

# **Legal party pill use in New Zealand:**

**Prevalence of use, availability, health harms and  
'gateway effects' of benzylpiperazine (BZP)  
and trifluoromethylphenylpiperazine  
(TFMPP)**



C. Wilkins  
M. Girling  
P. Sweetsur  
T. Huckle  
J. Huakau

Centre for Social and Health Outcomes Research and Evaluation (SHORE)  
Massey University  
Auckland  
New Zealand



## **Acknowledgements**

The funding for this research was awarded from the National Drug Policy Discretionary Grant Fund which is jointly managed by the Inter-Agency Committee on Drugs (IACD) and the Ministerial Committee on Drug Policy (MCDP). The study was lead by Dr. Chris Wilkins who developed the research proposal and questionnaire, planned the analysis and wrote the final report. Melissa Girling managed the survey data collection. The statistical analysis was completed by Paul Sweetsur. Taisia Huckle and John Huakau assisted with sampling issues and managed the survey telephone numbers. The quality of the data collected is a tribute to the dedication of the team of CATI interviewers and supervisors. Last, but by no means least, we acknowledge the time and willingness of the general public to respond to the survey, without which the research could not have taken place.

## Contents

Acknowledgements .....	2
Contents.....	3
Summary.....	5
Introduction .....	10
Background .....	10
Aims .....	12
Method .....	12
Analysis.....	13
CHAPTER 1 – PREVALENCE AND PATTERNS OF LEGAL PARTY PILL USE.....	14
Introduction.....	14
Ever tried legal party pills .....	14
Age of first use of legal party pills.....	15
Reasons for never using legal party pills.....	16
Last year use of legal party pills .....	17
Use of legal party pills in the last 30 days .....	18
Changes in legal party pill use .....	18
Reasons for using less legal party pills .....	19
Reasons for having stopped using legal party pills .....	19
Reasons for using more legal party pills .....	20
Frequency of legal party pill use.....	21
Means of administration .....	21
Number of legal party pills taken .....	21
Binged on legal party pills .....	22
Location of use .....	23
Legal party pill use and driving.....	23
CHAPTER 2 - POLY DRUG USE AND LEGAL PARTY PILLS .....	25
Introduction.....	25
Legal party pills and level of drinking .....	25
Substances used in combination with legal party pills .....	26
Substances used to recover from legal party pills.....	26
Other drug use by legal party pill users.....	27
CHAPTER 3 – HARMS FROM LEGAL PARTY PILLS .....	29
Introduction.....	29
Self-reported harms from legal party pills.....	29
Physical problems from legal party pill use .....	30
Psychological problems from legal party pill use.....	31
Accessing health services .....	32
CHAPTER 4 - AVAILABILITY, POTENCY AND PRICE OF LEGAL PARTY PILLS .....	33
Introduction.....	33
Availability of legal party pills.....	33
Strength of legal party pills .....	34
Prices and purchase of legal party pills.....	35
CHAPTER 5 – EXTENT OF DEPENDENCY ON LEGAL PARTY PILLS .....	37
Introduction.....	37
Extent of dependency.....	37
Extent that use is out of control .....	38
Concern about missing a dose.....	38

Worry about legal party pill use .....	39
Wish you could stop .....	40
Difficulty stopping .....	40
Extent required help to reduce level of use .....	41
CHAPTER 6 – ‘GATEWAY’ EFFECTS AND LEGAL PARTY PILLS .....	42
Introduction.....	42
Current relationship between legal party pills and illicit drug use.....	42
Past relationship between legal party pills and illicit drug use.....	43
CHAPTER 7 – USER PERCEPTIONS OF LEGAL PARTY PILLS.....	45
Introduction.....	45
Characteristics of legal party pills most liked.....	45
Characteristics of legal party pills most disliked .....	46
Knowledge of the safe number of legal party pills to take .....	46
Knowledge of what substances should not be taken with legal party pills .....	47
Types of people who should not use legal party pills .....	48
Perceptions of the health risk of using different drug types.....	48
CHAPTER 8 – POLICY AND LEGAL PARTY PILLS .....	50
Introduction.....	50
Age identification .....	50
Refused purchase .....	51
Perceptions of the current regulation of legal party pills.....	52
Areas of regulation of legal party pills like to see strengthened .....	52
Areas of regulation of legal party pills like to see relaxed .....	53
CHAPTER 9 – DEMOGRAPHIC CHARACTERISTICS OF LEGAL PARTY PILL USERS.....	55
Introduction.....	55
Age and gender.....	55
Ethnicity.....	56
Employment status.....	56
Income.....	57
Geographical location.....	58
REFERENCES.....	59
Appendix 1 – Product types .....	60
Appendix 2 – Perceptions of the health risk of different substances.....	61
Appendix 3 – Locations.....	62

## Summary

The principal aims of the 2006 National Household Survey of Legal Party Pill Use were to provide national population statistics on the prevalence and patterns of legal party pill use in New Zealand, and to provide data on the harms and problems related to the use of legal party pills in New Zealand.

The survey consisted of a random national household sample of 2,010 people aged 13-45 years old collected using the Centre for Social and Health Outcomes Research and Evaluation (SHORE) and Whariki's in-house computer assisted telephone interviewing (CATI) system.

### Prevalence and patterns of use

One in five (20.3%; 18.4-22.3) of the sample had ever tried legal party pills, and one in seven (15.3%; 13.6-17.1) had used legal party pills in the preceding 12 months.

Levels of last year use of legal party pills were highest among the 18-24 year old age range with 33.9% (25.3-43.6) of 18-19 year olds and 38.0% (31.3-45.2) of 20-24 year olds having used legal party pills in the preceding year.

Males were more likely than females to have used legal party pills in the previous year in a number of age groups including among 13-14 year olds (4.4% vs. 0%), 20-24 year olds (48.5% vs. 27.9%,  $p=0.0043$ ), 30-34 year olds (15.4% vs. 6.6%,  $p=0.0179$ ), 35-39 year olds (10.7% vs. 2.2%,  $p=0.0032$ ) and 40-45 year olds (7.6% vs. 2.5%,  $p=0.0252$ ).

Maori were more likely than non-Maori to have used legal party pills in the preceding 12 months (19.9% vs. 14.5%,  $p=0.0408$ ). By age group, Maori were more likely than non-Maori to have used legal party pills in the preceding year among those aged 25-29 years old (35.4% vs. 15.6%,  $p=0.025$ ).

#### *Frequency of use*

Nearly half (45.6%) of those who had used legal party pills in the previous 12 months had only used them 1-2 times in the preceding year. One in 18 (5.7%) users had used legal party pills weekly or more often over the last year (ie. 50+ times in a year).

#### *Means of administration*

Nearly all (98.8%) of those who had used legal party pills in the previous year typically 'swallowed' their legal party pills. Only one user (0.6%) reported they typically injected their legal party pills.

#### *Quantity used*

The mean number of legal party pills taken on a typical occasion was 2.6 pills (2.3-2.9 pills). When asked what was the greatest number of legal party pills they had taken in

a single occasion, four out of 10 (41.6%) users said four or more pills, one in five (20.2%) said six or more pills, and one in nine (10.9%) said eight or more pills at one time.

### *Location of use*

Public places were often the most common locations in which to use legal party pills with half of users either using 'all' (25.2%) or 'most' (26.4%) of their legal party pills in public places. Work locations were the least common place to use legal party pills.

Approximately one in six (15.9%) users had completed at least 'some' of their driving under the influence of legal party pills.

## **Poly drug use**

### *Use with alcohol*

Approximately one in three (32.8%, 26.9-39.4) legal party pill users said they drank 'more' alcohol when using legal party pills.

### *Substances used in combination*

Nearly nine out of 10 (86.4%, 81.6-90.1) legal party pill users said they use other substances with their legal party pills. The most common substance used with legal party pills was alcohol (91.1%, 86.3-94.3), followed by tobacco (39.6%, 33.1-46.6) and cannabis (22.3%, 17.0-28.7).

### *Substances used to recover*

Approximately one third (32.2%, 26.5-38.5) of legal party pill users indicated they usually used other substances to help them recover from their legal party pill use. The substances most commonly used were so called 'recovery pills' (50.2%, 38.8-61.6), cannabis (28.3%, 19.3-39.5), tobacco (27.5%, 18.3-39.0) and alcohol (10.7%, 5.1-21.2).

### *Other drug use*

Nearly all the legal party pill users (97.2%) had used other drugs in the preceding 12 months. Legal party pill users generally had much higher levels of illicit drug use than the wider population. For example, 15.9% of legal party pill users had used amphetamines in the last year compared to 3.7% of the population in 2003.

## **Harms from legal party pills**

### *Areas of life harmed*

The areas of life most commonly reported harmed by legal party pill use were ‘energy and vitality’ (19.3%), ‘health’ (14.6%), ‘financial position’ (8.8%) and ‘outlook on life’ (6.3%).

### *Physical problems*

The physical problems most often experienced from legal party pill use were ‘poor appetite’ (41.1%), ‘hot/cold flushes’ (30.6%), ‘heavy sweating’ (23.4%), ‘stomach pains/nausea’ (22.2%), ‘headaches’ (21.9%) and ‘tremors and shakes’ (18.4%).

### *Psychological problems*

The psychological problems most often experienced from legal party pill use were ‘trouble sleeping’ (50.4%), ‘loss of energy’ (18.4%), ‘strange thoughts’ (15.6%), ‘mood swings’ (14.8%), ‘confusion’ (12.1%) and ‘irritability’ (11.4%).

### *Accessing health services*

One in 100 (1.0%) users had visited a hospital emergency department and one in 250 (0.4%) users had been admitted to a hospital in relation to their legal party pill use in the previous 12 months.

## **Availability, price and potency**

### *Availability*

Three quarters (75.7%; 69.8-80.8) of users described the current availability of legal party pills as ‘very easy’ and a further one in five (21.0%; 16.3-26.6) described availability as ‘easy’.

### *Potency*

Half of the users (49.8%; 42.2-57.5) said the strength of legal party pills was ‘higher’ compared to a year ago

### *Dollar expenditures and price*

The median dollar amount spent on legal party pills per user on a typical occasion was \$40 (mean \$39, range \$8-\$200).

### *Search time*

Two thirds (66.9%; 60.8-72.6) of legal party pill buyers said they could purchase legal party pills in ‘less than 20 minutes’.

## **Extent of dependency**

One in 45 (2.2%) of last year legal party pill users were classified as dependent on legal party pills by scoring greater than four on the combined five questions of a Short Dependency Scale (SDS).

## **Gateway effects**

### *Current legal party pill use and illicit drug use*

Of those who were current legal party pill users and current illicit drug users, approximately three out of 10 (27.9%; 19.9-37.8) said they only ‘use legal party pills when they cannot get illicit drugs’. A further three out of 10 (26.9%; 18.8-36.9) indicated that they ‘use legal party pills with illegal drugs to enhance their effects or the duration of effects’. The remaining four out of 10 (45.2%; 35.6-55.1) reported that they ‘use legal party pills so they do not have to use illegal drugs’.

### *Past legal party pill use and illicit drug use*

Of those who indicated some kind of past relationship between their legal party pill and illicit drug use, one in seven (13.5%; 8.4-20.8) said they had ‘started out using legal party pills but now mostly use illegal drugs’. Four out of 10 (42.5%; 34.1-51.4) reported they ‘now use both illegal drugs and legal party pills (no change in level of illegal drug use)’. The final group (44.1%; 35.5-53.0) indicated they ‘were using illicit drugs but now mostly use legal party pills’.

## **User perceptions**

### *Knowledge of product safety instructions*

One in six (15.5%; 11.5-20.6) users indicated they did not know how many legal party pills it was safe to take in a single night. One in five (21.2%; 16.4-26.8) users did not know what other substances should not be taken with legal party pills. One in 10 (9.5%; 6.2-14.5) users did not know which groups of people should not use legal party pills.

### *Perceptions of the risk of drug use*

Nearly three-quarters (74.6%; 68.5-79.9) of legal party pill users thought the regular use of methamphetamine was an ‘extreme health risk’. Over six out of 10 (63.8%; 56.4-70.7) legal party pill users considered the regular use of GHB to be an ‘extreme health risk’. Legal party pill users considered the use of alcohol, cannabis and legal party pills to pose roughly the same level of risk, with less than 10% of users considering the regular use of these substances to be an ‘extreme health risk’.

## **Policy and legal party pills**

### *Age identification*

Approximately three out of 10 (26.7%; 15.8-41.3) legal party pill buyers under 20 years old had ‘never’ been asked for age identification when attempting to purchase legal party pills.

### *Refused purchase*

Eight out of 10 (80.7%; 65.4-90.3) legal party pill buyers under the age of 20 had ‘never’ been refused purchase of legal party pills.

### *Current regulation*

Six out of 10 (60.6%; 58.2-63.1) survey respondents felt that the current regulation of legal party pills was ‘too light’. One third (36.2%; 33.9-38.7) of respondents said current regulation was ‘about right’. One in 32 (3.1%; 2.3-4.2) respondents believed that the current regulation of legal party pills was ‘too heavy’.

### *Support for options to strengthen regulation*

Of those who believed the current regulation of legal party pills should be strengthened (60.6%, n=1187), six out of 10 wanted to see the sale of legal party pills ‘prohibited from convenience stores’, about half wanted sellers of legal party pills to have to obtain a ‘special license to sell these products’, a further half of respondents wanted ‘mandatory health warnings on all packaging’ and ‘age restrictions on purchasing to be increased to 20 years old’. A similar proportion wanted legal party pills to be ‘prohibited for everyone’. Approximately one-third indicated support for ‘a total ban on advertising’, ‘prohibition from places that sold alcohol’ and ‘restricting the total dosage of BZP sold in a single pack’.

### *Support for options to relax regulation*

Of those who believed the current regulation of legal party pills should be relaxed (3.1%, n=41), approximately half wanted the legal age required to purchase party pills to be lowered to 16 years old, a similar proportion of respondents wanted the advertising of legal party pills to be permitted in major media networks, and about three out of 10 wanted there to be no age restrictions on the purchase of legal party pills.

## Introduction

The principal aims of the 2006 National Household Survey of Legal Party Pill Use were to provide national population statistics on the prevalence and patterns of legal party pill use in New Zealand, and to provide data on the harms and problems related to the use of legal party pills in New Zealand. The study was also undertaken to investigate how the use of legal party pills was interacting with use of other drug types including alcohol and illicit drugs, such as amphetamines. This report also presents data on users' perceptions of the benefits and health risks of using legal party pills and how the current R18 restriction on the sale of legal party pills is impacting on younger users' ability to purchase these products. Findings are presented on the availability and potency of legal party pills, dollar expenditures on these substances, and the context of their use. All respondents to the survey were asked their opinion of the current regulation of legal party pills and were invited to indicate what future regulatory changes they would support.

## Background

Legal party pills emerged in New Zealand around the year 2000 and have become increasingly popular in recent years. They are sold under a wide range of product names in New Zealand, including 'Charge', 'Kandi' and 'Red Hearts' (see Appendix 1). Legal party pills are used in recreational contexts, to enhance confidence and extend hours of socialising, and are also used in professional and domestic contexts to improve concentration and ability to work for long periods of time without a break. Legal party pills are taken as substitutes for illicit drugs, but also in combination with them to prolong the duration of effects (Janes, 2004).

The main active ingredients of legal party pills are benzylpiperazine (BZP) and trifluoromethylphenylpiperazine (TFMPP). These substances are members of the piperazine group and are produced synthetically. BZP has been found to have effects similar to low potency amphetamine (i.e. 10% the potency of dexamphetamine), while TFMPP is reported to have effects similar to ecstasy (MDMA - 3,4-methylenedioxymethamphetamine) (Bye et al., 1973, Campbell et al., 1973, Expert Advisory Committee on Drugs, 2004, p.5, Gee et al., 2005). A 100mg dose of BZP is said to have effects of between 6-8 hours duration (Expert Advisory Committee on Drugs, 2004, p.6). The individual characteristics of different legal party pill products are achieved largely by moderating the absolute quantities, and mix, of BZP and TFMPP to achieve the desired level of stimulant versus emphatic and hallucinogenic effects (Janes, 2004).

Anecdotal and media reports suggest that adolescents and young adults are the main users of BZP in New Zealand. There are also reports of people in their late twenties and early thirties using these substances to avoid problems with law enforcement which may come from using illicit drugs, such as methamphetamine and ecstasy (New Zealand Herald, 2005b). Single parents, middle aged people and professionals have

also been known to use BZP to help cope with household chores, child supervision, working long hours and shift work.

There have been a number of reported incidents of users suffering serious side-effects from legal party pills (New Zealand Herald, 2005a, Hayman, 2005). Some of these incidents have resulted in medical emergencies and hospital admissions, as well as attention from St. John Ambulance services (New Zealand Herald, 2005a). A recent *New Zealand Medical Journal* article described 80 BZP-related Emergency Department admissions occurring at Christchurch Hospital over a six month period in 2005 (Gee et al., 2005). The authors concluded that BZP can cause unpredictable and serious toxicity in some people (Gee et al., 2005). The authors advise that those with seizure disorders or coronary disease should avoid using BZP, as should those taking certain prescription medicines (Gee et al., 2005). The intravenous use of BZP has also been reported by some drug and alcohol practitioners working in New Zealand. Legal party pill use has been linked with one case of drug psychosis requiring admittance to a Christchurch acute psychiatric facility (Saunders, 2005).

Based on industry figures, it has been estimated that approximately five million legal party pills have been manufactured in New Zealand since 2000 (Expert Advisory Committee on Drugs, 2004, p.4, New Zealand Herald, 2005b, Chapple, 2005). Current sales are estimated at a rate of 50,000 four pill packs every month (New Zealand Herald, 2005b). Best estimates are that the industry has annual sales of \$24 million dollars (New Zealand Herald, 2005b). The strength of BZP products has increased steadily since their introduction, from a standard dose of 70 to 80 mg per dose to 250 mg per dose (New Zealand Herald, 2005b). Bags of pure BZP, known as Hummer, are now being marketed in some areas (New Zealand Herald, 2005b). Legal party pills are currently sold from a wide range of retail outlets in New Zealand including corner dairies, liquor stores, service stations, adult entertainment shops, mobile vendors, pubs, clubs and dance party events and from 24 hour convenience stores (Expert Advisory Committee on Drugs, 2004, p.7). BZP is sold in pill, capsule and powder form.

The Expert Advisory Committee on Drugs (EACD) considered the classification of BZP and related substances in March 2004. The EACD concluded that there was insufficient evidence available to classify these substances and recommended that research into the prevalence and harms of BZP products in New Zealand be commissioned to further inform the regulation of these substances (Expert Advisory Committee on Drugs, 2004, p.4). One of the risks to public health of legal party pills discussed in the EACD report was the role legal party pills may play in the initiation of use of more harmful illicit drugs, such as methamphetamine (i.e. 'gateway in') (Expert Advisory Committee on Drugs, 2004, p.6). Conversely, the EACD noted BZP may play a role in reversing illicit drug use or avoiding it all together (i.e. 'gateway out'). In June 2005, BZP was classified under the newly created Class D category of the *Misuse of Drugs Act 1975* and its sale and supply restricted to those 18 years and older. The advertising of legal party pills was prohibited from major media networks including television, radio, newspapers and magazines.

To further inform the regulatory control of BZP in New Zealand, the National Drug Policy Discretionary Fund set the study of the population prevalence of legal party pill use and related harms as a research priority for the 2005 funding round. A research

proposal for a national household survey of legal party pill use was developed by researchers at the Centre for Social and Health Outcomes Research and Evaluation (SHORE), at Massey University. This proposal, along with several other BZP research projects, was selected for funding in 2006. This report presents the findings of the 2006 National Household Survey of Legal Party Pill Use in New Zealand.

## **Aims**

The aims of the 2006 National Household Survey of Legal Party Pill Use were:

- To identify the population prevalence and patterns of use of legal party pills in New Zealand
- To identify levels of poly drug use by legal party pill users
- To measure the harms and problems experienced by legal party pill users
- To measure the level of availability of, and accessibility to, legal party pills
- To explore the role legal party pills may play in the initiation of illicit drug use (i.e. 'Gateway in' hypothesis) or alternatively the cessation of illicit drug use (i.e. 'Gateway out' hypothesis)
- To explore young people's perceptions of the benefits and risks of legal party pill use
- To identify the demographic characteristics of legal party pill users.

## **Method**

The 2006 National Household Survey of Legal Party Pill Use consisted of a random national household sample of 2,010 people aged 13-45 years old, collected using the Centre for Social and Health Outcomes Research and Evaluation (SHORE) and Whariki's in-house computer assisted telephone interviewing (CATI) system. To represent the different socio-economic characteristics of the New Zealand population the country was divided into 34 strata. Each telephone number was tried at least 10 times on different days and times of the day in an effort to reach those seldom at home. Within each household one person was randomly selected for an interview. Each interviewer worked at a computer workstation and entered answers directly into a database. The computer displayed the survey questions for the interviewer to read, and performed logical checking of answers as the information was entered. Respondents were informed that the study was being conducted on behalf of the Ministry of Health and that everything they said would be confidential. Interviewing was completed from February to March 2006. An overall response rate of 69% was achieved.

## **Analysis**

The sample data were weighted by eligible household size to adjust for the selection of only one person from each household. All analysis was conducted using the SUDAAN software package, incorporating the effects of weighting and stratification. Prevalence levels and corresponding confidence intervals were calculated using logistic regression. Regression analysis was used to calculate means and confidence intervals for continuous variables. All comparisons were tested for significance at the 95% confidence level. Confidence intervals and the results of statistical tests are only reported where there are at least 10 respondents in each comparison group.

# CHAPTER 1 – PREVALENCE AND PATTERNS OF LEGAL PARTY PILL USE

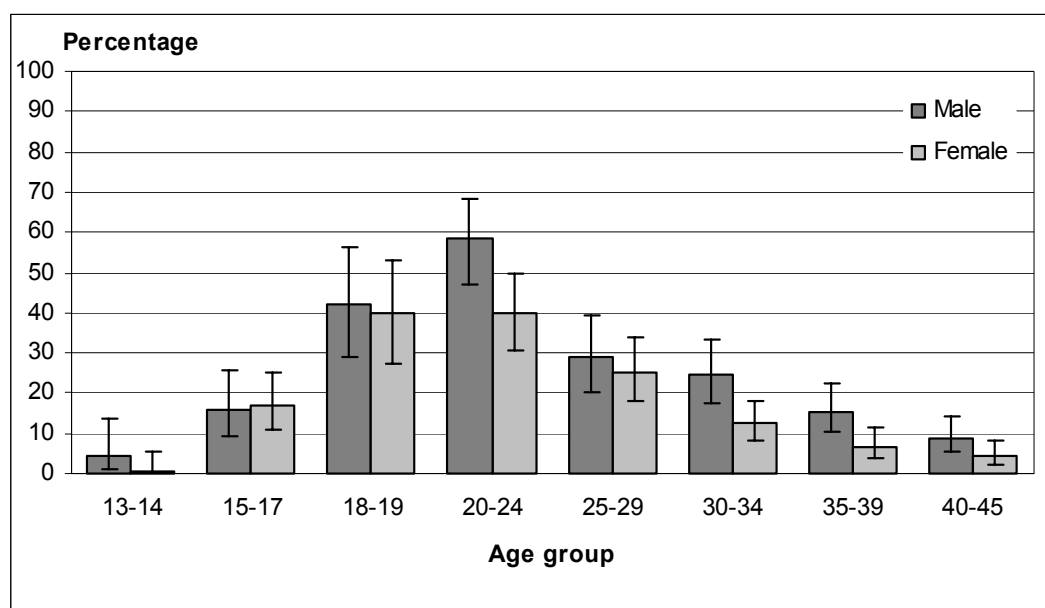
## Introduction

This chapter presents data on the population prevalence of legal party pills in New Zealand. Respondents were first asked whether they had ever tried legal party pills and, if they had done so, whether they had used any in the last year. Those who had used legal party pills in the last year were asked a series of questions about their patterns of use, age of first use, reasons for changing levels of use and context of use.

## Ever tried legal party pills

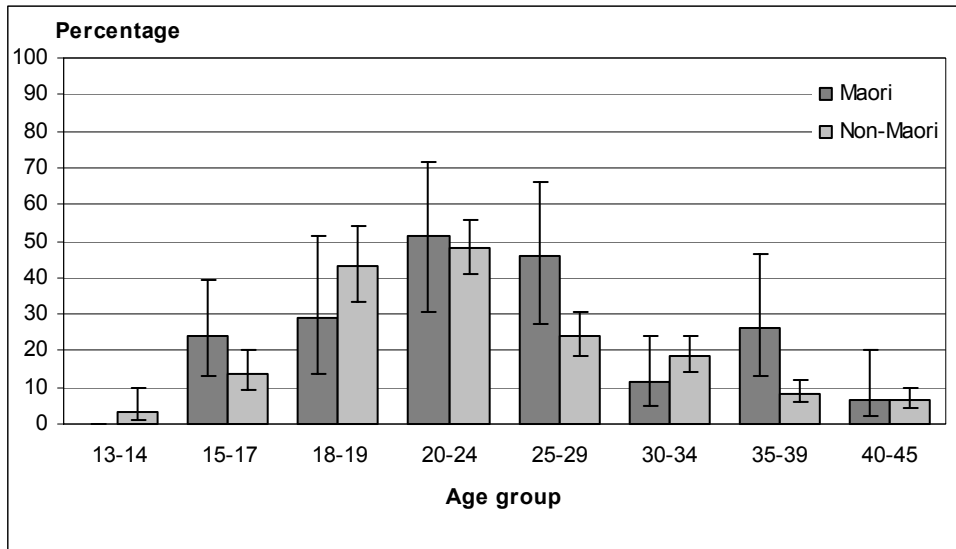
One in five (20.3%; 18.4-22.3) of the sample had ever tried legal party pills. Levels of lifetime use of legal party pills was highest among the 18-29 year age range with 40.7% (31.5-50.5) of 18-19 year olds and 48.8% (41.6-56.0) of 20-24 year olds having ever used legal party pills. One in six (16.3%; 11.7%-22.3%) of 15-17 year olds had ever tried legal party pills, while only 3.0% (1.0-8.5) of 13-14 year olds had tried legal party pills. Overall, males were more likely to have ever tried legal party pills than females (24.2% vs. 16.9%,  $p=0.0003$ ). In several age groups males were more likely than females to have tried legal party pills including those aged 20-24 years (58.2% vs. 39.7%,  $p=0.0135$ ), 30-34 years (24.4% vs. 12.5%,  $p=0.0104$ ) and 35-39 years (15.3% vs. 6.4%,  $p=0.0153$ ) (Figure 1.1).

Figure 1.1: Ever tried legal party pills by age and gender, 2006



Maori were more likely than non-Maori to have ever tried legal party pills (25.7% vs. 19.4%,  $p=0.035$ ). Maori were more likely than non-Maori to have tried legal party pills among those aged 25-29 years old (46.2% vs. 24.0%,  $p=0.0267$ ) and 35-39 years old (26.4% vs. 8.5%,  $p=0.0063$ ) (Figure 1.2).

Figure 1.2: Proportion of Maori and non-Maori who had ever tried legal party pills by age group, 2006



### Age of first use of legal party pills

All of those who had ever tried legal party pills were asked at what age they first started using legal party pills. Common ages at which legal party pills were first tried were 15 years old (7.3%), 16 years old (9.2%), 17 years old (9.7%) and 18 years old (12.8%). There was no difference in the average age at which legal party pills were first tried between males and females (22.8 vs. 21.4 years,  $p=0.1083$ ) (Figures 1.3 and 1.4).

Figure 1.3: Age at which males first tried legal party pills, 2006

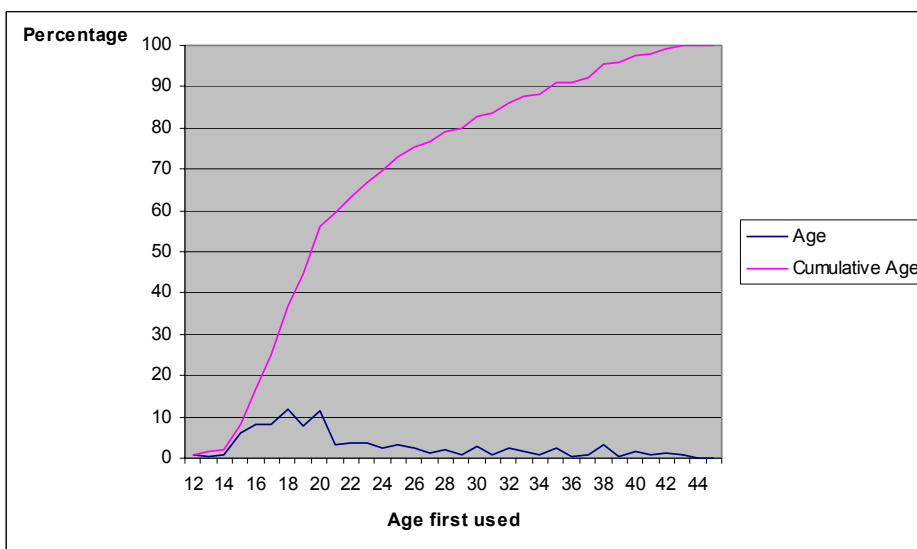
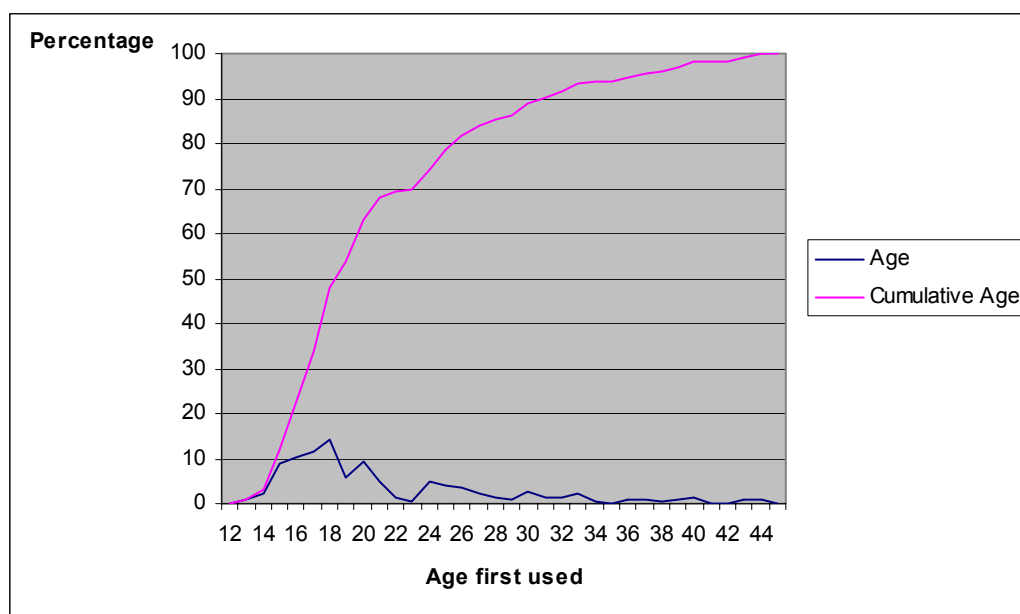


Figure 1.4: Age at which females first tried legal party pills, 2006



### Reasons for never using legal party pills

Those respondents who had never tried legal party pills (79.7%; 77.7-81.6) were asked what reasons kept them from using legal party pills. Respondents were given the opportunity to provide as many reasons as they felt were relevant. Responses were initially coded according to a set of categories developed in earlier surveys of drug use in New Zealand (see Black and Casswell, 1993, Field and Casswell, 1999, Wilkins et al., 2002). Reasons which did not fit into these existing categories (ie, were initially coded as ‘others’) were grouped into newly developed categories as required. The most commonly cited reason for having never tried legal party pills was ‘just don’t like them’, followed by ‘not in social scene’ and ‘health related reasons’ (Table 1.1).

Table 1.1: Reasons for never using legal party pills, 2006

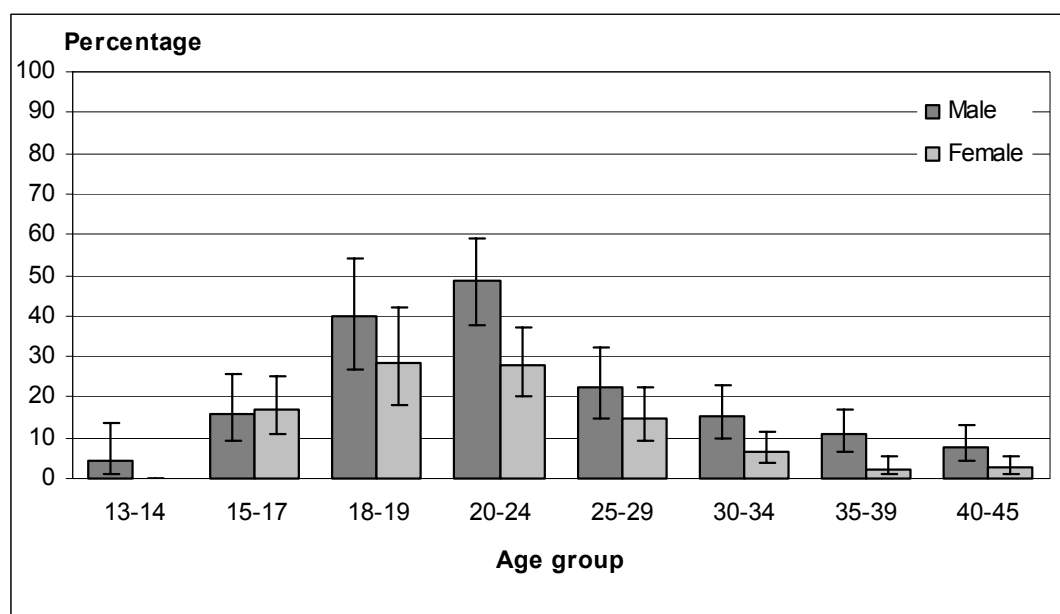
Reason	Percent (%)	Lower CI (%)	Upper CI (%)
Did not like them	72.3	69.7	74.7
Not in social scene	19.5	17.4	21.7
Health related reasons	15.7	13.8	17.8
Never heard of them	4.9	3.9	6.3
Too old	4.0	3.1	5.2
Against my religious belief	3.6	2.7	4.8
Family responsibility/kids	3.3	2.4	4.5
Too expensive	3.0	2.2	4.1
Not enough information on effects	3.0	2.2	4.0
Saw bad effects in others	2.6	1.9	3.7
Family reasons	2.2	1.5	3.2
Under age/ risk of getting caught	2.2	1.5	3.2

(Percentages are of respondents who had never tried legal party pills excluding don’t know and refused – each respondent could give more than one reason; n=1567)

## Last year use of legal party pills

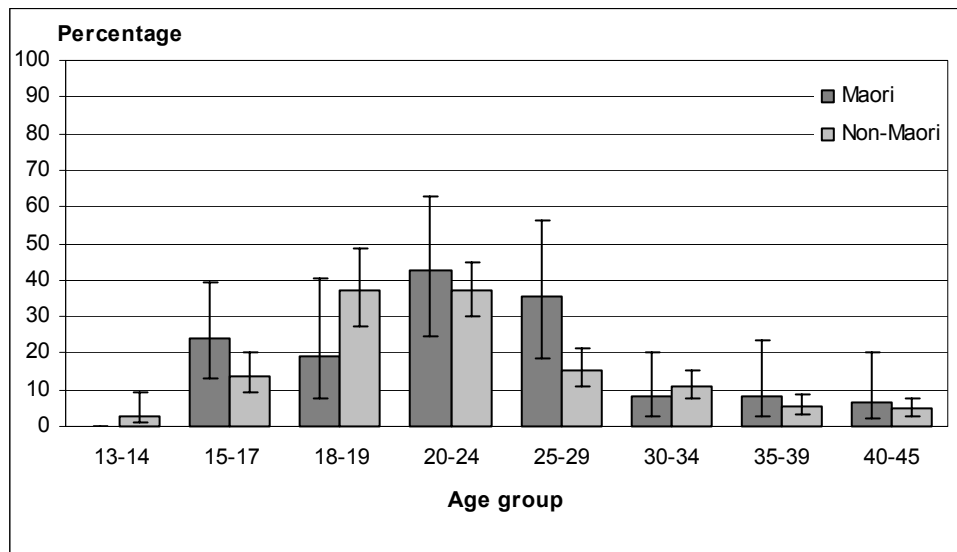
One in seven (15.3%; 13.6-17.1) of the sample had used legal party pills in the preceding 12 months. Levels of last year legal party pill use were highest among the 18-24 year old age range, with 33.9% (25.3-43.6) of 18-19 year olds and 38.0% (31.3-45.2) of 20-24 year olds having used legal party pills in the preceding year. One in six (16.3%; 11.7%-22.3%) of 15-17 year olds had used legal party pills in the last year, while only 3.0% (0.8-8.4) of 13-14 year olds had used legal party pills in the last 12 months. Overall, males were more likely than females to have used legal party pills in the last year (19.8% vs. 11.4%,  $p < 0.0001$ ). Males were more likely than females to have used legal party pills in the previous year in a number of age groups including among 13-14 year olds (4.4% vs. 0%), 20-24 year olds (48.5% vs. 27.9%,  $p = 0.0043$ ), 30-34 year olds (15.4% vs. 6.6%,  $p = 0.0179$ ), 35-39 year olds (10.7% vs. 2.2%,  $p = 0.0032$ ) and 40-45 year olds (7.6% vs. 2.5%,  $p = 0.0252$ ) (Figure 1.5).

Figure 1.5: Last year use of legal party pills by age and gender, 2006



Maori were more likely than non-Maori to have used legal party pills in the preceding 12 months (19.9% vs. 14.5%,  $p = 0.0408$ ). Maori were more likely than non-Maori to have used legal party pills in the preceding year among those aged 25-29 years old (35.4% vs. 15.6%,  $p = 0.025$ ) (Figure 1.6).

Figure 1.6: Proportion of Maori and non-Maori who had used legal party pills in the last year by age group, 2006



### Use of legal party pills in the last 30 days

One in 22 (4.6%; 3.7-5.8) of the sample had used legal party pills in the preceding month. Levels of legal party pill use in the last 30 days were highest among the 18-24 year old age range with 13.1% (7.9-21.1) of 18-19 year olds and 10.5% (6.8-15.7) of 20-24 year olds having used legal party pills in the previous month. One in seventeen (5.8%; 3.3%-9.9%) of 15-17 year olds had used legal party pills in the last month. Overall, males were more likely than females to have used legal party pills in the last month (6.4% vs. 3.1%,  $p=0.0018$ ).

### Changes in legal party pill use

Respondents who had ever tried legal party pills were asked how their use of legal party pills had changed in the last year. One in 12 respondents (8.4%; 5.8-12.0) said they were using 'more' legal party pills, one in six respondents (16.0%; 12.5-20.5) were using at the 'same' level, and a further one in seven of the sample (14.7%; 11.2-19.2) reported they were using 'less' legal party pills. The largest proportion of respondents (60.8%; 55.3-66.0) had 'stopped' using legal party pills.

Last year legal party pill users who indicated they had changed their use of legal party pills were asked about their reasons for changing their level of use. They were given the opportunity to provide as many reasons as they felt were relevant. Responses were initially coded according to a set of categories developed in earlier surveys of drug use (see Black and Casswell, 1993, Field and Casswell, 1999, Wilkins et al., 2002). Reasons which did not fit into these existing categories (ie, were initially coded as 'others') were grouped into newly developed categories as required.

## Reasons for using less legal party pills

The most commonly reported reasons given for using less legal party pills were the ‘hang over’ effect, ‘no longer party as much’, ‘physical health reasons’, ‘don’t like them’ and ‘too expensive’ (Table 1.2).

Table 1.2: Reasons for using less legal party pills, 2006

Reason	Percent (%)
Hang over/ come down too bad	31.8
Don't party as much now	30.3
Physical health reasons	15.2
Didn't like them	9.8
Too expensive	9.1
Effects wore off	7.6
Mental health reasons	6.8
No longer fun/got boring	5.3
New friends/social scene	3.8
Social pressure	3.0
Using more alcohol now	3.0
Too old/got older	3.0
Don't earn enough money	2.3
Fear of addiction	2.3

(Percentages are of respondents who reported using less legal party pills excluding don't know and refused – each respondent could give more than one reason; n=52)

## Reasons for having stopped using legal party pills

Just over half (52.5%; 45.3-59.7) of those who had stopped using legal party pills said the reason they stopped using was they were ‘just experimenting’ or ‘didn’t like them’ (Table 1.3). Nearly three out of 10 (27.1%, 20.4-37.2) said the ‘hang-over’ from using legal party pills caused them to stop using. One in six (17.9%; 12.1-26.8) cited ‘health reasons’ as the reason they stopped using legal party pills. The financial cost of using legal party pills was mentioned by approximately one in eight (11.8%; 7.7-17.5) as the reason why they stopped using.

Table 1.3 Reasons for having stopped using legal party pills, 2006

Reason	Percent (%)
Just don't like them/no need/Just experimenting	52.5
Hangover/bad come down effects	27.1
Health related reasons	17.9
Too expensive/Didn't earn enough	11.8
Not in social scene/Don't party as much now	8.5
Too old	5.4
Family responsibility/kids	4.9
Saw bad effects on others	3.3
Prefer drinking alcohol	2.0
Pregnant	2.0
Effects wore off	2.0
Fear of addiction	1.3
No time/too busy	1.3
Social pressure	1.3
Prefer other illegal drugs	1.1
Job related reasons	0.7
Against my religion/religious belief'	0.5
Family reasons	0.4
Lost too much weight'	0.4

(Percentages are of respondents who reported having stopped legal party pill use excluding don't know and refused – each respondent could give more than one reason; n=232)

### Reasons for using more legal party pills

The most commonly cited reasons for using more legal party pills were 'liked the effects', 'partying much longer', 'part of the social scene', and 'experimenting' (Table 1.4).

Table 1.4: Reasons for using more legal party pills, 2006

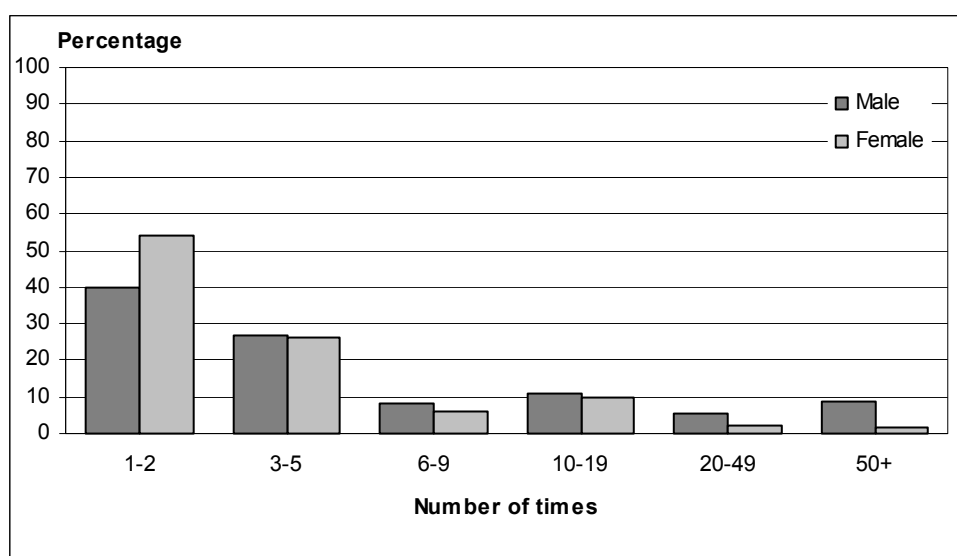
Reason	Percent (%)
Like the effect/its fun	32.4
Partying much longer	23.0
Part of the scene	14.9
Experimenting	8.1
Easier to get/more around	6.8
Can afford more/earn more	5.4
Now old enough to buy them	5.4
Need more to get same effect	4.1
New friends	4.1
Social pressure	4.1
Like to try the new pills when they	4.1

(Percentages are of respondents who reported using more legal party pills excluding don't know and refused – each respondent could give more than one reason; n=31)

## Frequency of legal party pill use

Nearly half (45.6%) of those who had used legal party pills in the previous 12 months had only used them 1-2 times in the preceding year (Figure 1.7). A further quarter of last year users (26.6%) had used legal party pills only 3-5 times in the previous year. One in 10 (10.5%) legal party pill users had used legal party pills approximately monthly (ie. 10-19 times in a year). One in 18 (5.7%) users had used legal party pills weekly or more often over the last year (ie. 50+ times in a year). On average, males had used legal party pills on more occasions than females over the last 12 months (16.2 times vs. 7.3 times,  $p=0.0399$ ).

Figure 1.7: Number of times used legal party pills in the last 12 months by gender, 2006



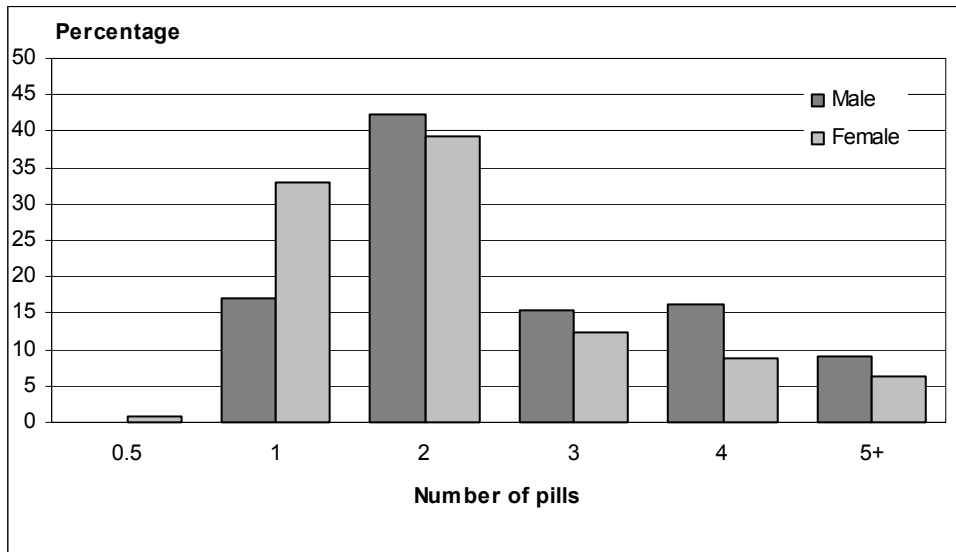
## Means of administration

Nearly all (98.8%) of those respondents who had used legal party pills in the previous year typically 'swallowed' their legal party pills. Two users typically 'snorted' their legal party pills in powder form. One user reported they typically injected their legal party pills in the powder form. One in 83 (1.2%;  $n=3$ ) of last year legal party pill users had ever injected legal party pills.

## Number of legal party pills taken

The mean number of legal party pills taken on a typical occasion was 2.6 pills (2.3-2.9 pills). Males consumed a greater number of legal party pills on average than females on a typical occasion (2.8 vs. 2.2 pills,  $p=0.0117$ ) (Figure 1.8). When asked what was the greatest number of legal party pills they had taken on one occasion, four out of 10 (41.6%) users said four or more pills, one in five (20.2%) said six or more pills, and one in nine (10.9%) said eight or more pills at one time.

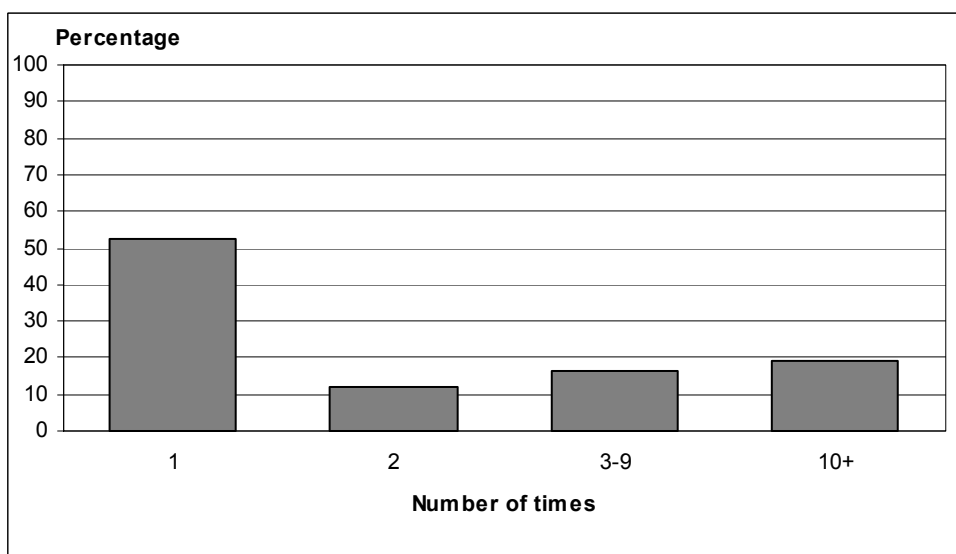
Figure 1.8: Number of legal party pills taken on a typical occasion by sex



### Binged on legal party pills

The interviewer explained that the binge use of legal party pills was defined as using legal party pills continuously for 24 hours or more. One in six (17.4%, 13.0-23.0) of those who had used legal party pills in the previous year reported they had binged on them in this way in the previous 12 months. There was no difference in the incidence of bingeing on legal party pills between males and females (19.2% vs. 14.8%,  $p=0.383$ ). Approximately half (52.4%) of those who had binged on legal party pills had done so only once in the last year (Figure 1.9). Approximately one in five (19.4%) of those who had binged on legal party pills had done so ten or more times in the last year.

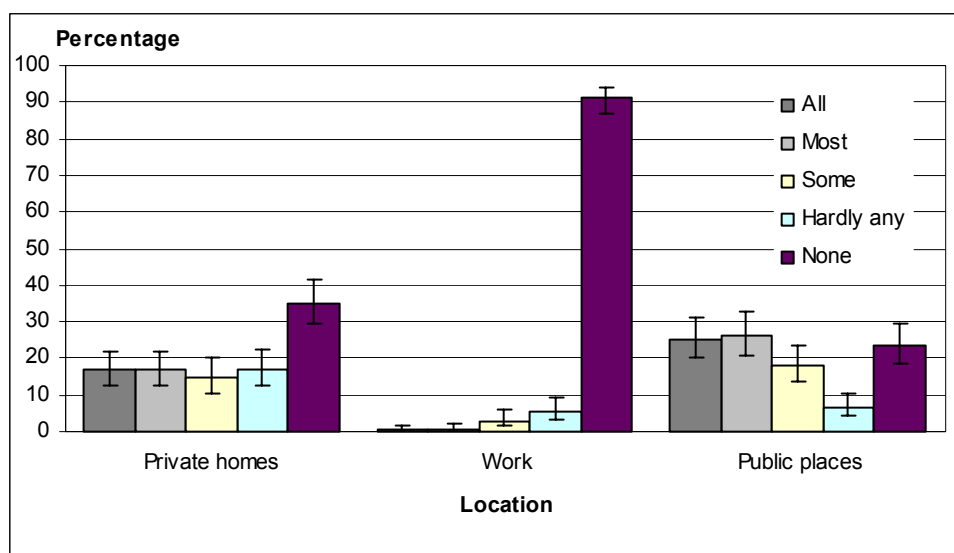
Figure 1.9: Number of times binged on legal party pills in the last year



## Location of use

Those who had used legal party pills in the previous year were asked how much of their legal party pill use took place in ‘private homes’, how much took place in ‘public places’ and how much took place in ‘work places’. Public places were often the most common locations to use legal party pills with half of users either using ‘all’ (25.2%) or ‘most’ (26.4%) of their legal party pills in public places (Figure 1.10). The interviewer elaborated that public places meant places such as ‘music concerts, on the street, at the beach or park, pub, bar or at a dance party’. Private homes were also popular places to use legal party pills with one in three users either saying they had used ‘all’ (16.7%) or ‘most’ (16.7%) of their legal party pills in private homes. Work locations were reported as the least common place to use legal party pills with nine out of 10 (91.1%) users saying they had used no legal party pills in work locations in the last 12 months.

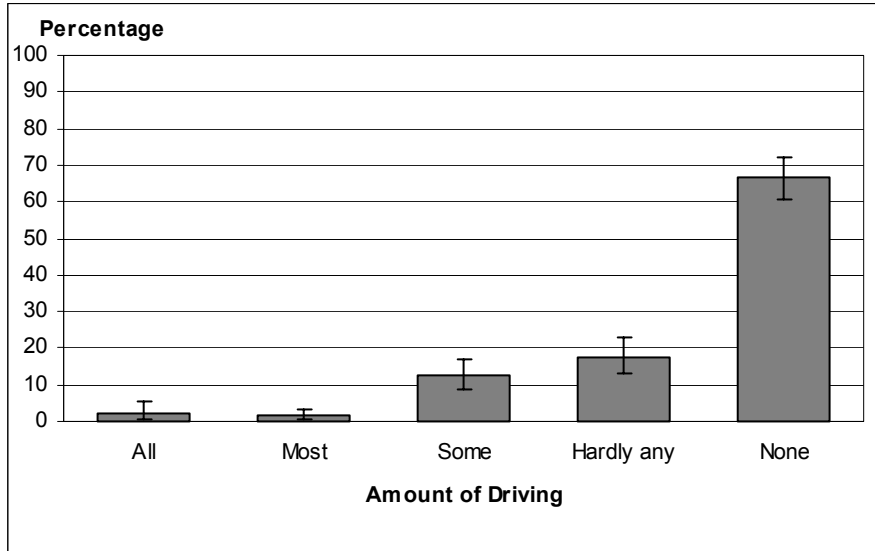
Figure 1.10: Proportion of last year users using in different locations, 2006



## Legal party pill use and driving

Those who had used legal party pills in the previous year were asked how much of their driving was done under the influence of legal party pills in the last 12 months. Two thirds of last year legal party pill users (66.7%) had completed no driving under the influence of legal party pills (Figure 1.11). Approximately one in six (15.9%) users had completed at least ‘some’ of their driving under the influence of legal party pills.

Figure 1.11: Proportion who drove under the influence of legal party pills, 2006



## CHAPTER 2 - POLY DRUG USE AND LEGAL PARTY PILLS

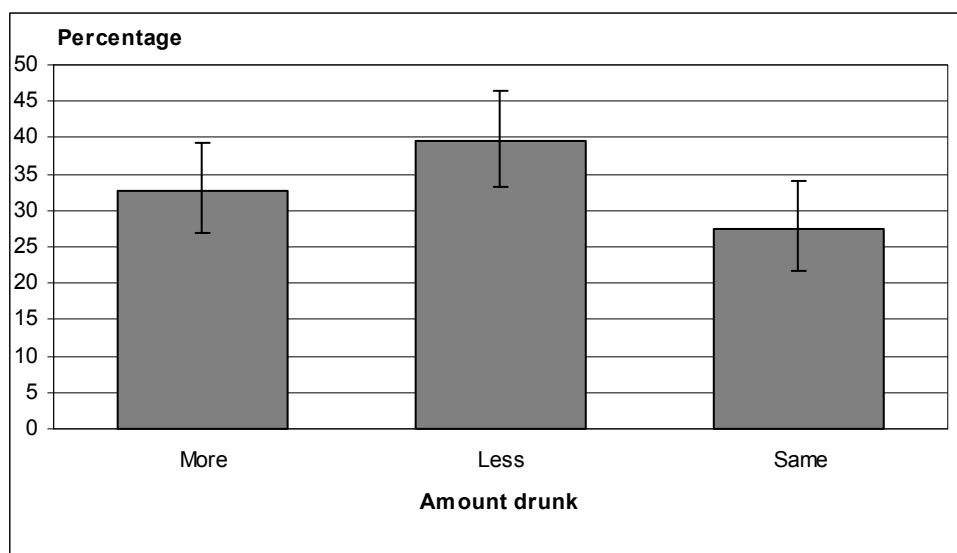
### Introduction

An important issue related to legal party pills is how their use contributes to the use of other drug types. These relationships are explored further in Chapter 6. This chapter presents findings on the substances that legal party pill users reported they used in combination with legal party pills and the substances they used to help them recover from the effects of using legal party pills. The chapter also provides a summary of all the other drug types that those who had used legal party pills had used in the previous year.

### Legal party pills and level of drinking

Those who had used legal party pills in the last year were asked if they drank ‘more’, ‘the same’ amount or ‘less’ alcohol when using legal party pills. Four out of 10 legal party pill users (39.7%, 33.2-46.5) said they drank ‘less’ alcohol while using legal party pills, while three out of 10 (27.5%, 21.8-34.1) reported they drank ‘the same’ amount of alcohol while using legal party pills (Figure 2.1). Approximately one in three (32.8%, 26.9-39.4) legal party pill users said they drank ‘more’ alcohol when using legal party pills.

Figure 2.1: Impact of legal party pills on level of drinking, 2006



## Substances used in combination with legal party pills

Those who had used legal party pills in the previous 12 months were asked what substances, if any, they usually use with legal party pills. Nearly nine out of 10 (86.4%, 81.6-90.1) legal party pill users said they use other substances with their legal party pills. The most common substance used with legal party pills was alcohol (91.1%, 86.3-94.3), followed by tobacco (39.6%, 33.1-46.6) and cannabis (22.3%, 17.0-28.7) (Table 2.1). The next most commonly used substances were so called 'recovery pills' which are often sold from retail outlets that sell legal party pills. Manufacturers claim that these substances assist drug users to recover from the hang-over effects and long term harms associated with legal party pill use and other drug use. Ecstasy (MDMA) was the amphetamine type stimulant (ATS) drug most commonly used with legal party pills, with approximately one in twenty (5.3%, 2.8-9.5) users saying they usually used it with their legal party pills. Amphetamine and crystal methamphetamine were only rarely used with legal party pills (Table 2.1).

Table 2.1: Substances used in combination with legal party pills, 2006

Drug type	Percent (%)
Alcohol	91.1
Tobacco/ cigarettes	39.6
Cannabis	22.3
Recovery pills	9.2
Ecstasy (E, MDMA)	5.3
Nitrous oxide	4.5
Hallucinogenic mushrooms	2.4
Amphetamines (meth, P, pure)	1.3
LSD	1.3
GHB (gamma-hydroxybutyrate)	1.1
Rush (Amyl nitrate, Butyl nitrate)	1.1
Cocaine	1.0
Ice (crystal meth)	0.6
Other opiates	0.6
Kava	0.6
Other hallucinogens (PCP, datura)	0.5

## Substances used to recover from legal party pills

Those who had used legal party pills in the previous 12 months were asked what substances, if any, they usually used to help them 'come down' or recover from using legal party pills. Approximately one third (32.2%, 26.5-38.5) of legal party pill users indicated they usually used other substances to help them recover from their legal party pill use. The substances most commonly used were 'recovery pills' (50.2%, 38.8-61.6), cannabis (28.3%, 19.3-39.5) and tobacco (27.5%, 18.3-39.0) (Table 2.2).

Table 2.2: Substances used to help recover from legal party pills, 2006

Drug type	Percent (%)
Recovery pills	50.2
Cannabis	28.3
Tobacco/cigarettes	27.5
Alcohol	10.7
Ecstasy (E,MDMA)	4.3
Ice (crystal meth)	1.7
Nitrous oxide (laughing gas)	1.7
Tranquillizers (downers, valium, serepans)	1.3
Hallucinogenic mushrooms	1.3
Crack cocaine	1.3
Amphetamines (meth,P,pure)	0.4
LSD	0.4
Cocaine	0.4

### Other drug use by legal party pill users

Legal party pill users were asked whether they had recently used a list of other drug types, including alcohol and tobacco and twenty-four other drug types. Nearly all the legal party pill users (97.2%) had used other drugs in the preceding 12 months. The drug types they most commonly used are summarised in Table 2.3. Six out of 10 (60.8%; 54.3, 66.9) legal party pill users had used cannabis in the last year, one in five (21.0%; 16.3, 26.6) had used ecstasy in the last year and one in six (15.9%; 11.8, 21.1) had used amphetamines in the last year. One in seven (14.4%, 10.4, 19.6) legal party pill users had used nitrous oxide in the preceding 12 months and one in 10 (10.0%; 6.8-14.4) had used LSD in the previous year. One in 29 (3.5%; 1.8-6.5) legal party pill users reported they had used crystal methamphetamine in the previous year.

Table 2.3: Other drug types used by legal party pill users in the previous year, 2006

Drug type	Percent (%)
Alcohol'	94.6
Tobacco/cigarettes	68.0
Cannabis	60.8
Ecstasy (E,MDMA)	21.0
Amphetamines (meth,P,pure)	15.9
Nitrous oxide	14.4
LSD	10.0
Hallucinogenic mushrooms	9.1
Cocaine	6.2
Kava	5.1
Ice (crystal meth)	3.5
Tranquillizers (downers, valium, serepans)	3.0
Morphine	2.1
GHB (gamma-hydroxybutyrate)	1.7
Poppies (opium)	1.5
Rush (Amyl nitrate, Butyl nitrate)'	1.5
Crack cocaine	1.4
Solvents (glue, petrol, spray paint)	1.2
Other hallucinogens (PCP, datura)	1.2

Legal party pill users generally had much higher levels of illicit drug use than the wider population. This can be illustrated by comparing the illicit drug use of the legal party pill users with that of the general population from the recent 2003 Health Behaviours Survey – Drugs (2003 HBS-Drugs). The 2003 HBS-Drugs found among the general population aged 13-45 years old 19.7% had used cannabis, 3.7% had used amphetamine, 2.7% had used ecstasy (MDMA) and 1.8% had used LSD in the previous year.

## CHAPTER 3 – HARMS FROM LEGAL PARTY PILLS

### Introduction

A central concern around legal party pills is the extent to which users are harmed by the use of these substances. This chapter presents findings on the extent to which users report that their use of legal party pills has harmed different areas of their lives and the types of physical and psychological problems experienced from legal party pill use. The final section of this chapter investigates the extent to which legal party pill users have accessed a range of health services in regard to their legal party pill use.

### Self-reported harms from legal party pills

Those who had used legal party pills in the last year were asked whether their use of legal party pills had harmed eight areas of their life in the preceding year. The areas of life most commonly reported harmed were ‘energy and vitality’, ‘health’ and ‘financial position’ (Table 3.1). Only 1% (n=2) of last year legal party pill users reported that their legal party pill use had harmed their ‘children’s health or well-being’.

Table 3.1: Self reported harmful effects from the use of legal party pills in the last 12 months, 2006

Area of life	Percent (%)	Lower CI (%)	Upper CI (%)
Energy and vitality	19.3	14.8	24.8
Health	14.6	10.6	19.9
Financial position	8.8	5.7	13.4
Outlook on life	6.3	3.8	10.3
Home life	4.7	2.6	8.1
Friendships and social life	4.0	2.0	7.9
Work and study life	2.9	1.3	6.2

Those who had experienced harm to ‘friendship and social life’, ‘work and study’ and ‘financial’ areas of life from their legal party pill use were asked more detailed questions about the most serious problem they had suffered. The low numbers of respondents answering these questions indicate caution should be exercised when interpreting the results.

Among those experiencing harm to ‘friendships and social life’ (4.0%, n=10) from their legal party pill use, four said the most serious problem was ‘arguments’, three said ‘mistrust or anxiety’ and two said ‘ending a relationship’. One said the most serious problem was being ‘kicked out of home’.

Among those who had experienced financial problems (8.8%, n=18) from their legal party pill use, 11 said they had ‘no money for recreation or luxury items’, two were ‘in debt or owing money’, and three had ‘no money for food or rent’.

Among those who had experienced work/study problems (2.9%, n=10) from their legal party pill use, six had ‘trouble concentrating’, two reported being ‘unmotivated’ and a further two taking ‘sick leave or not attending classes’.

### **Physical problems from legal party pill use**

Those who had used legal party pills in the last year were asked whether they had experienced any of a list of twenty-three physical problems from using legal party pills in the last year. Four out of 10 (41.1%; 35.0-47.4) legal party pill users had experienced ‘poor appetite’ (Table 3.2). Other physical problems commonly experienced from legal party pill use were ‘hot/cold flushes’, ‘heavy sweating’, ‘stomach pains/nausea’, ‘headaches’ and ‘tremors and shakes’. A small number of last year legal party pill users reported ‘fainting/passing out’ (1.6%, n=4) or ‘fits/seizures’ (0.3%, n=1) related to their use of legal party pills.

Table 3.2: Self-reported physical problems from legal party pill use, 2006

<b>Problem</b>	<b>Experienced (%)</b>	<b>Lower CI (%)</b>	<b>Upper CI (%)</b>
Poor appetite	41.1	35.0	47.4
Hot/cold flushes	30.6	25.0	36.9
Heavy sweating	23.4	18.4	29.3
Stomach pains/nausea	22.2	17.4	28.0
Headaches	21.9	17.2	27.4
Tremors/shakes	18.4	14.0	23.8
Poor concentration	18.2	13.9	23.6
Dizziness	15.4	11.3	20.7
Heart flutters	15.4	11.3	20.5
Weight loss	13.7	9.9	18.7
Teeth problems	12.5	8.8	17.4
Vomiting	12.2	8.5	17.4
Shortness of breath	11.3	7.7	16.2
Numbness/ tingling	10.7	7.4	15.3
Inability to urinate	9.7	6.5	14.4
Memory lapse	9.1	6.1	13.4
Muscular aches	8.5	5.6	12.7
Blurred vision	6.2	3.7	10.1
Joint pains/stiffness	5.6	3.4	9.1
Skin problems	3.9	2.1	7.0
Chest pains	3.8	2.2	6.7

### **Psychological problems from legal party pill use**

Those who had used legal party pills in the last year were asked whether they had experienced any of a list of eighteen psychological problems from using legal party pills in the last year. Half (50.4%; 44.1-56.7) of the legal party pill users had experienced ‘trouble sleeping’ and one in five (18.4%; 14.0-23.7) experienced ‘loss of energy’ from their legal party pill use (Table 3.3). One in nine legal party pill users experienced ‘short temper’ (10.9%; 7.4-15.7) and about the same proportion reported ‘irritability’ (11.4%, 8.1-15.8) associated with their legal party pill use. Approximately one in 12 (8.2%; 5.3-12.4) legal party pill users experienced ‘depression’ and a further one in 12 (8.4%; 5.5-12.6) ‘paranoia’. A small number of users (1.2%, n=6) reported ‘feelings of aggression’ related to their use of legal party pills. A few legal party pill users indicated they had experienced ‘suicidal thoughts’ from their legal party pill use (0.8%, n=2). No legal party pill users said they had ‘attempted suicide’ in relation to their legal party pill use.

Table 3.3: Self-reported psychological problems from legal party pill use, 2006

<b>Problem</b>	<b>Experienced (%)</b>	<b>Lower CI (%)</b>	<b>Upper CI (%)</b>
Trouble sleeping	50.4	44.1	56.7
Loss of energy	18.4	14.0	23.7
Strange thoughts	15.6	11.6	20.8
Mood swings	14.8	10.9	19.9
Confusion	12.1	8.6	16.6
Irritability	11.4	8.1	15.8
Short temper	10.9	7.4	15.7
Anxiety	10.0	6.7	14.6
Loss of sex urge	9.5	6.3	14.1
Visual hallucinations	8.8	5.6	13.4
Paranoia	8.4	5.5	12.6
Depression	8.2	5.3	12.4
Sound hallucinations	6.9	4.3	10.8
Flashbacks	5.0	2.9	8.4
Panic attacks	3.2	1.6	6.1

### Accessing health services

Last year legal party pill users were asked if they had accessed a range of health services in the last 12 months in relation to their legal party pill use. One in 83 (1.2%) users had required an ambulance, a further one in 83 (1.2%) had visited a doctor, one in 100 (1.0%) users had visited a hospital emergency department and one in 250 (0.4%) users had been admitted to a hospital in relation to their legal party pill use in the previous 12 months (Table 3.4). No users reported seeing a psychologist or psychiatrist in relation to their legal party pill use in the previous year.

Table 3.4: Health services accessed in relation to legal party pill use in the previous year, 2006

<b>Medical service accessed</b>	<b>Percent (%)</b>
Ambulance	1.2
GP/Doctor	1.2
Accident and emergency	1.0
Counsellor/drug and alcohol worker/social	0.7
Hospital (been admitted)	0.4

## CHAPTER 4 - AVAILABILITY, POTENCY AND PRICE OF LEGAL PARTY PILLS

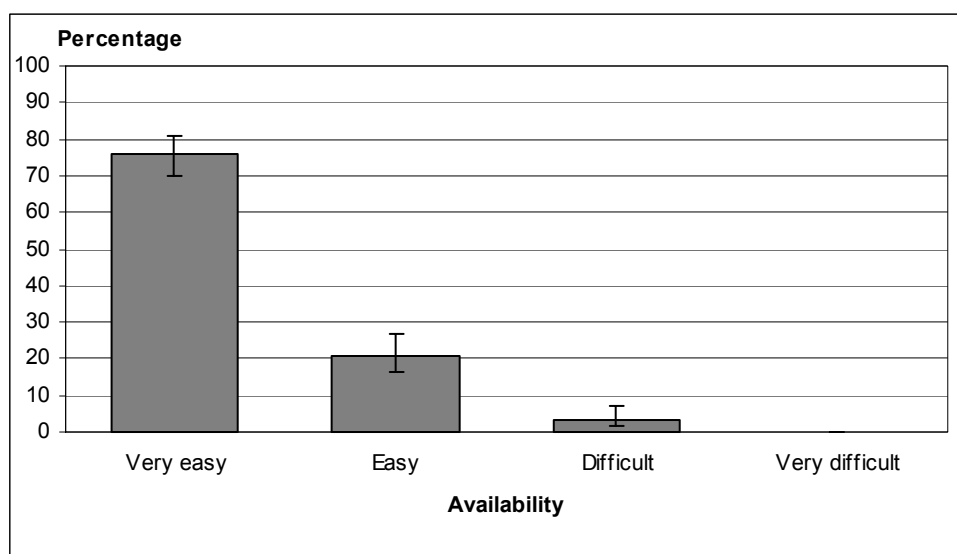
### Introduction

Environmental factors such as availability and price have been found to be important influences on drug use and drug related harm. This chapter investigates current and recent changes in levels of availability, potency and price of legal party pills.

### Availability of legal party pills

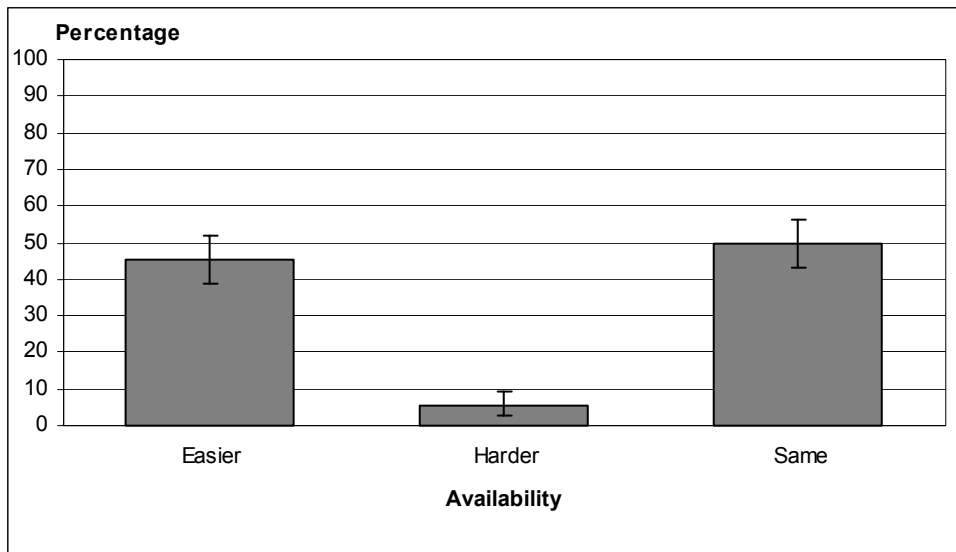
Those who had used legal party pills in the last year were asked how easy it was to get legal party pills at the moment. Three quarters (75.7%; 69.8-80.8) of users described the current availability of legal party pills as 'very easy' and a further one in five (21.0%; 16.3-26.6) described availability as 'easy' (Figure 4.1).

Figure 4.1: Current availability of legal party pills, 2006



Last year legal party pill users were then asked how the availability of legal party pills had changed in the previous 12 months. One half (49.7%; 43.0-56.4) of users said the availability of legal party pills was 'the same' compared to 12 months ago (Figure 4.2). However, over four out of 10 (45.1%; 38.6-51.8) users described the availability of legal party pills as getting 'easier' compared to a year ago. Only one in 20 (5.2%; 2.9-9.3) users thought the availability of legal party pills had got 'harder' in the last 12 months.

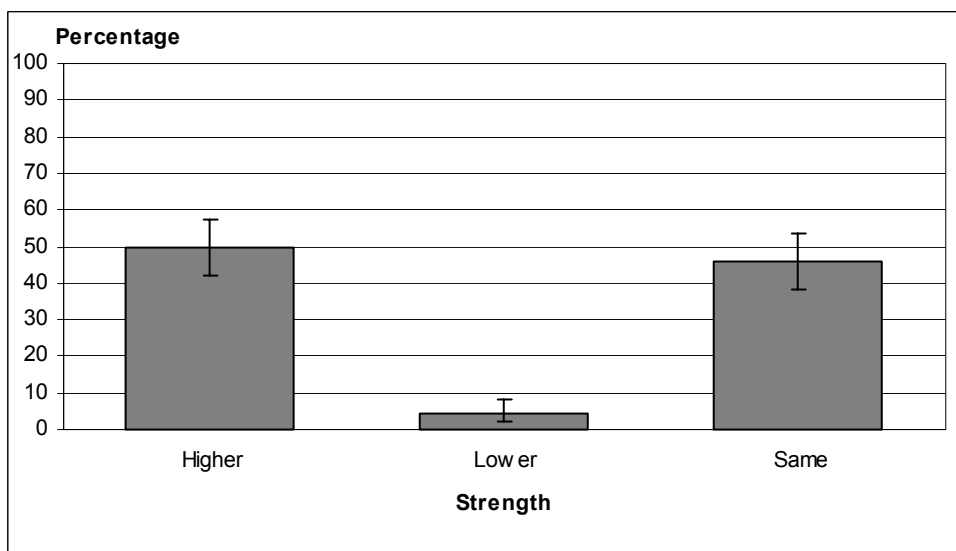
Figure 4.2: Change in the availability of legal party pills in the last 12 months, 2006



### Strength of legal party pills

Those who had used legal party pills in the last year were asked how the strength of legal party pills had changed in the previous 12 months. Half of the users (49.8%; 42.2-57.5) said the strength of legal party pills was 'higher' compared to a year ago (Figure 4.3). A similar proportion (46.0%; 38.4-53.7) said the strength of legal party pills was 'the same' compared to 12 months ago. Only one in 24 (4.3%; 2.1-8.4) users thought the strength of legal party pills was 'lower' compared to a year ago.

Figure 4.3: Change in the strength of legal party pills in the last 12 months, 2006

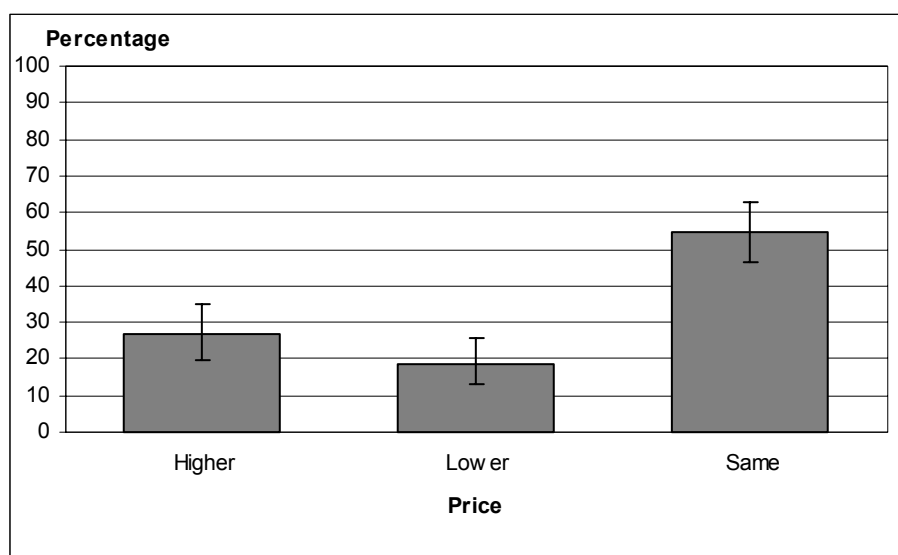


## Prices and purchase of legal party pills

Nearly three quarters (73.3%) of those who had used legal party pills in the last year had purchased legal party pills in the previous year. The median dollar amount spent on legal party pills per user on a typical occasion was \$40 (mean \$39, range \$8-\$200).

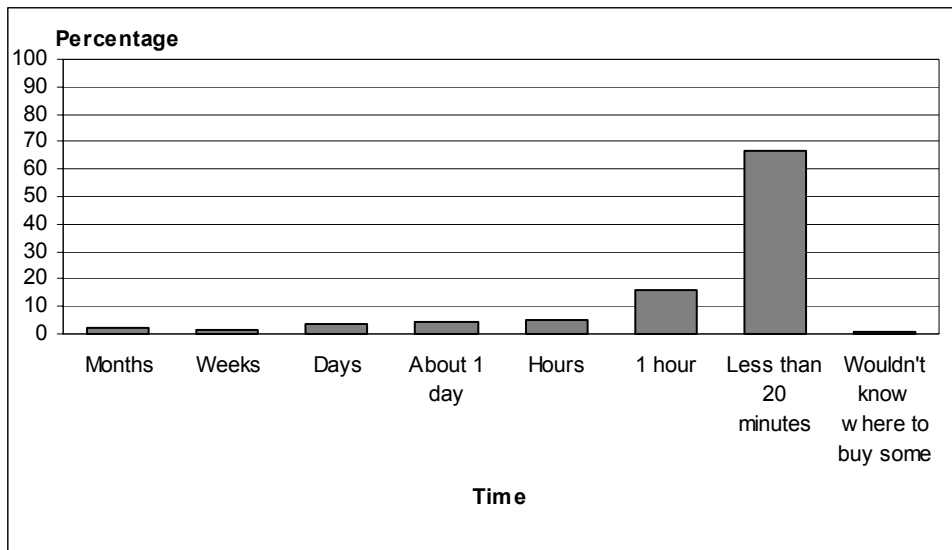
Those who had purchased legal party pills in the previous year were asked how the price of legal party pills had changed compared to 12 months ago. Half (54.7%; 46.3-62.9) of those who had purchased legal party pills in the last year said the price of legal party pills had remained 'the same' compared to a year ago (Figure 4.4). A quarter (26.8%; 19.8-35.2) of legal party pill buyers said the price of legal party pills was 'higher' compared to a year ago and one in five (18.5%; 13.0-25.5) reported the price was 'lower'.

Figure 4.4: Change in the price of legal party pills in the last 12 months, 2006



Those who had purchased legal party pills in the last year were asked how long it would take them to buy some legal party pills. Two thirds (66.9%; 60.8-72.6) of legal party pill buyers answered 'less than 20 minutes' and a further one in six (15.9%; 11.9-21.0) said it would take them about 1 hour (Table 4.1).

Table 4.1: Time taken to purchase legal party pills, 2006



## CHAPTER 5 – EXTENT OF DEPENDENCY ON LEGAL PARTY PILLS

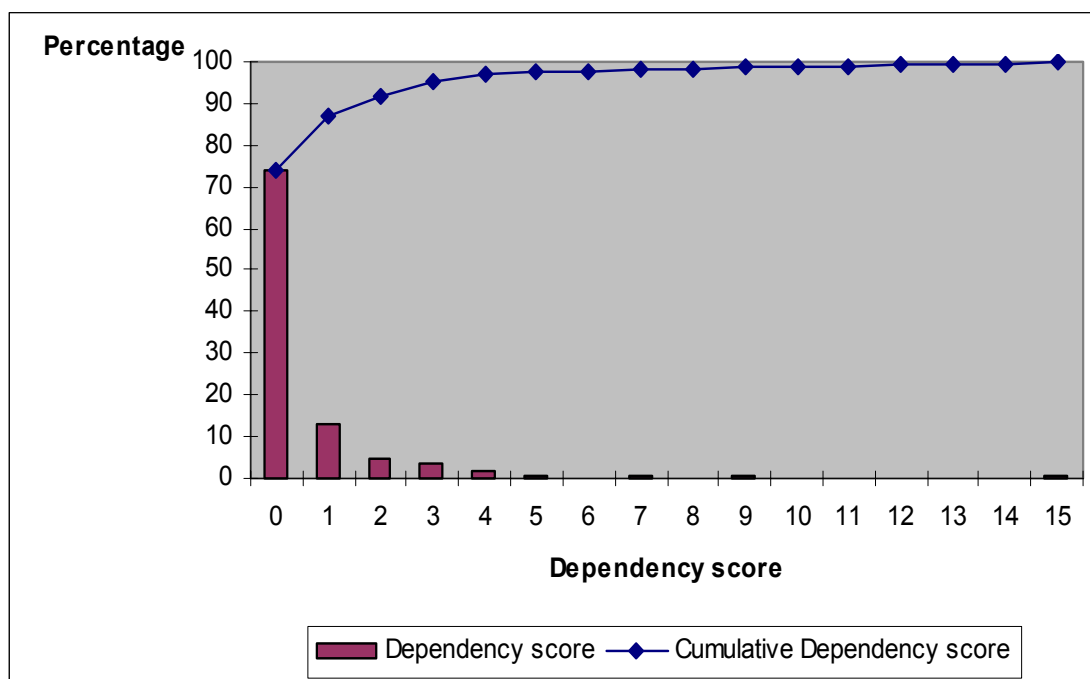
### Introduction

The potential for a drug to create dependency among users is often considered a central issue with respect to evaluating its harm. Dependency is, however, difficult to both define and measure. In the absence of specific measures of dependency for legal party pills, the approach taken here is to use a Short Dependency Scale (SDS) which has been validated for amphetamine dependency (Gossop et al., 1995). A cut-off score of greater than four for the combined five questions of the SDS has been validated as indicative of problematic amphetamine use (Topp and Mattick, 1997). This chapter also presents findings on the extent to which legal party pill users thought they required help to reduce their level of legal party pill use.

### Extent of dependency

One in 45 (2.2%) of last year legal party pill users were classified as dependent on legal party pills by scoring greater than four on the combined five questions of the SDS (Figure 5.1). One in 21 (4.8%) legal party pill users scored four or more on the SDS scale. Nearly three quarters (73.7%) of legal party pill users had a combined score of zero on the SDS scale. Nine out of 10 (91.7%) users had a combined score of two or less.

Figure 5.1: Short Dependency Scale scores of last year legal party pill users (dependency validated for those who score greater than 4), 2006

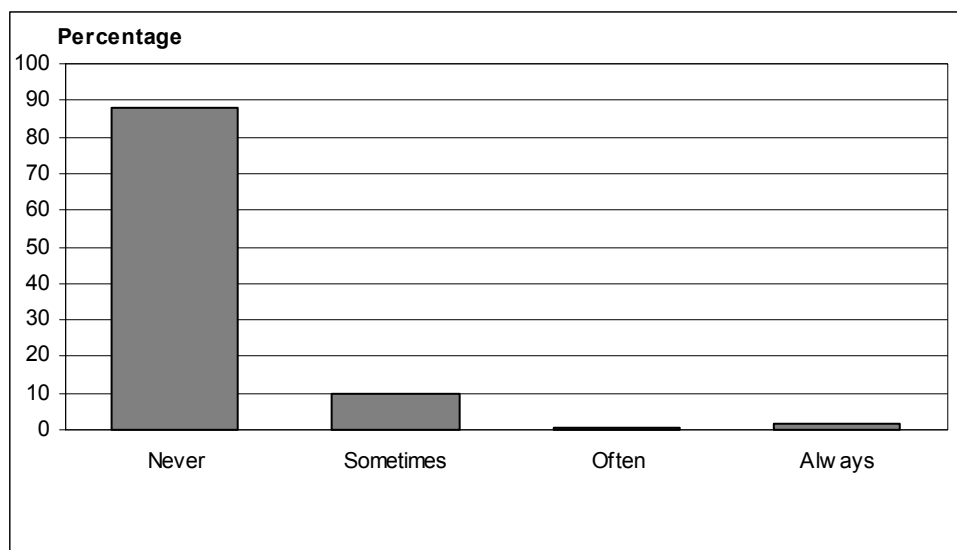


The results for each of the five questions which make up the SDS are presented below. A 'never' or 'not difficult' response received a score of zero for the purposes of the SDS. The other three options for each question received scores of 1, 2 or 3 respectively.

### Extent that use is out of control

Those who had used legal party pills in the last year were first asked whether they ever thought their use of legal party pills was out of control. Nearly nine out of 10 (88.2%; 83.4-91.8) users answered that they 'never' felt their legal party pill use was out of control (Figure 5.2). One in 10 (9.7%; 6.5-14.2) said they 'sometimes' felt their legal party pill use was out of control.

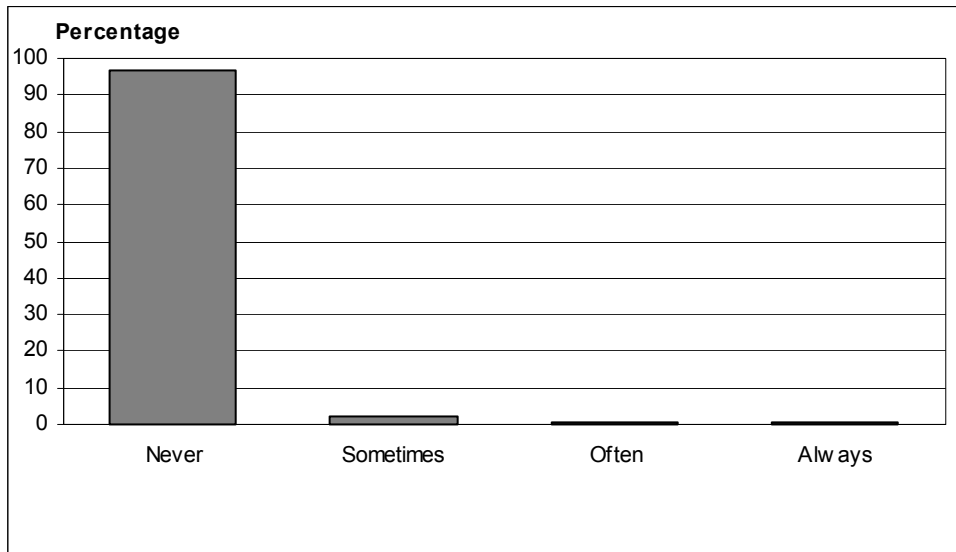
Figure 5.2: Extent use of legal party pills was considered out of control, 2006



### Concern about missing a dose

Last year legal party pill users were asked if the prospect of missing a dose of legal party pills made them feel anxious or worried. Over nine out of 10 (96.8%; 93.4-98.5) legal party pill users said 'never' (Figure 5.3).

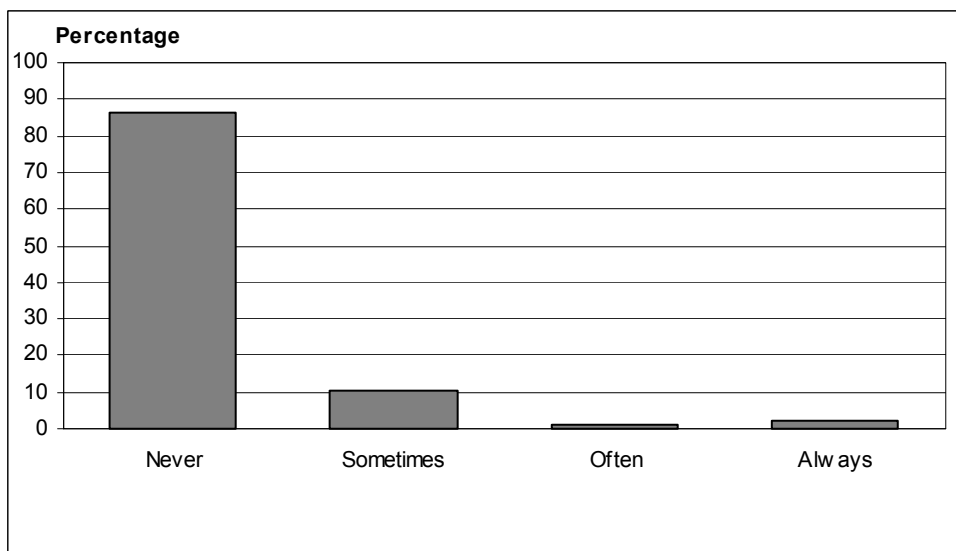
Figure 5.3: Prospect of missing a dose made you feel anxious or worried, 2006



### Worry about legal party pill use

Last year legal party pill users were asked if they had worried about their legal party pill use. Nearly nine out of 10 (86.2%; 80.8-90.2) replied 'never'. One in nine (10.7%; 7.2-15.6) users answered they 'sometimes' worried about their legal party pill use (Figure 5.4).

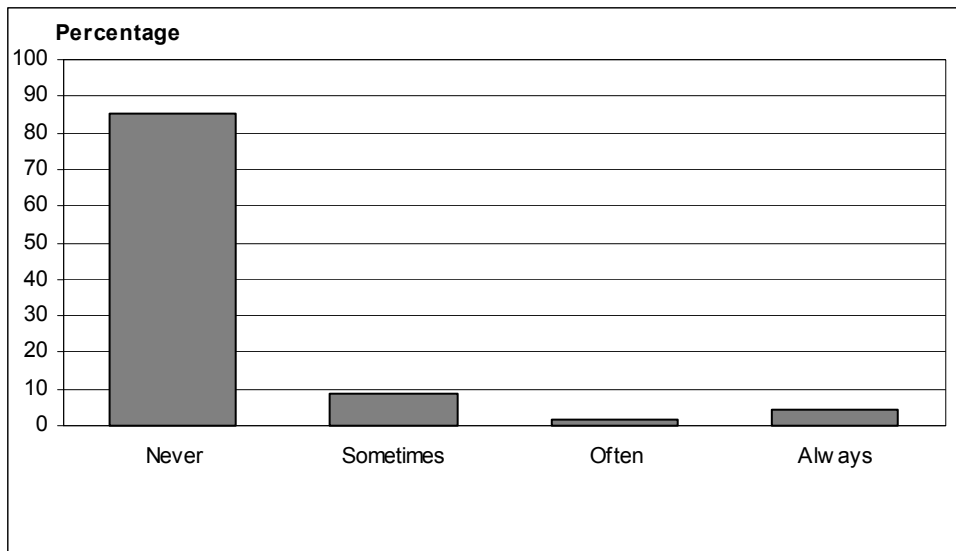
Figure 5.4: Worry about your legal party pill use, 2006



### Wish you could stop

Last year legal party pill users were asked if they wished they could stop their legal party pill use. Nearly nine out of 10 (85.5%; 80.0-89.8) said they had never wished they could stop (Figure 5.5).

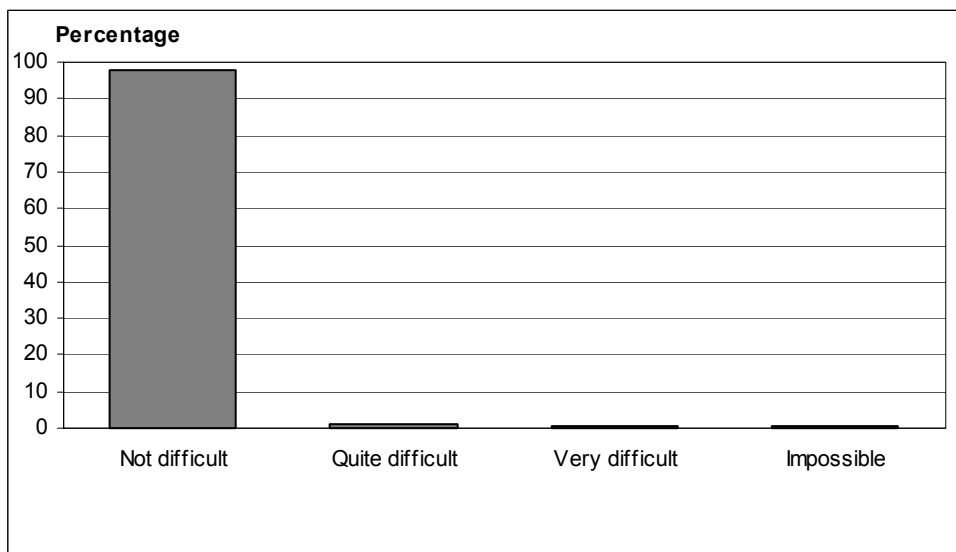
Figure 5.5: Wish you could stop using legal party pills, 2006



### Difficulty stopping

Finally, last year legal party pill users were asked how difficult they would find it to stop or go without legal party pills. Nearly all legal party pill users (97.9%; 94.8-99.2) said it would not be difficult to stop using legal party pills (Figure 5.6).

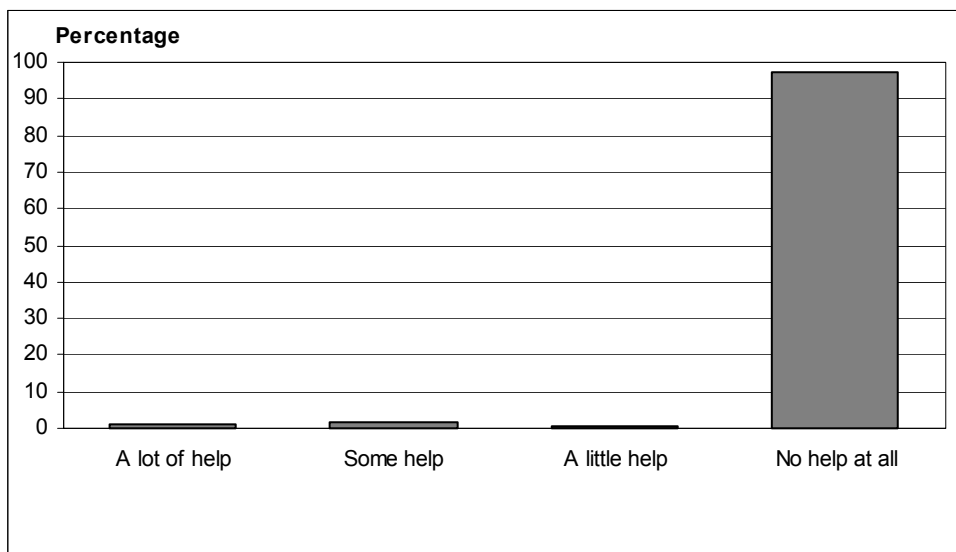
Figure 5.6: How difficult you find it to stop using legal party pills, 2006



### Extent required help to reduce level of use

Those who had used legal party pills in the last year were asked to what extent they felt they needed help to reduce their level of legal party pill use. Nearly all users (97.4%; 94.5-98.8) answered they thought they needed 'no help at all' (Figure 5.7).

Figure 5.7: Extent last year users felt they needed help to reduce legal party pill use, 2006



## **CHAPTER 6 – ‘GATEWAY’ EFFECTS AND LEGAL PARTY PILLS**

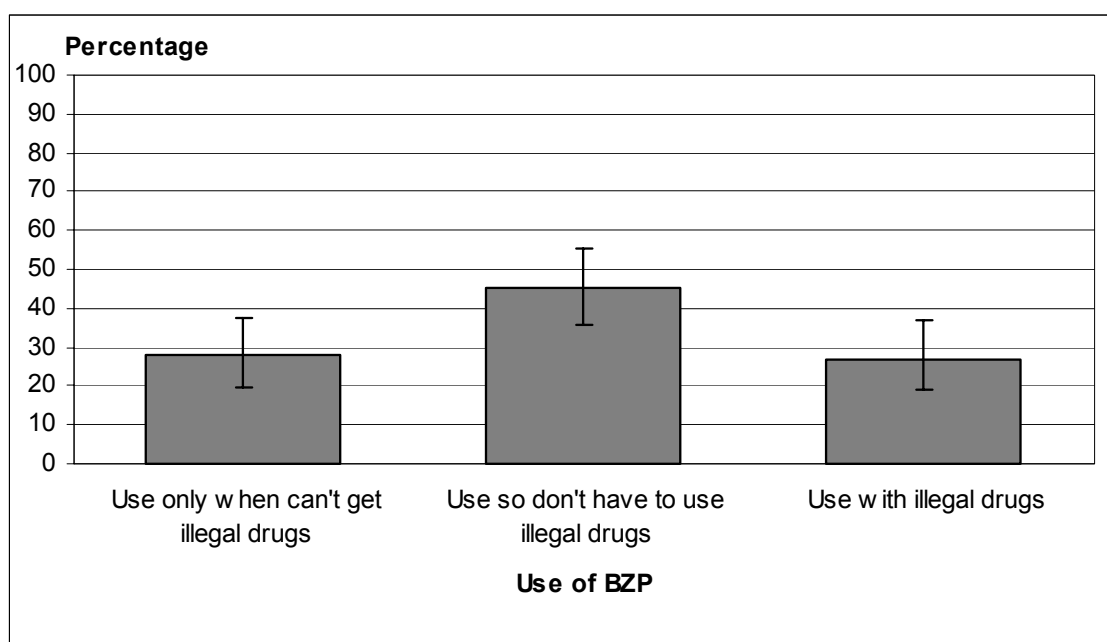
### **Introduction**

An important concern often raised about legal party pills is that the easy access to these legal stimulants may increase young people’s propensity to try other more powerful illicit stimulants, such as methamphetamine and ecstasy, or other illicit drug types in general. The manufacturers of legal party pills, on the other hand, claim that legal party pills provide safer alternatives to more harmful illicit substances, both for those who are currently abusing more powerful illicit substances and young people who may otherwise try illicit drugs. A third scenario is that legal party pills are simply used in combination with illicit drugs and have little impact on overall illicit drug use. The data presented in this chapter seeks to inform our understanding of the role legal party pills are playing in illicit drug use by directly asking respondents who have used both legal party pills and illicit drugs to describe how their use of the two groups of substances is interrelated. More sophisticated multivariate analysis of the impact of legal party pills on a range of measures of illicit drug use and drug related harm are planned to supplement this general report.

### **Current relationship between legal party pills and illicit drug use**

Those who had used legal party pills and an illicit drug in the previous year were asked how their use of legal party pills fits into their current illicit drug use. Respondents were read out a number of statements describing how their current use of legal party pills interrelates with their current illicit drug use and asked to select the one that best describes their experience. One third of the respondents to the question (33.2; 26.0-41.2) indicated that they had recently ‘stopped their illicit drug use’. Of those who were current illicit drug users, approximately three out of 10 (27.9%; 19.9-37.8) indicated that they only ‘use legal party pills when they cannot get illicit drugs’ (Figure 6.1). A further three out of 10 (26.9%; 18.8-36.9) indicated that they ‘use legal party pills with illegal drugs to enhance their effects or duration of their effects’. Over four out of 10 (45.2%; 35.6-55.1) reported that they ‘use legal party pills so they do not have to use illegal drugs’.

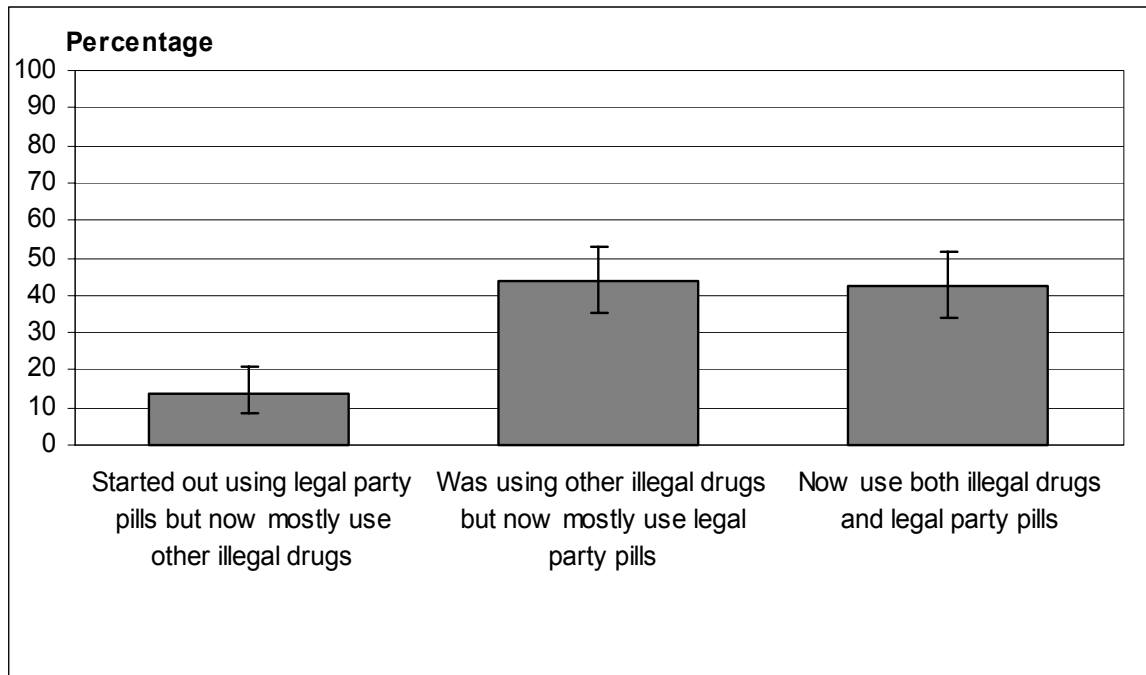
Figure 6.1: Role legal party pills play in current illicit drug use, 2006



### Past relationship between legal party pills and illicit drug use

Those who had tried both legal party pills and an illicit drug in their lifetime were asked how their use of legal party pills fitted into their history of illicit drug use. Respondents were read out a number of statements describing the past relationship between their legal party pill and illicit drug use and asked to select the one that best fitted their experience. One half of the respondents to the question (49.7%; 43.6-55.9) indicated that they had 'stopped both legal party pill and illicit drug use' and there was no relationship between the two. Of those who indicated some kind of past relationship between their legal party pill and illicit drug use, one in seven (13.5%; 8.4-20.8) indicated they had 'started out using legal party pills but now mostly use illegal drugs' (Figure 6.2). Four out of 10 (42.5%; 34.1-51.4) reported they 'now use both illegal drugs and legal party pills (no change in level of illicit drug use)'. The final group (44.1%; 35.5-53.0) indicated they 'were using illicit drugs but now mostly use legal party pills'.

Figure 6.2: Role legal party pills have played in history of illicit drug use, 2006



## CHAPTER 7 – USER PERCEPTIONS OF LEGAL PARTY PILLS

### Introduction

Perceptions of the benefits and risks of using legal party pills contributes to our understanding of why some people choose to use these substances, the ways they use them, and the problems they may experience. This chapter presents findings on the characteristics of legal party pills which users reported they most liked and most disliked, users' knowledge of the product safety instructions of legal party pills, and users' perceptions of the health risk of legal party pills and other drug types.

### Characteristics of legal party pills most liked

Those who had used legal party pills in the previous year were asked the three things they most liked about legal party pills. Approximately half of users (53.2%; 46.3-60.0) said they most liked the 'energy' that legal party pills provided (Table 7.1). Over four out of 10 (45.1%; 38.3-52.0) users said the euphoric effects of legal party pills was the characteristic they most liked. Other attributes of legal party pills which users commonly reported as characteristics they most liked included that they were 'legal' (22.5%; 17.4-28.5), inexpensive (21.2%; 16.1-27.4), 'easy to buy' (19.9%; 15.0-26.0), 'enhanced ability to socialise' (7.8%; 5.0-12.1), were perceived to be 'safer than illegal drugs' (6.7%; 4.0-11.0) and 'increased confidence' (4.9%; 2.7-8.8).

Table 7.1: Characteristics of legal party pills which users most liked, 2006

Attribute	Percent (%)
Energy/keeps you going all night	53.2
The 'high'/effects/ euphoria	45.1
They're legal	22.5
They're cheap	21.2
They're easy to buy	19.9
Enhance ability to socialise	7.8
Better/safer than illegal drugs/alternative substance	6.7
Increase confidence	4.9
Calm me down/relaxing effect	2.7
You can drink more alcohol	2.2
The new names	1.8
Hallucinations	1.6
Allows you to work longer	1.3
Helps me think/reflect	1.1
Makes sex better	0.8
Packaging/adverts	0.8
Make other illegal drugs better/last longer	0.6
Makes music better	0.5

(Percentages are of those who had used legal party pills in the last year excluding don't know and refused; n=252)

## Characteristics of legal party pills most disliked

Those who had used legal party pills in the previous year were asked the three things they most disliked about legal party pills. Approximately half (50.9%; 44.1-57.6) of users mentioned the ‘hang over’ associated with using legal party pills as the characteristic they most disliked (Table 7.2). About one in five users said the ‘inability to sleep’ (19.5%; 14.6-25.4) and ‘cost’ (17.6%; 12.8-23.7) were aspects of legal party pills they most did not like. Other features of legal party pills which users said they most disliked were ‘dehydration and sweating’ (11.5%; 7.8-16.6), ‘feeling sick’ (11.0%; 7.6-15.7), that ‘kids’ (5.5%; 3.2-9.2) were using them, ‘exhaustion’ (5.2%; 3.0-8.9%) and ‘jaw cramps’ (4.6%; 2.4-8.3).

Table 7.2: Characteristics of legal party pills which users most disliked, 2006

Attribute	Percent (%)
Come down/hang over	50.9
Inability to sleep	19.5
Cost/price	17.6
Dehydration and sweating	11.5
Feeling sick	11.0
Kids using them	5.5
Exhaustion	5.2
Jaw cramps	4.6
Knowing its bad for you	3.1
Too little information/instruction	3.1
Taste	2.8
Disappointing high	2.5
Long terms effects	2.4
Social stigma	1.7
Anxiety	1.7
Drink too much alcohol	1.7
Money wasted	1.6
Paranoia	1.6
Loss of sex urge	1.4
Depression	1.1
Loss of friends	0.6
Makes me sneaky and lie	0.5
Fits	0.5
Addiction/cravings	0.3
Makes me angry	0.2

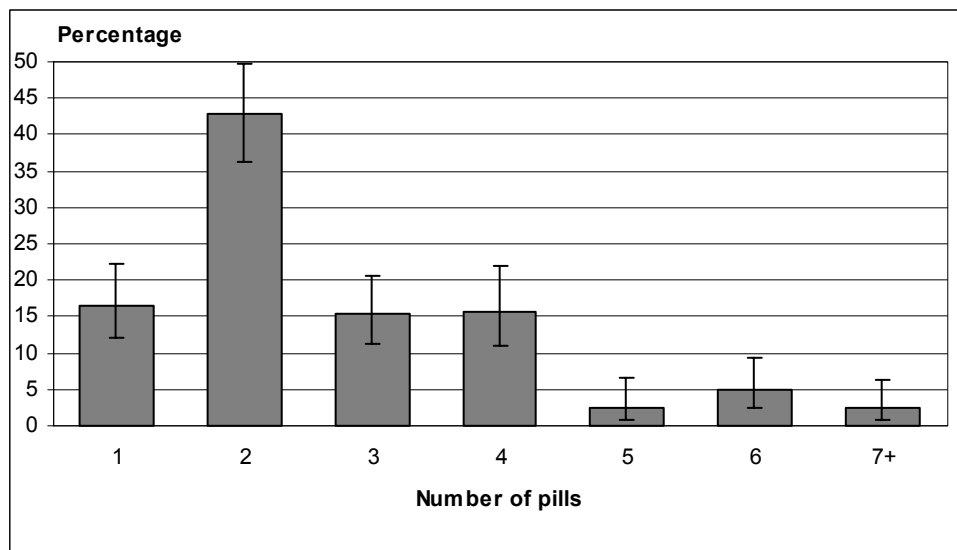
(Percentages are of those who had used legal party pills in the last year excluding don't know and refused; n=256)

## Knowledge of the safe number of legal party pills to take

Those who had used legal party pills in the previous year were asked what was the safe number of legal party pills someone could take in a single night. Manufacturers' product instructions commonly advise that only two pills should be taken in a single night, and first time users should be cautious and only start with one pill. One in six (15.5%; 11.5-20.6) users indicated they did not know how many legal party pills it was safe to take in one night. Of those who thought they knew how many legal pills it was safe to take in a night, four out of 10 (40.7%) answered more than two pills, with

15.3% saying three pills, 15.7% four pills and 9.9% saying five pills or more (Figure 7.1).

Figure 7.1: Users' perceptions of how many legal party pills can be safely taken in one night, 2006



### Knowledge of what substances should not be taken with legal party pills

Those who had used legal party pills in the last 12 months were asked what substances should not be taken with legal party pills. Manufacturers' product instructions commonly advise that legal party pills should not be taken with alcohol, other drugs, medicines or other BZP products. One in five (21.2%; 16.4-26.8) users did not know what other substances should not be taken with legal party pills. Of those who provided an answer, seven out of 10 (69.3%; 62.3-75.5) said 'drugs' and six out of 10 (64.2%; 57.1-70.8) said 'alcohol' (Table 7.3). A small number of respondents wrongly answered 'food' (3.2%, n=2) and 'water' (1.2%, n=1) should not be taken with legal party pills.

Table 7.3: Users' perceptions of what substances should not be taken with legal party pills, 2006

Substance	Percent (%)	Lower CI (%)	Upper CI (%)
Drugs	69.3	62.3	75.5
Alcohol	64.2	57.1	70.8
Medicines	15.3	11.0	20.7
Other BZP products	6.7	3.9	11.1

## Types of people who should not use legal party pills

Last year legal party pill users were asked which groups of people should not take legal party pills. Manufacturers' product instructions commonly advise that pregnant or breast feeding mothers, people with medical conditions and those with a mental illness should not take legal party pills. One in 10 (9.5%; 6.2-14.5) users did not know which groups of people should not use legal party pills (Table 7.4). Approximately four out of 10 of those who thought they knew which groups of people should not use legal party pills said 'children under 16 years old', 'people with medical conditions' and 'people with mental illnesses' should not use legal party pills. Nearly three out of 10 (28.8%; 23.2-35.2) said 'pregnant or breast feeding mothers'. A small number of respondents (1.5%, n=5) said 'people with aggressive tendencies' should not take legal party pills.

Table 7.4: Users' perceptions of which groups of people should not use legal party pills, 2006

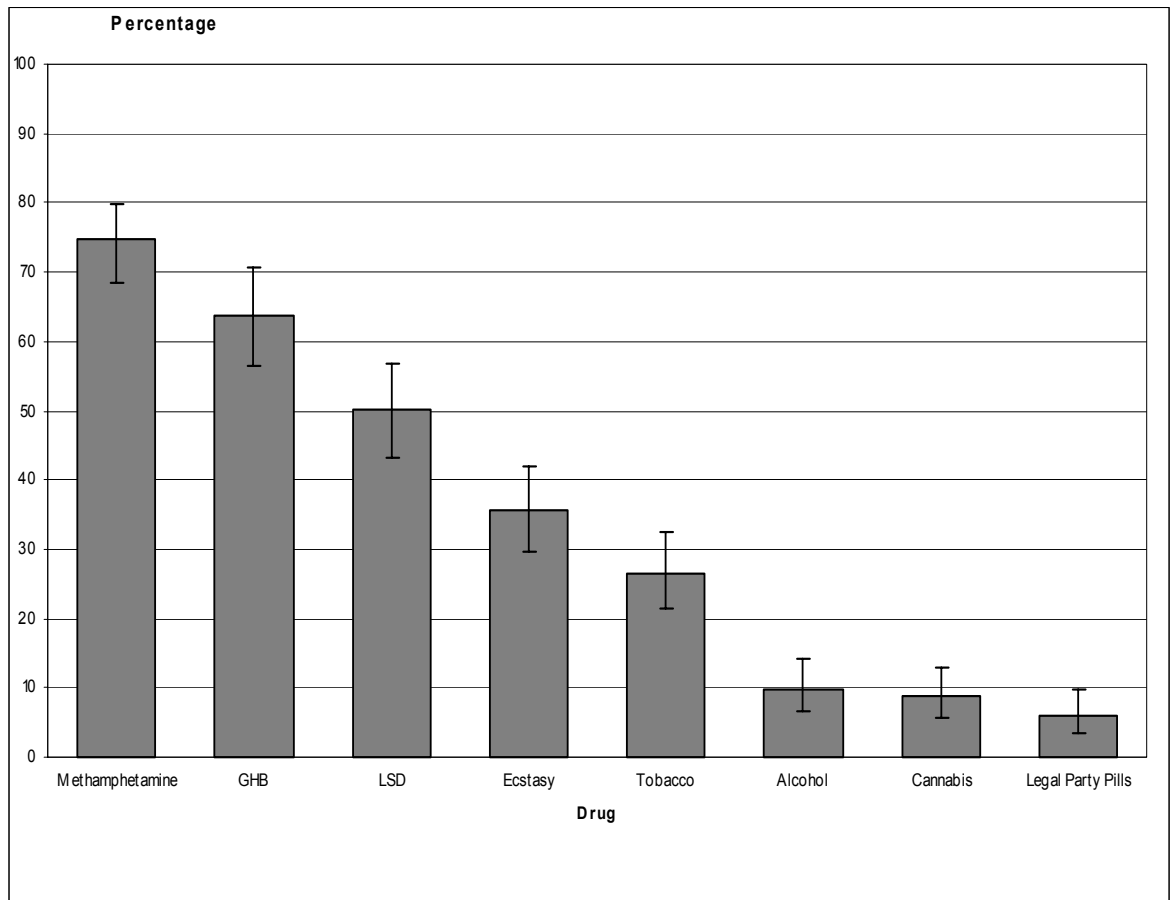
Type	Percent (%)	Lower CI (%)	Upper CI (%)
Children under 16 years old	44.4	37.9	51.1
People with medical conditions	43.3	36.9	50.0
People with mental illness	41.0	34.6	47.6
Under 18 years/adolescents	33.7	27.7	40.4
Pregnant or breast feeding women	28.8	23.2	35.2
People who have substance misuse problems	7.6	4.7	11.9
Elderly people	3.1	1.6	6.0

## Perceptions of the health risk of using different drug types

All respondents to the survey were asked to rate the harm to health of using eight separate drug types, including alcohol and cigarettes, and illegal drugs such as amphetamines. Respondents were asked to rate the health risk of regularly using each of these substances on a five point scale ranging from no risk=1 to extreme risk=5. The full table results for this question can be found in Appendix 2.

Figure 7.2 presents the proportion of last year legal party pill users who thought the regular use of a substance was an 'extreme health risk' for the eight different substances. Nearly three-quarters (74.6%; 68.5-79.9) of legal party pill users thought the regular use of methamphetamine was an 'extreme health risk'. Over six out of 10 (63.8%; 56.4-70.7) legal party pill users considered the regular use of GHB to be an 'extreme health risk'. Approximately half of legal party pill users considered the regular use of LSD to be an 'extreme health risk'. Legal party pill users considered the risk of regularly using alcohol, cannabis and legal party pills to be broadly on the same par with each other with less than 10% of legal party pill users considering the regular use of these substances to be an 'extreme health risk'.

Figure 7.2: Proportion of last year legal party pill users who considered the regular use of a substance to an 'extreme health risk', 2006



## CHAPTER 8 – POLICY AND LEGAL PARTY PILLS

### Introduction

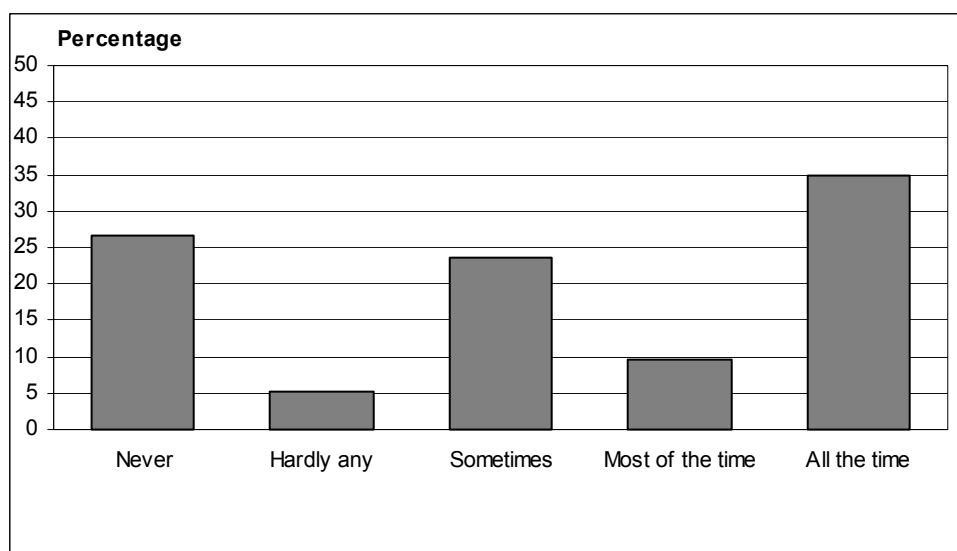
The sale of legal party pills is currently restricted to those 18 years or older, and the advertising of legal party pills is prohibited in major media sources such as television, radio, newspapers and magazines. These regulatory controls of legal party pills were introduced in June 2005. This chapter provides data on how these regulations are impacting on young people's ability to purchase legal party pills, and how the general public would like to see the regulation of legal party pills evolve in the near future.

### Age identification

All those who had purchased legal party pills in the last year and who were under the age of 20 (i.e. n=49) were asked on how many occasions, when they had tried to purchase legal party pills, had the seller asked them for age identification. Although the age limit to purchase legal party pills is currently set at 18 years old and over, it is standard practice to ask for age identification from those who look well above the legal age of purchase to ensure that all those who may be under age are scrutinised. For example, supermarkets request age identification for the purchase of alcohol from all customers who look as old as 25.

Approximately three out of 10 (26.7%; 15.8-41.3) legal party pill buyers under 20 years old had 'never' been asked for age identification when attempting to purchase legal party pills (Figure 8.1). Over half of legal party pill users under 20 years old had been asked for age identification only 'sometimes' or less often. However, one-third (34.8%; 21.4-51.2) of legal party pill buyers said they were asked for age identification 'all the time'.

Figure 8.1 Frequency of sellers request for age identification from those who purchased legal party pills and were under 20 years old, 2006

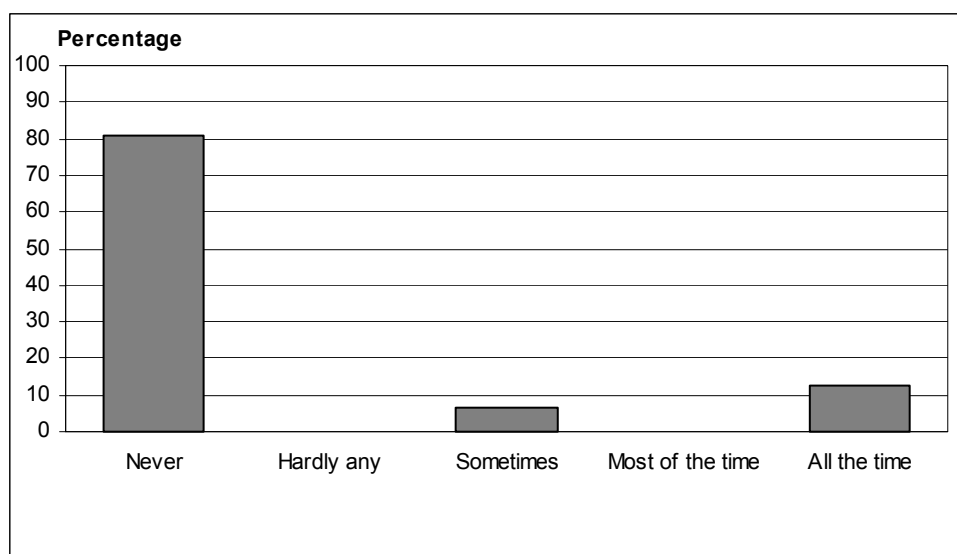


The low sample numbers of legal party pill buyers who were under 18 years of age (i.e. n=17) made examining requests for age identification among the under 18 age group problematic. The small number of legal party pill users in this age group indicates that caution should be exercised with the findings from this question for this age group. Among legal party pill buyers under 18 years old, four out of 10 (44.7%, n=9) said they had ‘never’ been asked for age identification when attempting to purchase legal party pills. Seven out of 10 (72.3%) legal party pill users under 18 years old had been asked for age identification only ‘sometimes’ or less often when trying to purchase legal party pills. Three out of 10 (27.7%, n=3) had been asked for age identification ‘all the time’.

### Refused purchase

All those who had purchased legal party pills in the last year and were under the age of 20 (i.e. n=49) were asked on how many occasions when they had tried to purchase legal party pills did the seller refuse to sell them legal party pills because they thought they were underage or because they did not have adequate age identification. Figure 8.2 shows that eight out of 10 (80.7%; 65.4-90.3) legal party pill buyers under the age of 20 had ‘never’ been refused purchase of legal party pills.

Figure 8.2 Frequency with which legal party pill buyers under 20 years old had been refused sales of legal party pills, 2006



Low sample numbers of legal party pill buyers who were under 18 years of age (i.e. n=17) made examining purchase refusals among the under 18 age group problematic. The small number of legal party pill users in this age group indicates that caution should be exercised with the findings from this question for this age group. Among legal party pill buyers under 18 years old, seven out of 10 (68.1%, n=12) said they had never been refused the purchase of legal party pills. Eight out of 10 (80.9%, n=14) legal party pill users under 18 years old had been refused the purchase of legal party pills only ‘sometimes’ or less often. One in five (19.2%, n=3) legal party pill

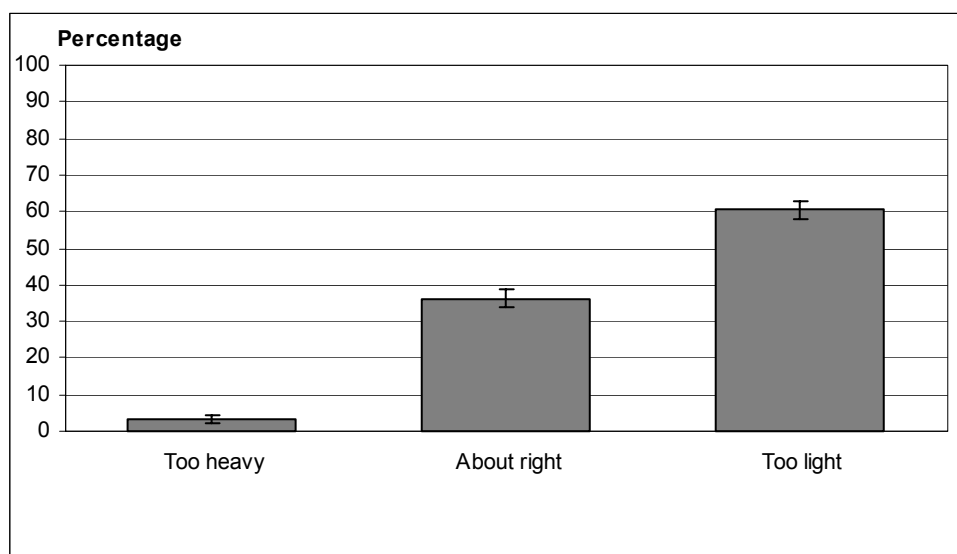
users under 18 years old had been refused the purchase of legal party pills ‘all the time’.

### Perceptions of the current regulation of legal party pills

All respondents to the survey were asked whether the current regulation of legal party pills was ‘too heavy’, ‘about right’ or ‘too light’. As an introduction to the question, the interviewer explained to the respondent that the sale and supply of legal party pills in New Zealand is currently restricted to people aged 18 years and over, and the advertising of legal party pills is prohibited in major media sources such as television, radio, newspapers and magazines. The interviewer explained further that there are currently no restrictions on whom may sell legal party pills and legal party pills can be purchased at a range of retail sales outlets.

Six out of 10 (60.6%; 58.2-63.1) survey respondents felt that the current regulation of legal party pills was ‘too light’ (Figure 8.3). One third (36.2%; 33.9-38.7) of respondents said current regulation was ‘about right’. One in 32 (3.1%; 2.3-4.2) respondents believed that the current regulation of legal party pills was ‘too heavy’.

Figure 8.3: Perceptions concerning the current regulation of legal party pills, 2006



### Areas of regulation of legal party pills like to see strengthened

Those survey respondents who indicated they thought the current regulation of legal party pills was ‘too light’ (60.6%; n=1187) were asked what areas of legal party pill regulation they would like to see strengthened and were read out thirteen possible options to strengthen existing regulation. Respondents could indicate support for more than one regulatory option and were invited to provide any additional option they supported which was not on the set list. Six out of 10 (59.0%; 55.8-62.1) respondents wanted to see the sale of legal party pills ‘prohibited from convenience stores’ (Table 8.1). About half (51.3%; 48.2-54.4) of respondents wanted sellers of legal party pills

to have to obtain a special license to sell these products. A further half of respondents wanted ‘mandatory health warnings on all packaging’ and ‘age restrictions on purchasing to be increased to 20 years old’. A similar proportion (45.0%; 41.9-48.2) wanted legal party pills to be ‘prohibited for everyone’. Approximately one-third of respondents indicated support for ‘a total ban on advertising’, ‘prohibition from places that sold alcohol’ and ‘restricting the total dosage of BZP sold in a single pack’. Small numbers of respondents supported ‘greater identification checks’ (0.4%, n=5) and ‘more education’ (0.4%; n=6)

Table 8.1: Areas of the regulation of legal party pills like to see strengthened, 2006

Regulation	Percent (%)	Lower CI (%)	Upper CI (%)
Prohibit sales from convenience stores	59.0	55.8	62.1
Sellers must obtain a special licence to sell BZP	51.3	48.2	54.4
Mandatory health warnings on all packaging	46.3	43.2	49.4
Higher age restriction on purchase to 20 years old	45.9	42.8	49.1
Outright prohibition/made illegal for everyone	45.0	41.9	48.2
A total ban on advertising	38.0	35.0	41.0
Prohibit sales from places that sell alcohol	33.4	30.6	36.4
Restrict the total dosage of BZP sold in a single pack	32.6	29.8	35.6
Tax BZP products to raise the price	32.2	29.4	35.2
Restrict the dosage of BZP per pill	31.8	29.0	34.8
More product information available	1.3	0.8	2.1

(Percentages are of respondents who thought the regulation of legal party pills was ‘too light’ excluding don’t know and refused; n=1187)

### Areas of regulation of legal party pills like to see relaxed

Those survey respondents who believed the current regulation of legal party pills was ‘too heavy’ (3.1%, n=41) were asked what regulations they would like to see relaxed and were read three options to relax existing regulations. Respondents could indicate support for more than one regulatory option and were invited to provide any additional option they supported, which was not on the list. Approximately half (51.3%; 34.6-67.7) of respondents wanted the legal age required to purchase party pills to be lowered to 16 years old (Table 8.2). A similar proportion of respondents wanted the advertising of legal party pills to be permitted in major media networks. About three out of 10 (26.5%; 14.1-44.2) respondents wanted there to be no age restrictions on the purchase of legal party pills.

Table 8.2: Areas of the regulation of legal party pills like to see relaxed, 2006

<b>Regulation</b>	<b>Percent (%)</b>	<b>Lower CI (%)</b>	<b>Upper CI (%)</b>
Lowering of the age restrictions on purchase to 16 years old	53.0	36.2	69.2
Advertising allowed in major media networks	47.9	31.5	64.7
No age restrictions on purchase	26.5	14.1	44.2

(Percentages are of respondents who thought the regulation of legal party pills was 'too heavy' excluding don't know and refused; n=41)

## CHAPTER 9 – DEMOGRAPHIC CHARACTERISTICS OF LEGAL PARTY PILL USERS

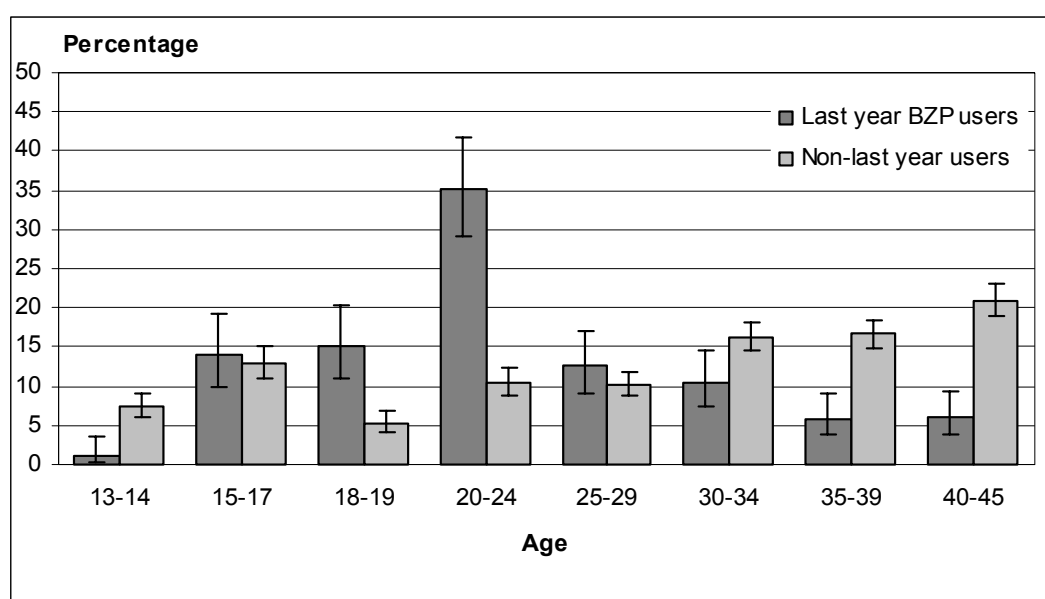
### Introduction

A central concern with regard to legal party pills is that they are widely used by adolescents who are particularly vulnerable to the harms of drug use and to persuasion and influence by media advertising. This chapter presents the demographic characteristics of those respondents who reported using legal party pills in the previous 12 months and contrasts them with the wider population who had not used legal party pills in the last year. More sophisticated multivariate analysis of the demographic characteristics of legal party pill users is planned to supplement this general report.

### Age and gender

Overall, six out of 10 (59.9%; 53.6-65.9) of those who had used legal party pills in the last year were male. While last year legal party pill users tended to be younger than the wider sample (mean age 24.1 years old vs. 29.3 years old,  $p < 0.0001$ ), about one in five (22.1%) last year legal party pill users were older than 29 years of age (Figure 9.1). At the opposite end of the age scale, one in seven (15.1%) last year legal party pill users were under 18 years old. More last year legal party pill users than non-last year legal party pill users were aged 18-19 years old (15.1% vs. 5.3%,  $p < 0.0001$ ) and 20-24 years old (35.1% vs. 10.3%,  $p < 0.0001$ ).

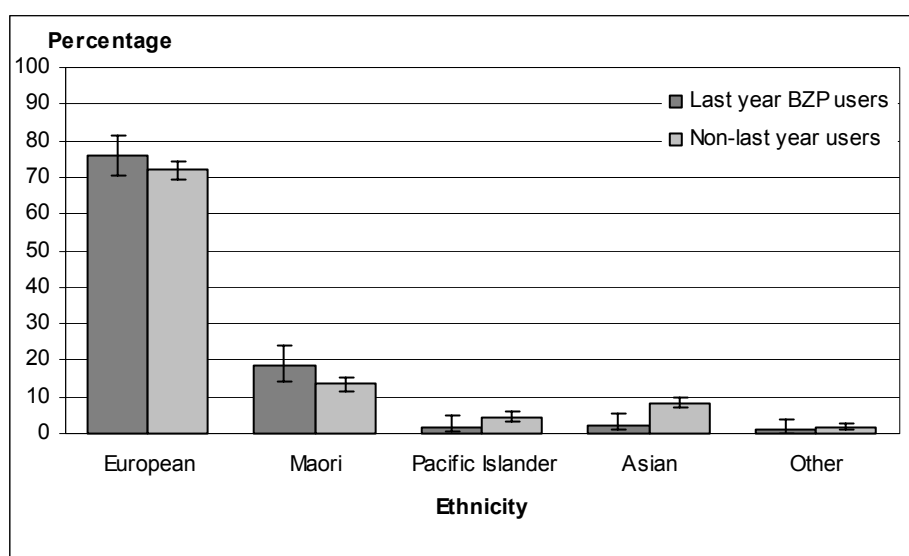
Figure 9.1: Last year legal party pill users versus non-last year legal party pill users by age, 2006



## Ethnicity

Nearly eight of 10 (76.2%; 70.3-81.3) of those who had used legal party pills in the previous 12 months were European. One in five (18.7%; 14.2-24.2) legal party pill users were Maori, one in 43 (2.4%; 1.0-5.5) were Asian and one in 56 (1.8%; 0.7-4.8) were Pacific Islanders (Figure 9.2). More last year legal party pill users than non-last year legal party pill users were Asian (8.5% vs. 2.4%,  $p=0.0175$ ). There was no difference in the proportion of last year legal party pill users who were Maori versus the proportion of non-last year legal party pill users who were Maori (18.7% vs. 13.5%,  $p=0.1632$ ).

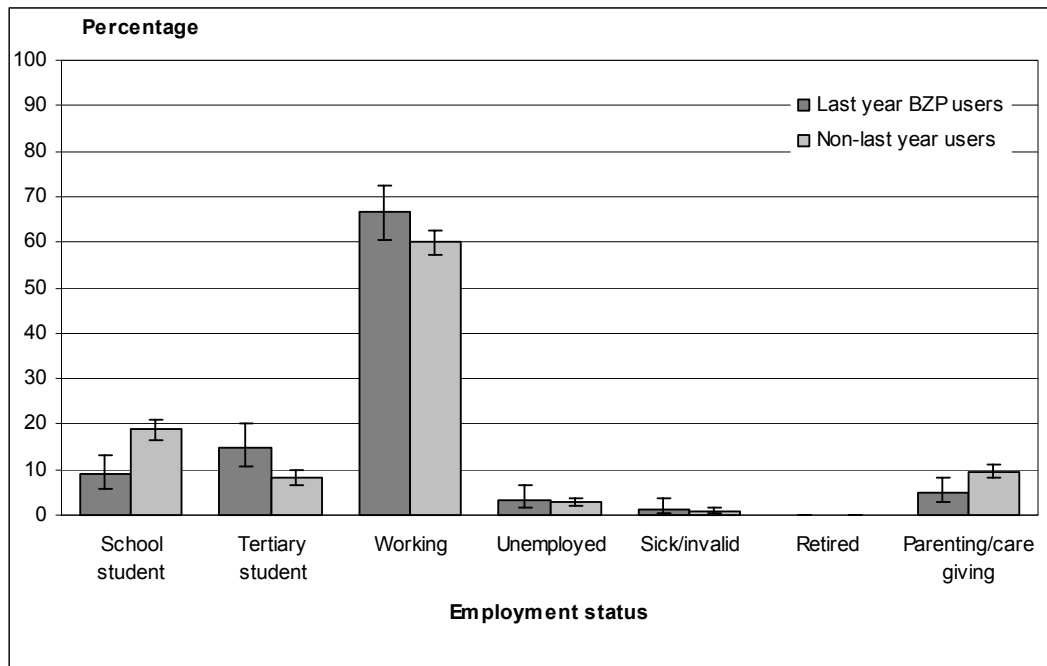
Figure 9.2: Last year legal party pill users versus non-last year legal party pill users by ethnicity, 2006



## Employment status

Two-thirds (66.7%; 60.3-72.5) of last year legal party pill users were in paid employment (Figure 9.3). Nearly a quarter of legal party pill users were students, studying either at high school (8.9%; 5.8-13.3) or tertiary (14.8%; 10.6-20.2) institutions. One in 20 (5.0%; 3.0-8.2) of those who had used legal party pills in the last year reported their employment status as 'parent or caregiver'. More last year legal party pill users than non-last year legal party pill users were tertiary students (14.8% vs. 8.1%,  $p=0.011$ ). Less last year legal party pill users than non-last year legal party pill users were school students (8.9% vs. 18.8%,  $p=0.0024$ ).

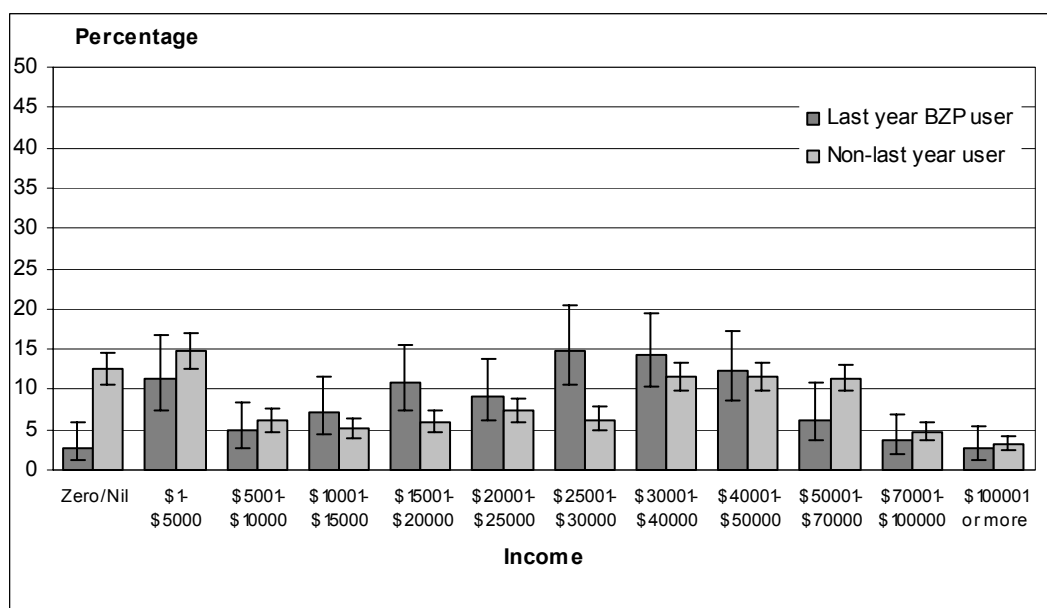
Figure 9.3: Last year legal party pill users versus non-last year legal party pill users by employment status, 2006



### Income

Figure 9.4 presents the gross annual personal income of the last year party pill users and non-last year legal party pill users. There was a wide range in incomes reported by legal party pill users with users represented in both the low income groups and middle to high income groups.

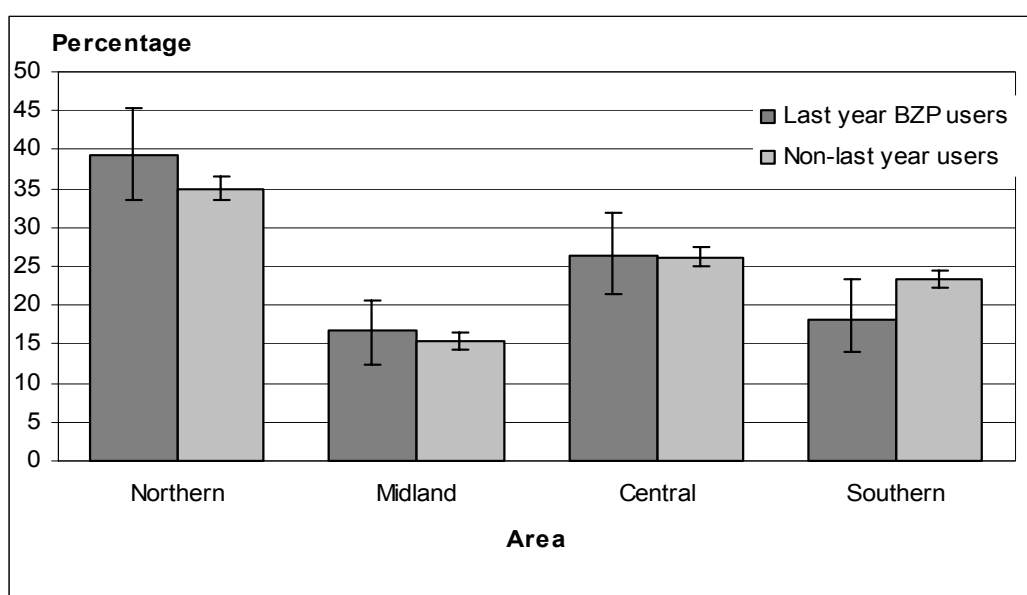
Figure 9.4: Last year legal party pill users versus non-last year legal party pill users by gross annual personal income, 2006



## Geographical location

The geographical location of last year legal party pill users is presented in Figure 9.5. Appendix 3 details how the survey locations were allocated to the four regions. The Northern Region consists of the upper part of the North Island down to and including Counties-Manukau. The Southern Region includes all of the South Island. The Central Region includes the lower part of the North Island up to the border of the Waikato and around to the border of the Bay of Plenty (excluding Taupo). There was no difference in the regional location of last year legal party pill users compared to non-last year legal party pill users.

Figure 9.5: Last year legal party pill users versus non-last year legal party pill users by region, 2006



## REFERENCES

- Black, S. and Casswell, S. (1993) *Drugs in New Zealand: A Survey 1990*. University of Auckland: Alcohol & Public Health Research Unit.
- Bye, C., Munro-Faure, A., Peck, A. and Young, P. (1973) A comparison of the effects of l-benzylpiperazine on human performance tests. *European Journal of Clinical Pharmacology* **6** 163-169.
- Campbell, H., Cline, W. and Evans, M., et al. (1973) Comparison of the effects of dexamethamphetamine and l-benzylpiperazine in former addicts. *European Journal of Clinical Pharmacology* **6** 170-176.
- Chapple, I. (2005) Shops trumpet R18 party pill ban - then ignore it. *Sunday Star Times*, 17 April.
- Expert Advisory Committee on Drugs (2004) *The Expert Advisory Committee on Drugs (EACD) Advice to the Minister on: Benzylpiperazine (BZP)*. April. Wellington: EACD
- Field, A. and Casswell, S. (1999) *Drugs in New Zealand: A National Survey 1998*. University of Auckland: Alcohol and Public Health Research Unit.
- Gee, P., Richardson, S., Woltersdorf, W. and Moore, G. (2005) Toxic effects of BZP-based herbal party pills in humans: a prospective study in Christchurch, New Zealand. *New Zealand Medical Journal* **118:1227**, 1784-.
- Gossop, M., Darke, S., Griffiths, P., Hando, J., Powis, B., Hall, W. and Strang, J. (1995) The Severity of Dependence Scale (SDS): psychometric properties of the SDS in English and Australian samples of heroin, cocaine and amphetamine users. *Addiction* **90** 607-614.
- Hayman, K. (2005) Party pills put four in hospital a week. *The Press*, 3 November.
- Janes, A. (2004) Party Pills. *New Zealand Listener*, 23-29 October.
- New Zealand Herald (2005a) Pill worry at big day out. 20 January.
- New Zealand Herald (2005b) Restraints on party pills delayed. 2 April.
- Saunders, A. (2005) Party pill user set room on fire. *Dominion Post*, 22 April.
- Topp, L. and Mattick, R. (1997) Choosing a cut-off on the Severity of Dependence Scale (SDS) for amphetamine users. *Addiction* **92:7**, 839-845.
- Wilkins, C., Casswell, S., Bhatta, K. and Pledger, M. (2002) *Drug Use in New Zealand: National Surveys Comparison 1998 & 2001*. Auckland: Alcohol & Public Health Research Unit

## Appendix 1 – Product types

Table A1: Legal party pill products most often used by last year users, 2006

Product name	Percent (%)
Charge	26.6
Kandi	10.2
Red Hearts	5.3
Grins 2	5.0
Goodstuff	5.0
Jump	4.6
Bolts	4.1
Silver Bullet	3.5
Legal X	3.1
Frenzy	2.9
Euphoria	2.7
Rapture	2.1
Ice Diamonds	2.0
Smileys	2.0
Dark Angel	1.8
Jax	1.5
Jets	1.5
Mickey Finns	1.3
Wizzs	1.3
Reloads	1.2
Twisted	1.2
Supersonic	1.2
Kongs	1.0
Scarfee S	1.0
Bliss	0.8
Extacy	0.8
Bulldogs	0.5
ESP	0.5
Humma	0.5
Mystics	0.5
Red Devils	0.5
Wizzers	0.5
Yum Yums	0.5
Butterflies	0.4
Move	0.4
Pulse	0.4
Pure	0.4
Rave Gold	0.4
Big Red	0.2
Herbal Ecstasy	0.2
Turbo Extreme	0.2

## Appendix 2 – Perceptions of the health risk of different substances

Table A2: Survey respondents' (last year legal party pill users') perceptions of the health risk of regularly using different drug types, 2006

	<b>Legal party pills</b>	<b>Alcohol</b>	<b>Cigarettes</b>	<b>Cannabis</b>	<b>Meth-amphetamine</b>	<b>Ecstasy (MDMA)</b>	<b>GHB</b>	<b>LSD</b>
<b>No risk (%)</b>	4.2 (17.1)	4.8 (6.3)	2.9 (7.4)	3.5 (12.4)	0.2 (0.3)	1.0 (3.8)	0.2 (0.2)	0.4 (1.3)
<b>Slight risk (%)</b>	18.0 (30.4)	22.8 (23.5)	9.9 (15.9)	14.4 (31.0)	0.7 (2.6)	3.4 (8.6)	2.2 (5.4)	2.6 (7.7)
<b>Moderate Risk (%)</b>	34.8 (32.9)	42.3 (38.7)	27.7 (30.8)	34.5 (33.2)	3.8 (7.3)	12.2 (19.8)	7.9 (9.0)	8.5 (11.1)
<b>Great risk (%)</b>	23.2 (13.7)	17.9 (21.8)	28.7 (19.4)	25.8 (14.8)	16.3 (15.1)	30.1 (32.3)	24.4 (21.6)	31.0 (29.9)
<b>Extreme Risk (%)</b>	19.9 (5.9)	12.3 (9.8)	30.8 (26.6)	21.8 (8.7)	79.0 (74.6)	53.4 (35.5)	65.3 (63.8)	57.5 (50.1)

## Appendix 3 – Locations

Table A3: Survey locations assigned to four regions, 2006

Location	Area	Frequency (unweighted)
Main - Auckland	Northern	587
Main - Hibiscus Coast	Northern	18
Main - Whangarei	Northern	29
NMU - Auckland	Northern	35
NMU - Whangarei	Northern	40
Main - Hamilton	Midland	89
Main - Rotorua	Midland	36
Main - Tauranga	Midland	48
Main - Te Awamutu	Midland	7
NMU - Hamilton	Midland	68
NMU - Rotorua	Midland	23
NMU - Tauranga	Midland	34
NMU - Taupo	Midland	5
Main - Gisborne	Central	22
Main - Napier/Hastings	Central	68
Main - New Plymouth	Central	25
Main - Palmerston North	Central	52
Main - Wanganui	Central	24
Main - Wellington	Central	197
NMU - Gisborne	Central	6
NMU - Napier/Hastings	Central	12
NMU - New Plymouth	Central	30
NMU - Palmerston North	Central	37
NMU - Wanganui	Central	14
Main - Kapiti	Central	17
NMU - Wairarapa-Wellington	Central	24
Main - Christchurch	Southern	173
Main - Dunedin	Southern	61
Main - Invercargill	Southern	29
Main - Nelson	Southern	32
NMU - Christchurch	Southern	76
NMU - Dunedin	Southern	35
NMU - Invercargill	Southern	25
NMU - Nelson	Southern	32