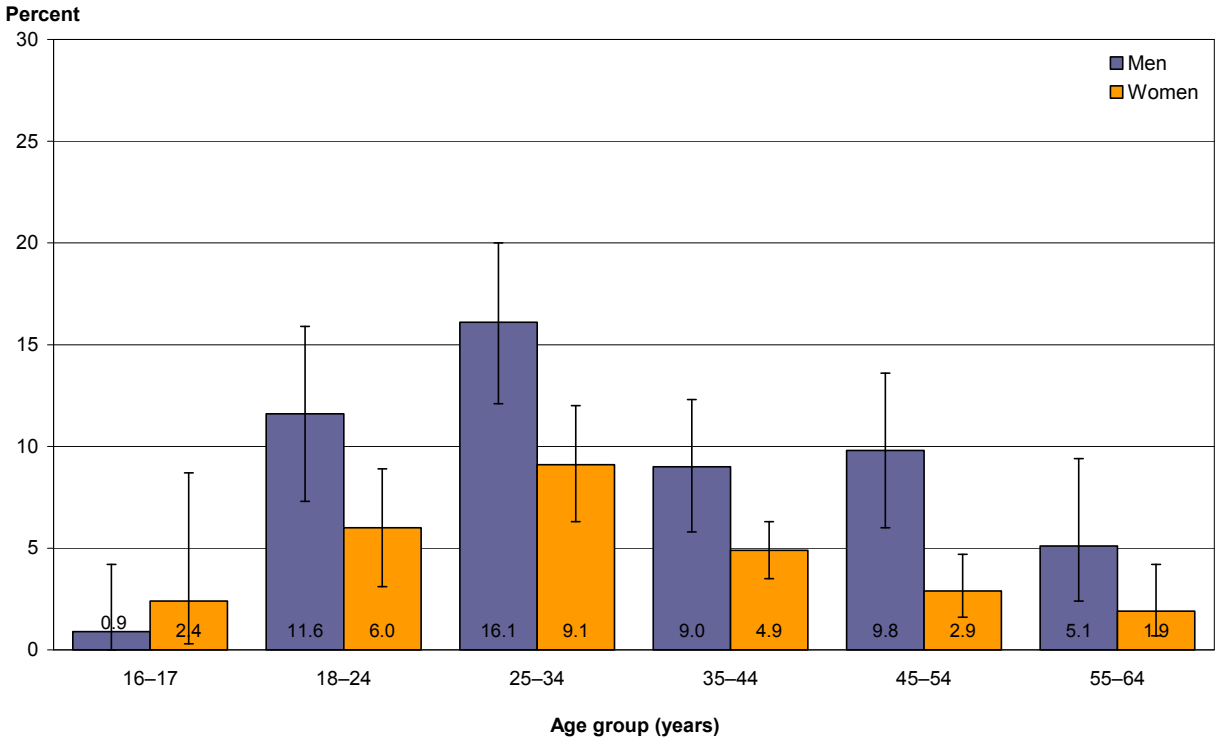
Prevalence of having ever used LSD or other synthetic hallucinogens in lifetime

About seven percent of adults aged 16–64 years had used LSD or other synthetic hallucinogens at some point in their lifetime (7.3%, 6.3–8.3). This proportion equates to about 192,000 people in New Zealand who had ever used LSD or other synthetic hallucinogens.

Men were significantly more likely to have ever used LSD or other synthetic hallucinogens (10.6%, 8.8–12.4) than women (5.4%, 4.4–6.5), when adjusted for age.

The prevalence of having ever used LSD or other synthetic hallucinogens was highest in the 25–34 years age group for both men and women, and generally decreased with increasing age thereafter (Figure 72).

Figure 72: Ever used LSD or other synthetic hallucinogens in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Table 60 gives the prevalence of having ever used LSD or other synthetic hallucinogens among adults in New Zealand's main ethnic population groups.

Table 60: Ever used LSD or other synthetic hallucinogens in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

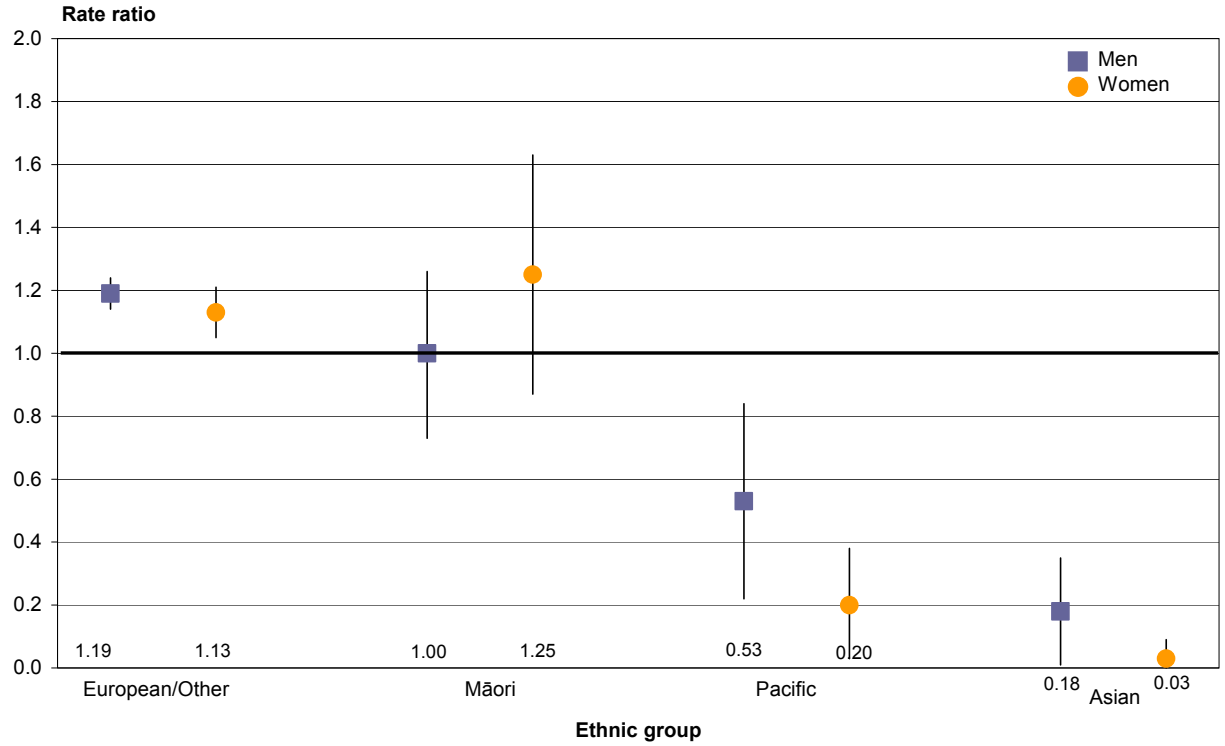
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	8.2 (7.0–9.4)	170,400
Māori	8.3 (6.8–9.8)	27,000
Pacific	3.4 (1.9–5.5)	5,200
Asian	1.1 (0.4–2.4)	2,300

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

After adjusting for age, European/Other men and women were significantly more likely to have ever used LSD or other synthetic hallucinogens, compared with men and women in the total population (Figure 73). Pacific and Asian men and women were significantly less likely to have ever used LSD or other synthetic hallucinogens, compared with men and women in the total population.

Figure 73: Ever used LSD or other synthetic hallucinogens in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

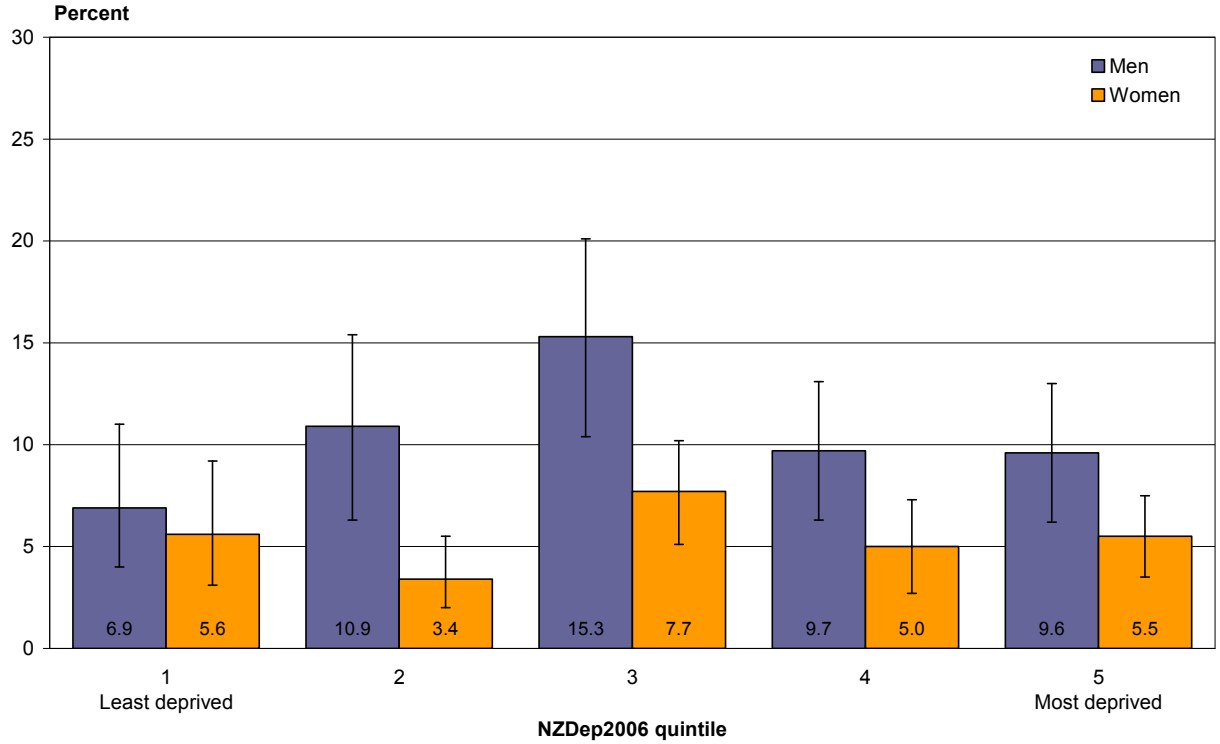


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Among men, the prevalence of having ever used LSD or other synthetic hallucinogens peaked for those living in NZDep2006 quintile 3, after adjusting for age (Figure 74). This trend was not as clear-cut for women.

Figure 74: Ever used LSD or other synthetic hallucinogens in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Age of first use of LSD or other synthetic hallucinogens

For adults aged 16–64 years who had ever used LSD or other synthetic hallucinogens, the median age at which they had first tried this drug was 19 years.

Overall, the majority of people who had ever used LSD or other synthetic hallucinogens had first tried this drug when they were either 18–20 years (40.9%, 35.3–46.4) or 21 years or older (29.1%, 24.5–33.6) (Table 61). A small proportion (4.0%, 2.0–7.0) had first tried LSD or other synthetic hallucinogens when aged 14 years or younger.

Table 61: Age of first use of LSD or other synthetic hallucinogen, among people aged 16–64 years who had ever used LSD or other synthetic hallucinogens (unadjusted prevalence)

Age of first use of LSD or other synthetic hallucinogen	Prevalence (%) (95% CI)
14 years or younger	4.0 (2.0–7.0)
15–17 years	26.1 (20.6–31.5)
18–20 years	40.9 (35.3–46.4)
21 years or older	29.1 (24.5–33.6)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

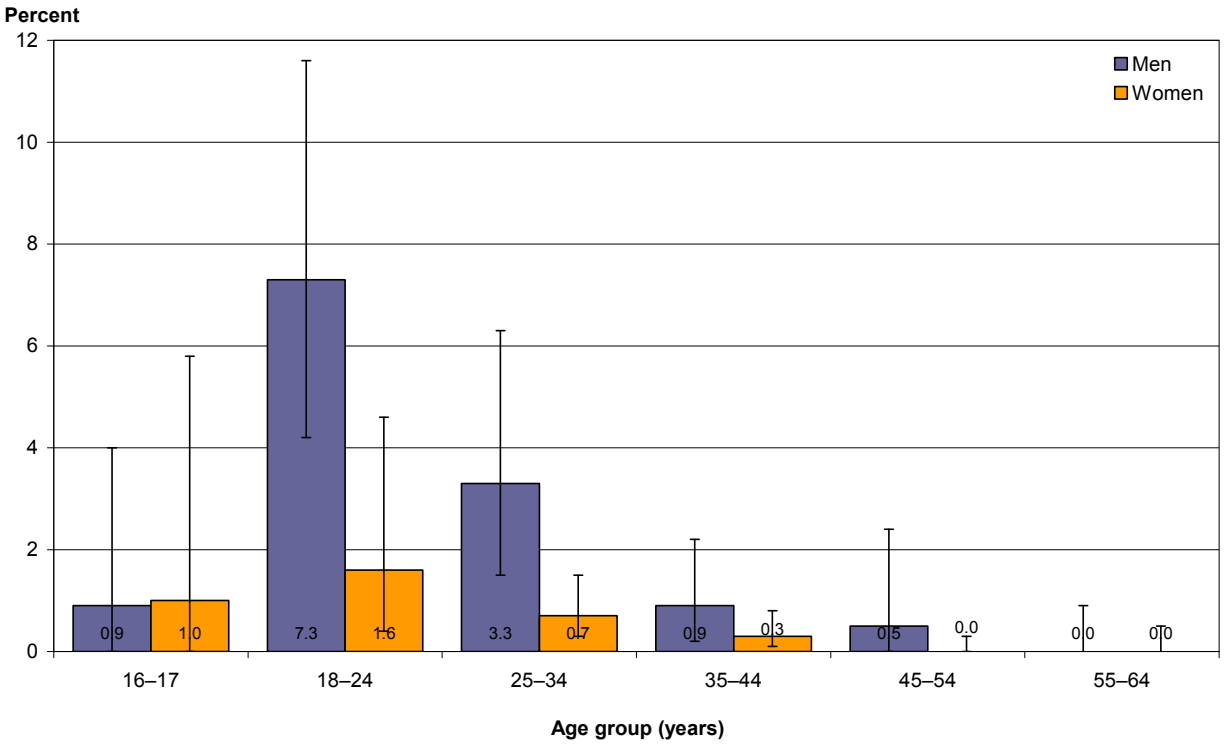
After adjusting for age, there were no differences between men and women in the age when they had first tried LSD or another synthetic hallucinogen.

Prevalence of LSD or synthetic hallucinogen use in the last 12 months

About 1.3% (0.9–1.6) of the population aged 16–64 years had used LSD or synthetic hallucinogens in the past-year, equating to 33,100 people. Men were significantly more likely to have used LSD or other synthetic hallucinogens in the past year (2.6%, 1.7–3.6) than women (0.7%, 0.3–1.2), when adjusted for age.

The past-year prevalence of LSD or other synthetic hallucinogen use was highest in the 18–24 years age group for men (Figure 75).

Figure 75: Used LSD or other synthetic hallucinogens in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Table 62 gives the prevalence of having used LSD or other synthetic hallucinogenic drugs in the past year among adults in New Zealand's main ethnic population groups.

Table 62: Used LSD or other synthetic hallucinogens in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

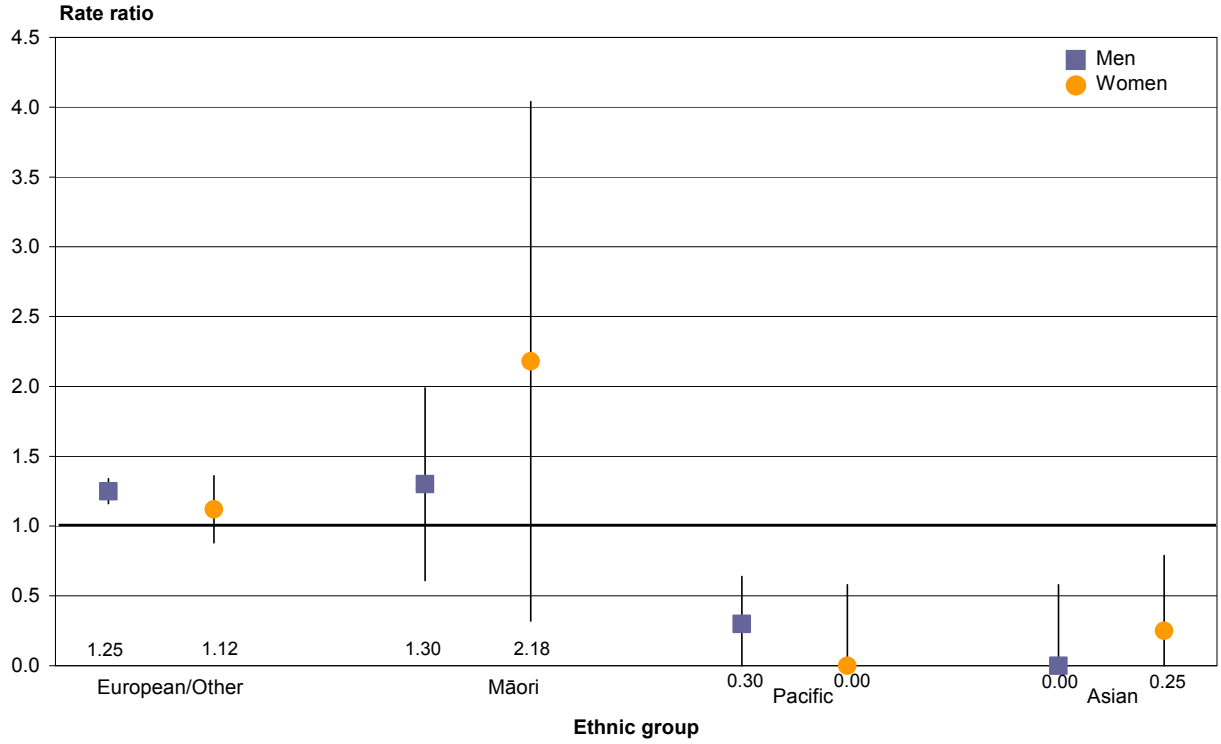
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.4 (1.0–1.8)	29,200
Māori	2.3 (1.4–3.5)	7,400
Pacific	0.4 (0.1–1.0)	600
Asian	0.1 (0.0–0.5)	200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Total response standard output for ethnic groups has been used. 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

After adjusting for age, European/Other men were significantly more likely to have used LSD or other synthetic hallucinogens in the past year, compared with men in the total population (Figure 76). Pacific men and Asian women were significantly less likely to have used LSD or other synthetic hallucinogens, compared with men and women in the total population.

Figure 76: Used LSD or other synthetic hallucinogens in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

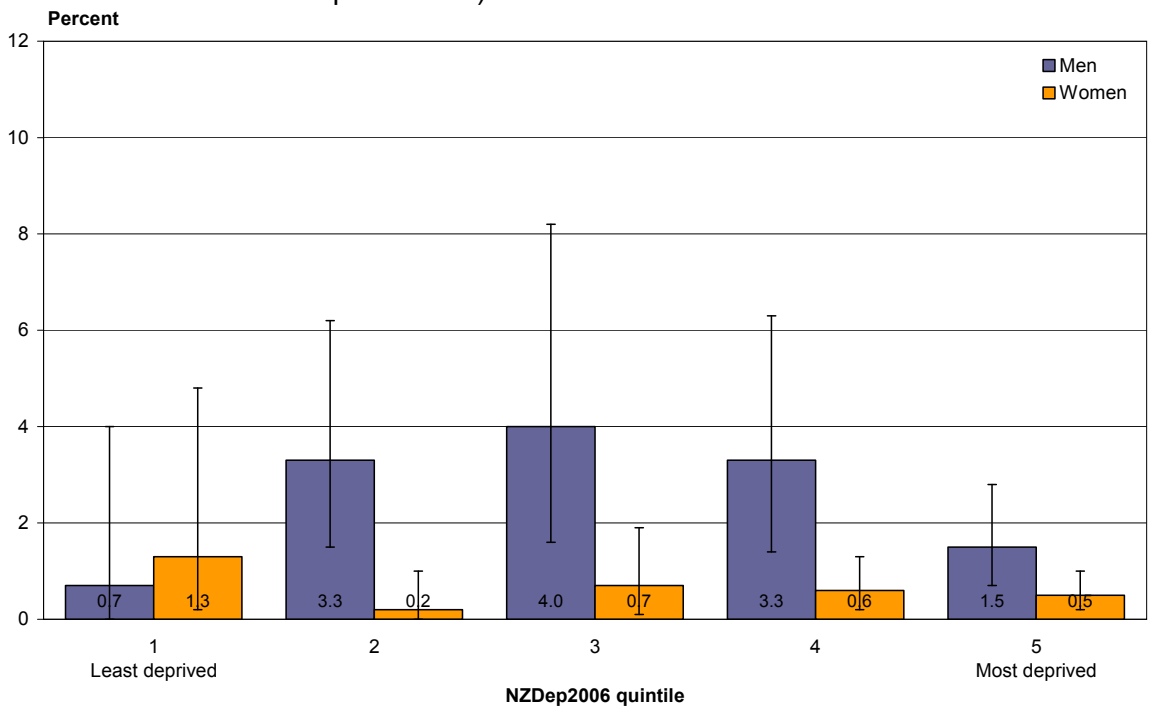


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Among men, the prevalence of using LSD or other synthetic hallucinogens in the past year peaked for those living in NZDep2006 quintile 3, after adjusting for age (Figure 77). No trend by neighbourhood socioeconomic deprivation was apparent for women.

Figure 77: Used LSD or other synthetic hallucinogens in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Frequency of LSD or synthetic hallucinogen use in the last 12 months

The majority of past-year users of LSD or other synthetic hallucinogens had used this drug infrequently in the past year, with two in three (65.9%, 50.4–81.4) having used LSD or other synthetic hallucinogens once or twice in the previous year (Table 63).

Table 63: Frequency of use of LSD or other synthetic hallucinogens in the last 12 months, among people aged 16–64 years who had used LSD or other synthetic hallucinogens in the past year (unadjusted prevalence and estimated number of adults)

Frequency of LSD and other synthetic hallucinogen use	Prevalence (%) for past-year users of LSD and other synthetic hallucinogen (95% CI)	Estimated number of adults
At least weekly	1.2 (0.0–7.0)	400
At least monthly	9.0 (2.5–21.5)	3,000
3–11 times a year	25.1 (12.1–42.4)	8,300
1–2 times a year	65.9 (50.4–81.4)	21,800

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'LSD or other synthetic hallucinogens' also includes semi-synthetic hallucinogens.

Naturally occurring hallucinogens

Naturally occurring hallucinogens include certain types of mushrooms (containing psilocine and psilocybine), some types of cacti (containing mescaline) and certain plants.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried naturally occurring hallucinogens (eg, blue meanies, gold tops, mushies, magic mushrooms, datura, angel's trumpet, cactus, morning glory, peyote) for recreational purposes.

If the participant reported having ever used naturally occurring hallucinogens, they were asked how old they were when they first used that drug and whether, in the last 12 months, they had used it. Participants who had used naturally occurring hallucinogens in the last year were asked how many times in that period they had used that drug.

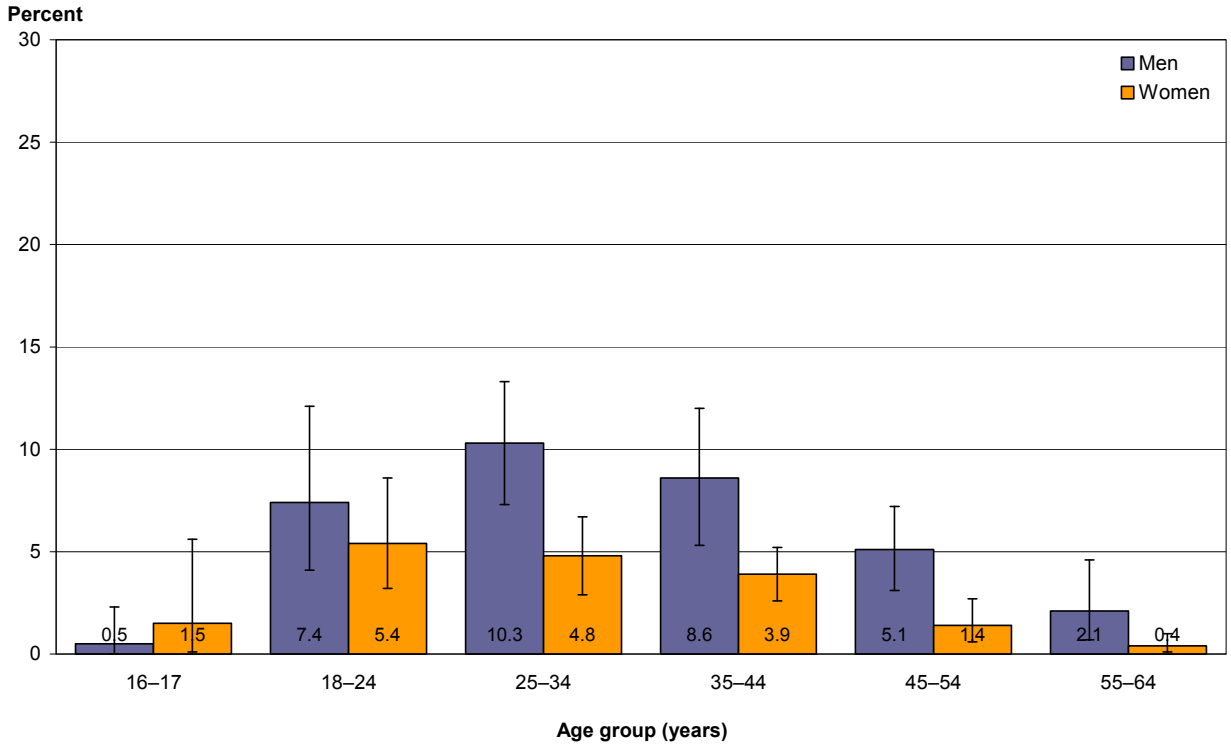
Prevalence of having ever used naturally occurring hallucinogens in lifetime

About five percent (4.7%, 4.0–5.4) of adults aged 16–64 years had ever used naturally occurring hallucinogens in their lifetime. This proportion equates to about 124,800 people in New Zealand who had ever used naturally occurring hallucinogens.

Men were significantly more likely to have ever used naturally occurring hallucinogens (7.2%, 5.8–8.5) than women (3.6%, 2.7–4.4), when adjusted for age.

The prevalence of having ever used naturally occurring hallucinogens peaked among those aged 18–44 years for both men and women (Figure 78).

Figure 78: Ever used naturally occurring hallucinogens in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 64 gives the prevalence of having ever used naturally occurring hallucinogens among adults in New Zealand's main ethnic population groups.

Table 64: Ever used naturally occurring hallucinogens in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

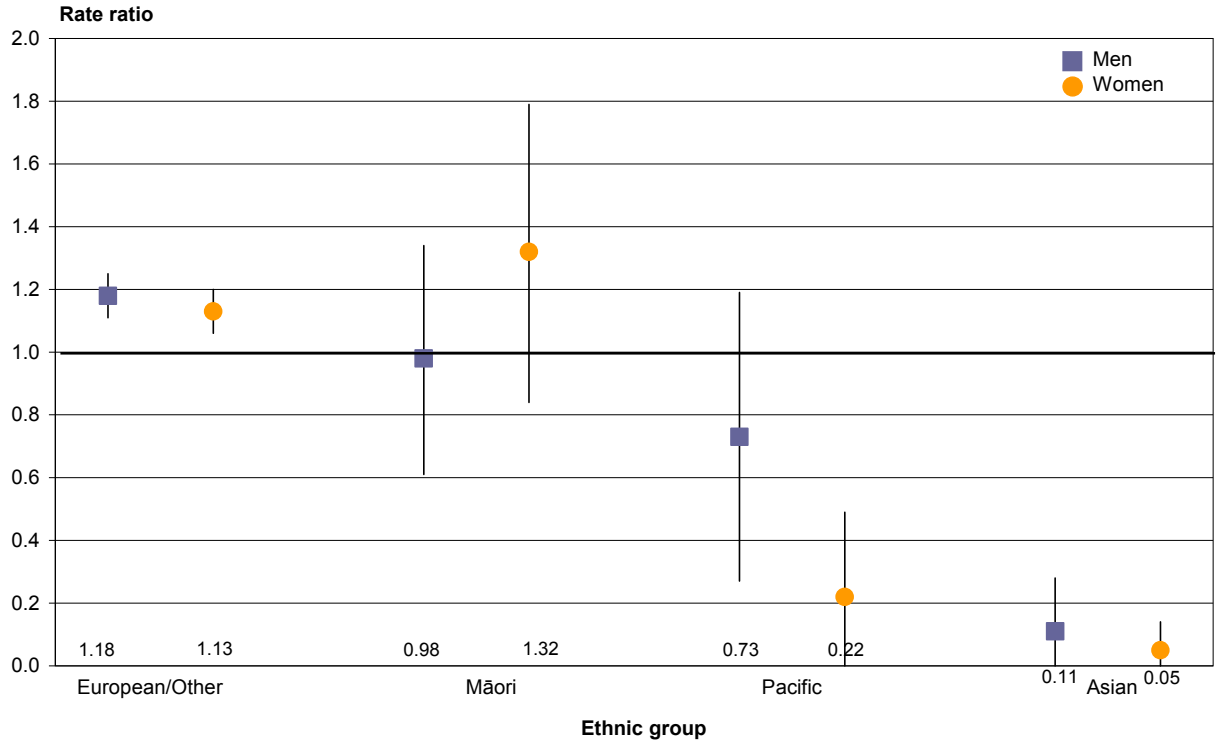
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	5.3 (4.4–6.1)	109,400
Māori	5.5 (4.1–6.9)	18,100
Pacific	3.0 (1.5–5.3)	4,600
Asian	0.4 (0.1–1.4)	1,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have used naturally occurring hallucinogens at some point in their lifetime, compared with men and women in the total population (Figure 79). Asian men, and Pacific and Asian women were significantly less likely to have ever used naturally occurring hallucinogens, compared with men and women in the total population.

Figure 79: Ever used naturally occurring hallucinogens in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

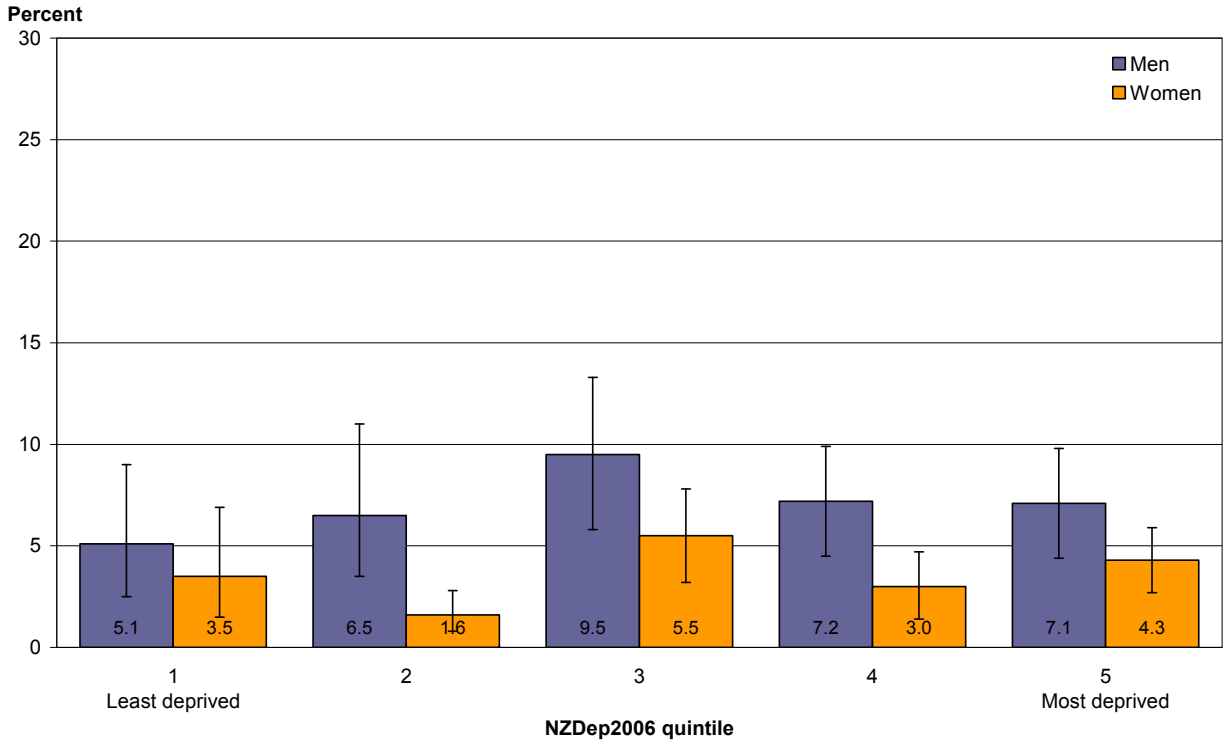


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there was no significant difference in the prevalence of having ever used naturally occurring hallucinogens between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5), after adjusting for age (Figure 80).

Figure 80: Ever used naturally occurring hallucinogens in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of naturally occurring hallucinogens

For adults aged 16–64 years who had ever used naturally occurring hallucinogens, the median age at which they had first tried these drugs was 19 years.

Overall, over one in three who had ever used naturally occurring hallucinogens had first tried them when they were aged 21 years or older (38.8%, 32.3–45.3) (Table 65). Almost eight percent (7.6%, 4.0–12.8) had first tried naturally occurring hallucinogens when aged 14 years or younger.

Table 65: Age of first use of naturally occurring hallucinogens, among people aged 16–64 years who had ever used naturally occurring hallucinogens (unadjusted prevalence)

Age of first use of naturally occurring hallucinogens	Prevalence (%) (95% CI)
14 years or younger	7.6 (4.0–12.8)
15–17 years	24.4 (18.6–30.2)
18–20 years	29.2 (21.8–36.6)
21 years or older	38.8 (32.3–45.3)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

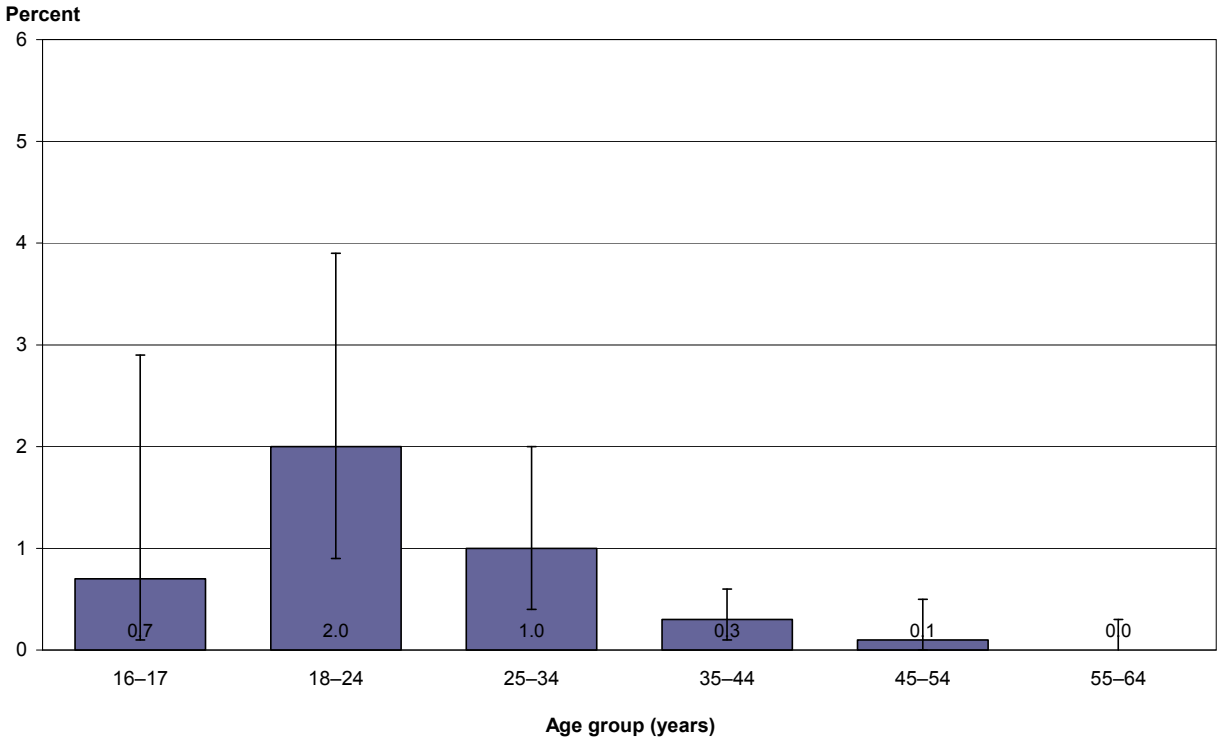
After adjusting for age, there were no differences in the age of first use of naturally occurring hallucinogens between men and women, or between Māori and non-Māori, among those people who had ever used naturally occurring hallucinogens.

Prevalence of naturally occurring hallucinogen use in the last 12 months

About 0.6% (0.3–0.9) of the population aged 16–64 years had used naturally occurring hallucinogens in the past year, equating to 15,700 people in New Zealand. There was no significant difference in the prevalence of having used naturally occurring hallucinogens in the past year between men (1.0%, 0.5–1.8) and women (0.6%, 0.2–1.2), when adjusted for age.

The prevalence of having used naturally occurring hallucinogens in the past 12 months peaked for people aged 18–24 years (Figure 81).

Figure 81: Used naturally occurring hallucinogens in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 66 gives the prevalence of having used naturally occurring hallucinogens in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 66: Used naturally occurring hallucinogens in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	0.7 (0.4–1.1)	13,600
Māori	1.4 (0.6–2.8)	4,500
Pacific	0.3 (0.1–1.0)	500
Asian	0.1 (0.0–0.5)	200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity (SRR: 1.20, 1.06–1.34) were significantly more likely to have used naturally occurring hallucinogens in the past year, compared with the total population. Asian people (SRR: 0.11, 0.00–0.33) were significantly less likely to have done so. There were no other significant differences by ethnic group.

After adjusting for age, there was no significant difference in the prevalence of having used naturally occurring hallucinogens in the past year between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5).

Frequency of naturally occurring hallucinogen use in the last 12 months

Four in five (83.8%, 65.9–94.6) past-year users of naturally occurring hallucinogens had used these drugs once or twice in the past year (Table 67).

Table 67: Frequency of naturally occurring hallucinogen use in the last 12 months, among people aged 16–64 years who had used naturally occurring hallucinogens in the past year (unadjusted prevalence and estimated number of adults)

Frequency of naturally occurring hallucinogen use	Prevalence (%) for past-year users of naturally occurring hallucinogens (95% CI)	Estimated number of adults
At least weekly	0.0 (0.0–9.5)	0
At least monthly	2.6 (0.0–15.0)	400
3–11 times a year	13.6 (4.1–30.2)	2,100
1–2 times a year	83.8 (65.9–94.6)	13,100

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Ketamine

Ketamine is legitimately used as an anaesthetic (including for veterinary purposes). However, it is also diverted for use as a recreational hallucinogenic drug.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried ketamine (eg, K, special K, vitamin K, kitkat, ket) for recreational purposes.

If the participant reported having ever used ketamine for recreational purposes, they were asked how old they were when they first used that drug and whether, in the last 12 months, they had used it. Participants who had used ketamine in the last year were asked how many times in that period they had used it.

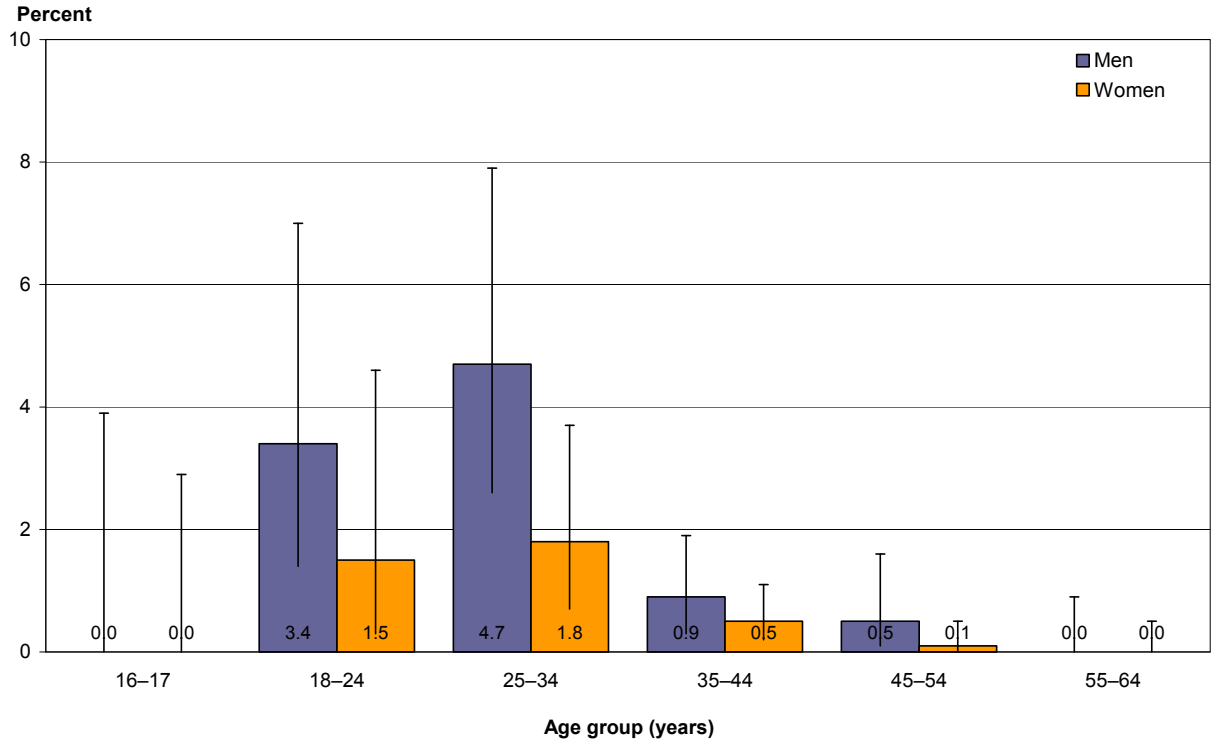
Prevalence of having ever used ketamine for recreational purposes in lifetime

About one percent of adults aged 16–64 years had used ketamine for recreational purposes at some point in their lifetime (1.2%, 0.8–1.5). This proportion equates to about 31,400 people in New Zealand who had ever used ketamine for recreational purposes.

Men were significantly more likely to have ever used ketamine for recreational purposes (2.2%, 1.4–3.0) than women (0.9%, 0.4–1.5), when adjusted for age (p-value < 0.05).

The prevalence of having ever used ketamine for recreational purposes peaked at 25–34 years for both men and women (Figure 82).

Figure 82: Ever used ketamine for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 68 gives the prevalence of having ever used ketamine for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 68: Ever used ketamine for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

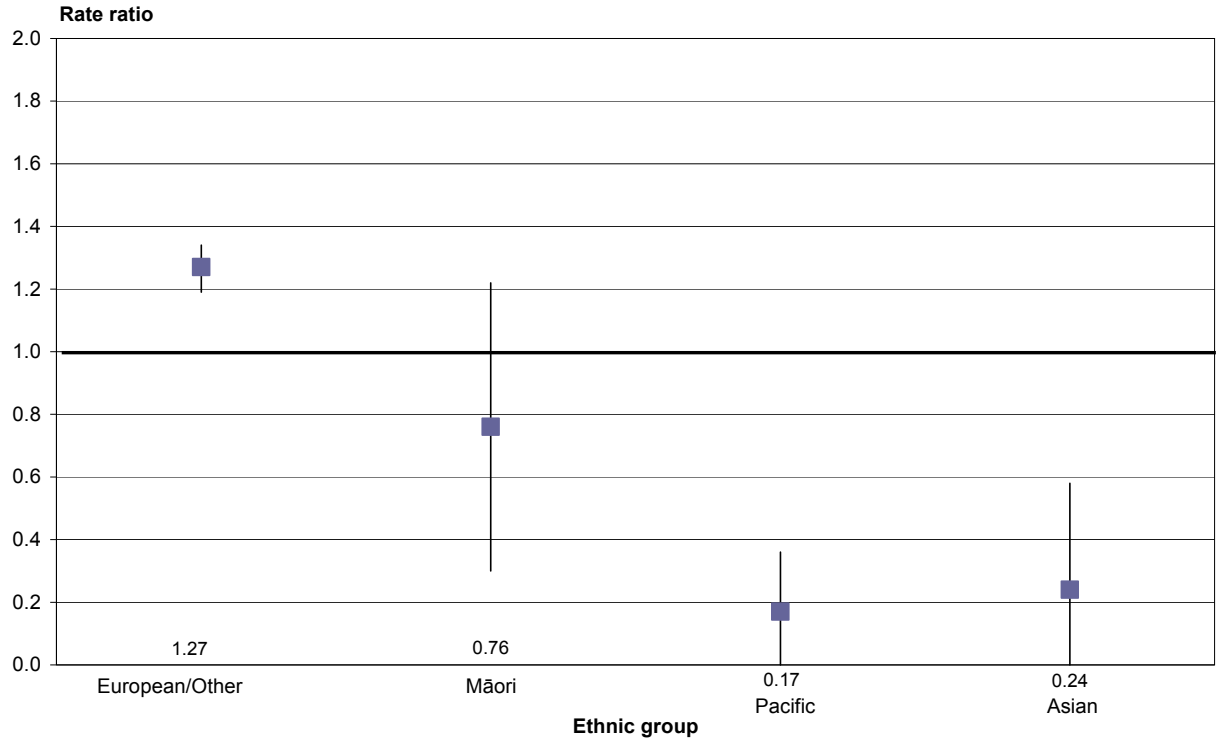
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.4 (1.0–1.8)	28,700
Māori	1.1 (0.6–1.9)	3,600
Pacific	0.3 (0.1–0.8)	400
Asian	0.4 (0.0–1.5)	900

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity were significantly more likely to have ever used ketamine for recreational purposes, compared with people in the total population (Figure 83). People of Pacific or Asian ethnicity were significantly less likely to have done so, compared with people in the total population.

Figure 83: Ever used ketamine for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used.

There were no significant differences by neighbourhood socioeconomic deprivation (NZDep2006 quintiles) in the prevalence of having ever used ketamine for recreational purposes, after adjusting for age.

Age of first use of ketamine for recreational purposes

For adults aged 16–64 years who had ever used ketamine for recreational purposes, the median age at which they had first tried this drug was 21 years.

Overall, one in two (51.4%, 34.8–67.9) people who had ever used ketamine had first tried it when they were aged 21 years or older (Table 69). About 1.4% (0.0–7.7) had first tried it when aged 14 years or younger.

Table 69: Age of first use of ketamine for recreational purposes, among people aged 16–64 years who had ever used ketamine (unadjusted prevalence)

Age of first use of ketamine	Prevalence (%) (95% CI)
14 years or younger	1.4 (0.0–7.7)
15–17 years	12.4 (2.4–33.3)
18–20 years	34.9 (18.6–54.3)
21 years or older	51.4 (34.8–67.9)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Prevalence of ketamine use in the last 12 months

About 0.3% (0.1–0.5) of the population aged 16–64 years had used ketamine for recreational purposes in the past year, equating to 6800 people in New Zealand. There was no significant difference in the prevalence of having used ketamine in the past year between men (0.5%, 0.2–1.2) and women (0.2%, 0.0–0.5), when adjusted for age.

Past-year ketamine use was highest for people aged 18–24 years (1.1%, 0.3–2.7), followed by people aged 25–34 years (0.4%, 0.1–1.3).

Table 70 gives the prevalence of having used ketamine for recreational purposes in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 70: Used ketamine for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	0.3 (0.1–0.6)	6,500
Māori	0.2 (0.0–0.5)	500
Pacific	0.0 (0.0–0.8)	0
Asian	0.0 (0.0–0.5)	0

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity were significantly more likely to have used ketamine for recreational purposes in the last 12 months (SRR: 1.32, 1.17–1.46), compared with the total population. Pacific peoples (SRR: 0.00–0.71) were significantly less likely to have used ketamine in the past year. There were no other significant differences by ethnic group.

After adjusting for age, the prevalence of past-year ketamine use was somewhat higher in NZDep2006 quintile 3 (0.6%, 0.2–1.7) and quintile 4 (0.5%, 0.0–2.1) than in other quintiles.

Chapter 7: Sedatives

Any sedative for recreational purposes

This section examines the use of any sedatives for recreational purposes, which include:

- kava
- prescription sedatives (benzodiazepines and barbiturates)
- GHB.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried any of the following drugs for recreational purposes:

- sedatives (eg, barbies, barbs, downers, reds, purple hearts)
- prescription sedatives (eg, Valium, Benzodiazepines, Zopiclone/Zolpidem)
- GHB (eg, fantasy, grievous bodily harm – GBH, liquid E, liquid X)
- kava.

If the participant reported having ever used any of these drugs, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used any of these drugs in the last year were asked how many times in that period they had used that drug.

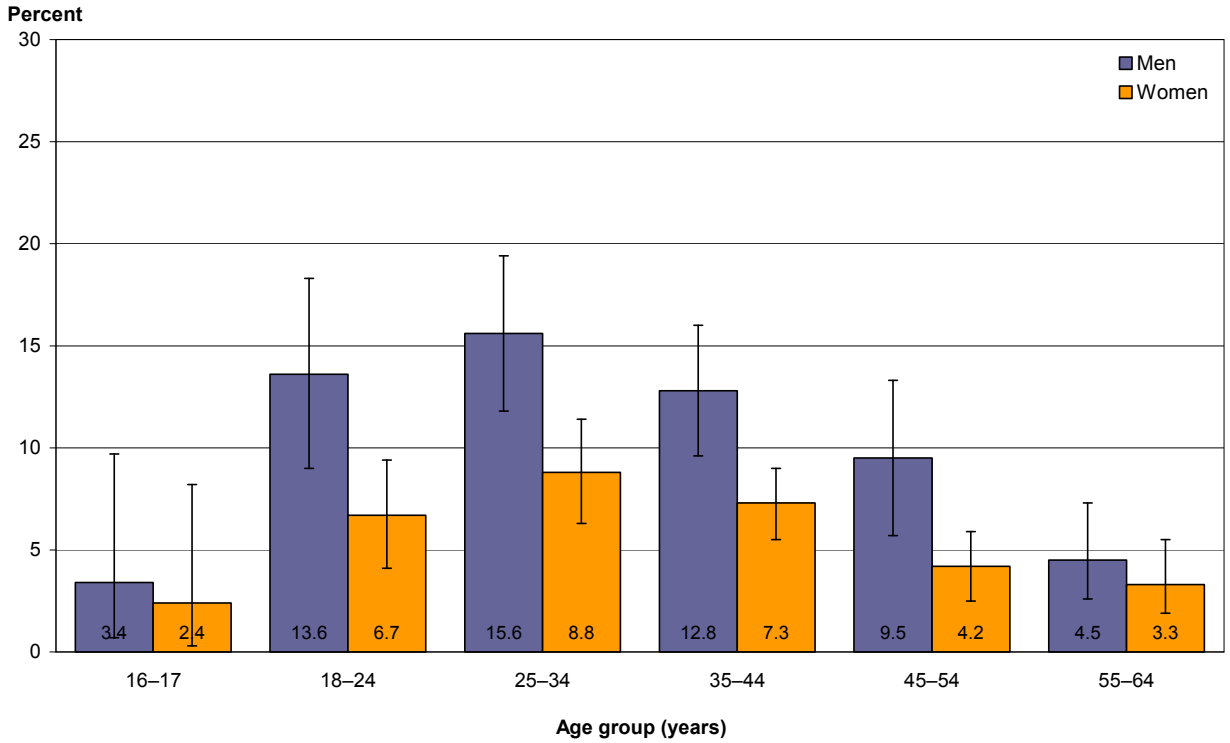
Prevalence of having ever used any sedatives for recreational purposes in lifetime

Overall, 8.3% (7.5–9.1) of adults aged 16–64 years had used a sedative (prescription sedatives, GHB or kava) for recreational purposes at some point in their lifetime, equating to about 220,100 people in New Zealand.

After adjusting for age, men were significantly more likely to have ever used sedatives for recreational purposes (11.8%, 10.3–13.4) than women (6.4%, 5.3–7.5).

For both men and women, the prevalence of having ever used sedatives for recreational purposes was highest in the 25–34 years age group, and decreased with increasing age thereafter (Figure 84).

Figure 84: Ever used any sedative for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Sedatives include sedatives, prescription sedatives, GHB and kava.

Table 71 gives the prevalence of having ever used any sedative for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 71: Ever used any sedative for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	8.4 (7.4–9.4)	175,400
Māori	9.4 (7.4–11.3)	30,700
Pacific	12.2 (8.8–15.6)	18,800
Asian	4.6 (2.0–8.8)	10,200

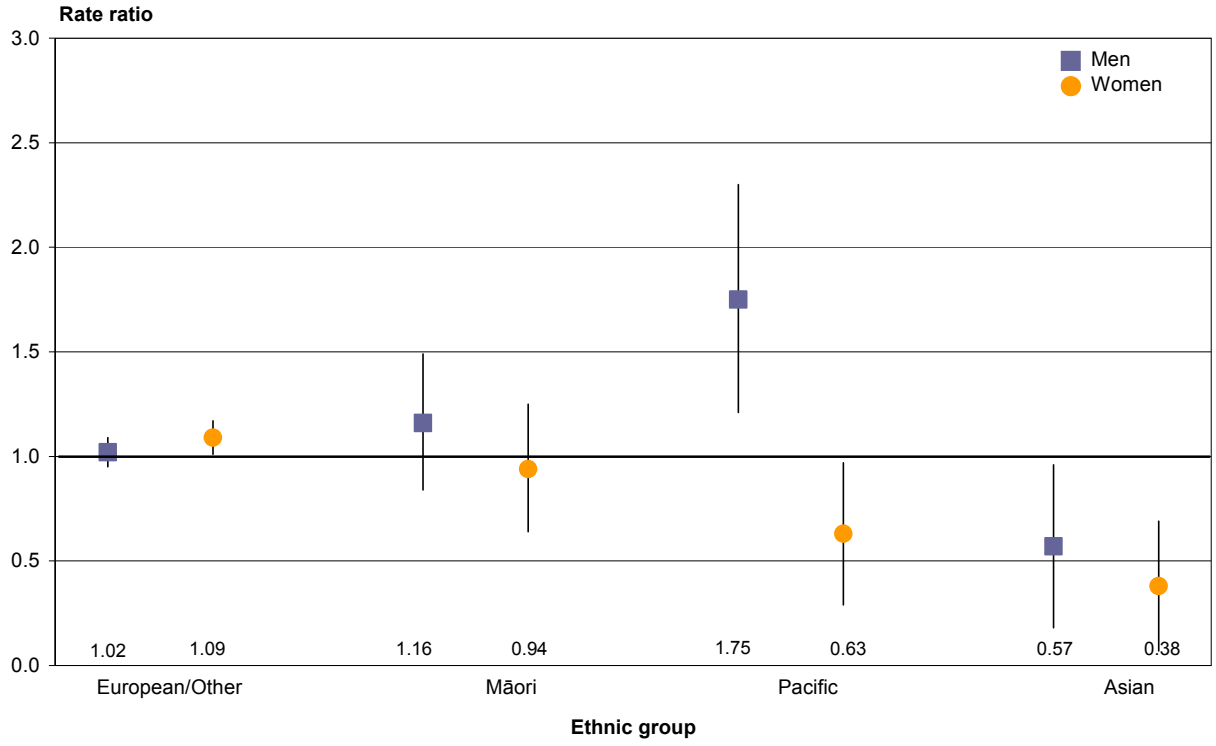
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Sedatives include sedatives, prescription sedatives, GHB and kava. Total response standard output for ethnic groups has been used.

Among men, Pacific men were significantly more likely, and Asian men significantly less likely to have ever used a sedative for recreational purposes in their lifetime, compared with men in the total population, after adjusting for age (Figure 85). For Pacific men, this finding is explained by the high prevalence of kava use, which is used largely for ceremonial purposes in Pacific communities.

Among women, European/Other women were significantly more likely to have ever used sedatives for recreational purposes, and Pacific and Asian women were significantly less likely to have ever done so, compared with women in the total population.

Figure 85: Ever used any sedative for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

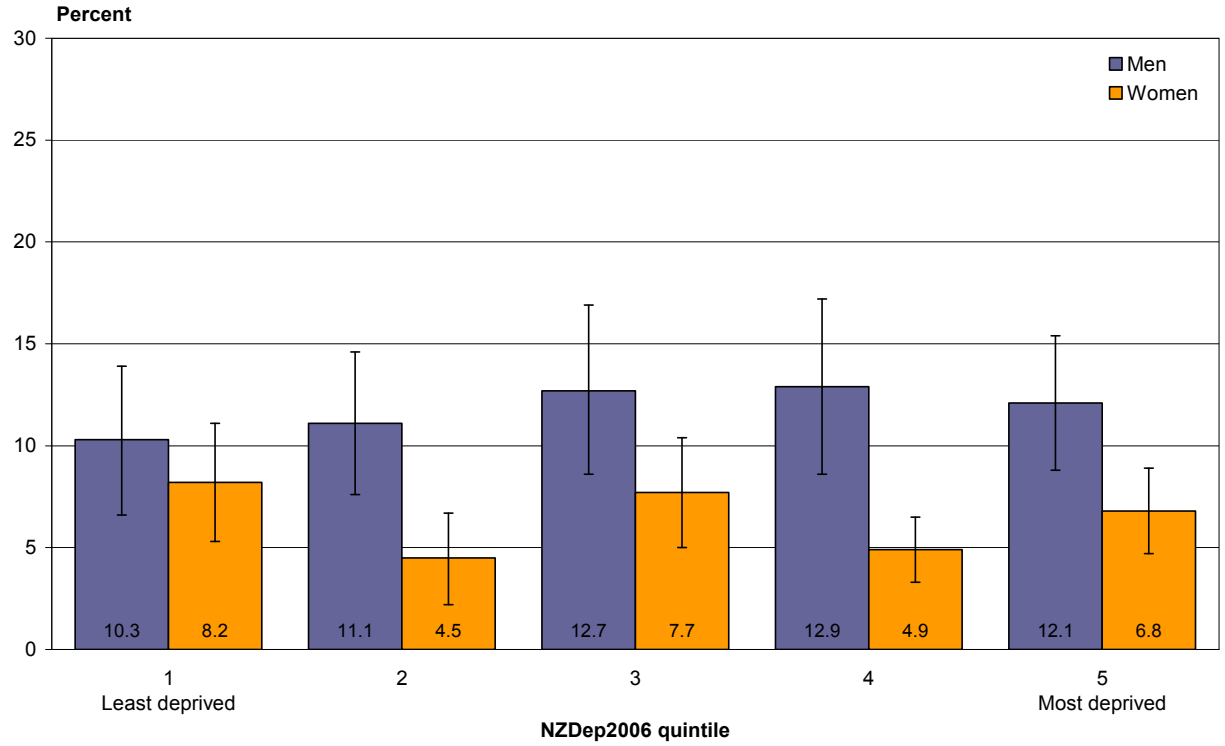


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used. Sedatives include sedatives, prescription sedatives, GHB and kava.

For both men and women, there was no significant difference in the prevalence of having ever used sedatives for recreational purposes between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5), after adjusting for age (Figure 86).

Figure 86: Ever used any sedative for recreational purposes in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Sedatives include sedatives, prescription sedatives, GHB and kava.

Age of first use of any sedatives for recreational purposes

For adults aged 16–64 years who had ever used any sedatives for recreational purposes, the median age at which they had first tried this drug was 21 years.

Overall, one in two (50.9%, 44.9–56.8) people who had ever used any sedatives for recreational purposes had first done so when they were aged 21 years or older (Table 72). About seven percent (7.2%, 4.2–10.2) had first tried this drug when aged 14 years or younger.

Table 72: Age of first use of any sedatives for recreational purposes, among people aged 16–64 years who had ever used any sedatives (unadjusted prevalence)

Age of first use of any sedatives	Prevalence (%) (95% CI)
14 years or younger	7.2 (4.2–10.2)
15–17 years	16.5 (12.5–20.5)
18–20 years	25.4 (20.2–30.7)
21 years or older	50.9 (44.9–56.8)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Sedatives include sedatives, prescription sedatives, GHB and kava.

After adjusting for age, there were no differences between men and women in the age when they had first tried sedatives for recreational purposes.

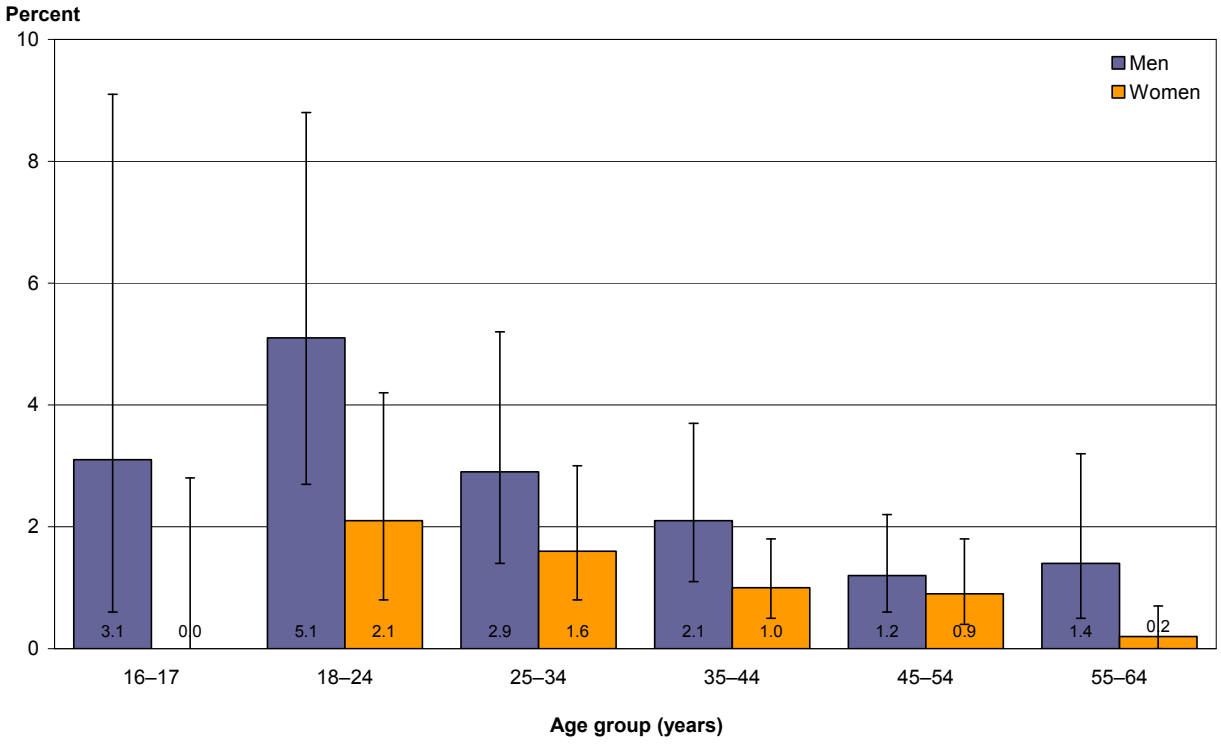
Prevalence of using any sedatives for recreational purposes in the last 12 months

Overall, 1.7% (1.4–2.1) of adults aged 16–64 years had used any sedative for recreational purposes in the last 12 months, equating to about 45,900 people in New Zealand.

After adjusting for age, men were significantly more likely to have used sedatives for recreational purposes in the previous year (2.8%, 2.0–3.5) than women (1.2%, 0.8–1.7).

For both men and women, the prevalence of having used sedatives in the past year peaked in the 18–24 years age group, and decreased with increasing age thereafter (Figure 87).

Figure 87: Used any sedative for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Sedatives include sedatives, prescription sedatives, GHB and kava.

Table 73 gives the prevalence of having used any sedatives for recreational purposes in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 73: Used any sedative for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.6 (1.2–2.0)	33,400
Māori	1.9 (1.1–2.8)	6,300
Pacific	4.5 (2.9–6.6)	6,900
Asian	1.8 (0.8–3.5)	4,000

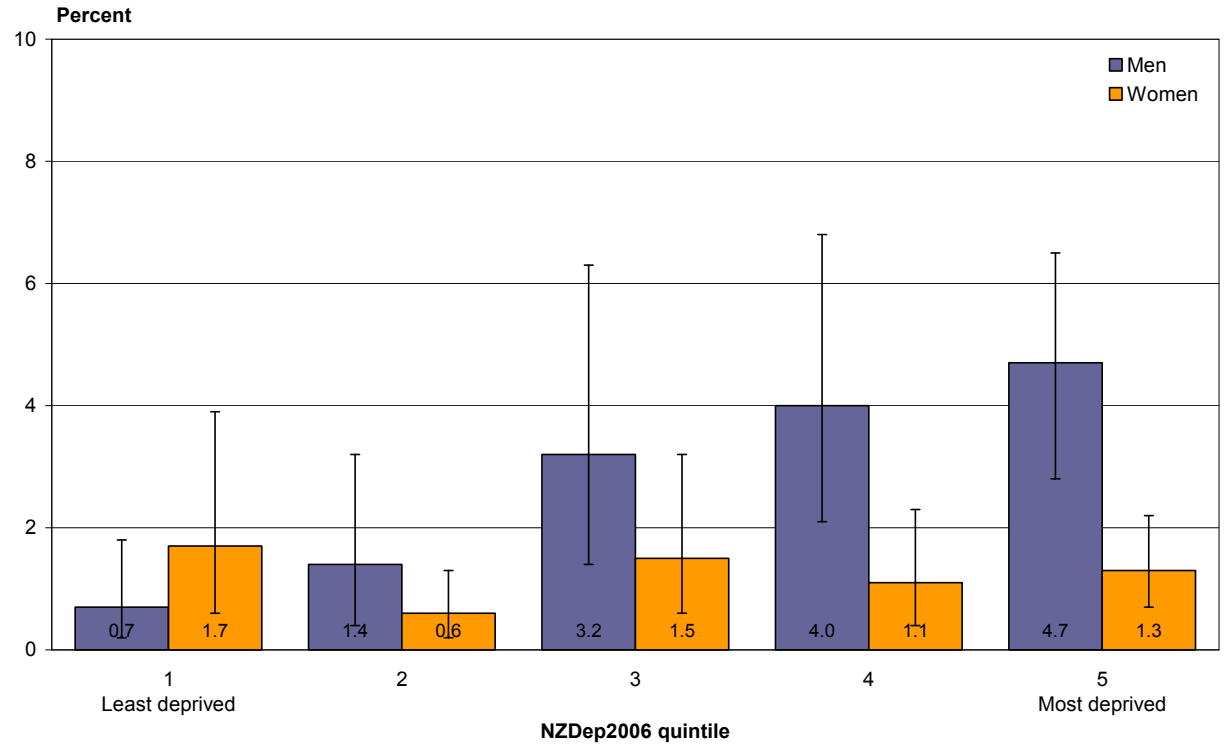
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Sedatives include sedatives, prescription sedatives, GHB and kava. Total response standard output for ethnic groups has been used.

After adjusting for age, Pacific men were almost three times (SRR: 2.94, 1.62–4.27) more likely to have used any sedative for recreational purposes in the past year, compared with men in the total population. This finding is explained by the high prevalence of kava use, which is used largely for ceremonial purposes in Pacific communities. There were no other significant differences by ethnic group.

For men, the prevalence of having used any sedative for recreational purposes in the past year increased with increasing neighbourhood socioeconomic deprivation (NZDep2006 quintiles), when adjusted for age (Figure 88). There was no overall trend by neighbourhood deprivation for women.

Figure 88: Used any sedative for recreational purposes in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Sedatives include sedatives, prescription sedatives, GHB and kava.

Frequency of using any sedatives for recreational purposes in the last 12 months

One in four (27.4%, 18.2–36.6) past-year sedative users had used at least one type of sedative at least weekly in the past year (Table 74).

Table 74: Frequency of use of sedatives for recreational purposes in the last 12 months, among past-year sedative users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of sedative use	Prevalence (%) for past-year sedative users (95% CI)	Estimated number of adults
At least weekly	27.4 (18.2–36.6)	12,300
At least monthly	35.1 (25.3–45.0)	15,700
3–11 times a year	19.1 (10.0–31.6)	8,600
1–2 times a year	45.7 (35.4–56.0)	21,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Sedatives include sedatives, prescription sedatives, GHB and kava. 'Frequency of sedative use' is the most common frequency of use of any one specific type of sedative drug.

Kava

Kava is a drink made from the *Piper methysticum* plant, and is widely used in Pacific communities, largely for ceremonial purposes.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried kava for recreational purposes.

If the participant reported having ever used kava, they were asked how old they were when they first used kava and whether, in the last 12 months, they had used it. Participants who had used kava in the last year were asked how many times in that period they had used it.

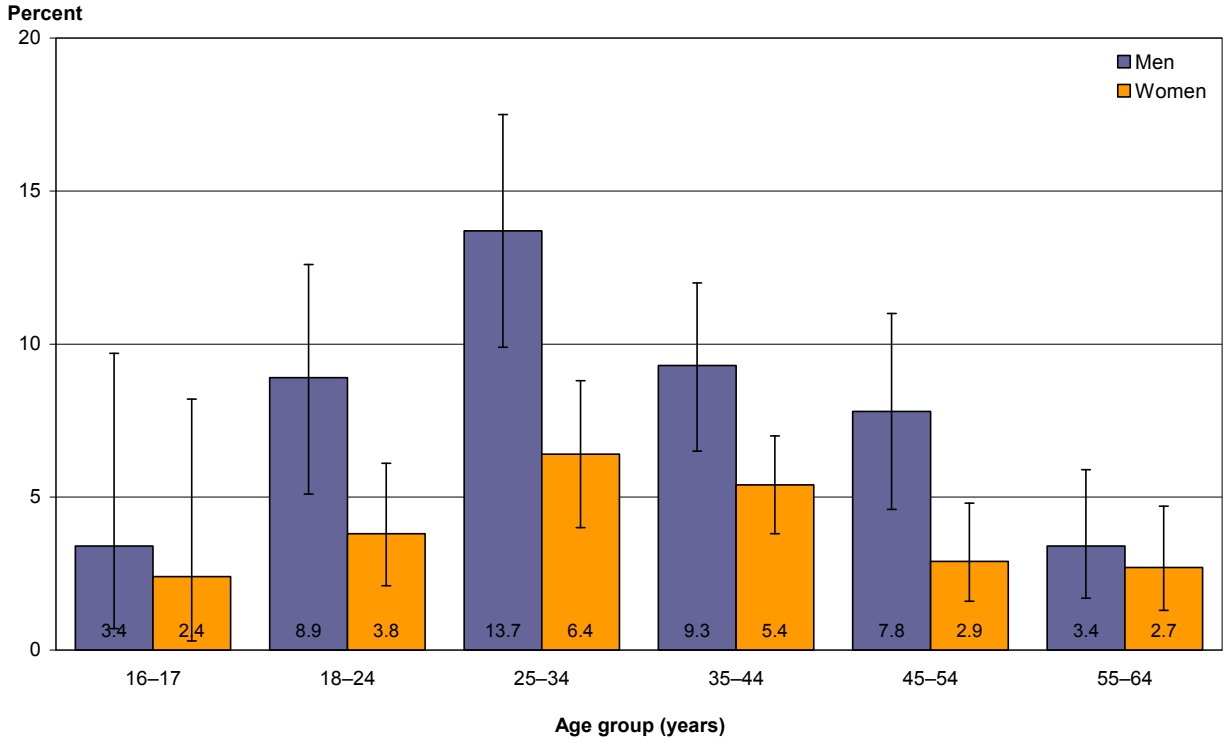
Prevalence of having ever used kava in lifetime

Overall, 6.3% (5.5–7.0) of adults aged 16–64 years had ever used kava in their lifetime, equating to about 165,700 people in New Zealand.

After adjusting for age, men were significantly more likely to have ever used kava (9.2%, 7.9–10.6) than women (4.5%, 3.5–5.4).

For both men and women, the prevalence of having ever used kava peaked in the 25–34 years age group (Figure 89).

Figure 89: Ever used kava in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 75 gives the prevalence of lifetime kava use among adults in New Zealand's main ethnic population groups.

Table 75: Ever used kava in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

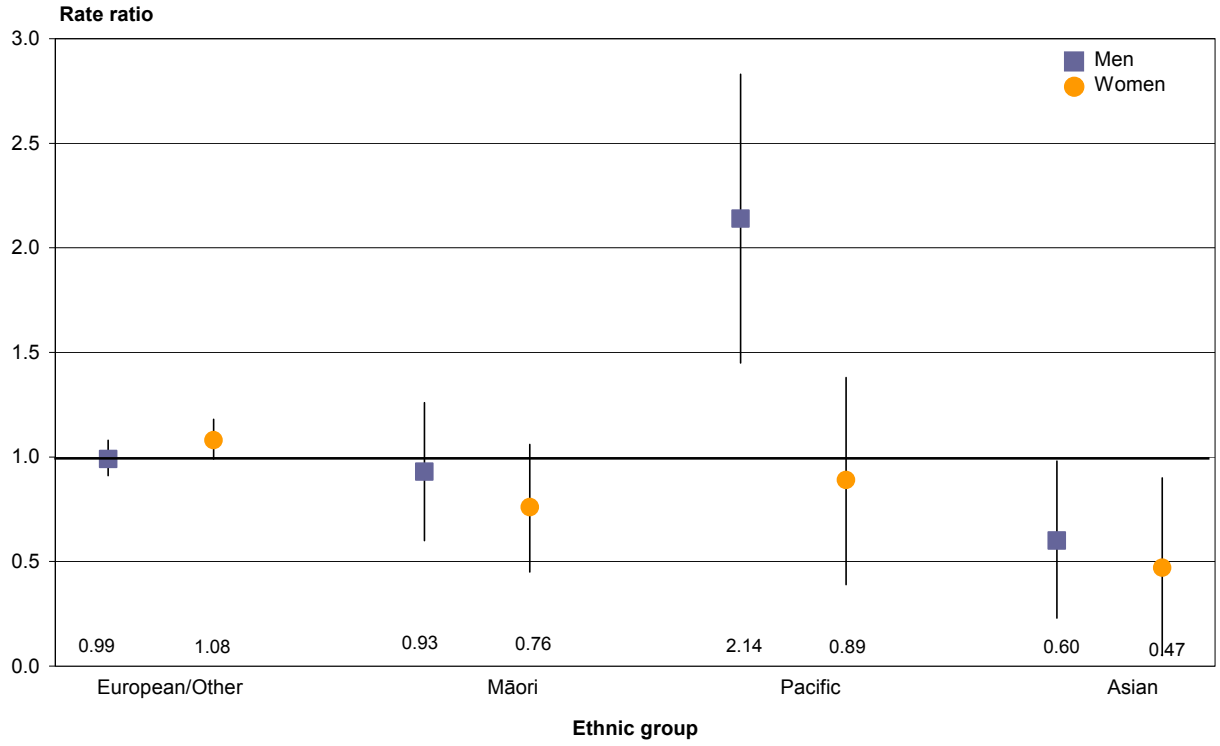
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	6.3 (5.3–7.2)	130,100
Māori	5.6 (4.1–7.1)	18,300
Pacific	11.7 (8.3–15.1)	18,100
Asian	3.9 (1.8–7.1)	8,600

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, Pacific men were over twice as likely to have ever used kava in their lifetime, compared with men in the total population (Figure 90). Asian men and women were significantly less likely to have ever used kava than men and women in the total population. There were no other significant differences by ethnic group, for either men or women.

Figure 90: Ever used kava in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men and women, there were no significant differences in having ever used kava by neighbourhood socioeconomic deprivation, after adjusting for age.

Age of first use of kava

For adults aged 16–64 years who had ever used kava, the median age at which they had first tried this drug was 23 years.

The majority of people who had ever used kava had first tried it when they were aged 21 years or older (58.5%, 52.4–64.6) (Table 76). About 6.5% (3.6–10.7) had first tried kava when aged 14 years or younger.

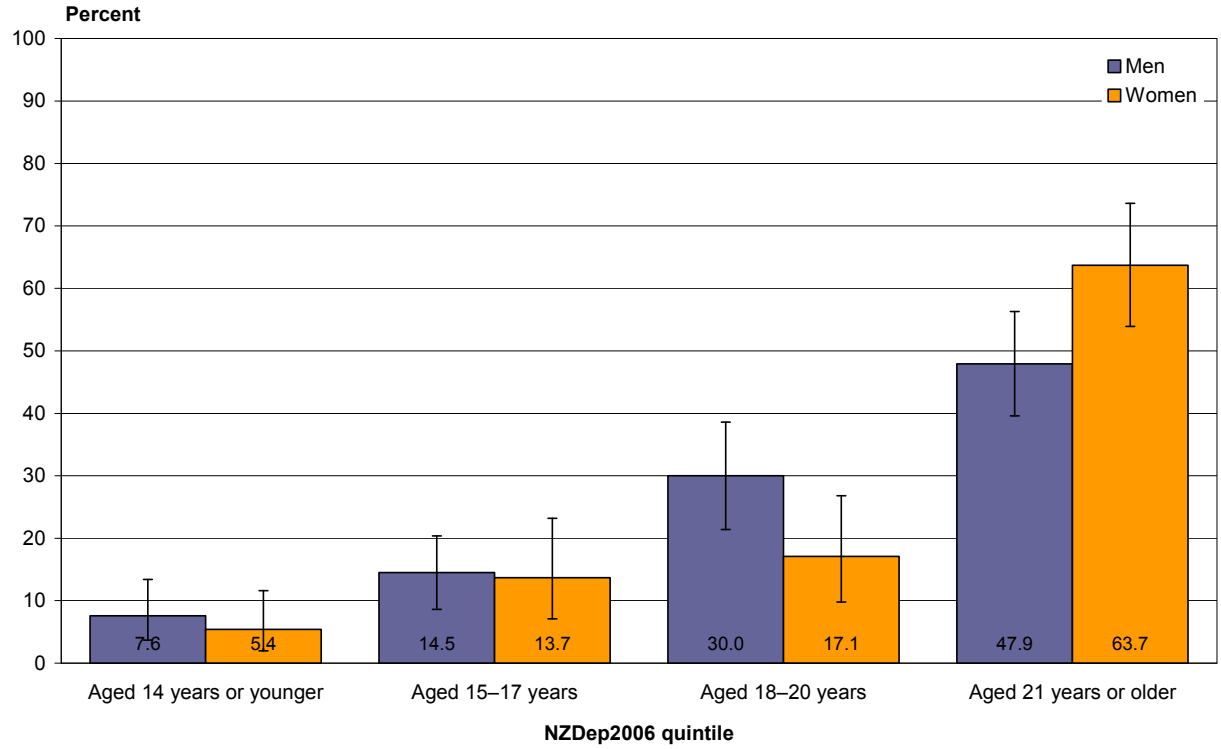
Table 76: Age of first use of kava, among people aged 16–64 years who had ever used kava (unadjusted prevalence)

Age of first use of kava	Prevalence (%) (95% CI)
14 years or younger	6.5 (3.6–10.7)
15–17 years	12.0 (8.3–15.7)
18–20 years	23.0 (17.3–28.6)
21 years or older	58.5 (52.4–64.6)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Among people who had ever used kava, men were significantly more likely than women to have first tried kava when aged between 18 and 20 years, after adjusting for age (p-value < 0.05) (Figure 91). Women were significantly more likely than men to have been aged 21 years or older when they had first tried kava (p-value < 0.05).

Figure 91: Age of first use of kava, among people aged 16–64 years who had ever used kava, by gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

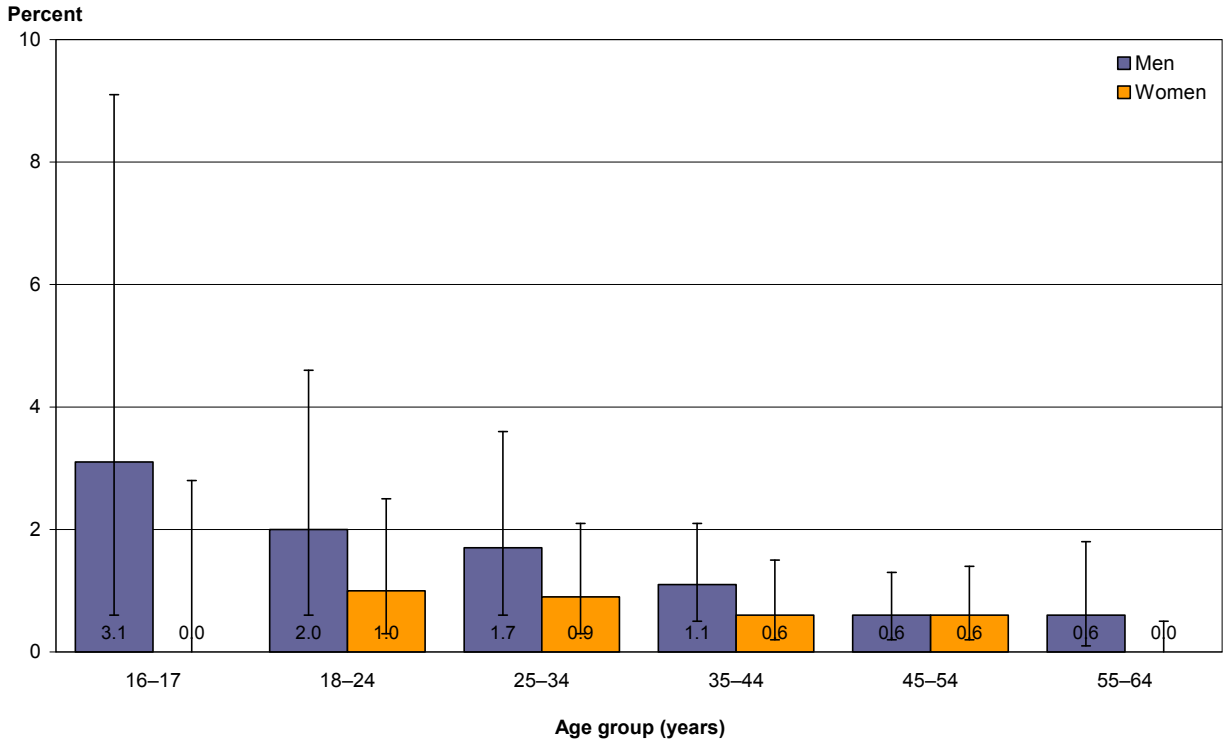
Prevalence of kava use in the last 12 months

About 0.9% (0.7–1.2) of adults aged 16–64 years had used kava in the past 12 months, equating to about 24,100 people in New Zealand.

Men were significantly more likely to have used kava in the past year (1.4%, 0.9–2.0) than women (0.7%, 0.4–1.1), after adjusting for age (p-value < 0.05).

For men, the prevalence of using kava in the past year peaked in the younger age groups (Figure 92).

Figure 92: Used kava in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 77 gives the prevalence of kava use in the past year among adults in New Zealand's main ethnic population groups.

Table 77: Used kava in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

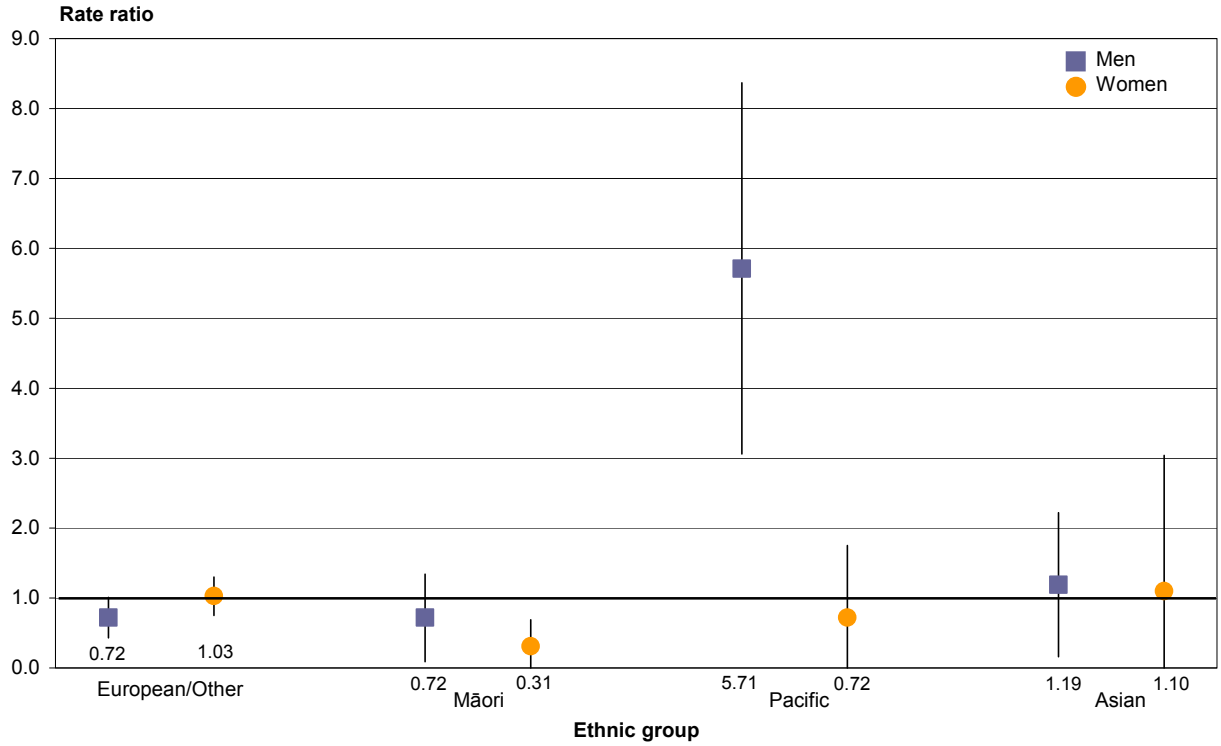
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	0.7 (0.4–1.0)	14,700
Māori	0.6 (0.3–1.1)	1,900
Pacific	4.4 (2.9–6.5)	6,800
Asian	1.3 (0.5–2.6)	2,900

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, Pacific men were almost six times more likely to have used kava in the past year than men in the total population (Figure 93).

Figure 93: Used kava in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

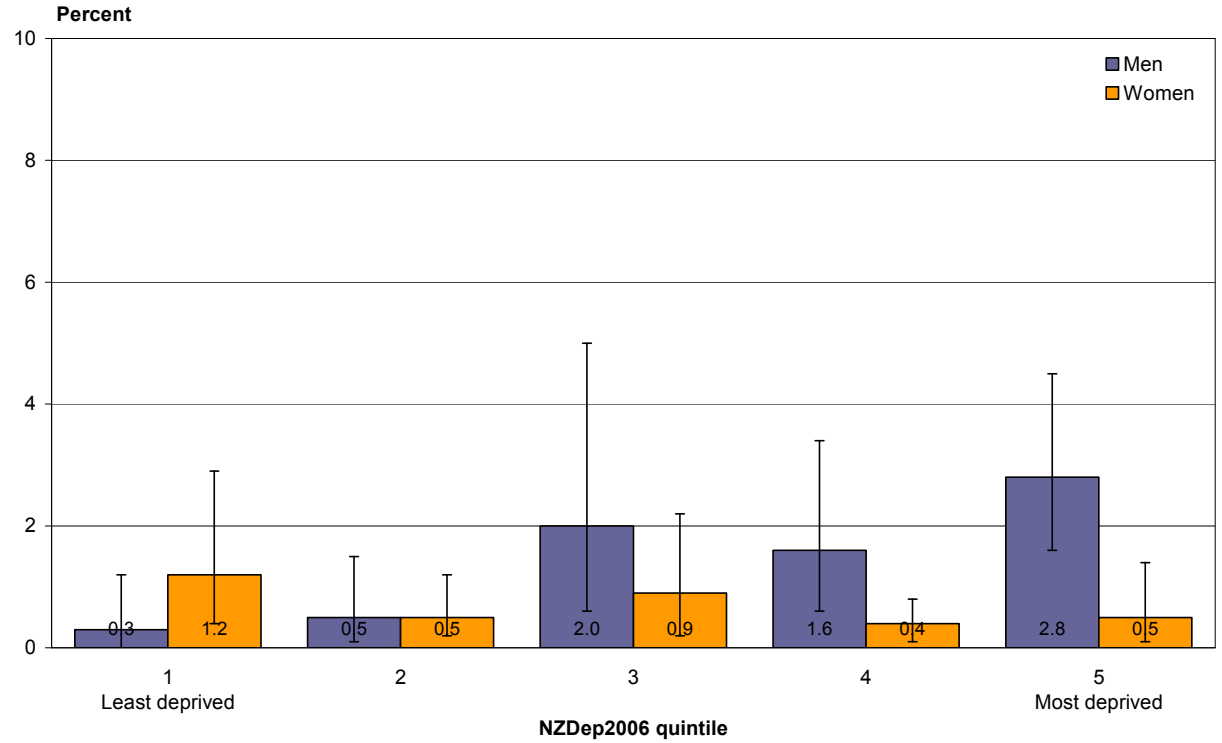


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

After adjusting for age, men living in the most deprived neighbourhoods (NZDep2006 quintile 5) were significantly more likely to have used kava in the last 12 months, compared with men living in the least deprived neighbourhoods (quintile 1) (Figure 94). There were no significant differences for women.

Figure 94: Used kava in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Frequency of kava use in the last 12 months

The majority (67.1%, 53.3–80.8) of past-year kava users had used kava once or twice in the past year (Table 78). One in eight past-year kava users (12.6%, 5.5–23.6) had used kava at least weekly in the past year.

Table 78: Frequency of kava use in the last 12 months, among past-year kava users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of kava use	Prevalence (%) for past-year kava users (95% CI)	Estimated number of adults
At least weekly	12.6 (5.5–23.6)	3,000
At least monthly	15.9 (7.7–27.7)	3,700
3–11 times a year	17.0 (5.9–35.0)	4,000
1–2 times a year	67.1 (53.3–80.8)	15,800

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Prescription sedatives

Prescription sedatives include drugs such as barbiturates and benzodiazepines. While these drugs have legitimate medical purposes, they are also diverted for recreational purposes.

This section examines the prevalence of having used prescription sedatives for recreational purposes (which includes both sedatives and prescription sedatives in the survey questionnaire).

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried the following drugs for recreational purposes:

- sedatives (eg, barbies, barbs, downers, reds, purple hearts)
- prescription sedatives (eg, Valium, Benzodiazepines, Zopiclone/Zolpidem).

If the participant reported having ever used any of these drugs for recreational purposes, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used any of these drugs in the last year were asked how many times in that period they had used that specific drug.

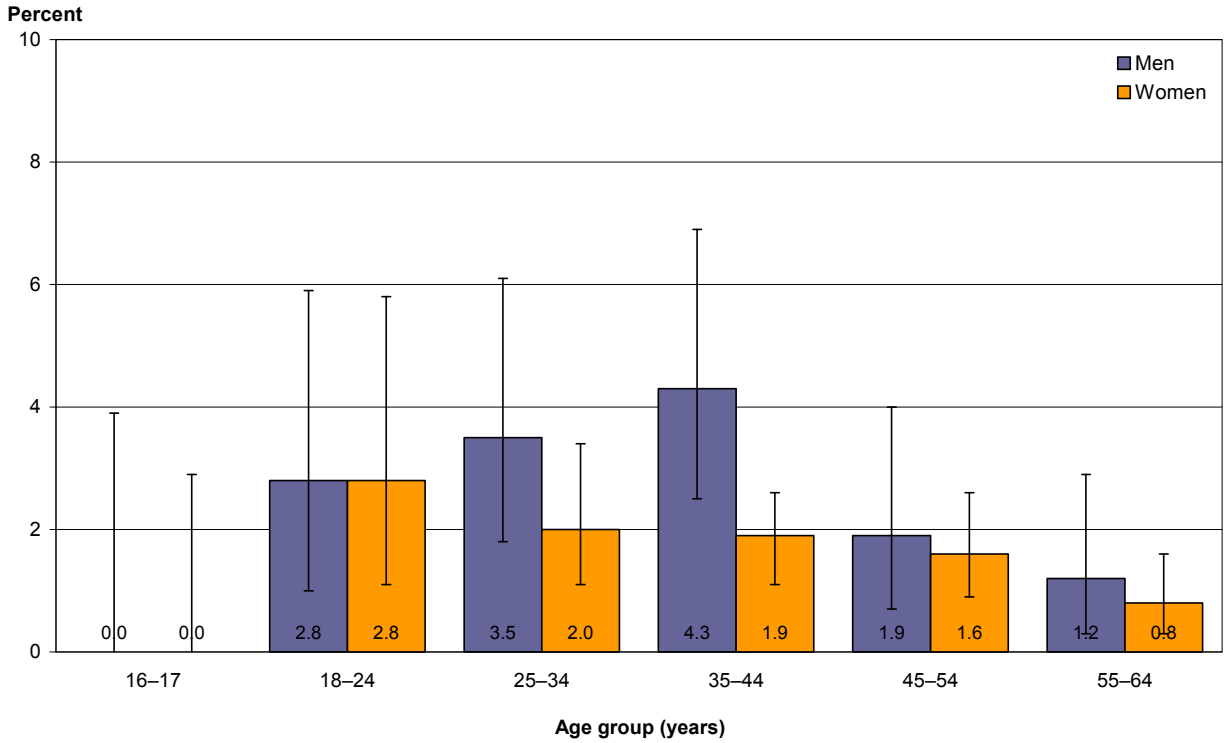
Prevalence of having ever used prescription sedatives for recreational purposes in lifetime

Overall, 2.2% (1.8–2.6) of adults aged 16–64 years had used prescription sedatives for recreational purposes at some point in their lifetime, equating to about 57,200 people in New Zealand.

Adjusting for age, men were significantly more likely to have ever used prescription sedatives for recreational purposes (2.8%, 2.1–3.6) than women (1.8%, 1.3–2.4) (p-value < 0.05).

Among men, the prevalence for having ever used prescription sedatives for recreational purposes peaked for those aged 35–44 years, while among women, the prevalence peaked for those aged 18–24 years (Figure 95).

Figure 95: Ever used prescription sedatives for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 79 gives the prevalence of having ever used prescription sedatives for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 79: Ever used prescription sedatives for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

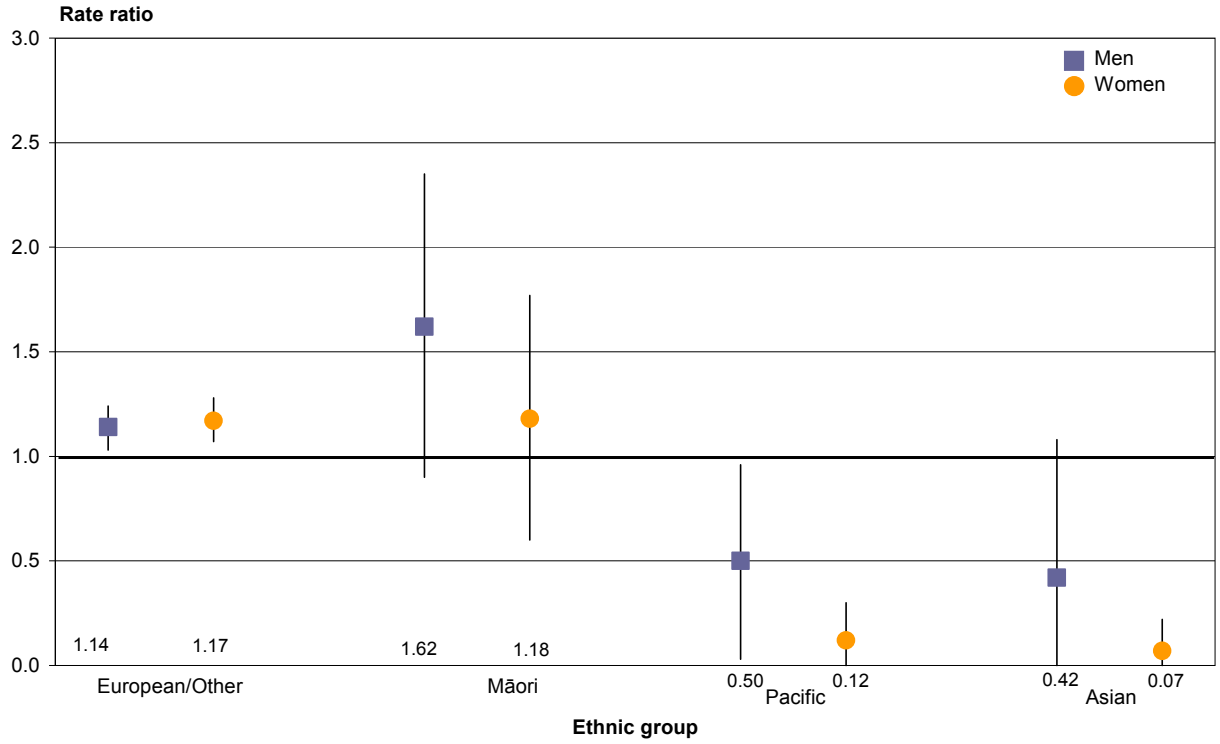
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	2.4 (1.9–2.9)	49,300
Māori	3.3 (2.3–4.3)	10,800
Pacific	0.8 (0.3–1.7)	1,200
Asian	0.6 (0.1–2.1)	1,400

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have ever used prescription sedatives for recreational purposes, compared with men and women in the total population (Figure 96). Pacific men, and Pacific and Asian women were significantly less likely to have done so, compared with men and women in the total population.

Figure 96: Ever used prescription sedatives for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

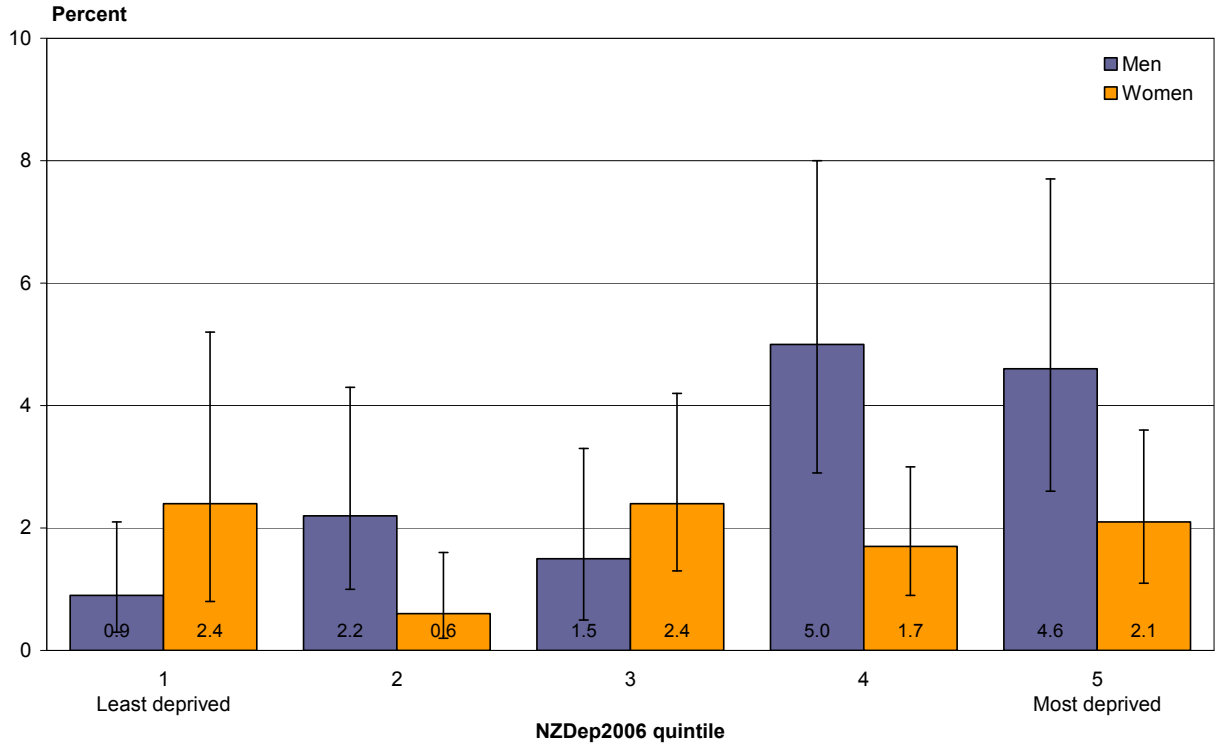


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

After adjusting for age, men living in more socioeconomically deprived areas (NZDep2006 quintile 5) had a significantly higher prevalence of having ever used prescription sedatives for recreational purposes than men living in less deprived areas (quintile 1) (Figure 97). There were no clear trends for women.

Figure 97: Ever used prescription sedatives for recreational purposes in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of prescription sedatives for recreational purposes

For adults aged 16–64 years who had ever used prescription sedatives for recreational purposes, the median age at which they had first tried these drugs was 19 years.

Overall, one in three (36.7%, 26.0–47.3) people who had ever used prescription sedatives for recreational purposes had first done so when they were aged 21 years or older (Table 80). Almost one in ten (8.8%, 4.0–16.3) had first used prescription sedatives when aged 14 years or younger.

Table 80: Age of first use of prescription sedatives for recreational purposes, among people aged 16–64 years who had ever used prescription sedatives (unadjusted prevalence)

Age of first use of any prescription sedatives	Prevalence (%) (95% CI)
14 years or younger	8.8 (4.0–16.3)
15–17 years	27.1 (17.3–37.0)
18–20 years	27.4 (17.5–37.2)
21 years or older	36.7 (26.0–47.3)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

After adjusting for age, there were no differences between men and women in the age when they first used prescription sedatives for recreational purposes.

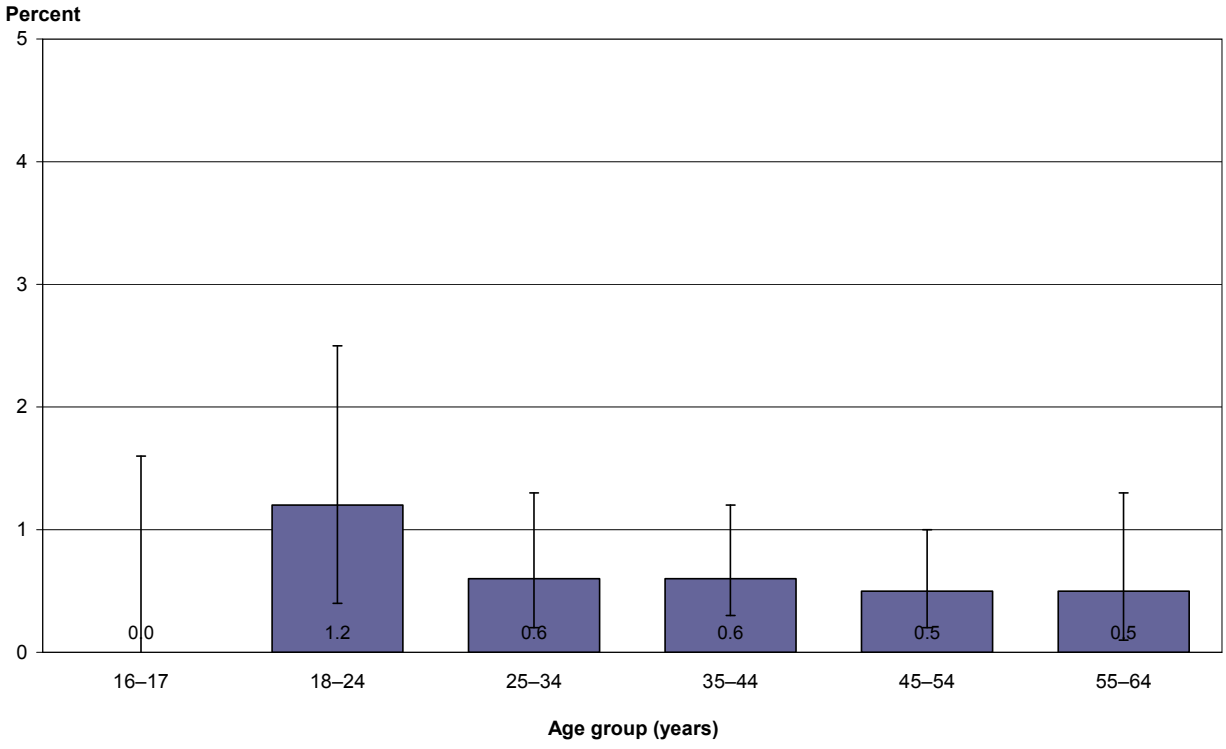
Prevalence of using prescription sedatives for recreational purposes in the last 12 months

Overall, 0.6% (0.4–0.8) adults aged 16–64 years had used prescription sedatives for recreational purposes in the last 12 months, equating to about 16,100 people in New Zealand.

After adjusting for age, men were significantly more likely to have used prescription sedatives for recreational purposes in the previous year (0.9%, 0.5–1.5) than women (0.4%, 0.2–0.7) (p-value < 0.05).

The prevalence of having used prescription sedatives for recreational purposes in the past 12 months peaked for people aged 18–24 years, and decreased with increasing age thereafter (Figure 98).

Figure 98: Used prescription sedatives for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 81 gives the prevalence of having used prescription sedatives for recreational purposes in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 81: Used prescription sedatives for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	0.6 (0.4–0.9)	13,300
Māori	1.0 (0.5–1.8)	3300
Pacific	0.1 (0.0–0.5)	200
Asian	0.4 (0.0–2.0)	1000

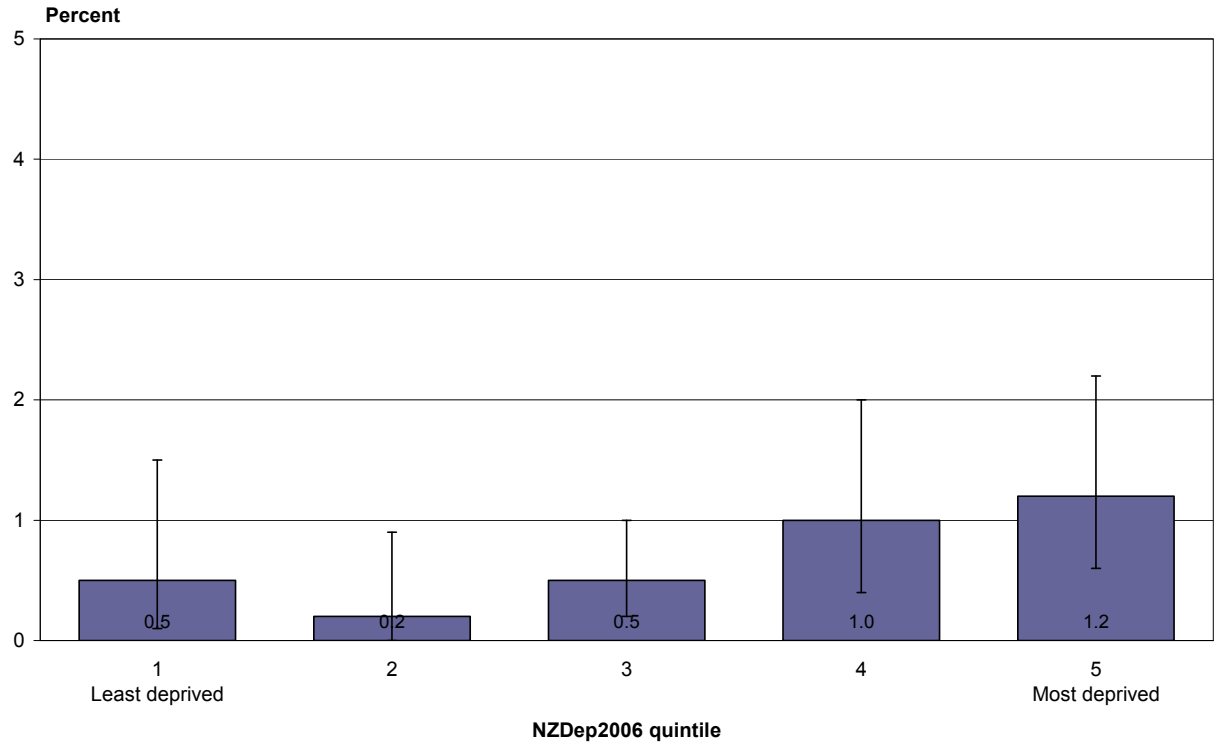
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, Pacific peoples were significantly less likely (SRR: 0.25, 0.00–0.61) to have used prescription sedatives for recreational purposes in the previous year, compared with people in the total population. There were no other significant differences by ethnic group.

The prevalence of having used prescription sedatives for recreational purposes in the last 12 months peaked for people living in more deprived areas (NZDep2006 quintiles 4 and 5), adjusting for age (Figure 99).

Figure 99: Used prescription sedatives for recreational purposes in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Frequency of using prescription sedatives for recreational purposes in the last 12 months

Six in ten (59.0%, 38.1–77.8) people who had used prescription sedatives for recreational purposes in the last year had used these drugs at least weekly in the past year (Table 82).

Table 82: Frequency of using prescription sedatives for recreational purposes in the last 12 months, among past-year prescription sedative users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of prescription sedative use	Prevalence (%) for past-year prescription sedative users (95% CI)	Estimated number of adults
At least weekly	59.0 (38.1–77.8)	9,300
At least monthly	70.8 (50.6–86.4)	11,100
3–11 times a year	14.9 (4.9–31.8)	2,300
1–2 times a year	14.3 (3.7–33.7)	2,700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

GHB

GHB (gamma-hydroxybutyrate) and related substances are colourless and odourless sedatives.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried GHB (eg, fantasy, grievous bodily harm – GBH, liquid E, liquid X) for recreational purposes.

If the participant reported having ever used GHB, they were asked how old they were when they first used it and whether, in the last 12 months, they had used it. Participants who had used GHB in the last year were asked how many times in that period they had used it.

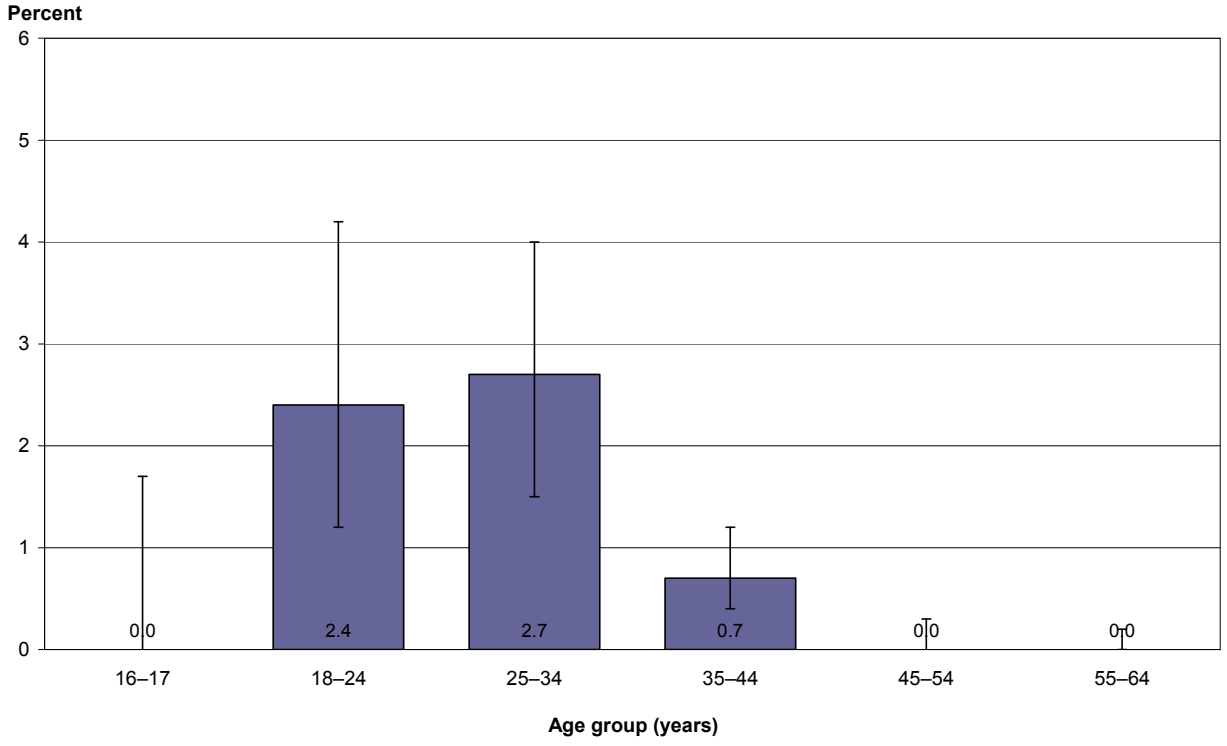
Prevalence of having ever used GHB in lifetime

Overall, 1.1% (0.7–1.4) of adults aged 16–64 years had used GHB at some point in their lifetime, equating to about 27,900 people in New Zealand.

There was no significant difference between men (1.7%, 1.0–2.4) and women (1.0%, 0.5–1.5) in the prevalence of having ever used GHB, after adjusting for age.

The prevalence of having ever used GHB peaked for people aged 18–24 years and 25–34 years (Figure 100).

Figure 100: Ever used GHB in lifetime, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 83 gives the prevalence of lifetime GHB use among adults in New Zealand's main ethnic population groups.

Table 83: Ever used GHB in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

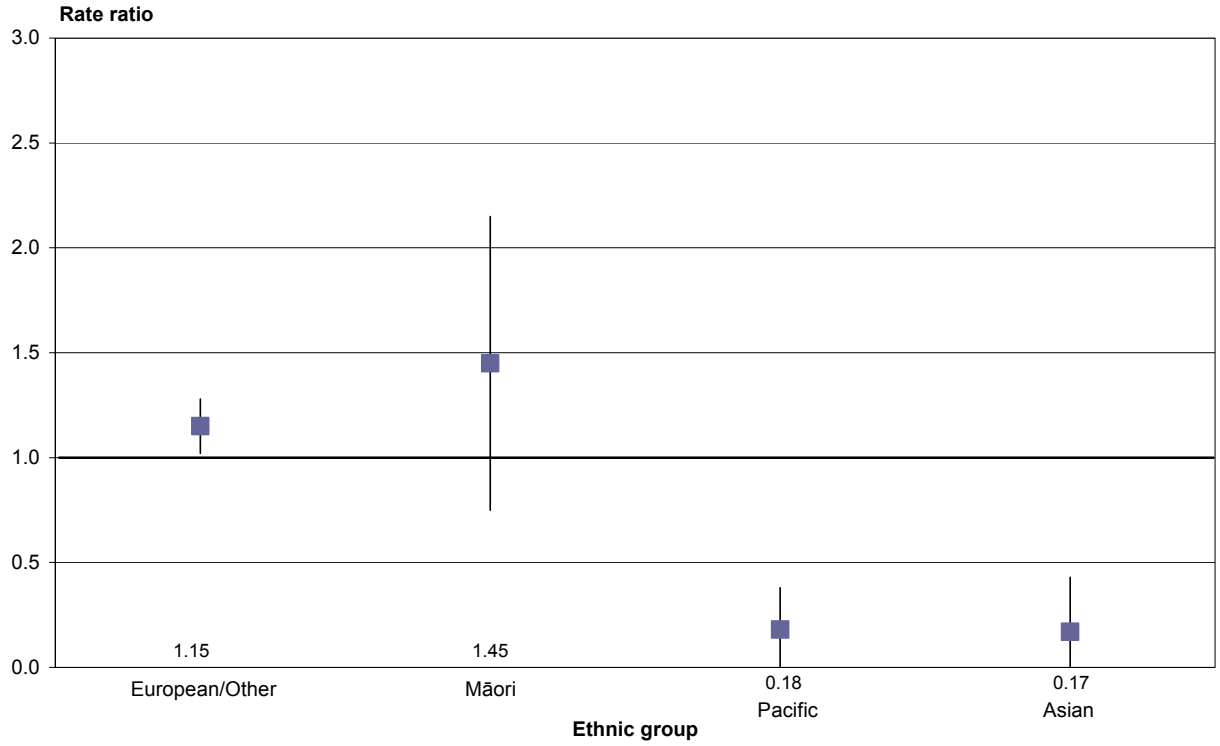
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.1 (0.7–1.5)	23,300
Māori	1.8 (1.1–2.8)	6,000
Pacific	0.3 (0.1–0.7)	400
Asian	0.2 (0.0–1.0)	600

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of Pacific and Asian ethnicity were significantly less likely to have ever used GHB, compared with people in the total population (Figure 101). People of European/Other ethnicity were significantly more likely to have ever used GHB.

Figure 101: Ever used GHB in lifetime, among total population aged 16–64 years, by ethnic group (age-standardised rate ratio)

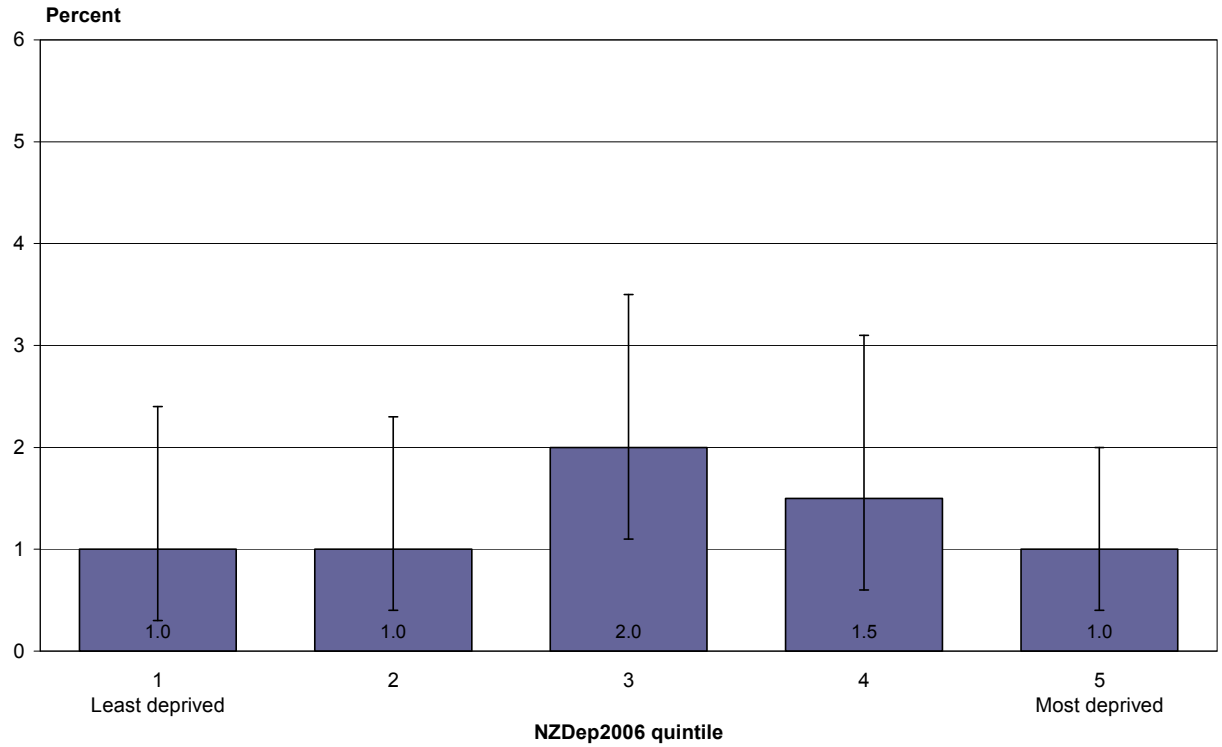


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used.

There was no significant difference in the prevalence of having ever used GHB between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5), after adjusting for age (Figure 102).

Figure 102: Ever used GHB in lifetime, among total population aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of GHB

For adults aged 16–64 years who had ever used GHB, the median age at which they had first tried this drug was 20 years.

The majority of people who had ever used GHB had first tried it when they were aged 18–20 years (40.2%, 24.5–57.6) or 21 years or older (44.8%, 29.5–60.1) (Table 84).

Table 84: Age of first use of GHB, among people aged 16–64 years who had ever used GHB (unadjusted prevalence)

Age of first use of GHB	Prevalence (%) (95% CI)
14 years or younger	1.6 (0.0–8.7)
15–17 years	13.4 (4.1–29.6)
18–20 years	40.2 (24.5–57.6)
21 years or older	44.8 (29.5–60.1)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

After adjusting for age, there were no differences between men and women in the age when they had first tried GHB.

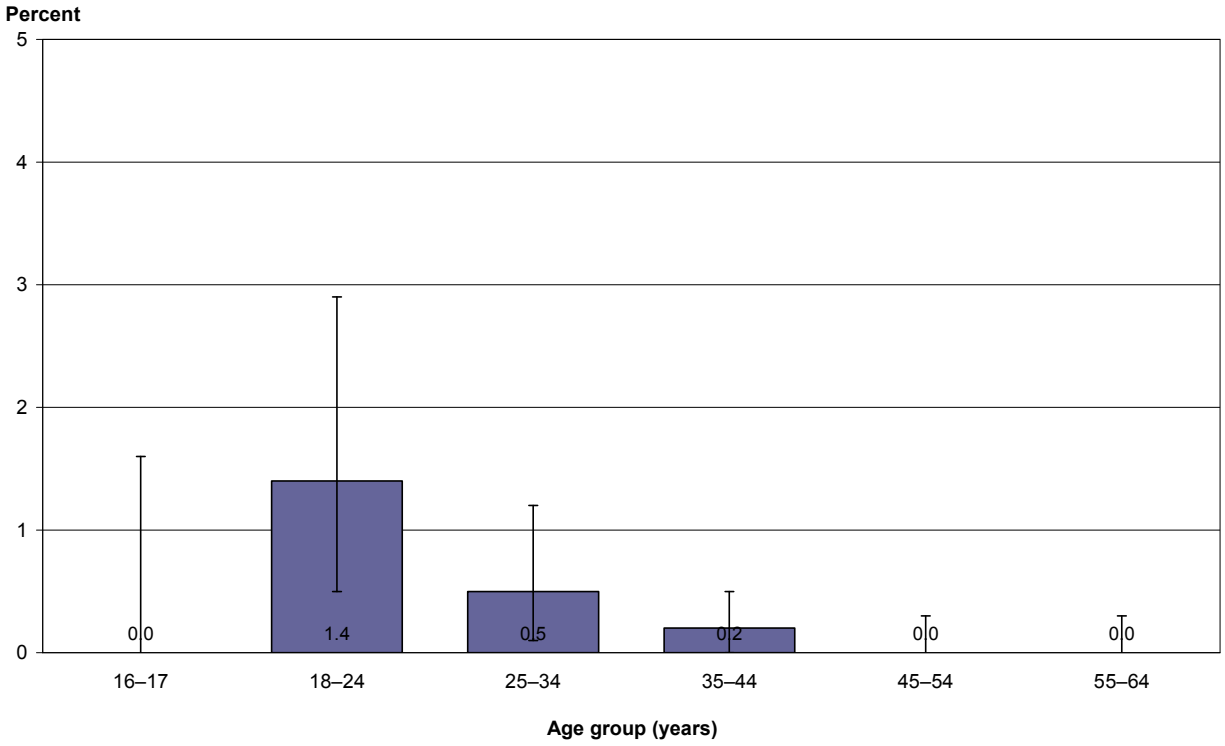
Prevalence of GHB use in the last 12 months

The prevalence of having used GHB in the last 12 months was low, with about 0.3% (0.2–0.6) of adults aged 16–64 years having used GHB in the past year. This proportion equates to about 8600 people in New Zealand who had used GHB in the last year.

After adjusting for age, there was no significant difference between men (0.5%, 0.2–1.2) and women (0.3%, 0.1–0.7) in the prevalence of having used GHB in the past year.

The prevalence of using GHB in the previous 12 months peaked for people aged 18–24 years (Figure 103).

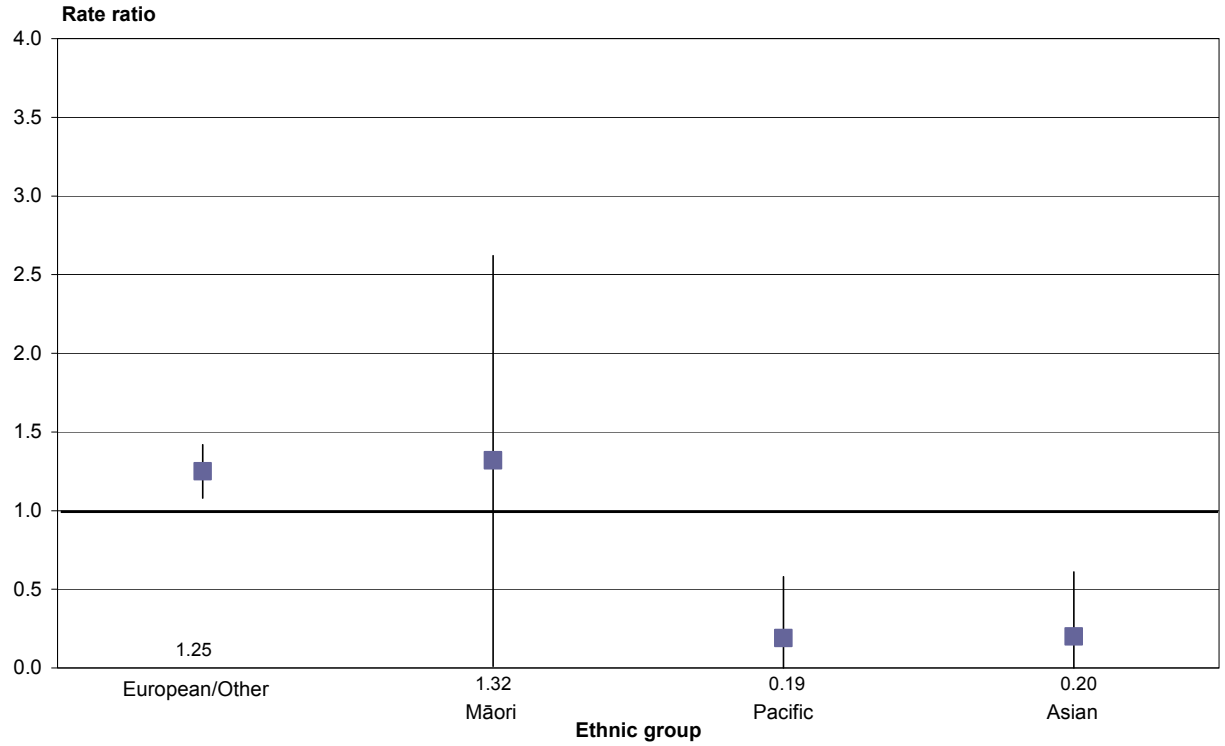
Figure 103: Used GHB in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

After adjusting for age, people of European/Other ethnicity were significantly more likely to have used GHB in the past year, compared with people in the total population (Figure 104). People of Pacific or Asian ethnicity were significantly less likely to have done so, compared with people in the total population.

Figure 104: Used GHB in the last 12 months, among total population aged 16–64 years, by ethnic group (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used.

There were no significant differences in the prevalence of past-year GHB use between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5), after adjusting for age.

Chapter 8: Opiates

Any opiates

Opiates are substances derived from the opium poppy, and include heroin and pharmaceutical painkillers such as morphine and codeine. Opioids are synthetic and semi-synthetic substances with the same effects as opiates, and include methadone, pethidine and oxycodone.

This section examines the prevalence of having used any opiates (including opioids) for recreational purposes.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried the following drugs for recreational purposes:

- opiates (eg, heroin, MST, misties, opium, poppies, poppy seeds, homebake, DHC, linctus G)
- prescription painkillers (eg, codeine, morphine, methadone, pethidine).

If the participant reported having ever used any of these drugs, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used any of these drugs in the last year were asked how many times in that period they had used that specific drug.

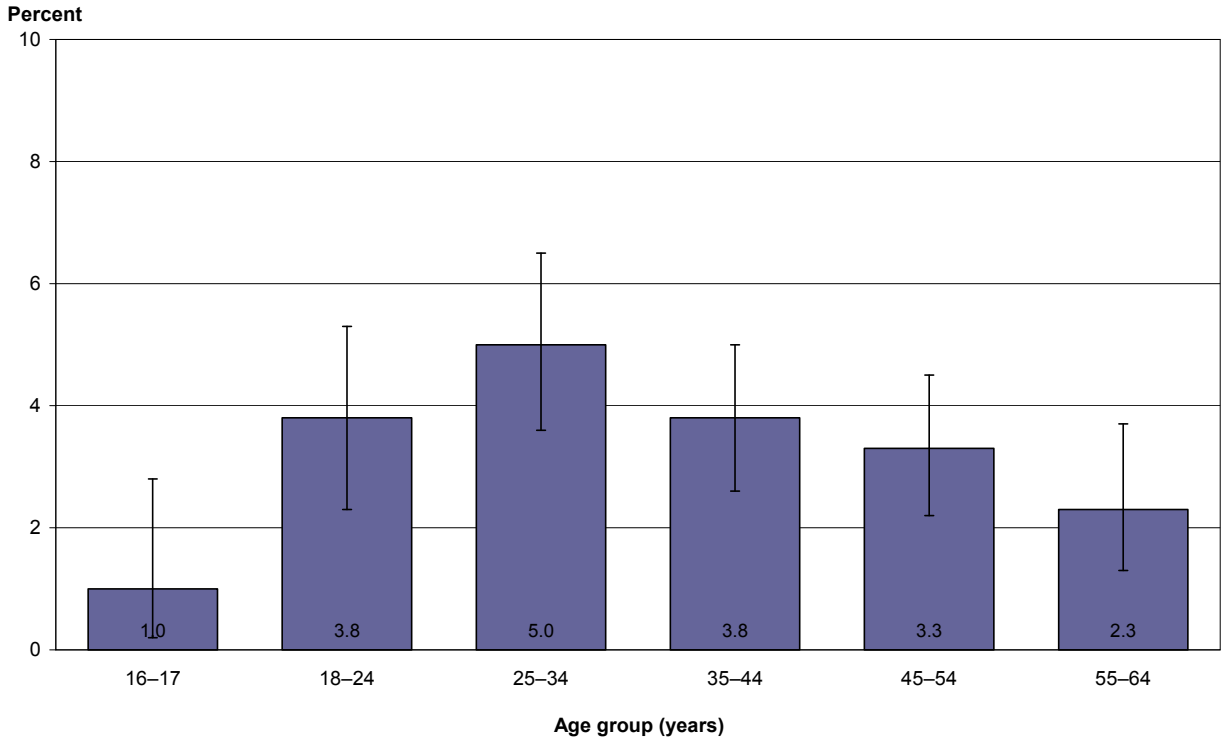
Prevalence of having ever used any opiates in lifetime

Overall, 3.6% (3.0–4.1) of adults aged 16–64 years had used an opiate (including heroin and prescription painkillers such as morphine) for recreational purposes at some point in their lifetime, equating to about 94,000 people in New Zealand who had ever used opiates.

Adjusting for age, men were significantly more likely to have ever used an opiate (4.5%, 3.6–5.5) than women (3.0%, 2.3–3.8) (p-value < 0.05).

The prevalence of having ever used any opiates peaked in the 25–34 years age group (Figure 105).

Figure 105: Ever used any opiates for recreational purposes in lifetime, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Opiates include opiates and prescription painkillers used for recreational purposes.

Table 85 gives the prevalence of having ever used any opiates for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 85: Ever used any opiates for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

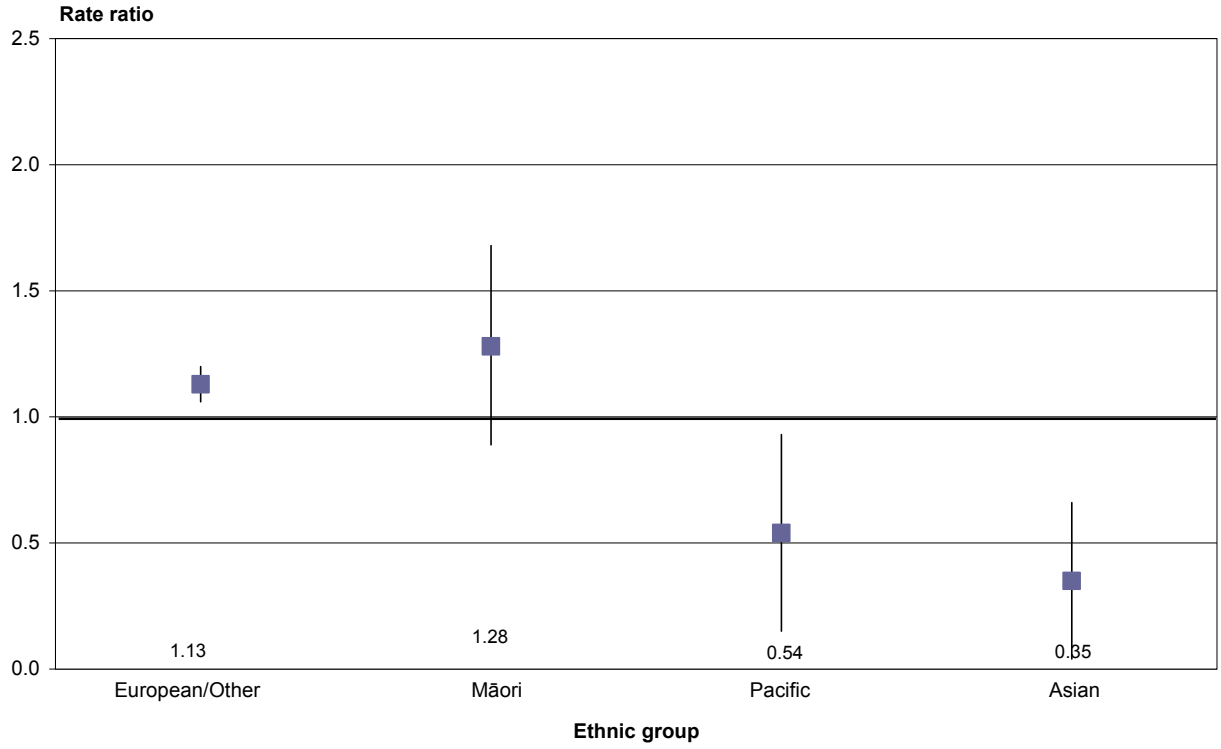
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	3.8 (3.2–4.5)	79,800
Māori	4.6 (3.2–6.1)	15,200
Pacific	2.1 (0.8–4.4)	3,300
Asian	1.3 (0.4–3.2)	2,900

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Opiates include opiates and prescription painkillers used for recreational purposes. Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity were significantly more likely, and people of Pacific or Asian ethnicity significantly less likely to have ever used any opiate for recreational purposes, compared with people in the total population (Figure 106).

Figure 106: Ever used any opiates for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (age-standardised rate ratio)

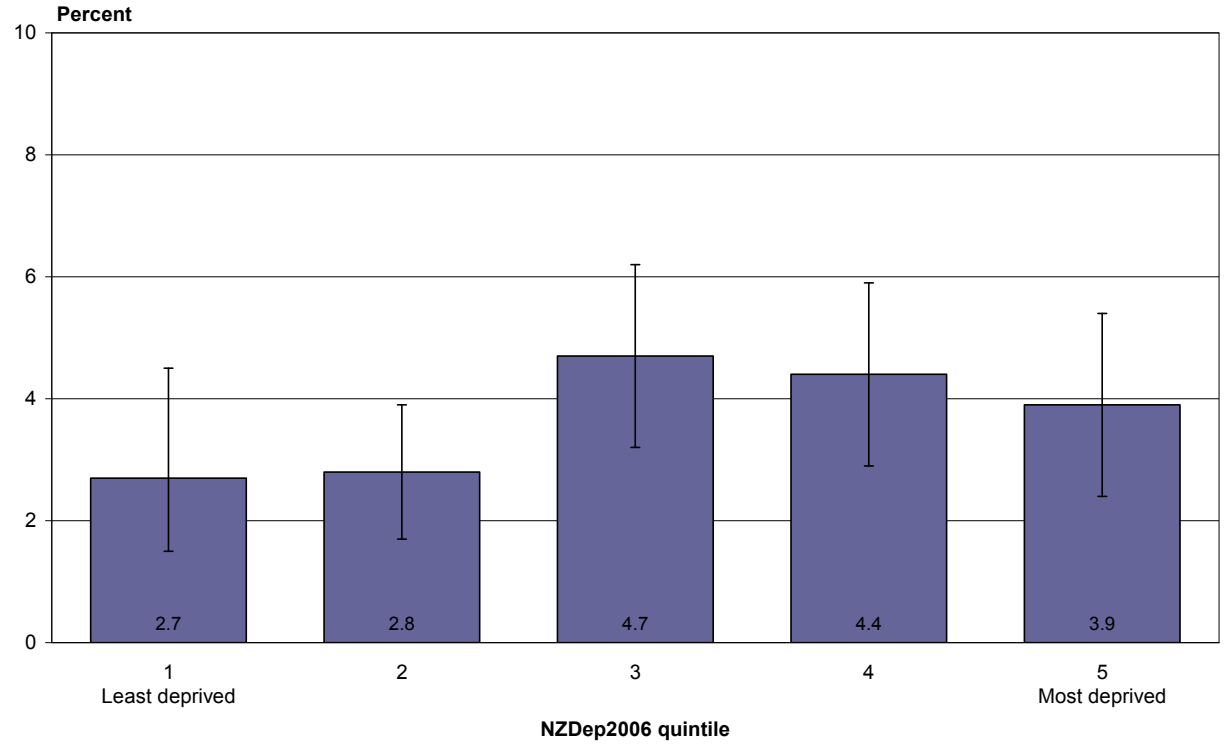


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used. Opiates include opiates and prescription painkillers used for recreational purposes.

The prevalence of having ever used any opiate for recreational purposes was somewhat higher in more socioeconomically deprived neighbourhoods (NZDep2006 quintiles 3, 4 and 5), after adjusting for age (Figure 107).

Figure 107: Ever used any opiates for recreational purposes in lifetime, among total population aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Opiates include opiates and prescription painkillers used for recreational purposes.

Age of first use of any opiate

For adults aged 16–64 years who had ever used any opiates for recreational purposes, the median age at which they had first tried these drugs was 19 years.

Overall, four in ten (40.4%, 32.7–48.1) people who had ever used any opiates for recreational purposes had first done so when they were aged 21 years or older (Table 86). One in eight (12.8%, 7.7–17.9) had first tried these drugs when aged 14 years or younger.

Table 86: Age of first use of any opiates for recreational purposes, among people aged 16–64 years who had ever used any opiates (unadjusted prevalence)

Age of first use of any opiate	Prevalence (%) (95% CI)
14 years or younger	12.8 (7.7–17.9)
15–17 years	21.3 (14.5–28.0)
18–20 years	25.5 (17.7–33.3)
21 years or older	40.4 (32.7– 48.1)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Opiates include opiates and prescription painkillers used for recreational purposes.

After adjusting for age, there were no differences between men and women in the age when they had first tried opiates.

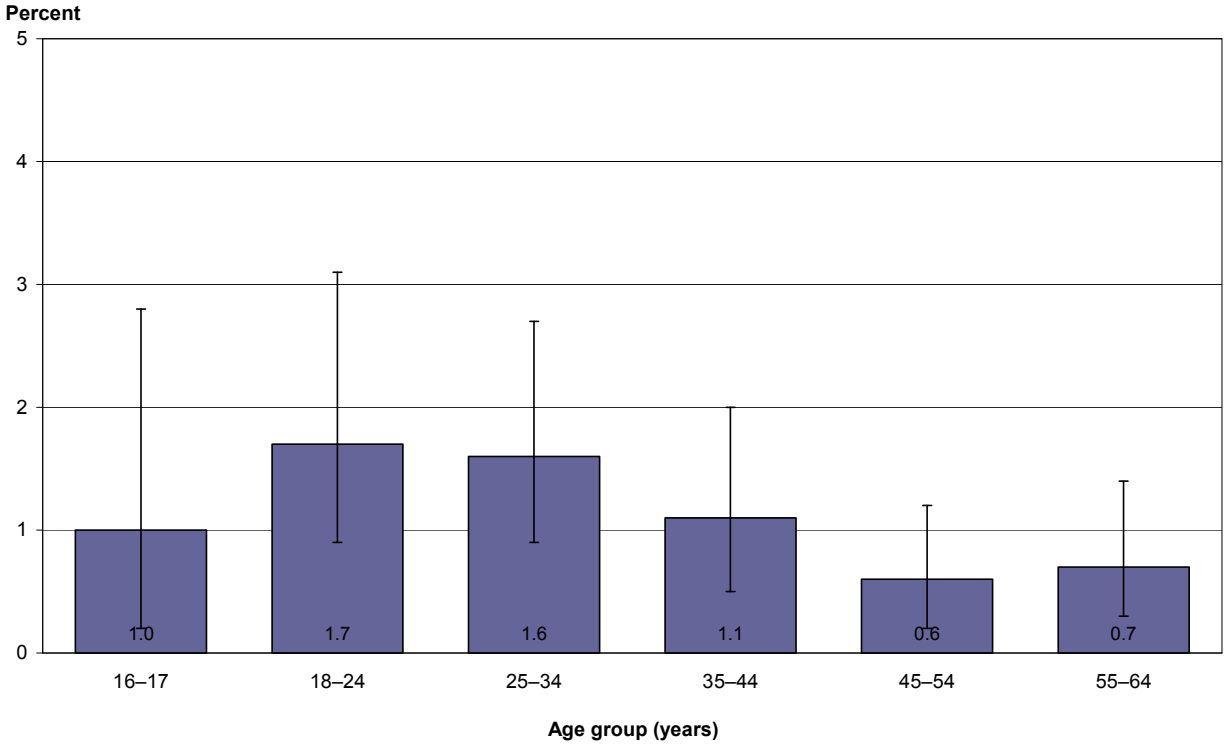
Prevalence of any opiate use in the last 12 months

Overall, 1.1% (0.8–1.4) of adults aged 16–64 years had used an opiate (including heroin and prescription painkillers such as morphine) for recreational purposes in the last 12 months, equating to about 28,800 people in New Zealand.

After adjusting for age, there were no significant differences in the prevalence of having used any opiates in the past year between men (1.5%, 0.9–2.1) and women (1.0%, 0.6–1.3).

The prevalence of having used opiates in the past year peaked for people aged 18–24 years, and decreased with increasing age thereafter (Figure 108).

Figure 108: Used any opiate for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Opiates include opiates and prescription painkillers used for recreational purposes.

Table 87 gives the prevalence of having used any opiate for recreational purposes in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 87: Used any opiates for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.1 (0.7–1.5)	22,800
Māori	1.8 (1.1–2.5)	5,900
Pacific	1.4 (0.3–3.7)	2,100
Asian	0.7 (0.1–2.4)	1,600

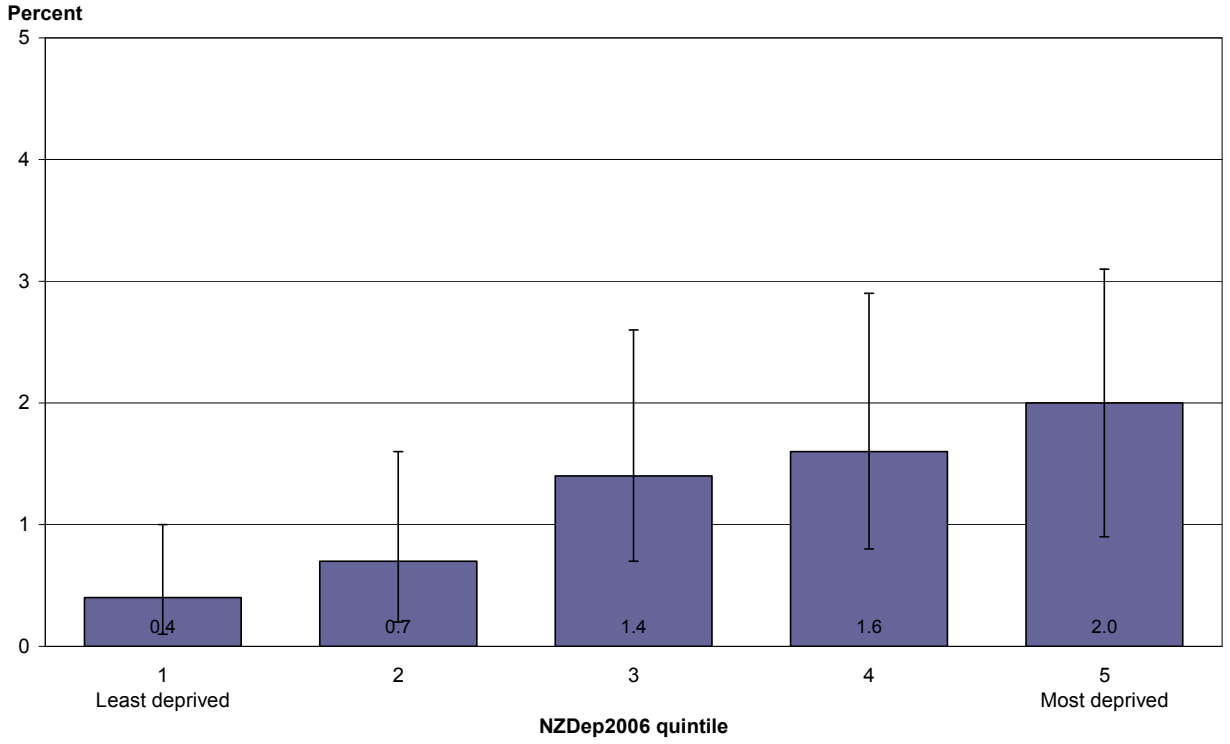
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Opiates include opiates and prescription painkillers used for recreational purposes. Total response standard output for ethnic groups has been used.

There were no significant differences by ethnic group in the prevalence of having used any opiate for recreational purposes in the past year, after adjusting for age.

After adjusting for age, the prevalence of having used any opiate for recreational purposes increased with increasing neighbourhood socioeconomic deprivation (Figure 109).

Figure 109: Used any opiates for recreational purposes in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Opiates include opiates and prescription painkillers used for recreational purposes.

Prevalence of opiate use, by type of opiate

In the total population aged 16–64 years, the most common type of opiate reported as used for recreational purposes in the past year was prescription painkillers (1.0%, 0.7–1.3) (Table 88).

Table 88: Used opiates in the last 12 months and in lifetime, among total population aged 16–64 years, by type of opiate (unadjusted prevalence)

Type of opiate	Prevalence (%) for total adults (95% CI)	
	Used in past year	Used in lifetime
Prescription painkillers	1.0 (0.7–1.3)	2.3 (1.9–2.7)
Opiates	0.1 (0.1–0.3)	2.2 (1.8–2.7)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Opiates' include opiates and prescription painkillers used for recreational purposes.

Frequency of any opiate use in the last 12 months

One in three (37.7%, 23.2–53.9) past-year opiate users had used at least one type of opiate at least weekly in the past year (Table 89).

Table 89: Frequency of opiate use in the last 12 months, among past-year opiate users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of opiate use	Prevalence (%) for past-year users of any opiate (95% CI)	Estimated number of adults
At least weekly	37.7 (23.2–53.9)	10,700
At least monthly	57.0 (43.7–70.3)	16,200
3–11 times a year	17.8 (8.3–31.4)	5,300
1–2 times a year	25.2 (13.5–40.2)	7,200

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: 'Opiates' include opiates and prescription painkillers used for recreational purposes. 'Frequency of opiate use' is the most common frequency of use of any one specific type of opiate.

Chapter 9: Other Drugs

Nitrous oxide

Nitrous oxide, also known as 'NOS' or laughing gas, is a colourless, odourless gas, commonly used as an anaesthetic in medicine and dentistry, but also diverted for recreational purposes.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried nitrous oxide (eg, NOS, laughing gas, whippits) for recreational purposes.

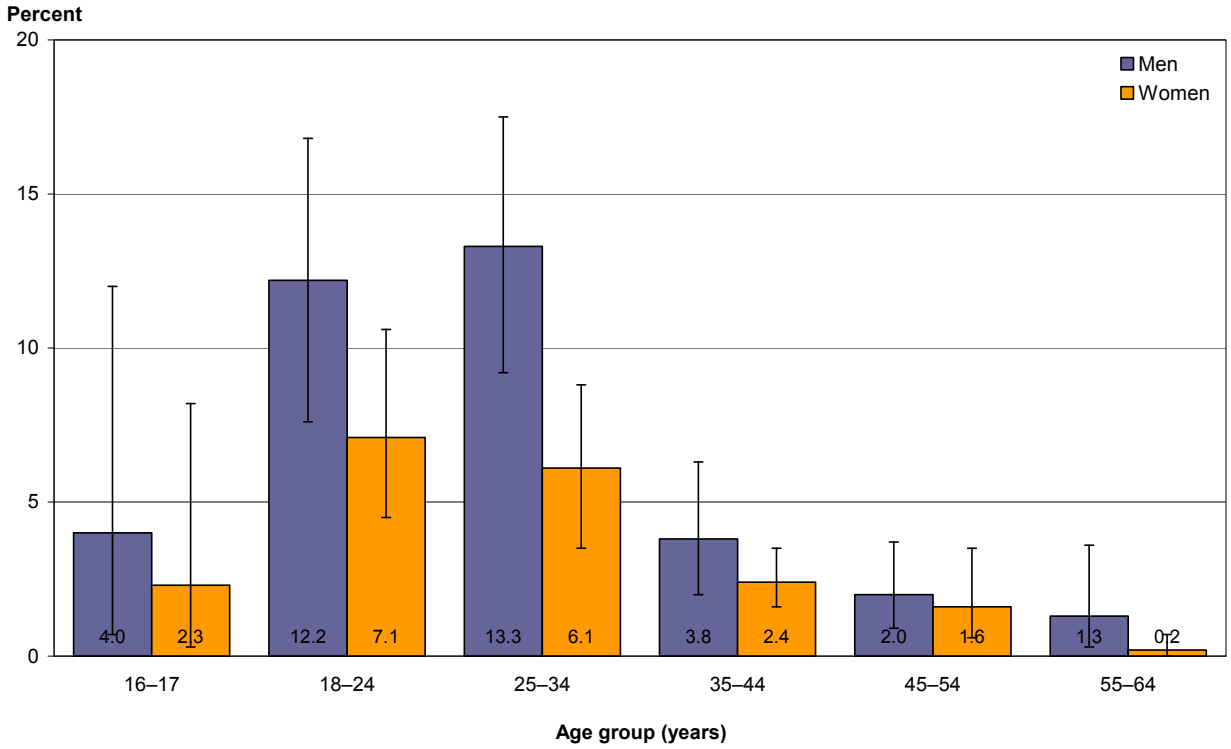
If the participant reported having ever used nitrous oxide, they were asked how old they were when they first used that drug and whether, in the last 12 months, they had used it. Participants who had used nitrous oxide in the last year were asked how many times in that period they had used it.

Prevalence of having ever used nitrous oxide in lifetime

Overall, 4.6% (3.8–5.4) of adults aged 16–64 years had used nitrous oxide for recreational purposes at some point in their lifetime. This proportion equates to about 121,700 people in New Zealand who had ever used nitrous oxide for recreational purposes. Men (7.4%, 5.8–8.9) were significantly more likely than women (4.0%, 3.1–4.9) to have ever used nitrous oxide for recreational purposes, after adjusting for age.

The prevalence of having ever used nitrous oxide for recreational purposes peaked for men and women aged 18–34 years (Figure 110).

Figure 110: Ever used nitrous oxide for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 90 gives the prevalence of having ever used nitrous oxide for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 90: Ever used nitrous oxide for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

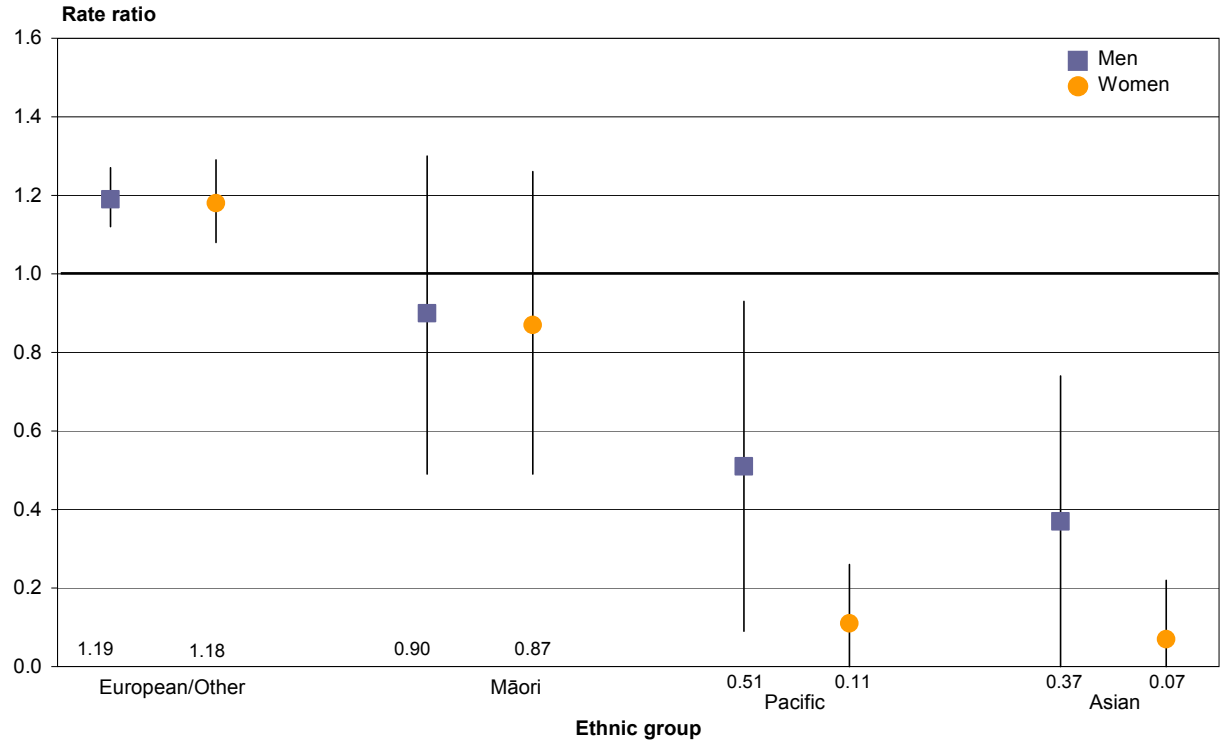
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	5.2 (4.2–6.1)	107,500
Māori	4.7 (3.2–6.3)	15,400
Pacific	2.0 (0.8–4.1)	3100
Asian	1.7 (0.5–4.0)	3700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were significantly more likely to have ever used nitrous oxide for recreational purposes, compared with men and women in the total population (Figure 111). Pacific and Asian men and women were significantly less likely to have ever used nitrous oxide, compared with men and women in the total population.

Figure 111: Ever used nitrous oxide for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

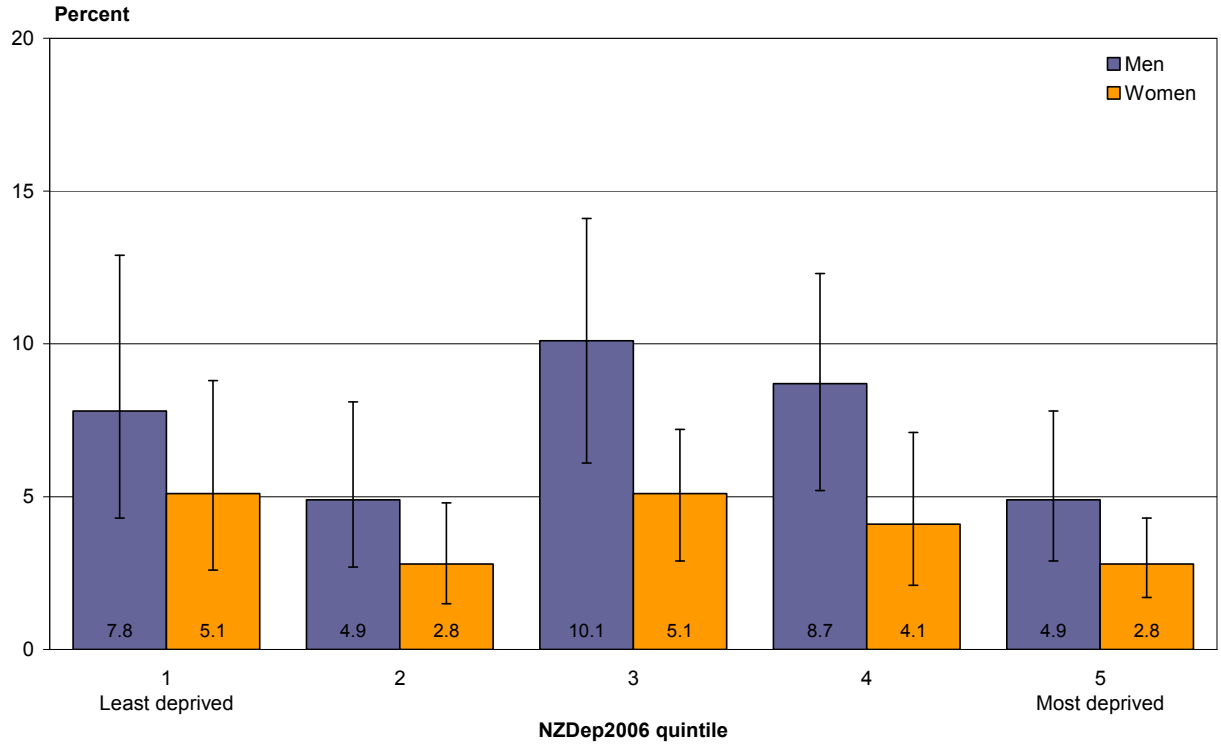


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

For both men or women, there were no significant differences in the prevalence of having ever used nitrous oxide between people living in the least socioeconomically deprived areas (NZDep2006 quintile 1) and those living in the most deprived areas (quintile 5) (Figure 112).

Figure 112: Ever used nitrous oxide for recreational purposes in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of nitrous oxide

For adults aged 16–64 years who had ever used nitrous oxide for recreational purposes, the median age at which they had first tried this drug was 19 years.

Overall, one in three (34.7%, 28.0–41.4) people who had ever used nitrous oxide for recreational purposes had first done so when they were aged 21 years or older (Table 91). About five percent (4.8%, 2.4–8.4) had first tried nitrous oxide when aged 14 years or younger.

Table 91: Age of first use of nitrous oxide for recreational purposes, among people aged 16–64 years who had ever used nitrous oxide (unadjusted prevalence)

Age of first use of nitrous oxide	Prevalence (%) (95% CI)
14 years or younger	4.8 (2.4–8.4)
15–17 years	28.0 (20.8–35.2)
18–20 years	32.5 (25.4–39.6)
21 years or older	34.7 (28.0–41.4)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Among people who had ever used nitrous oxide for recreational purposes, after adjusting for age, there were no differences between men and women, or between Māori and non-Māori, in the age when they had first tried nitrous oxide.

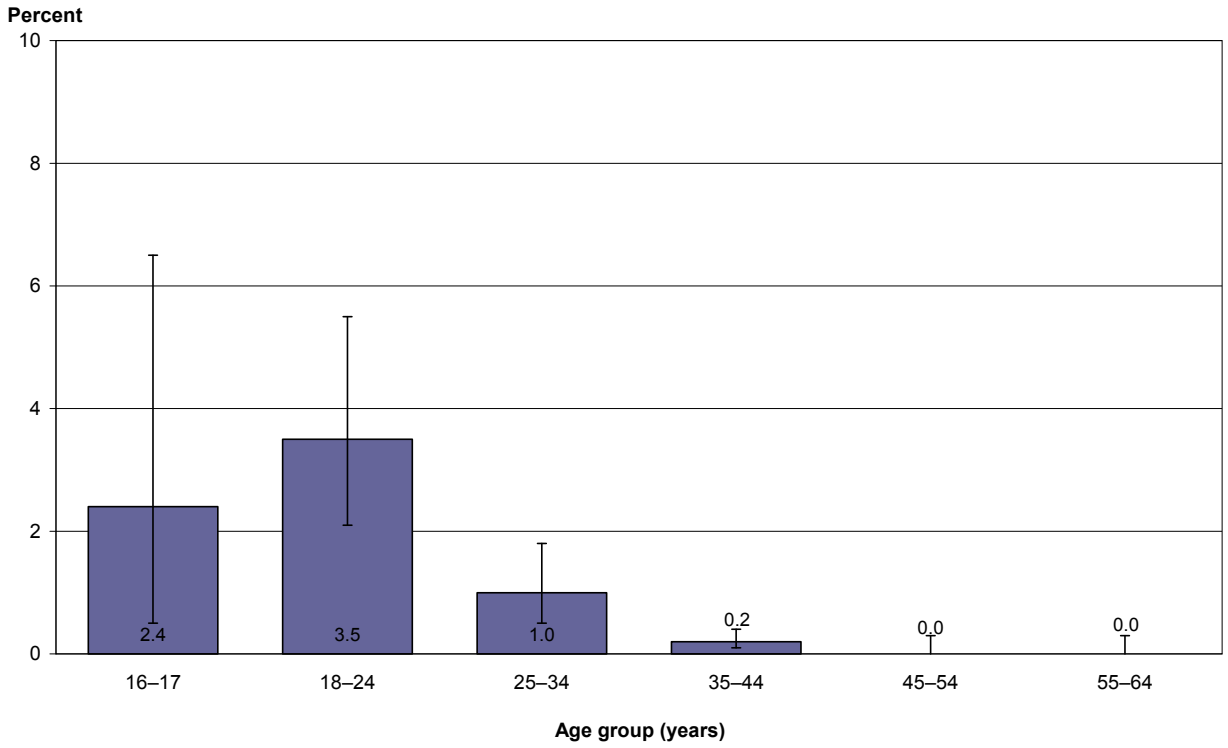
Prevalence of nitrous oxide use in the last 12 months

The prevalence of using nitrous oxide for recreational purposes in the past 12 months was 0.8% (0.5–1.1) of adults aged 16–64 years, equating to about 22,300 people in New Zealand.

There was no significant difference in the past-year prevalence of using nitrous oxide between men (1.5%, 1.0–2.3) and women (0.8%, 0.4–1.4), after adjusting for age.

The prevalence of using nitrous oxide for recreational purposes in the past year was highest among people aged 16–24 years (Figure 113).

Figure 113: Used nitrous oxide for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 92 gives the prevalence of having used nitrous oxide for recreational purposes in the past year among adults in New Zealand's main ethnic population groups.

Table 92: Used nitrous oxide for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

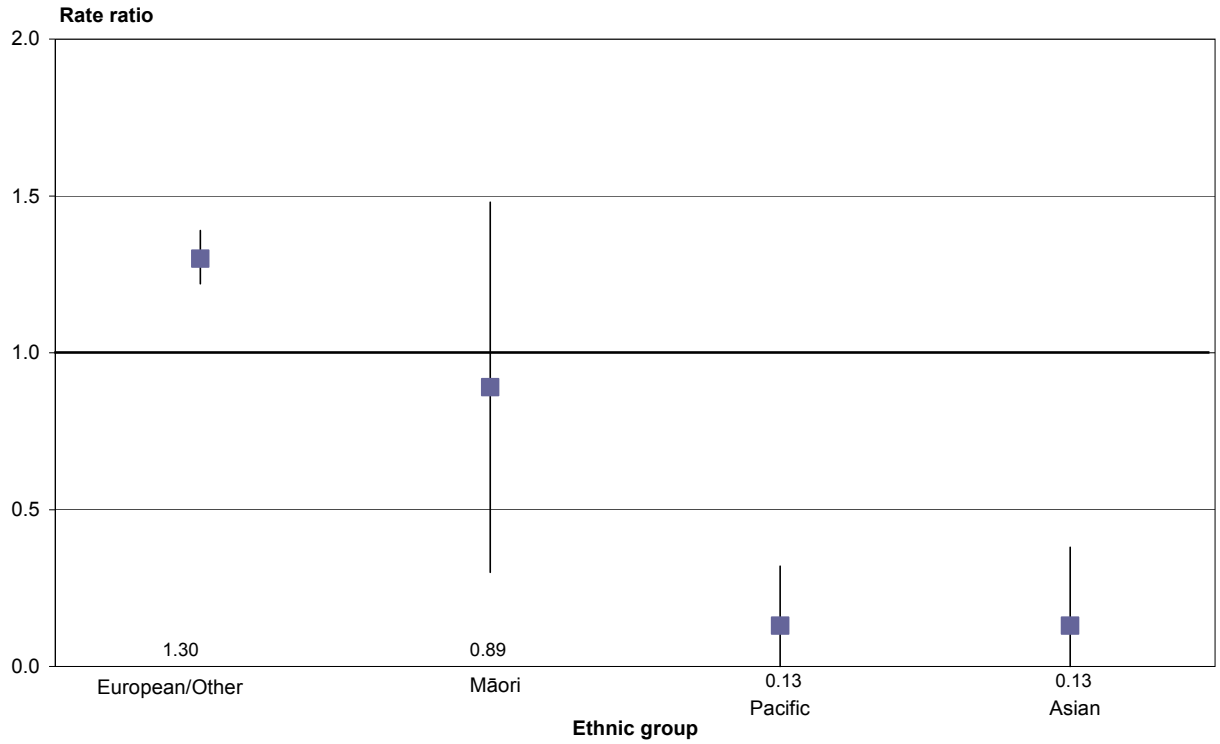
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.0 (0.6–1.4)	20,800
Māori	1.0 (0.4–1.9)	3,200
Pacific	0.2 (0.0–0.6)	200
Asian	0.1 (0.0–0.8)	300

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity were significantly more likely to have used nitrous oxide in the past year, compared with people in the total population (Figure 114). People of Pacific or Asian ethnicity were significantly less likely to have used nitrous oxide than people in the total population.

Figure 114: Used nitrous oxide for recreational purposes in the last 12 months, among total population aged 16–64 years, by ethnic group (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used.

There was no significant difference by neighbourhood socioeconomic deprivation (NZDep2006 quintiles) in the prevalence of past-year use of nitrous oxide, after adjusting for age.

Inhalants

Inhalants (including nitrites such as amyl nitrite and butyl nitrite) are substances with a legitimate medical use (for example in treating angina in some circumstances), but are also used for recreational purposes.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried inhalants (eg, amyl nitrate, butyl nitrate, rush, or rush amines) for recreational purposes.

If the participant reported having ever used inhalants, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used inhalants in the last year were asked how many times in that period they had used them.

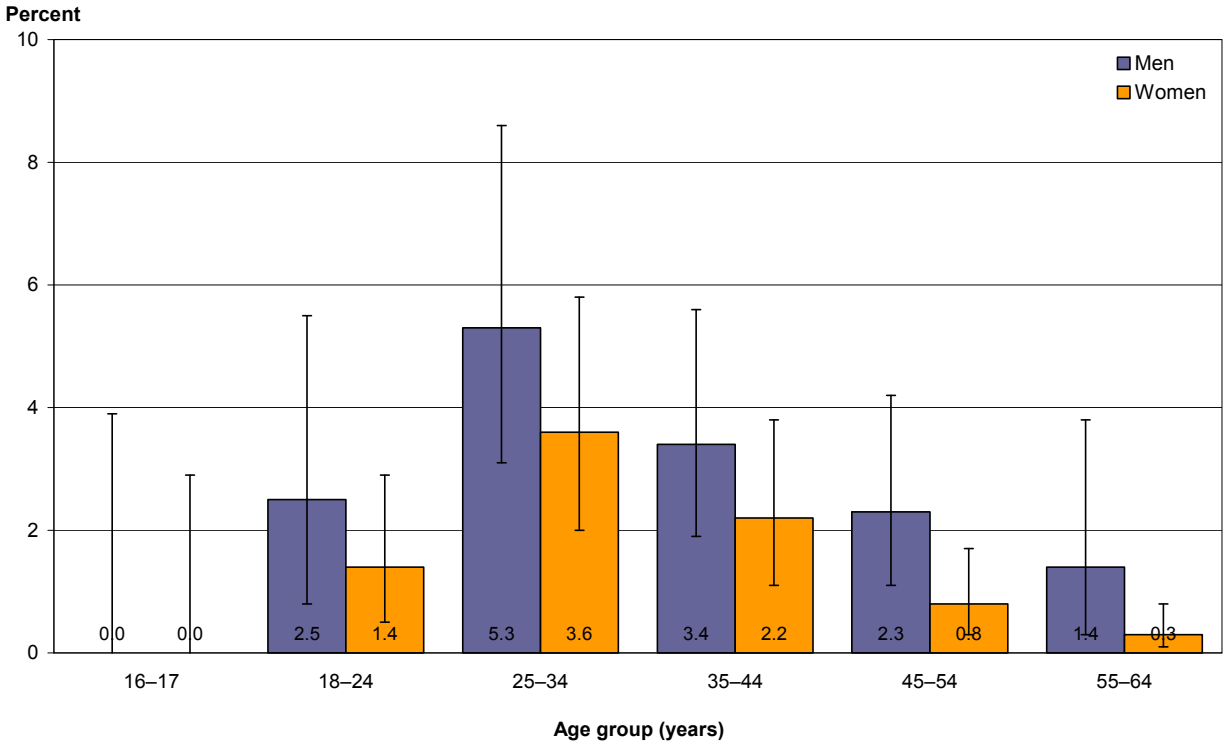
Prevalence of having ever used inhalants for recreational purposes in lifetime

Overall, 2.2% (1.8–2.7) of adults aged 16–64 years had used inhalants for recreational purposes at some point in their lifetime, which equates to about 59,300 people in New Zealand.

Men were significantly more likely to have ever used inhalants for recreational purposes (3.1%, 2.2–4.1) than women (1.8%, 1.2–2.5), after adjusting for age (p-value < 0.05).

For both men and women, the prevalence of having ever used inhalants for recreational purposes was highest for people aged 25–34 years, and decreased with increasing age thereafter (Figure 115).

Figure 115: Ever used inhalants for recreational purposes in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 93 gives the prevalence of having ever used inhalants for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 93: Ever used inhalants for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

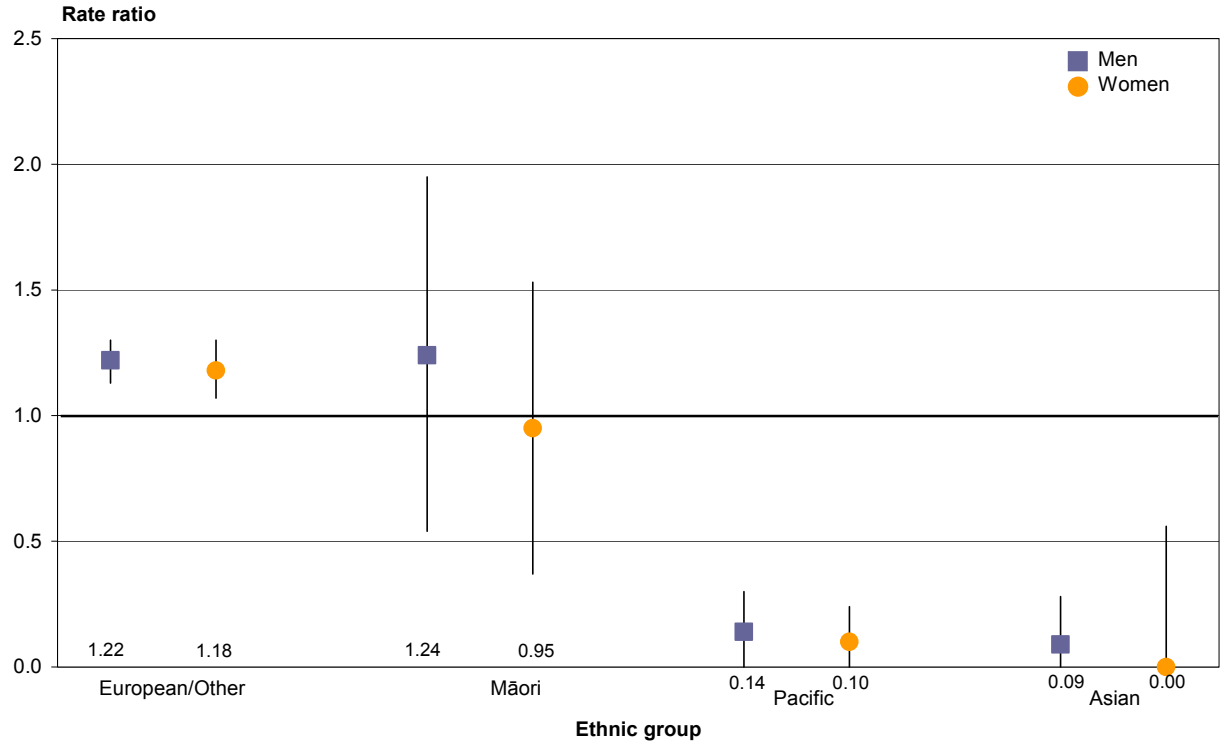
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	2.5 (2.0–3.1)	52,900
Māori	2.7 (1.7–3.6)	8,700
Pacific	0.3 (0.1–0.8)	500
Asian	0.2 (0.0–0.9)	400

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

Adjusting for age, European/Other men and women were significantly more likely to have ever used inhalants for recreational purposes in their lifetime, compared with men and women in the total population (Figure 116). Pacific and Asian men and women were significantly less likely to have ever used inhalants, compared with men and women in the total population.

Figure 116: Ever used inhalants for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

There were no significant differences by neighbourhood socioeconomic deprivation for either men or women.

Age of first use of inhalants

For adults aged 16–64 years who had ever used inhalants for recreational purposes, the median age at which they had first tried these drugs was 19 years.

Overall, one in three (36.5%, 23.5–49.5) people who had ever used inhalants for recreational purposes had first done so when they were aged 21 years or older (Table 94). About one in seven (13.9%, 6.5–25.1) had first tried them when aged 14 years or younger.

Table 94: Age of first use of inhalants for recreational purposes, among people aged 16–64 years who had ever used inhalants (unadjusted prevalence)

Age of first use of inhalants	Prevalence (%) (95% CI)
14 years or younger	13.9 (6.5–25.1)
15–17 years	20.9 (11.8–32.8)
18–20 years	28.7 (17.3–40.0)
21 years or older	36.5 (23.5–49.5)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Prevalence of inhalant use in the last 12 months

Overall, the prevalence of using inhalants for recreational purposes in the past 12 months was 0.1% (0.0–0.2), equating to about 3000 people in New Zealand. There was no significant difference in past-year inhalant use between men (0.1%, 0.0–0.3) and women (0.2%, 0.0–0.5), after adjusting for age.

Solvents

Solvents generally refer to industrial chemicals, including aerosols, glue, petrol, butane, paint thinners, paint and methylated spirits.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried solvents (eg, aerosols, glue, petrol, butane, paint thinners, paint, methylated spirits) for recreational purposes.

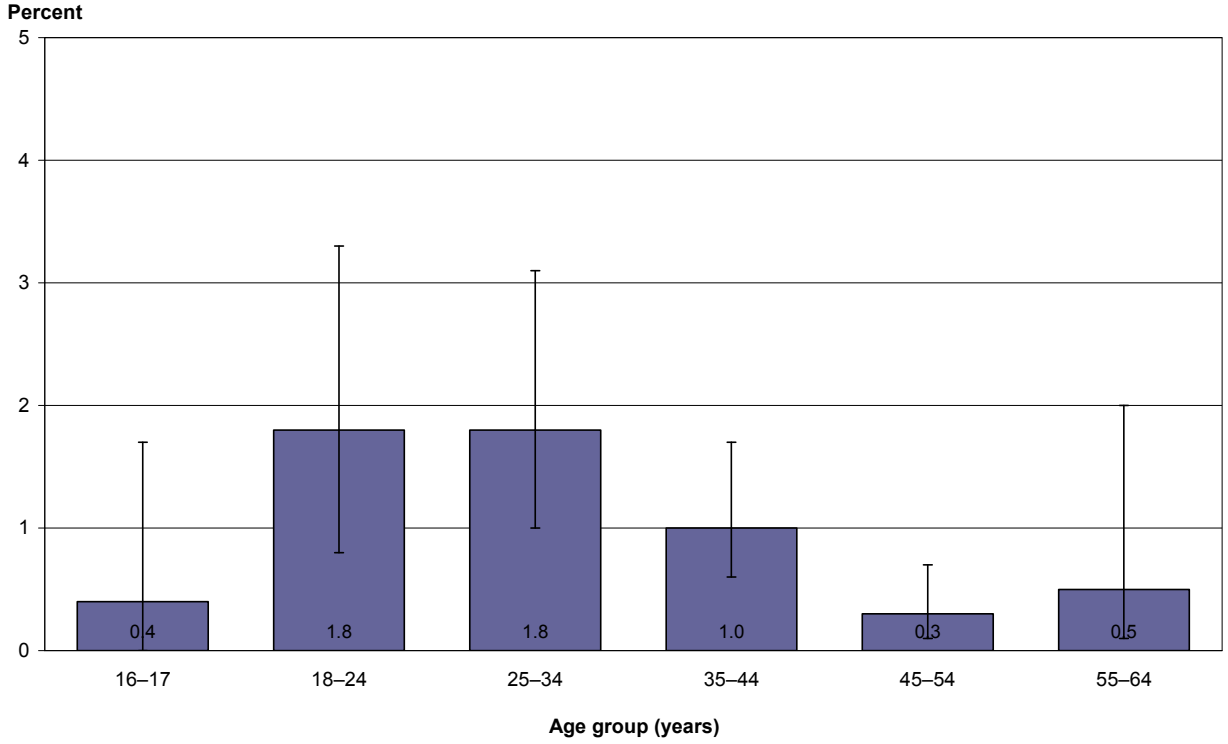
If the participant reported having ever used solvents, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used solvents in the last year were asked how many times in that period they had used them.

Prevalence of having ever used solvents for recreational purposes in lifetime

Overall, 1.0% (0.7–1.3) of adults aged 16–64 years had used solvents for recreational purposes at some point in their lifetime, which equates to about 27,100 people in New Zealand. Men were significantly more likely to have ever used solvents for recreational purposes (1.6%, 1.0–2.2) than women (0.8%, 0.4–1.2), after adjusting for age (p-value < 0.05).

The prevalence of having ever used solvents for recreational purposes peaked for people aged 18–34 years (Figure 117).

Figure 117: Ever used solvents in lifetime, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 95 gives the prevalence of having ever used solvents for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 95: Ever used solvents for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

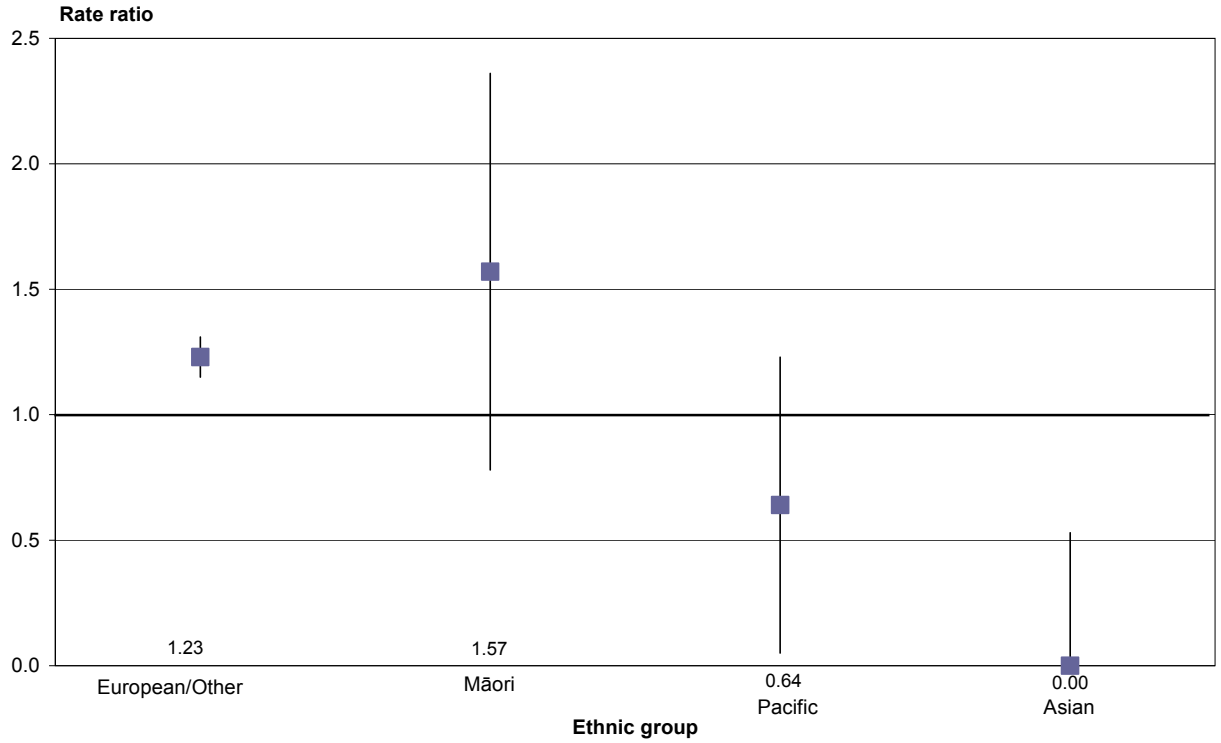
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.2 (0.8–1.6)	24,300
Māori	1.8 (0.9–2.7)	5,900
Pacific	0.7 (0.2–1.7)	1,100
Asian	0.0 (0.0–0.8)	0

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity were significantly more likely to have ever used solvents for recreational purposes in their lifetime, compared with people in the total population (Figure 118). People of Asian ethnicity were significantly less likely to have ever used solvents. There were no other significant differences by ethnic group.

Figure 118: Ever used solvents for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (age-standardised rate ratio)

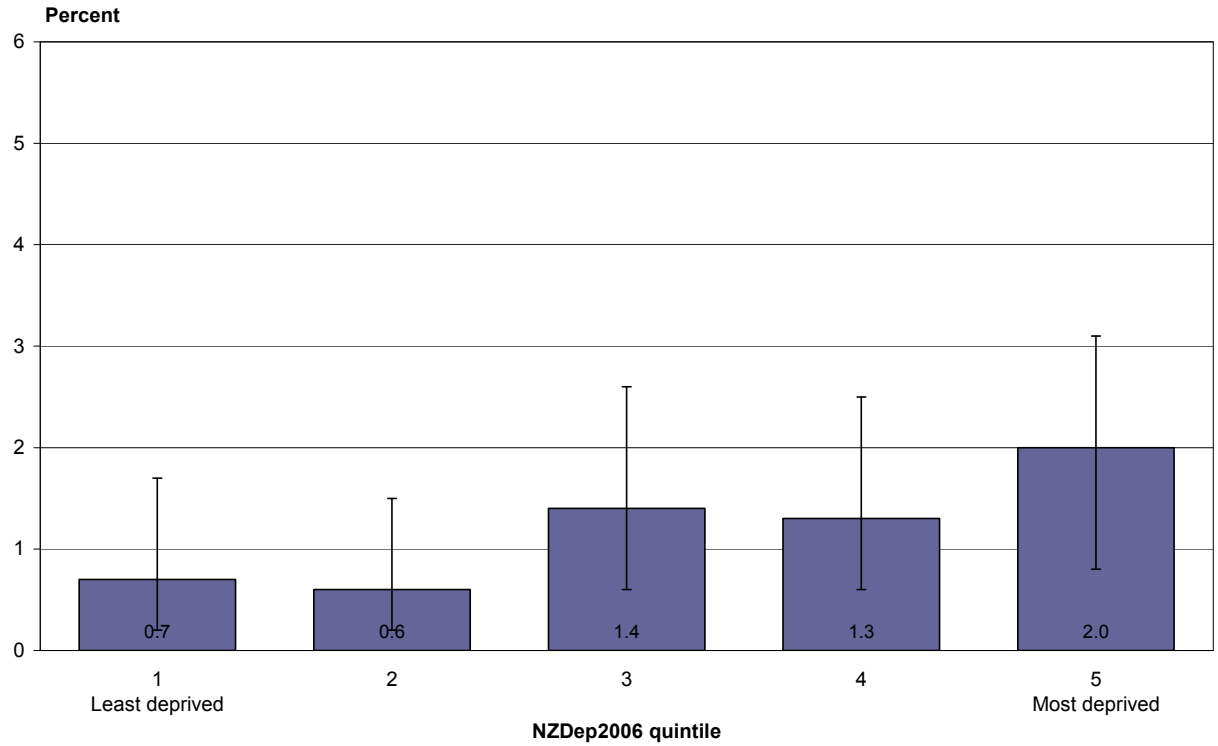


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total population aged 16–64 years. Total response standard output for ethnic groups has been used.

After adjusting for age, the prevalence of having ever used solvents for recreational purposes appeared to increase with increasing neighbourhood socioeconomic deprivation, although the difference between NZDep2006 quintiles 1 and 5 is not statistically significant (Figure 119).

Figure 119: Ever used solvents in lifetime, among total population aged 16–64 years, by NZDep2006 quintile (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of solvents

For adults aged 16–64 years who had ever used solvents for recreational purposes, the median age at which they had first tried these drugs was 15 years.

Overall, two in five (41.8%, 27.2–56.4) people who had ever used solvents for recreational purposes had first done so when they were aged 14 years or younger, and a further 51.8% (35.7–67.6) had done so when aged 15–17 years (Table 96).

Table 96: Age of first use of solvents for recreational purposes, among people aged 16–64 years who had ever used solvents (unadjusted prevalence)

Age of first use of solvents	Prevalence (%) (95% CI)
14 years or younger	41.8 (27.2–56.4)
15–17 years	51.8 (35.7–67.6)
18–20 years	4.1 (0.9–11.2)
21 years or older	2.3 (0.7–5.6)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Prevalence of solvent use in the last 12 months

The prevalence of using solvents for recreational purposes in the past 12 months was 0.1% (0.0–0.2), equating to about 2800 people in New Zealand. Men were somewhat more likely to have used solvents in the past year (0.2%, 0.1–0.6) than females (0.0%, 0.0–0.2), after adjusting for age.

Steroids

Anabolic steroids contain the male hormone testosterone (or drugs similar to testosterone), and have a clinical use in treating men who have low testosterone levels. However, steroids are also diverted for image-enhancing purposes and to improve sporting performance, for example by helping to increase muscle mass.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried steroids (eg, roids, juice, gear) for recreational purposes.

If the participant reported having ever used steroids, they were asked how old they were when they first used that specific drug and whether, in the last 12 months, they had used it. Participants who had used steroids in the last year were asked how many times in that period they had used them.

Prevalence of having ever used steroids for recreational purposes in lifetime

The prevalence of having used steroids for recreational purposes at some time in life was low at 0.1% (0.1–0.2) of the population aged 16–64 years, equating to about 3500 people in New Zealand.

Men were significantly more likely to have ever used steroids for recreational purposes (0.2%, 0.1–0.5) than women (0.0%, 0.0–0.2), when adjusting for age (p-value < 0.05). There was no difference in the prevalence of having ever used steroids for recreational purposes by age group.

After adjusting for age, Māori (SRR: 3.69, 1.09–6.29) were significantly more likely to have ever used steroids for recreational purposes in their lifetime, compared with people in the total population. People living in NZDep2006 quintile 3 were somewhat more likely to have ever used steroids for recreational purposes (0.4%, 0.1–0.8), than people living in other quintiles, after adjusting for age.

Prevalence of steroid use in the last 12 months

The prevalence of using steroids for recreational purposes in the last 12 months was very low (0.0%, 0.0–0.1).

Needle use

Some drugs can be administered by injecting the drug (dissolved in a solution) into the blood stream or muscle.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever injected, or been injected by someone else with any drugs that were not medically prescribed to them. If they had, they were asked how often they had injected such drugs, and how old they were when they first were injected with drugs for recreational purposes.

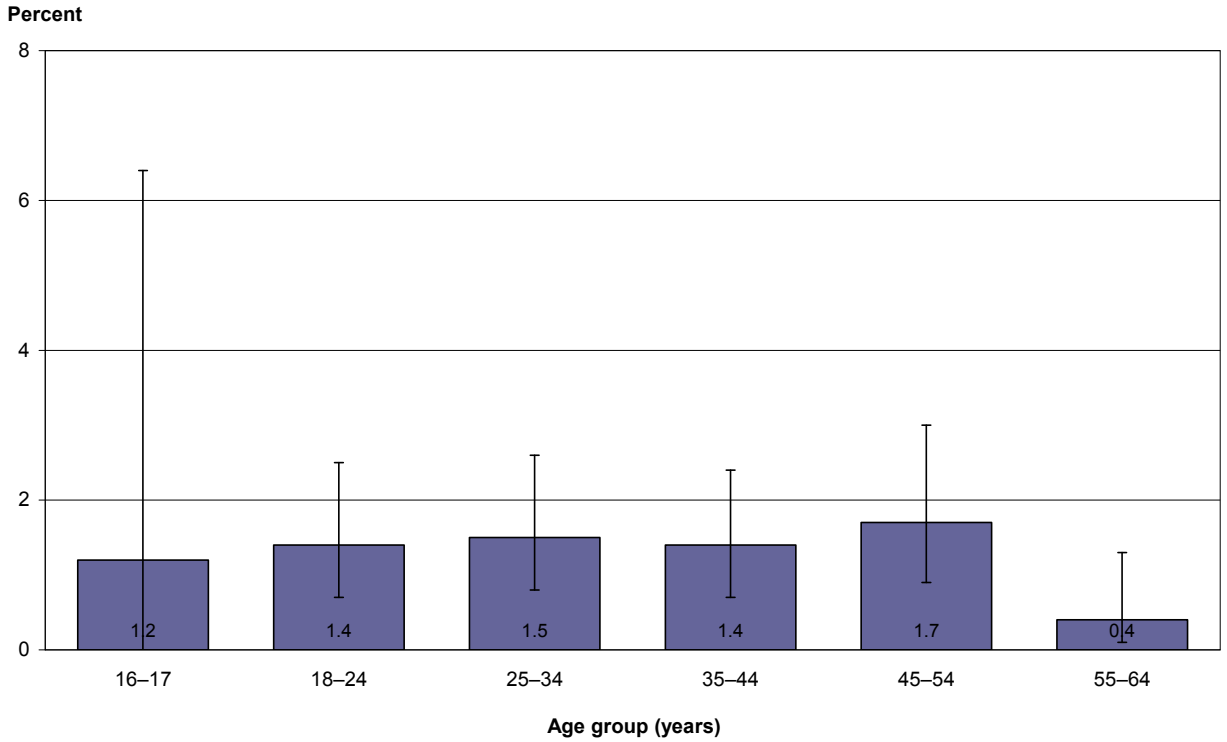
If the respondent had ever injected drugs for recreational purposes, they were asked whether they had ever used a needle and syringe exchange programme. They were also asked whether they had ever used a needle or other injecting equipment after someone else had already used it and, if so, whether or not they bleached and/or rinsed it first.

Prevalence of having ever injected drugs for recreational purposes in lifetime

Overall, 1.3% (1.0–1.6) of people aged 16–64 years had injected drugs for recreational purposes with a needle at some point in their lifetime, equating to about 34,900 people in New Zealand. Men were significantly more likely to have ever injected drugs for recreational purposes (2.0%, 1.4–2.6) than women (0.9%, 0.4–1.3), when adjusted for age.

The prevalence of having ever injected drugs for recreational purposes appeared to peak for people aged 45–54 years (Figure 120).

Figure 120: Ever injected drugs for recreational purposes in lifetime, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: The wide confidence interval in the 16–17 years age group indicates uncertainty for this estimate.

Table 97 gives the prevalence of having ever injected drugs for recreational purposes among adults in New Zealand's main ethnic population groups.

Table 97: Ever injected drugs for recreational purposes in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	1.5 (1.1–1.9)	30,400
Māori	2.1 (1.2–3.0)	6,800
Pacific	0.8 (0.2–2.2)	1,300
Asian	0.0 (0.0–0.8)	0

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, people of European/Other ethnicity (SRR: 1.15, 1.07–1.23) were significantly more likely to have ever injected drugs for recreational purposes, compared with people the total population. There were no other significant differences by ethnic group.

There was no significant difference in the prevalence of having ever injected drugs for recreational purposes by neighbourhood socioeconomic deprivation (NZDep2006 quintiles), after adjusting for age.

Age of first injecting drugs

For adults aged 16–64 years who had ever injected drugs for recreational purposes, the median age at which they had first injected drugs was 20 years.

Among people who had ever injected drugs for recreational purposes, one in three had first injected drugs when aged 18–20 years (33.0%, 19.6–48.8); a further one in three had first injected drugs when aged 21 years or older (37.6%, 23.6–51.5) (Table 98). A small proportion had first injected drugs when aged 14 years or younger (6.3%, 1.9–15.0).

Table 98: Age of first injecting drugs, among people aged 16–64 years who had ever injected drugs for recreational purposes (unadjusted prevalence)

Age of first injecting drugs	Prevalence (%) (95% CI)
14 years or younger	6.3 (1.9–15.0)
15–17 years	23.1 (11.5–38.8)
18–20 years	33.0 (19.6–48.8)
21 years or older	37.6 (23.6–51.5)

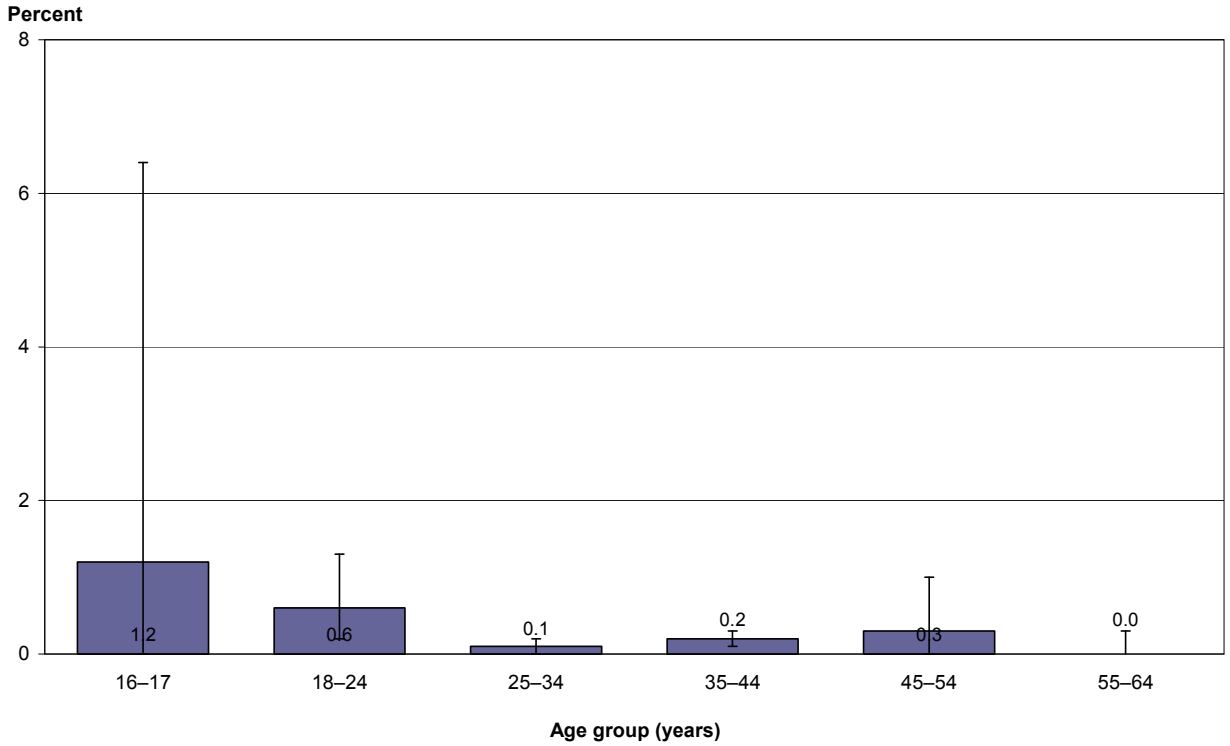
Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Prevalence of having injected drugs for recreational purposes in the last 12 months

The prevalence of injecting drugs for recreational purposes in the last 12 months was low, with 0.3% (0.1–0.5) of adults aged 16–64 years having injected drugs for recreational purposes in the past year, equating to about 6700 people in New Zealand. There was no significant difference between men (0.3%, 0.1–0.7) and women (0.3%, 0.1–0.8) in the prevalence of having injected drugs for recreational purposes in the past year, after adjusting for age.

The prevalence of having injected drugs for recreational purposes in the past year appeared to peak in the younger age groups, although the wide confidence intervals indicate uncertainty for some estimates (Figure 121).

Figure 121: Injected drugs for recreational purposes in the last 12 months, among total population aged 16–64 years, by age group (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: The wide confidence interval in the 16–17 years age group indicates uncertainty for this estimate.

After adjusting for age, people of European/Other ethnicity (SRR: 1.21, 1.04–1.38) were significantly more likely to have injected drugs in the past year, compared with people in the total population. There were no other significant differences by ethnic group.

There was no significant difference by neighbourhood socioeconomic deprivation (NZDep2006 quintiles) in the prevalence of having injected drugs for recreational purposes in the past year, after adjusting for age.

Chapter 10: BZP Party Pills

Introduction

'Party pills' containing BZP (benzylpiperazine) and related substances, also known as 'herbal highs', are mild stimulant-type drugs, sometimes with hallucinogenic effects.

After the introduction of BZP party pills into New Zealand around the year 2000, there was a dramatic increase in the legal availability of these products. In 2005 BZP was made a 'restricted substance' under the Misuse of Drugs Amendment Act 2005, which installed various controls around the marketing and availability of party pills containing BZP, including a minimum legal purchase age of 18 years of age. However, on 1 April 2008 the sale of BZP party pills became illegal in New Zealand, when BZP and a number of related piperazine substances were reclassified as 'Class C1' controlled drugs under the Misuse of Drugs Act 1975. An amnesty for possession and use of these drugs remained until October 2008.

BZP party pills were legal at the time that the 2007/08 NZADUS was undertaken.

What were the survey questions?

In the 2007/08 NZADUS, participants were asked whether they had ever tried BZP party pills (including pills that contain benzylpiperazine (BZP) as a main ingredient). If they had, they were asked how old they were when they first used BZP party pills and whether, in the last 12 months, they had used BZP party pills. Participants who had used BZP party pills in the last year were asked how many times they had used them in that period. Past-year BZP party pill users were also asked where they had used BZP party pills in the last 12 months (multiple locations could be selected). They were then asked to think of one occasion that would be most typical of their use of BZP party pills in the last 12 months, and to report how many BZP party pills of each brand they would take on this typical occasion. Past-year BZP party pill users were also asked to think about the occasion in the last 12 months when they took the largest number of BZP party pills, and to report the number of pills they had taken (by brand if possible).

Participants who had used BZP party pills in the past year were also asked, in the last 12 months, how often they had driven a car or another motor vehicle such as a motorcycle or boat when they felt under the influence of BZP party pills, how often they had operated machinery when they felt under the influence of BZP party pills, and how often they had worked when they felt under the influence of BZP party pills. They were also asked, in the last 12 months, how many days, if any, they were away from work or school because of their BZP party pill use. Past-year BZP party pill users were also asked whether they had used any of the following together with BZP party pills, on at least one occasion in the last 12 months: tobacco; alcohol; cannabis; amphetamine/ methamphetamine; antidepressants; painkillers; sedatives; ecstasy; heroin; cocaine/ crack; other; none of the above.

Participants who had ever used BZP party pills were asked about the experiences they had had as a result of using BZP party pills. These participants were asked whether there had ever been a time when they felt their BZP party pill use had a harmful effect on their friendships or social life; their home life; their work, studies or employment opportunities; their financial position; or whether they had ever had legal problems, difficulty learning things, injuries, or other health problems because of their BZP party pill use. For each situation, participants selected from the following responses: yes, during the last 12 months; yes, but not in the last 12 months; no.

Participants who had ever used BZP party pills in their lifetime were also asked a series of questions about help-seeking. These participants were asked whether they had ever received help to reduce their level of BZP party pill use and, if so, whether this was in the last 12 months, and where they received help from (multiple sources could be selected). These participants were also asked whether they had ever wanted help to reduce their level of BZP party pill use but did not get it. Participants who answered 'yes' to this question were asked whether this was in the last 12 months, and what their reasons were for not getting help. Additionally they were asked whether a relative or friend, or a doctor or another health worker, had been concerned about the participant's BZP party pill use or suggested that they cut down. Participants selected from the following answers: yes, but not in the last year; yes, during the last year; no.

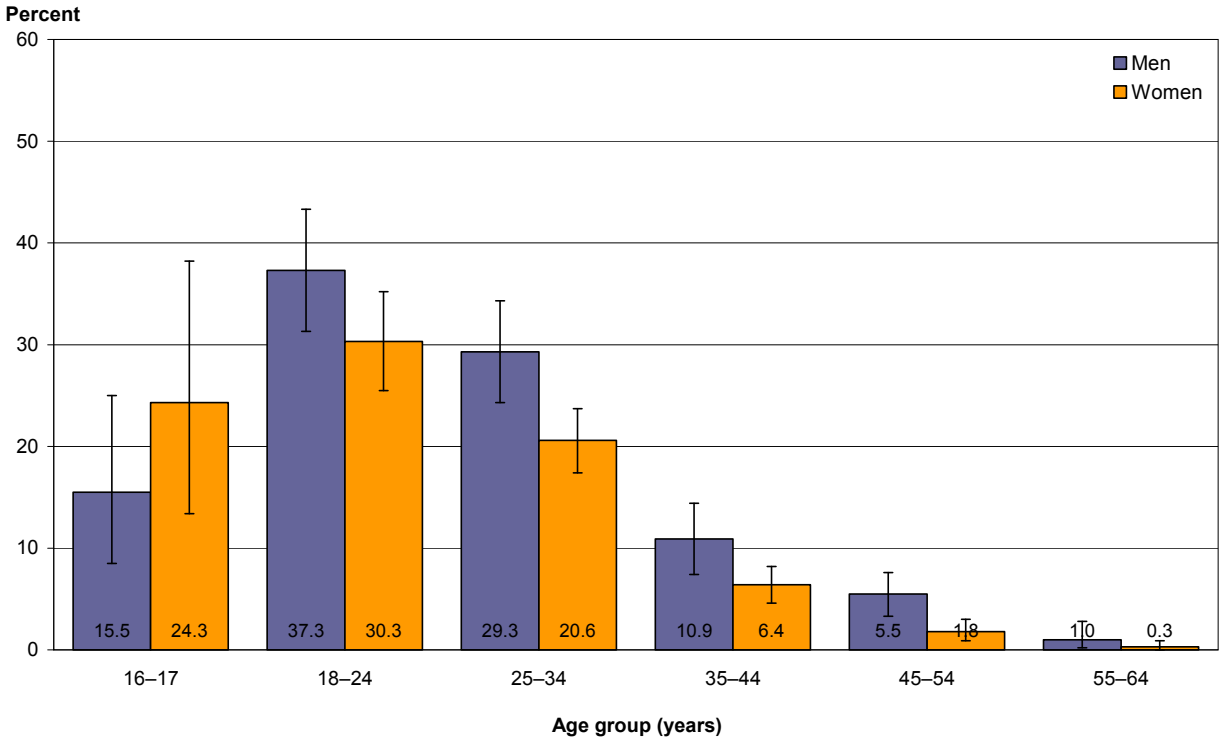
Prevalence of having ever used BZP party pills in lifetime

One in seven (13.5%, 12.4–14.6) people in the total population aged 16–64 years had used BZP party pills at some point in their lifetime. This proportion equates to 356,000 people in New Zealand.

Men (19.4%, 17.4–21.4) were significantly more likely than women (14.7%, 13.1–16.4) to have ever used BZP party pills, when adjusted for age.

The prevalence of having ever used BZP party pills peaked in the 18–24 years age group for both men and women, and decreased with increasing age thereafter (Figure 122).

Figure 122: Ever used BZP party pills in lifetime, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 99 gives the prevalence of having ever used BZP party pills among adults in New Zealand's main ethnic population groups.

Table 99: Ever used BZP party pills in lifetime, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

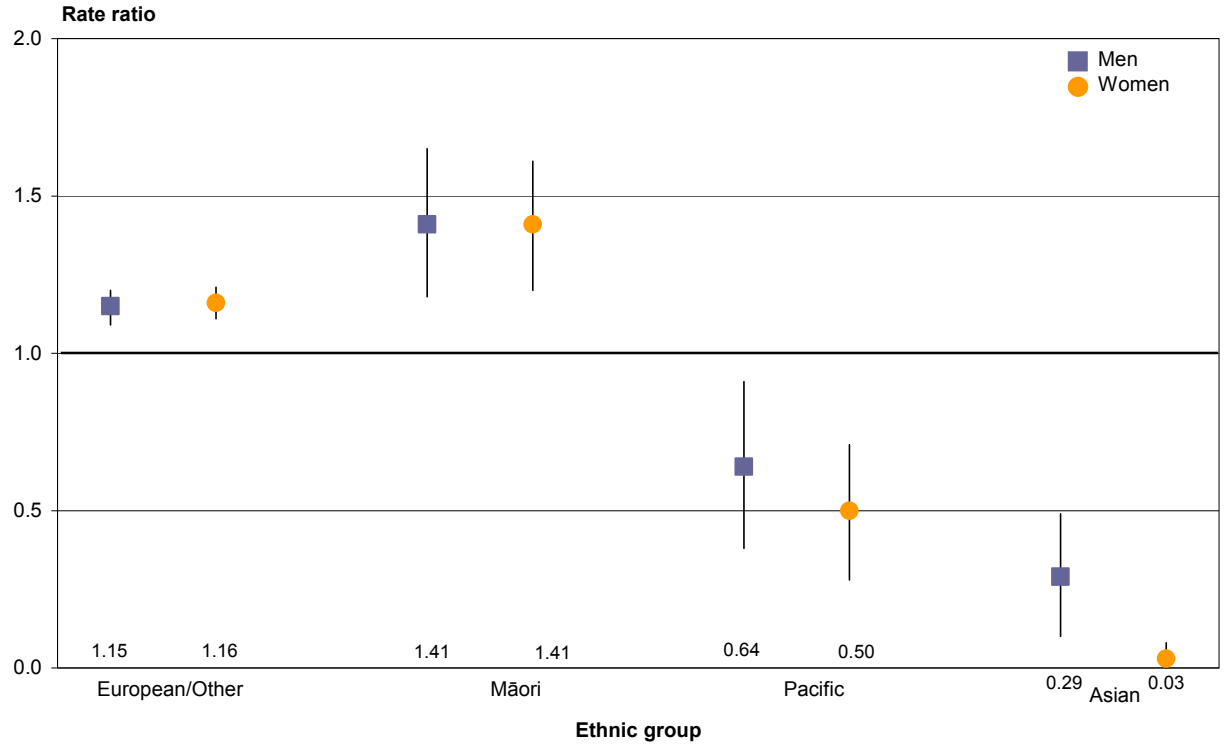
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	14.4 (13.2–15.7)	300,100
Māori	23.0 (20.8–25.2)	75,300
Pacific	10.0 (7.0–13.1)	15,500
Asian	3.6 (1.6–7.0)	8,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, European/Other men and women were about 15% more likely, and Māori men and women about 40% more likely, to have ever used BZP party pills, compared with men and women in the total population (Figure 123). Pacific and Asian men and women were significantly less likely to have ever used BZP party pills, compared with men and women in the total population.

Figure 123: Ever used BZP party pills in lifetime, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

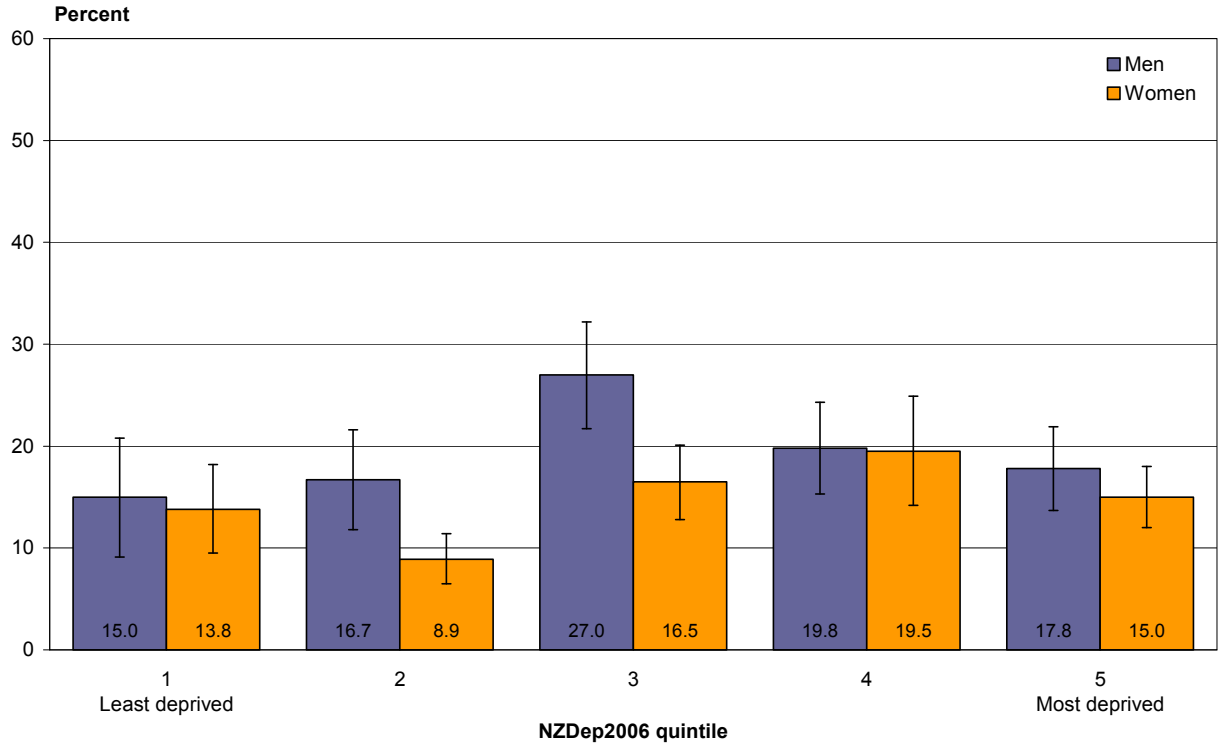


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

There was no significant difference in the prevalence of having ever used BZP party pills between people living in the least socioeconomically deprived neighbourhoods (NZDep2006 quintile 1) and the most deprived neighbourhoods (quintile 5), for both men and women, after adjusting for age (Figure 124). However, men living in NZDep2006 quintile 3 had a significantly higher prevalence than men in all other NZDep2006 quintiles.

Figure 124: Ever used BZP party pills in lifetime, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Age of first use of BZP party pills

Among people who had ever used BZP party pills, the median age of first use was 21 years.

Over half (54.0%, 50.1–57.8) of all people who had ever used BZP party pills had first used them when aged 21 years or older (Table 100).

Table 100: Age of first use of BZP party pills, among people aged 16–64 years who had ever used BZP party pills (unadjusted prevalence)

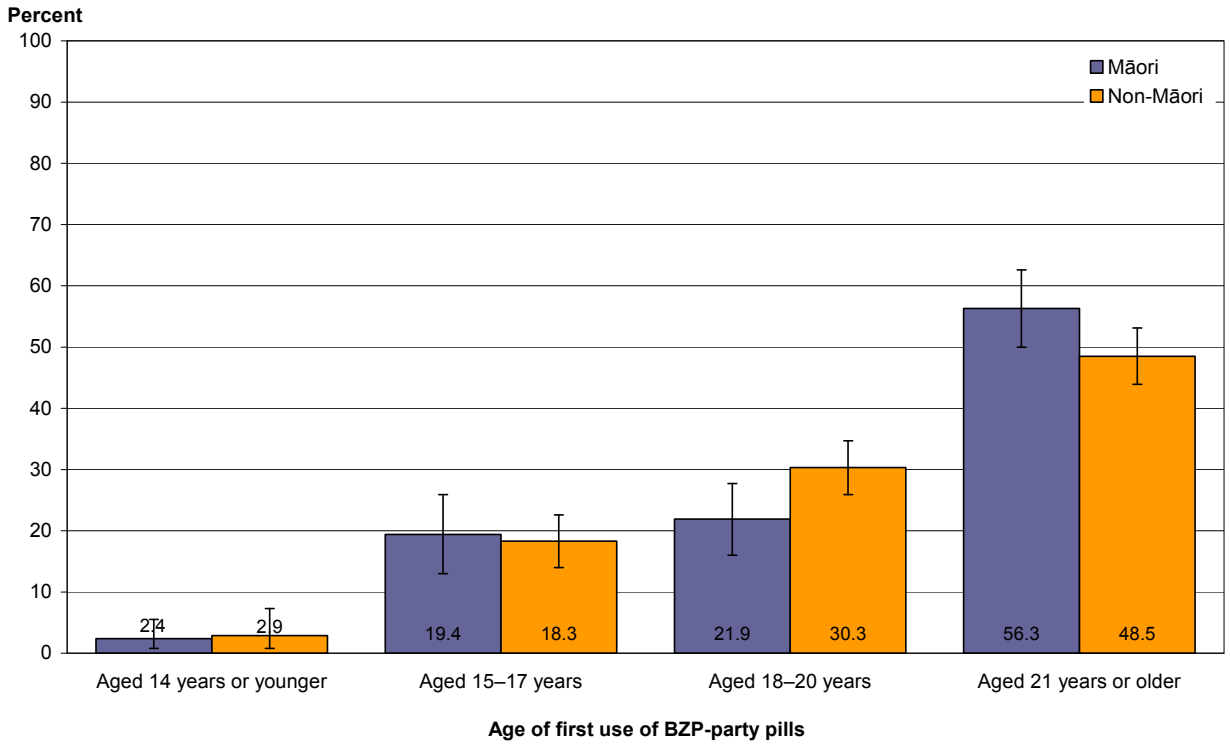
Age of first use of BZP party pills	Prevalence (%) (95% CI)
14 years or younger	2.5 (1.0–5.3)
15–17 years	16.9 (13.4–20.3)
18–20 years	26.7 (23.1–30.2)
21 years or older	54.0 (50.1–57.8)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

There were no significant differences in age of first use of BZP party pills by gender, after adjusting for age.

Among people who had ever used BZP party pills, Māori were significantly more likely than non-Māori to be 21 years of age or older when first trying BZP party pills, after adjusting for age (p-value < 0.05) (Figure 125).

Figure 125: Age of first use of BZP party pills, among people aged 16–64 years who had ever used BZP party pills, by Māori/non-Māori ethnicity (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

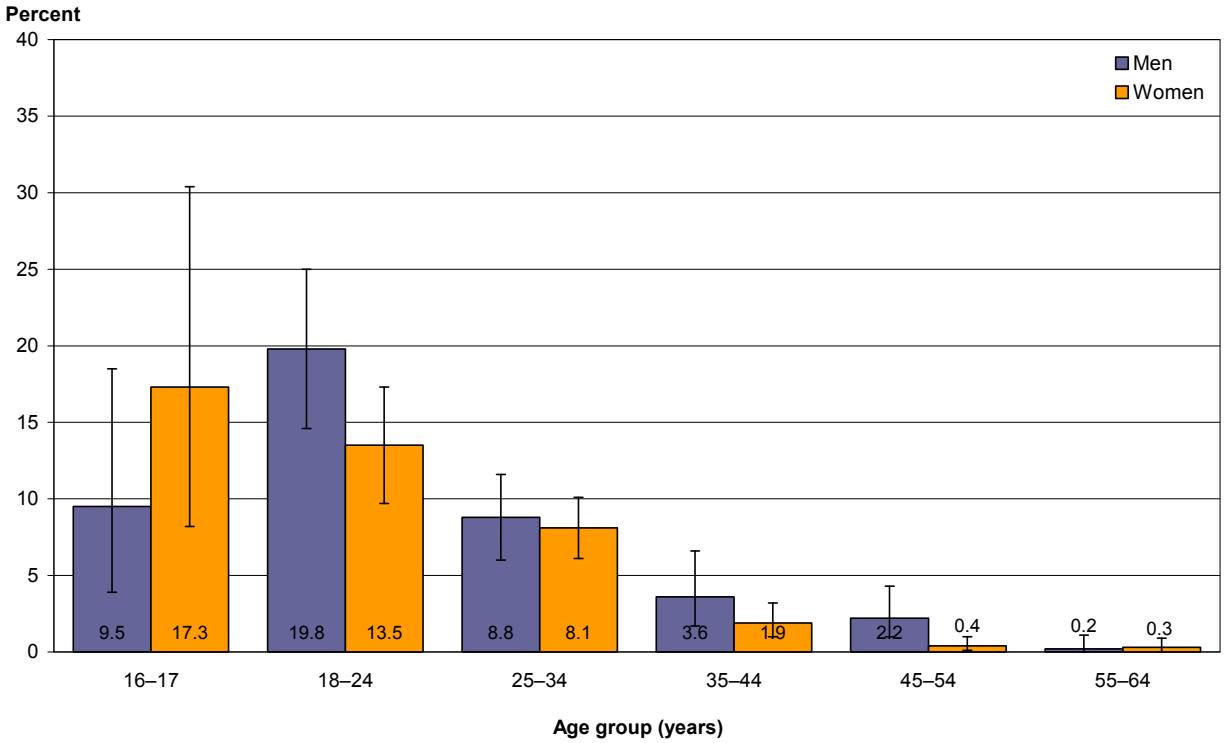
Prevalence of BZP party pill use in the last 12 months

About 5.6% (4.9–6.3) of adults aged 16–64 years had used BZP party pills in the past year. This proportion equates to 148,200 people in New Zealand.

After adjusting for age, there was no significant difference in the prevalence of having used BZP party pills in the past year between men (8.1%, 6.8–9.4) and women (6.4%, 5.1–7.7).

The prevalence of having used BZP party pills in the past year peaked in the younger age groups (16–17 and 18–24 years) for both men and women, and decreased with increasing age thereafter (Figure 126).

Figure 126: Used BZP party pills in the last 12 months, among total population aged 16–64 years, by age group and gender (unadjusted prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Table 101 gives the prevalence of having used BZP party pills in the last 12 months among adults in New Zealand's main ethnic population groups.

Table 101: Used BZP party pills in the last 12 months, among total population aged 16–64 years, by ethnic group (unadjusted prevalence and estimated number of adults)

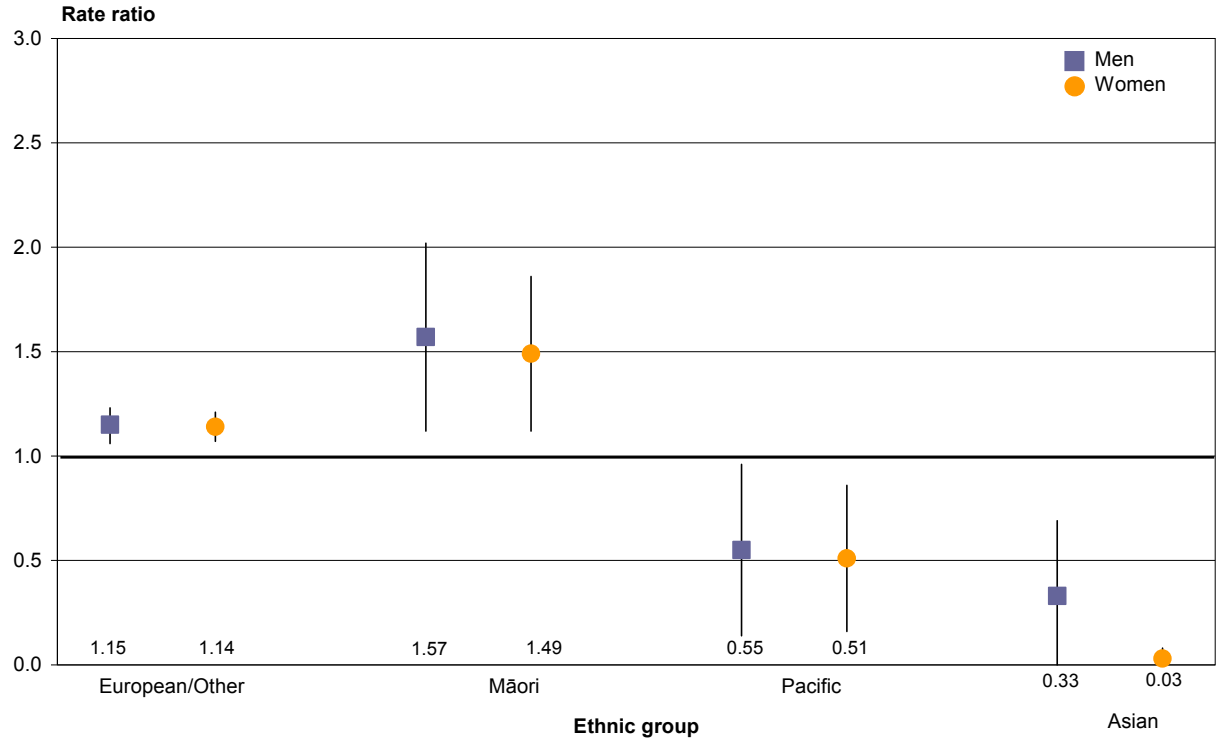
Ethnic group	Prevalence (%) for total adults (95% CI)	Estimated number of adults
European/Other	5.9 (5.1–6.8)	123,500
Māori	10.6 (8.7–12.5)	34,800
Pacific	3.9 (2.1–6.6)	6,100
Asian	1.7 (0.4–4.5)	3,700

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Total response standard output for ethnic groups has been used.

European/Other and Māori men and women were significantly more likely to have used BZP party pills in the past year, compared with men and women in the total population, after adjusting for age (Figure 127). Pacific and Asian men and women were significantly less likely to have used BZP party pills in the previous year, compared with men and women in the total population, after adjusting for age.

Figure 127: Used BZP party pills in the last 12 months, among total population aged 16–64 years, by ethnic group and gender (age-standardised rate ratio)

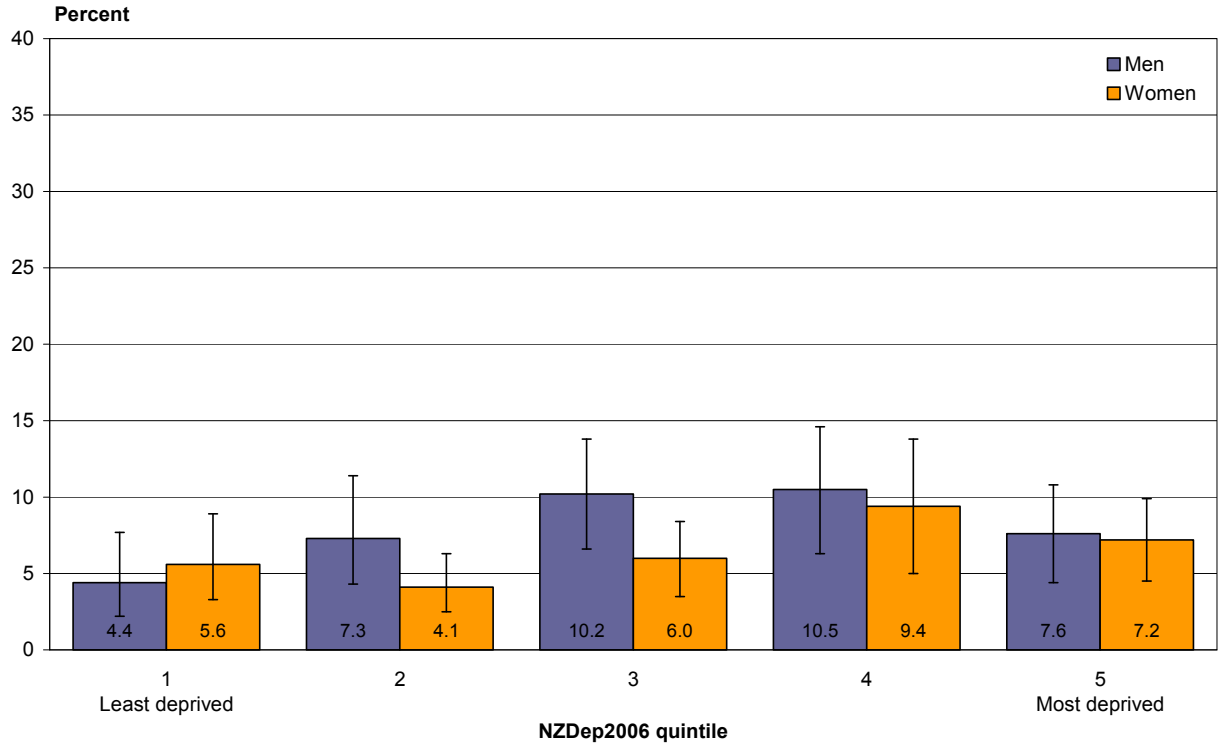


Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 16–64 years. Total response standard output for ethnic groups has been used.

There were no significant differences by neighbourhood socioeconomic deprivation in past-year use of BZP party pills for men and women, after adjusting for age (Figure 128).

Figure 128: Used BZP party pills in the last 12 months, among total population aged 16–64 years, by NZDep2006 quintile and gender (age-standardised prevalence)



Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: Age-standardised to WHO world population.

Location of BZP party pill use in the last 12 months

Among past-year users of BZP party pills, the most common places where people had used BZP party pills in the last 12 months were at nightclubs or bars (37.0%, 30.3–43.8), at someone else's home (33.2%, 27.1–39.2), at their own home (32.0%, 25.5–38.4) and at special events (31.1%, 23.6–38.7) (Table 102).

Table 102: Location of using BZP party pills in the last 12 months, among past-year BZP party pill users aged 16–64 years (unadjusted prevalence)

Location of BZP party pill use	Prevalence (%) for past-year users of BZP party pills (95% CI)
Nightclubs or bars	37.0 (30.3–43.8)
Someone else's home	33.2 (27.1–39.2)
Own home	32.0 (25.5–38.4)
Special events	31.1 (23.6–38.7)
Pubs, hotels, restaurants or cafes	9.4 (5.4–13.5)
Outdoor public places	9.0 (5.5–13.6)
Groups, workplaces or meetings	3.1 (1.4–5.7)
Sports clubs or events	2.6 (1.0–5.3)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Frequency of BZP party pill use in the last 12 months

One in two past-year users of BZP party pills had used BZP party pills only once or twice in the past year (Table 103). One in seven (13.8%, 9.5–18.0) past-year BZP party pill users had used BZP party pills at least monthly in the past year, equating to about 21,800 people in New Zealand.

Table 103: Frequency of BZP party pill use in the last 12 months, among past-year BZP party pill users and total population aged 16–64 years (unadjusted prevalence and estimated number of adults)

Frequency of BZP party pill use	Prevalence (%) for past-year users of BZP party pills (95% CI)	Prevalence (%) for total adults (95% CI)	Estimated number of adults
At least weekly	4.2 (2.1–7.6)	0.3 (0.1–0.5)	7,800
At least monthly	13.8 (9.5–18.0)	0.8 (0.5–1.1)	21,800
3–11 times a year	34.5 (27.8–41.3)	1.9 (1.5–2.4)	51,300
1–2 times a year	51.7 (44.3–59.1)	3.0 (2.4–3.5)	78,000

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Risky behaviours and BZP party pill use

Having driven, worked or operated machinery while under the influence of BZP party pills in the last 12 months

Among past-year BZP party pill users, one in four (24.9%, 19.4–30.3) reported having driven a motor vehicle in the past year while feeling under the influence of BZP party pills, equating to about 35,900 people in New Zealand (Table 104).

Table 104: Risky behaviours while under the influence of BZP party pills in the last 12 months, among past-year BZP party pill users aged 16–64 years (unadjusted prevalence and estimated number of adults)

Risky behaviour while feeling under the influence of BZP party pills	Prevalence (%) among past-year users of BZP party pills (95% CI)	Estimated number of adults
Driven a motor vehicle	24.9 (19.4–30.3)	35,900
Worked	14.5 (9.6–19.5)	20,800
Operated machinery	4.3 (2.4–7.1)	6,300

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Having used other drugs with BZP party pills in the last year

Four in five (80.7%, 75.0–86.4) past-year BZP party pill users had used alcohol at the same time as using BZP party pills, at least once in the past year (Table 105).

Table 105: Used BZP party pills at the same time as other drugs at least once in the last 12 months, among past-year BZP party pill users aged 16–64 years, by type of other drug (unadjusted prevalence)

Drug used with BZP party pills	Prevalence (%) among past-year users of BZP party pills (95% CI)
Alcohol	80.7 (75.0–86.4)
Tobacco	58.1 (51.3–64.8)
Cannabis	41.0 (34.4–47.5)
Painkillers, antidepressants or sedatives	10.4 (6.3–14.5)
Ecstasy, amphetamines, cocaine or heroin	9.6 (6.0–13.3)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Help-seeking for BZP party pill use

The level of help-seeking for BZP party pill use was low overall.

In their lifetime, 0.4% (0.1–1.1) of people who had ever used BZP party pills had received help to reduce their level of BZP party pill use. Less than one percent (0.5%, 0.0–2.0) of past-year BZP party pill users had received help in the past year to reduce their level of BZP party pill use.

Among people who had ever used BZP party pills, almost one percent (0.7%, 0.2–1.5) had wanted help to reduce their level of BZP party pill use at some point in their lifetime but had not received this help. Among past-year BZP party pill users, 1.0% (0.2–2.9) had wanted help in the past year to reduce their level of BZP party pill use but had not received it.

Almost four percent (3.9%, 2.2–5.7) of people who had ever used BZP party pills reported that a relative or friend, or a doctor or another health care worker had ever been concerned about their BZP party pill use or suggested they cut down.

Harmful effects from BZP party pill use

Summary of harmful effects due to BZP party pill use in lifetime

Overall, one in eight (12.6%, 9.7–15.5) people who had ever used BZP party pills had experienced any harmful effect in their lifetime due to their use of BZP party pills (Table 106). Among people who had ever used BZP party pills, the most common harmful effects experienced in their lifetime due to their own use of BZP party pills were on their friendships and social life (6.8%, 4.4–9.2) and on their home life (4.8%, 3.2–6.4).

Table 106: Harmful effects experienced in lifetime due to own BZP party pill use, among people who had ever used BZP party pills and total population aged 16–64 years (unadjusted prevalence)

Harmful effects due to BZP party pill use	Prevalence (%) in lifetime (95% CI)	
	For people who had ever used BZP party pills	For total adults
Any harmful effect	12.6 (9.7–15.5)	1.7 (1.3–2.1)
Harmful effects on friendships or social life	6.8 (4.4–9.2)	0.9 (0.6–1.2)
Harmful effects on home life	4.8 (3.2–6.4)	0.6 (0.4–0.9)
Harmful effects on work, study or employment opportunities	5.3 (3.4–7.1)	0.7 (0.4–1.0)
Harmful effects on financial position	3.2 (2.0–4.4)	0.4 (0.3–0.6)
Had learning difficulties	2.4 (1.2–4.2)	0.3 (0.2–0.6)
Had a legal problem	0.6 (0.2–1.3)	0.1 (0.0–0.2)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally, 2.8% (1.6–4.7) of people who had ever used BZP party pills had experienced injuries in their lifetime due to their use of BZP party pills, representing 0.4% (0.2–0.6) of the total population aged 16–64 years.

Summary of harmful effects due to BZP party pill use in past year

Overall, one in ten (10.3%, 6.4–14.2) past-year BZP party pill users had experienced any harmful effect in the previous year due to their use of BZP party pills (Table 107). Among past-year BZP party pill users, the most common harmful effects experienced in the past year due to their use of BZP party pills were on their friendships and social life (5.4%, 2.7–9.5) and on their home life (5.4%, 2.7–9.7).

Table 107: Harmful effects experienced in the last 12 months due to own BZP party pill use, among past-year BZP party pill users and total population aged 16–64 years (unadjusted prevalence)

Harmful effects due to BZP party pill use	Prevalence (%) in the last 12 months (95% CI)	
	For past-year users of BZP party pills	For total adults
Any harmful effect	10.3 (6.4–14.2)	0.6 (0.4–0.8)
Harmful effects on friendships or social life	5.4 (2.7–9.5)	0.3 (0.2–0.5)
Harmful effects on home life	5.4 (2.7–9.7)	0.3 (0.1–0.5)
Harmful effects on work, study or employment opportunities	3.7 (1.9–6.5)	0.2 (0.1–0.4)
Harmful effects on financial position	2.6 (1.3–4.7)	0.2 (0.1–0.3)
Had learning difficulties	2.0 (0.7–4.5)	0.1 (0.0–0.3)
Had a legal problem	0.5 (0.1–1.7)	0.0 (0.0–0.1)

Source: 2007/08 New Zealand Alcohol and Drug Use Survey

Note: 'Any harmful effect' includes having experienced any of the following harmful effects: on financial position; on friendships or social life; on home life; on work, study or employment opportunities; learning difficulties; and legal problems.

Additionally, 7.4% (4.2–11.7) of past-year BZP party pills users reported having had one or more days off work or school in the past year due to their BZP party pill use. This proportion represents 0.4% (0.2–0.7) of the total population aged 16–64 years, equating to 10,800 people.

Furthermore, 2.2% (0.7–5.3) of past-year BZP party pill users had experienced injuries in the past year due to their use of BZP party pills, representing 0.1% (0.1–0.3) of the total population aged 16–64 years.

Chapter 11: Discussion and Summary

Drug Use in New Zealand presents the key findings on drug use for recreational purposes from the 2007/08 New Zealand Alcohol and Drug Use Survey (NZADUS). Although the term **drugs** encompasses a wide range of substances with psychoactive effects, this report has focused specifically on recreational drug use other than the use of alcohol and tobacco. For an overall picture of drug use in New Zealand, therefore, this report should be considered alongside reports on alcohol use (Ministry of Health 2009a) and tobacco use (Ministry of Health 2009b, 2009c).

Summary of key findings

Overall past-year drug use

Drug use for recreational purposes is relatively common in New Zealand. Overall, one in six (16.6%) adults aged 16–64 years had used any drug (excluding alcohol, tobacco and BZP party pills) for recreational purposes in the past year, and almost half (49.0%) of all adults aged 16–64 years had used drugs in their lifetime. The majority of these people had used cannabis, with 14.6% of all adults aged 16–64 years having used cannabis in the previous year, and 46.4% of all adults in the 16–64 year age group having used cannabis in their lifetime. Other drugs commonly used for recreational purposes by New Zealanders aged 16–64 years during the last 12 months were BZP party pills (5.6%), ecstasy (2.6%) and amphetamines (2.1%). Although the prevalence of past-year drug use is lower than the estimated prevalence of adults who had used alcohol in the past year (85.2% of adults aged 16–64 years in 2007/08, Ministry of Health 2009a) or who are current tobacco smokers (23.1% of adults aged 15–64 years in 2008, Ministry of Health 2009b), recreational drug use is an important part of the picture of overall drug use in New Zealand.

There were some differences in overall past-year drug use among population groups. This survey found somewhat higher rates of any drug use in men, people in younger age groups, European/Others, Māori and people living in neighbourhoods of higher socioeconomic deprivation. However, drug use was by no means restricted to these groups.

Overall harms experienced due to drug use

Drug use can cause a wide range of harms to individuals, including social, economic and health harms. Overall, about one in five past-year drug users (18.6%) reported having experienced any harmful effect in the past year due to their drug use. Among past-year drug users, the most commonly reported harmful effects due to their drug use in the past year were on financial position (10.8%), friendships or social life (8.5%) and home life (8.4%). Furthermore, 7.2% of past-year drug users reported having had one or more days off work or school in the past year due to their drug use.

Among past-year drug users, there was some variation by population group in the prevalence of experiencing these harmful effects. For example, there were generally slightly higher rates of harm among younger people and people living in more socioeconomically deprived neighbourhoods. However, these trends were not consistent for all harms.

Help-seeking for drug use

Among people who had ever used drugs, about 4.5% of people had received help to reduce their level of drug use at some time in their life. Among these people who had ever received help, the most common sources of help they reported were from a drug and alcohol counsellor (58.8%), a family member or friend (35.4%) and a general practitioner (GP) (30.3%).

Furthermore, among people who had ever used drugs, 2.6% had wanted help to reduce their level of drug use at some time in their life but had not received it. Among these people, the most common reasons for not getting help were not knowing where to go (20.7%) and the service not being appropriate for their type of drug use (19.8%). Fear of the law or police was another reason given for not getting help (16.5%); cost was given as a reason by 8.2%.

About 3.2% of past-year drug users reported having received help in the past year to reduce their level of drug use. Furthermore, 3.6% reported having wanted help but not receiving it in the past year.

Cannabis

Overall, the most commonly used drug (excluding alcohol and tobacco) in the past year was cannabis, used by 14.6% of adults aged 16–64 years in the past year. There were higher rates of past-year cannabis use among men, people aged 16–34 years, and people of European/Other or Māori ethnicity.

A high proportion of past-year cannabis users had used cannabis regularly in the past year. About one in seven (13.4%) past-year cannabis users had used cannabis daily; half (54.0%) had used cannabis at least monthly in the past year.

Among people who had ever used cannabis, the majority had first used cannabis when they were aged 15–17 years (35.7%) or 18–20 years (28.4%), although one in six (16.2%) had first used cannabis when they were 14 years or younger.

Using cannabis can produce an altered state of consciousness and can affect judgement. For this reason, it is concerning that one in three (35.8%) past-year cannabis users reported having driven a motor vehicle in the past year while feeling under the influence of cannabis.

Past-year cannabis users reported experiencing a wide range of harms in the past year due their cannabis use. Overall, one in six (16.1%) past-year cannabis users reported having experienced any harmful effect in the past year due to their cannabis use. Almost one in ten (9.0%) reported that their cannabis use had harmed their financial position in the past year, and 7.0% had experienced harmful effects on their friendships or social life in the past year due to their cannabis use.

The rate of help-seeking among past-year cannabis users was low, with 2.4% of past-year cannabis users having received help in the past year to reduce their level of cannabis use. About 2.8% of past-year cannabis users reported that they had wanted help in the past year to reduce their level of drug use but had not received it.

BZP party pills

BZP party pills, a type of 'legal high' containing benzylpiperazine and related substances, became popular in New Zealand from around the year 2000. However, BZP and related substances were banned in New Zealand from 1 April 2008 (in the final month of interviewing for the 2007/08 NZADUS), due to concerns about the health risks of these drugs. It is likely that the prevalence of BZP party pill use will have dropped substantially since the ban for the reason that possession and use of BZP party pills are now illegal.

In 2007/08 one in seven (13.5%) adults aged 16–64 years had used BZP party pills at some time in their life, and 5.6% had used BZP party pills in the past year. The age groups with higher past-year prevalences were 16–17 and 18–24 years, with one in five (19.8%) men aged 18–24 years having used BZP party pills in the past year. The majority of past-year BZP party pill users were not regular users, with over half (51.7%) having used BZP party pills once or twice in the past year.

The survey found that 80.7% of past-year BZP party pill users had used alcohol in combination with BZP party pills at least once in the past year, a poly-drug combination that increases the potential for harm from these substances.

Ecstasy

Ecstasy was the third most commonly used drug in the past year (after cannabis and BZP party pills, and excluding alcohol and tobacco), used by 2.6% of adults in the past year. Past-year use was higher among those aged 18–24 and 25–34 years, and among people of European/Other ethnicity. The majority of past-year ecstasy users had used ecstasy infrequently in the past year, with 60.4% having used it once or twice in the last 12 months. Among past-year ecstasy users, 78.9% had used ecstasy in combination with alcohol at least once in the past year, and 42.8% had used it in combination with cannabis.

Amphetamines

Amphetamines include the drugs methamphetamine (which comes as 'P' and as 'ice'/ 'crystal meth') and 'speed', and overall were the fourth most commonly used drugs in the past year (excluding alcohol and tobacco). The 2007/08 NZADUS found that 2.1% of adults had used amphetamines in the past year; furthermore, 1.0% of adults reported having used 'P', and 1.1% reported having used 'speed' in the past year. Past-year amphetamine use was highest among those aged 18–24 years, with 8.4% of men in this age group having used amphetamines in the past year. One in four (25.8%) past-year amphetamine users had used amphetamines at least monthly in the past year.

About 8.0% of people who had ever used amphetamines had received help to reduce their level of amphetamine use at some time in their life, and another 1.8% had wanted help at some time but not received it. Among past-year amphetamine users, 1.4% had received help in the past year.

Amphetamine use had a wide range of harmful effects on users in the past year. One in five (19.4%) past-year amphetamine users had experienced any harmful effect in the past year due to their amphetamine use. Among past-year amphetamine users, the most commonly cited harmful effects experienced in the past year due to their amphetamine use were on their home life (13.6%), friendships or social life (12.5%) and financial position (10.4%). One in seven (14.1%) past-year amphetamine users had taken one or more days off work or school in the past year due to their amphetamine use.

Other drugs

Other drugs that were used for recreational purposes by adults aged 16–64 years in the past year included LSD and other synthetic hallucinogens (1.3%), opiates (including prescription painkillers and other opiates) (1.1%), kava (0.9%), nitrous oxide (0.8%), cocaine/crack cocaine (0.6%), prescription sedatives (0.6%) and prescription stimulants (0.5%).

Trends by population group

The 2007/08 NZADUS showed that some population groups were somewhat more likely to have used drugs in the past year, in particular men, younger people, and people of European/Other or Māori ethnicity, although drug use appeared to occur in most parts of society. These results should be interpreted within the context of the broader determinants of health, which include the social and physical environment, socioeconomic status, inequalities in the distribution of and access to material resources such as health care, and other determinants of health (such as education, employment and housing). Some of the results are adjusted for age (for gender, ethnicity and NZDep2006 analyses), to account for differences in the age structures of different population groups.

Overall, men were more likely to have used drugs in the past year, and in their lifetime, than women, when adjusting for age. When examining the use of specific drugs, men had higher rates of past-year use for a range of drugs, including cannabis, ecstasy, amphetamines, cocaine/crack cocaine, LSD and/or other synthetic hallucinogens,

ketamine, kava and prescription sedatives. There were no drugs that had a significantly higher prevalence of past-year use among women than among men.

Generally, past-year drug use was higher in the younger age groups (people aged 16–34 years) than in the older age groups. Four in ten (38.1%) men aged 18–24 years had used any drug (excluding alcohol, tobacco and BZP party pills) for recreational purposes in the past year, and three in ten (29.8%) women in this age group had done so.

European/Other and Māori men and women had higher rates of past-year drug use than men and women in the total population, and people of Pacific or Asian ethnicity had lower rates, when adjusted for age.

People of European/Other ethnicity had higher rates of having used the following drugs in the past year: cannabis, ecstasy, amphetamines, prescription stimulants (men only), LSD/DMT/other synthetic hallucinogens (men only), naturally occurring hallucinogens, ketamine, GHB, nitrous oxide and BZP party pills.

Māori men and women had significantly higher rates of past-year use of cannabis and BZP party pills in the past year, compared with men and women in the total population, but were not significantly more likely to have used any of the other types of drug in the past year. Among people who had ever used cannabis, Māori and non-Māori had similar rates of first starting using cannabis when aged 15–17 years, but Māori were significantly more likely to have first used cannabis when they were 14 years or younger, compared with non-Māori, when adjusted for age.

Overall, people of Pacific or Asian ethnicity were less likely to have used drugs in the past year than men and women in the total population. The exception was kava (which is widely used in Pacific communities, often for ceremonial purposes), with Pacific men being almost six times more likely to have used kava in the past year than men in the total population.

Men and women living in the most socioeconomically deprived neighbourhoods (NZDep2006 quintile 5) were more likely to have used any drug (excluding alcohol, tobacco and BZP party pills) in the past year, than people living in less deprived neighbourhoods (quintile 1). However, for many specific drugs, there was no overall trend by neighbourhood deprivation in past-year drug use, with people living in quintiles 3 or 4 often being more likely than other people to have used drugs in the past year.

Strengths and limitations

The 2007/08 New Zealand Alcohol and Drug Use Survey had a robust methodology, and had over 6500 adult respondents throughout New Zealand (including increased numbers of Māori and Pacific peoples). Although the response rate was relatively low, at 60%, it was considered acceptable, given the sensitive nature of the subject matter. However, given the lower response rate, it should be noted that the survey risks underestimating drug use in certain populations – in particular, heavy drug users (who may have more chaotic and unstable lives) and those involved in a range of illegal activities. These populations may be more difficult to contact to take part in the survey,

and once contacted, may be more likely to be concerned about confidentiality and wary of involvement in the survey.

The target population for the 2007/08 NZADUS was the usually resident population living in permanent private dwellings in New Zealand. It should be noted that the results of this study may not necessarily apply to the total New Zealand population, if the groups of people who were not included in the survey (such as people in prisons, hospitals and homeless people) have patterns of recreational drug use that differ from those in the rest of the population.

One limitation of this study is its reliance on self-reported information to sensitive questions about alcohol and other drug use behaviour. Responses may have been subject to social desirability bias; for example, drug users may be in denial or may wish to conceal their drug use from other people. The use of a self-completed computerised interview may have helped to mitigate this problem. Asking respondents about their drug use over the last 12 months may also have led to recall bias (such as under- or over-reporting).

Furthermore, it was only possible to identify a small number of time trends from this survey because its methodology and questionnaire differed from previous Health Behaviour Surveys and New Zealand Health Surveys. Although the earlier analyses suggest similar rates of past-year drug use since 2002–2003, any such comparisons should be made with caution, as any apparent changes in prevalence over time may be due to the differences in survey methodology and/or questionnaire, rather than reflecting a true change in the prevalence of drug use in the population. However, it is intended that future surveys will examine alcohol and drug use using a methodology consistent with the 2007/08 NZADUS, in order to give reliable estimates over time.

Conclusion

Overall, the results of this study show that drug use is a substantial health issue in New Zealand. This report has shown that one in six (16.6%) people aged 16–64 years had used drugs (excluding alcohol, tobacco and BZP party pills) recreationally in the past year, representing almost half a million (438,200) New Zealanders aged 16–64 years. The majority of these people had used cannabis, with 14.6% of all New Zealanders aged 16–64 years having used cannabis in the previous year.

Although the prevalence of past-year drug use was higher in some population groups (including men, people in younger age groups, and people of European/Other or Māori ethnicity), recreational drug use is an issue that appears to affect most parts of society. Given that the potential harmful effects of drug use include addiction problems, health problems, financial and social harm, as well as posing a risk to people's lives, it continues to be important to address drug use and drug-related harm in New Zealand. It is hoped that the results of this survey will be used to guide the development, implementation and evaluation of policies and services to address drug-related harm.

Glossary

95% confidence interval	An indication of the accuracy of a survey estimate. The 95% confidence interval is the interval that would be expected to contain the true population value 95% of the time if many samples were taken. In this report, 95% confidence intervals have been presented in brackets after estimates in the text, and as error bars in graphs.
Age-standardised rates	Rates that have been adjusted to take account of differences in the age distribution between different groups (eg, different ethnic groups). The standard population used in Health and Disability Intelligence analyses is the World Health Organization world population (Ahmad et al 2000).
Amphetamines	A group of drugs with stimulatory effects on the central nervous system. They include methamphetamine ('P' and 'ice'), 'speed' and some types of medications.
BZP party pills	Products containing benzylpiperazine (BZP) and related substances, with stimulant and euphoric effects. These products were legal in New Zealand at the time that the 2007/08 NZADUS was undertaken.
Cannabis	A drug from the *Cannabis sativa* plant. It comes in a variety of forms, including marijuana (dried leaves and flowers), hashish (resin) and hash oil.
Cocaine	Derived from the coca leaf. It comes in the form of a powder (cocaine hydrochloride) and in a solid form (as crack cocaine).
Crack cocaine	A solid form of cocaine that has been prepared for smoking.
DMT	Dimethyltryptamine, a type of semi-synthetic hallucinogen that can be found in certain plants.
Drug	For the purposes of this report, a substance with psychoactive effects, used for recreational purposes. Drugs include alcohol, tobacco, BZP party pills, cannabis, ecstasy, stimulants, sedatives, opiates, hallucinogens and other drugs. Note, however, that alcohol and tobacco results are not included in this report, and that in Chapter Two, the term drugs refers to drugs excluding alcohol, tobacco and BZP party pills.
Ecstasy	Can be classified as both a hallucinogen and a stimulant, and generally contains the active ingredient MDMA (3,4-methylenedioxy-N-methylamphetamine). However, due to the nature of the illegal market, the active constituents in products sold as ecstasy vary greatly.
GHB	Gamma-hydroxybutyrate. GHB and related substances are sedative drugs that generally come in the form of an odourless and colourless liquid.
Hallucinogens	Include LSD, DMT, naturally occurring hallucinogens (such as magic mushrooms) and ketamine. Ecstasy also has hallucinogenic properties.
Hash	The resinous form of cannabis.
Ice	A colloquial term for a crystallised form of methamphetamine.

Illegal drug	A drug classified as a controlled drug under the Misuse of Drugs Act 1975, including some pharmaceuticals that can be used for psychoactive purposes.
Kava	A sedative made from the *Piper methysticum* plant. It is widely used in Pacific communities, largely for ceremonial purposes in the form of a drink.
Ketamine	A dissociative anaesthetic drug with hallucinogenic effects.
LSD	D-lysergic acid diethylamide, a semi-synthetic hallucinogen.
Magic mushrooms	A type of naturally occurring hallucinogen containing psilocybine and psilocine.
Marijuana	A form of cannabis (namely, the dried leaves and heads from the *Cannabis sativa* plant).
Median	The mid-point of a sorted set of values. For example, the median age of first using cannabis for a population group who had ever used cannabis is the age at which half of the population group had first used cannabis when younger than (or at) that age, and the other half of the population group had first used cannabis when older than (or at) that age.
Methamphetamine	A type of amphetamine, commonly known as 'P' or 'ice'.
Nitrous oxide	A colourless, odourless gas (also known as 'NOS' or laughing gas), legitimately used in anaesthesia, but also diverted for recreational use.
NZDep2006	New Zealand Index of Socioeconomic Deprivation 2006; an area-level (meshblock) measure of socioeconomic status.
Opiates	Drugs derived from the opium poppy. They include heroin and prescription painkillers such as morphine.
'P' (or 'pure')	Colloquial terms used in New Zealand for methamphetamine.
Prevalence	The percentage (or proportion) of cases in a specific population at a specific point in time.
Quintile	A category that contains a fifth (20%) of the data. For example, each quintile of the New Zealand Index of Socioeconomic Deprivation (NZDep2006) contains approximately 20% of the population.
Rate	The prevalence of an indicator within a defined population (eg, Māori) and a defined time period (eg, 2007/08).
Rate ratio	A measure of how prevalent an indicator is in one population group (eg, Māori men) compared with another (eg, men in the total New Zealand population).
Sedatives	Drugs that have a depressant effect on the central nervous system. Sedatives include drugs such as barbiturates, benzodiazepines, GHB and kava.
Speed	A type of amphetamine, generally the substance amphetamine sulphate.

Standardised rate ratio	The ratio of two age-standardised rates (eg, Māori men vs men in the total population). The reference groups used in this report are the men and women in the total population (ie, the national age-standardised rate for each gender). A standardised rate ratio (SRR) is said to indicate a statistically significant difference between the group of interest and the reference group when the confidence interval does not include the value 1.
Steroids	Drugs containing the male hormone testosterone (or drugs similar to testosterone). Anabolic steroids have a clinical use in treating men who have low testosterone levels. However, they are also diverted for image-enhancing purposes and to improve sports performance, for example by helping to increase muscle mass.
Stimulants	Drugs that have a stimulatory effect on the central nervous system. Stimulants include illegal drugs such as amphetamines, cocaine and crack cocaine, and some prescription stimulants (such as methylphenidate).
Total response ethnicity	A method that assigns each person to all ethnicities they identify with. Total response ethnicity has been used in this report.
Unadjusted prevalence	A rate that has not been age standardised. This unadjusted rate can be used to estimate the number of people affected in a population.
Weighting	A technique used in all analyses in this report to ensure that estimates of population totals, averages and proportions can be said to be representative of the total resident population aged 16–64 years in New Zealand.

Appendix: Analyses of the 2002/03 New Zealand Health Survey and 2003 Health Behaviours Survey

Analysis of 2002/03 New Zealand Health Survey

This section examines the prevalence of cannabis/marijuana use from the 2002/03 New Zealand Health Survey (NZHS). The 2002/03 NZHS collected data on the adult population aged 15 years and over, and used face-to-face interviews conducted in respondents' homes, in contrast to the self-completed computerised interviews used in the 2007/08 NZADUS. To make the results from the two surveys as comparable as possible, the 2002/03 NZHS dataset was reweighted and limited to respondents aged 16–64 years.

What were the survey questions?

In the 2002/03 New Zealand Health Survey, participants were asked whether they had ever tried marijuana. If they had, they were asked how often they had used marijuana in the last 12 months. This included the response 'not in the last 12 months'.

In the 2007/08 New Zealand Alcohol and Drug Use Survey, participants were asked whether they had ever tried cannabis (including all types of marijuana, pot, grass, weed, hash and hash oil). If they had, they were asked whether they had used cannabis in the last 12 months. Participants who had used cannabis in the last year were asked how many times they had used cannabis in that period.

Important note: There are several important differences between the 2002/03 NZHS and the 2007/08 NZADUS that mean that the results presented below should be interpreted with caution.

1. The 2002/03 NZHS used face-to-face interviews, whereas the 2007/08 NZADUS was based on self-completed computerised interviews. Therefore there may have been a higher level of under-reporting in the 2002/03 NZHS as the setting of the survey was less confidential to respondents, which may have increased the social desirability bias.
2. The questions were not identical, as the box above demonstrates: the 2002/03 NZHS asked respondents about their marijuana use and the 2007/08 NZADUS asked respondents about their cannabis use (which has a wider range of products, including marijuana, hashish and hash oil).
3. Other factors, including the question order, may have affected results.

These differences between the surveys mean that any changes in prevalence estimates over time may be due to the different modes of collection and/or survey questions, rather than to an underlying change in prevalence.

The prevalences of past-year and monthly cannabis were similar for adults aged 16–64 years in the 2002/03 NZHS and 2007/08 NZADUS, when adjusting for age (Table A1). Although the prevalence of having used cannabis/marijuana at least weekly in the previous year was somewhat lower in the 2002/03 NZHS, this result may be due to the difference in survey methodologies, in particular, the use of face-to-face interviews versus self-completed computerised interviews as noted above.

Table A1: Prevalence of cannabis/marijuana use in New Zealand, among total population aged 16–64 years, 2002/03 and 2007/08 (age-standardised prevalence)

Drug	2002/03 NZHS	2007/08 NZADUS
Used cannabis/marijuana in the last 12 months	18.3 (17.0–19.6)	17.3 (15.9–18.7)
Used cannabis/marijuana at least monthly in the last 12 months	8.3 (7.4–9.3)	9.1 (8.0–10.2)
Used cannabis/marijuana at least weekly in the last 12 months	4.9 (4.2–5.6)	6.6 (5.6–7.5)

Sources: 2002/03 New Zealand Health Survey (NZHS) and 2007/08 New Zealand Alcohol and Drug Use Survey (NZADUS)

Notes: Age-standardised to WHO world population. Results must be interpreted with caution due to differences in the survey questions and methodologies. The 2002/03 NZHS asked about marijuana use via face-to-face interviews, whereas the 2007/08 NZADUS asked about cannabis use via self-completed computerised interviews.

Analysis of 2003 Health Behaviours Survey – Drug Use

This section examines the prevalence of past-year drug use from the 2003 Health Behaviours Survey – Drug Use (HBS–DU). The 2003 HBS–DU was carried out by the Centre for Social and Health Outcomes Research and Evaluation (SHORE) and Te Ropu Whariki (from Massey University), and collected information about recreational drug use from the population aged 12–65 years using telephone interviews. To make the results from the survey as comparable as possible with the 2007/08 NZADUS, the 2003 HBS–DU dataset has been reweighted and limited to respondents aged 16–64 years.

What were the survey questions?

In the 2003 Health Behaviours Survey – Drug Use, participants were asked which of the following drugs they had ever tried:

- marijuana (cannabis, dak, weed, dope)
- ecstasy ('E', MDMA)
- amphetamines (uppers, speed, methamphetamine, P, pure)
- ice (crystal meth)
- cocaine (coke, snow, blow)
- crack (freebase)
- kava
- nitrous oxide (laughing gas).

If the participant reported having ever used any of these drugs, they were asked how many times in the last 12 months they had used each drug.

In the 2007/08 New Zealand Alcohol and Drug Use Survey, participants were asked whether they had ever tried the following drugs for recreational purposes:

- cannabis (including all types of marijuana, pot, grass, weed, hash and hash oil)
- ecstasy
- amphetamines (including P, meth, ice, and speed, as well as any drug containing amphetamine as an ingredient, including 'pure' methamphetamine, crystal methamphetamine, Duromine® (described in the survey as diet pills containing amphetamines) and dexamphetamine (Dexedrine®, Dextrostat®))
- cocaine or crack
- kava
- nitrous oxide (eg NOS, laughing gas, whippits).

If the participant reported having ever used any of these drugs, they were asked whether, in the last 12 months, they had used that drug. Participants who had used that specific drug in the last year were asked how many times in that period they had used it.

Important note: There are several important differences between the 2003 HBS–DU and the 2007/08 NZADUS that mean that the results presented below should be interpreted with caution.

1. The 2003 HBS–DU used telephone interviews, whereas the 2007/08 NZADUS was based on self-completed computerised interviews. Therefore there may have been a higher level of under-reporting in the 2003 HBS–DU, as the setting of the survey was less confidential to respondents, which may have increased the social desirability bias.

2. The questions were not identical, as can be seen from the questions in the box above. The differences may have affected how survey participants answered questions, and the comparability of results.

3. Other factors, including the question order, may have affected results.

These differences between the surveys mean that any changes in prevalence estimates over time may be due to the different modes of collection and/or survey questions, rather than to an underlying change in prevalence.

The prevalences of past-year drug use were quite similar between the 2003 HBS–DU and the 2007/08 NZADUS, for all drugs listed, with overlapping confidence intervals for all drugs, when adjusting for age (Table A2). As noted above, any changes in past-year prevalence may be due to the change in survey methodology and/or questionnaire, rather than a change to the underlying prevalence of drug use in the New Zealand population.

Table A2: Prevalence of past-year drug use for recreational purposes in New Zealand, among total population aged 16–64 years, by type of drug, 2003 and 2007/08 (age-standardised prevalence)

Drug	2003 HBS–DU	2007/08 NZADUS
Cannabis	15.2 (14.1–16.4)	17.3 (15.9–18.7)
Ecstasy	2.3 (1.7–2.9)	3.3 (2.6–3.9)
Amphetamines*	3.0 (2.4–3.5)	2.6 (2.0–3.2)
Nitrous oxide	1.6 (1.1–2.0)	1.1 (0.7–1.6)
Kava	1.4 (1.0–1.8)	1.0 (0.7–1.4)
Cocaine or crack cocaine**	0.4 (0.2–0.6)	0.7 (0.4–1.0)

Sources: 2003 Health Behaviours Survey – Drug Use (HBS–DU) and 2007/08 New Zealand Alcohol and Drug Use Survey (NZADUS)

Notes: Age-standardised to WHO world population. Results must be interpreted with caution due to differences in the survey questions and methodologies. The 2003 HBS–DU used telephone interviews, whereas the 2007/08 NZADUS used self-completed computerised interviews. Additionally the questions were not consistent between the two surveys.

* For analysis of the 2003 HBS–DU, this category included both 'amphetamines' and 'ice', in order to be consistent with the 2007/08 NZADUS.

** For analysis of the 2003 HBS–DU, this category included both 'cocaine' and 'crack', in order to be consistent with the 2007/08 NZADUS.

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