
exploring drug use II

Drug use by hospital emergency department patients

A follow-up to PADIE I

August 2008



Australian
Centre for
Prehospital
Research

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CMC mission: To combat crime and improve public sector integrity.

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Crime and Misconduct Commission

Level 2, North Tower Green Square
515 St Pauls Terrace
Fortitude Valley Qld 4006

GPO Box 3123
Brisbane Qld 4001

Tel.: 07 3360 6060
Fax: 07 3360 6333
Email: mailbox@cmc.qld.gov.au

FOREWORD

The Prevalence of Alcohol and Drug Use in Emergency Departments II (PADIE II) study re-examines in 2005 the nature and extent of alcohol and drug use among patients attending the Gold Coast Hospital Emergency Department. It replicates and extends the first PADIE project (PADIE I), conducted in 2002 and published in 2004 (*Exploring drug use: Prevalence and patterns among emergency department patients*).

PADIE II was undertaken by the Queensland Alcohol and Drug Research and Education Centre (QADREC) and the Australian Centre for Prehospital Research (ACPHR) in partnership with the Research and Prevention unit of the Crime and Misconduct Commission (CMC).

Both PADIE studies focused on estimating the prevalence of licit and illicit drug use by emergency department attendees and identifying opportunities for the prevention of risky behaviours such as drug and drink driving.

The collaborating agencies are grateful for the willing participation of the patients, administrators and medical staff of the Gold Coast Hospital who took part in the project. This study would not have been possible without the assistance of Dr David Green, Director of the Gold Coast Hospital Emergency Department.

Helene Wells (CMC) was primarily responsible for writing this report and conducting the analyses presented.

Dr Kerrienne Watt (ACPHR), Professor Jake Najman (QADREC) and Dr Stuart Kinner (QADREC) were collaborative partners and provided considerable input into the project and this report.

The report was prepared for publication by the CMC's Communication Unit.

Dr Margot Legosz

Director, Research and Prevention
Crime and Misconduct Commission

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACPHR	Australian Centre for Prehospital Research
AIHW	Australian Institute of Health and Welfare
AUDIT	Alcohol Use Disorders Identification Test
CMC	Crime and Misconduct Commission
DASS 42	Depression and Anxiety Stress Scale
ED	emergency department
EDIS	Emergency Department Information System
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10th revision
<i>M</i>	mean
MANOVA	multivariate analysis of variance
NDSHS	National Drug Strategy Household Survey
NHMRC	National Health and Medical Research Council
NIAAA	National Institute of Alcohol Abuse and Alcoholism
n.s.	not significant
PADIE I	Prevalence of Alcohol and Drug Use in Emergency Departments I (2002)
PADIE II	Prevalence of Alcohol and Drug Use in Emergency Departments II (2005)
QADREC	Queensland Alcohol and Drug Research and Education Centre
<i>SD</i>	standard deviation
WHO	World Health Organization

EXECUTIVE SUMMARY

Background

The Prevalence of Alcohol and Drug Use in Emergency Departments II (PADIE II) study conducted in October 2005 re-examines the nature and extent of alcohol and drug use among patients attending the Gold Coast Hospital Emergency Department. It replicates the first PADIE project (PADIE I) conducted in October 2002.

The objectives of PADIE I were to:

- gather data to provide information on the patterns of drug use and drug-related problems among patients presenting at a hospital emergency department (ED)
- gain a greater understanding of drug use among this population, including the health consequences of use
- identify some preventive measures to combat the effects of drug-taking (for example, health problems and increased risk-taking behaviours resulting in crime, injury or accident).

In addition to these objectives, the PADIE II project aimed to assess whether there had been any changes over time in the nature or prevalence of licit and illicit drug use by a sample of ED patients.

Results

The results of this study demonstrate high levels of licit drug use, such as tobacco and alcohol, among ED patients, reinforcing the known negative links between these substances and poor health or injury. The results also illustrate the prevalence of illicit drug use by patients in EDs. These results have a range of implications in relation to:

- the detection of illicit drug use among ED patients
- the resources required to handle illicit drug use by ED patients
- potential interventions
- ideas for further research.

Profile of PADIE I and PADIE II participants

The PADIE I ($n = 812$) and PADIE II ($n = 1202$) samples demonstrated similar demographic characteristics, providing some confidence in the representative nature of the samples. That is, we consider the participants in both studies to be a fairly typical cross-section of patients attending the ED of the Gold Coast Hospital.

The majority of participants from both samples were Australian residents, living on the Gold Coast and without private health insurance. Only a small proportion of each sample identified as Indigenous. The average age of participants was 40 years. There were slightly more male than female participants in each sample.

Profile of licit and illicit drug use

Levels of tobacco consumption appear to be higher among PADIE I and PADIE II participants than in the general population. Forty per cent of PADIE II participants were regular smokers. Younger PADIE II participants were more likely to smoke than older PADIE II participants, but older participants tended to smoke more cigarettes per day than younger participants. Participants from both samples who were single, divorced or separated and those with fewer educational qualifications were more likely to smoke than married participants or those with higher educational achievements.

About one in five PADIE II participants had consumed alcohol in the day prior to presenting to the ED for treatment. Of these participants, 12.1 per cent had drunk at levels described as risky by the National Health and Medical Research Council (NHMRC) guidelines and 23.7 per cent had drunk at high-risk levels. In terms of regular patterns of alcohol use, one-third of PADIE II participants were at-risk drinkers, scoring 8 or above on the Alcohol Use Disorders Identification Test (AUDIT). PADIE II participants self-reported a higher incidence of hazardous and harmful drinking behaviour than PADIE I participants.

Both samples reported higher levels of lifetime prevalence and recent illicit drug use than the general population. Although just over half (52.2%) of PADIE II participants had used an illicit substance at some time in their lives and about one-quarter (26.1%) had used an illicit substance in the 12 months prior to attending the ED, no major changes in the prevalence of use between the PADIE I and PADIE II studies were noted.

We did, however, detect some significant, but relatively minor, changes in illicit substance use over time. Although still at high levels, illicit drug use among young people was found to have significantly decreased (PADIE II sample 54.9% compared with PADIE I sample 66.3%). We also detected a slight increase in levels of self-reported lifetime cocaine use, lifetime ecstasy use and recent ecstasy use by PADIE II participants compared with PADIE I participants.

Patterns of illicit drug use and risky behaviour

Twenty per cent (14.9% of the total sample) of recent PADIE II drivers (participants who had driven a vehicle in the past 12 months) had driven under the influence of alcohol and 11.9 per cent (8.5% of the total sample) of recent PADIE II drivers had driven under the influence of an illicit drug. These figures have implications for early intervention (see below).

A small proportion (6.4%) of PADIE II participants had been arrested for drug-related activity and 14.2 per cent had been arrested for criminal activity not involving drugs. About 5 per cent of participants had been imprisoned at some point in their life. These findings are similar to those found in the PADIE I study.

PADIE II participants who first tried an illicit drug before the age of 18 were more likely to have tried a greater number of drugs than those who first tried an illicit drug when aged 18 or older.

Fewer than 4 per cent of PADIE II participants had injected an illicit drug at some point in their life.

Participants claimed that alcohol and cannabis use were responsible for a number of personal problems they had experienced in the past six months.

Implications

The results of this study and of the PADIE I study have important implications for the development of policy and procedures in EDs, as well as for broader drug and alcohol prevention and early intervention strategies.

PADIE II participants who presented for treatment for any reason (not specifically alcohol or drug-related) demonstrated higher levels of licit and illicit drug use than the general population. The ED may provide an ideal opportunity for the screening of smokers and at-risk drinkers and for the implementation of brief interventions (one-third of our PADIE II sample scored 8 or above on the AUDIT, indicating at-risk drinking). At a minimum, these data support the use of the ED as a location for opportunistic screening and prevention programs for tobacco, alcohol and illicit drug use. For some, particularly younger patients, the ED may represent their only point of contact with the health system, and therefore the only opportunity for screening and/or intervention. These findings have implications for staff resourcing and training.

Our study indicates that routinely collected ED data may not be the most appropriate method for obtaining estimates of illicit drug use, and do not accurately reflect the significant burden that illicit drug use places on ED clinical resources and on other patients. For example, the diagnosis of an injured, intoxicated patient may

refer only to the injury and not to the intoxication. In addition, the ICD-10 coding used by ED staff is limited to conditions related to class of drug rather than specific drug (i.e. stimulant v amphetamine).

Importantly, the results indicate that the prevalence of drink and drug driving among patients is high and that recent drink driving is also significantly associated with high-risk drinking. This finding suggests the potential for criminal justice system intervention as drink driving charges are brought before the courts (similar to drug diversion programs). The results also support the need for recent initiatives undertaken by the Queensland Government such as random roadside saliva testing of people driving under the influence of drugs.

INTRODUCTION

This report documents the findings of the Prevalence of Alcohol and Drug Use in Emergency Departments II (PADIE II) study, undertaken in October 2005 at the Gold Coast Hospital Emergency Department (ED). The study is a follow-up to an earlier study, the Prevalence of Alcohol and Drug Use in Emergency Departments I (PADIE I) conducted at the same hospital in October 2002.

The aim of PADIE I was to document ED patients' patterns of licit and illicit drug use and drug-related problems in order to gain a greater understanding of drug use at a population level, as well as the health consequences of use. An additional aim was to identify some preventive measures to combat the negative consequences of drug-taking (for example, health problems and increased risk-taking behaviours resulting in crime and injury). PADIE I provided important insights into the nature and extent of alcohol and drug use by Gold Coast Hospital ED patients, and highlighted the high levels of licit and illicit drug use among study participants. The results of the study were published in 2004 (see Krenske et al. 2004) and are reviewed in this report.

We replicated the PADIE I study in October 2005 to assess whether there had been any changes over time in the prevalence or nature of licit and illicit drug use among ED patients.

We expect that the data presented in this report will be used by service providers, hospital staff, medical practitioners, policy makers and researchers to:

- continue monitoring changes over time in drug usage and other characteristics of patients
- provide a comprehensive description of the characteristics of a cross-sectional sample of ED patients
- inform hospital, pre-hospital and medical policies and procedures for handling alcohol or drug-affected patients
- undertake statewide, interstate and international comparisons.

The Crime and Misconduct Commission (CMC), the Australian Centre for Prehospital Research (ACPHR) and the Queensland Alcohol and Drug Research and Education Centre (QADREC) collaborated on PADIE II. All three agencies share an interest in monitoring the prevalence of illicit drug use in Queensland to ensure that health and law enforcement activities are accurately informed.¹

¹ The 2002 study was conducted by QADREC and the CMC. ACPHR became involved in 2005 through a key researcher, Dr Kerriane Watt.

STUDY METHODOLOGY

Location

The study was conducted at the Gold Coast Hospital ED in October 2005.² At the time, the hospital served a population of approximately 480 000 people (ABS 2006b) and had an annual ED throughput of 63 276, making its ED one of the busiest in Australia.³ During the data collection period (and during the PADIE I data collection period), the hospital was the only public hospital on the Gold Coast.

Selection of participants

During the 14-day PADIE II data collection period, 2490 patients presented to the ED. Of these patients, 77.3 per cent ($n = 1926$) met the age eligibility criteria (detailed below) for possible inclusion in the study.

Patients ($n = 1926$) who presented for treatment at the Gold Coast Hospital ED during the PADIE II collection period *and* who met the eligibility criteria (detailed below) were approached to participate in the study. This methodology was slightly different to that used in PADIE I, where four out of every five patients who presented for treatment were approached. Data were collected 24 hours a day during each 14-day period. PADIE I and PADIE II were cross-sectional studies — they measured the prevalence of licit and illicit drug use in a sample of ED patients at a *specific point in time*.

Eligibility criteria

Eligibility criteria for PADIE I and PADIE II were identical. Patients were required to be:

- aged 16–79 years
- able to be interviewed
- able to provide informed consent.

Of the 1926 patients who met the initial age criteria, 21.0 per cent ($n = 405$) were otherwise ineligible to participate (see Figure 2.1). The major reasons for ineligibility were:

- the nature or severity of the presenting complaint (4.4%, $n = 84$)
- the patient was non-English speaking and a translator was unavailable (4.3%, $n = 82$)
- the patient did not wait for medical treatment (4.0%, $n = 78$)
- the age of the patient was outside the specified range of 16–79 years (0.4%, $n = 8$)⁴
- the patient was cognitively impaired and unable to provide informed consent (0.2%, $n = 4$)
- the patient was too aggressive (0.1%, $n = 1$)
- the patient had already been interviewed during the data collection period for the same presentation (7.7%, $n = 148$).

2 PADIE I was undertaken in October 2002 and PADIE II in October 2005; both studies were conducted *after* the Lexmark Indy 300 racing carnival, a large car racing event that attracts up to 300 000 people to the Gold Coast region.

3 Throughput for 2005–06, Queensland Health, Emergency Department data collection, unpublished report.

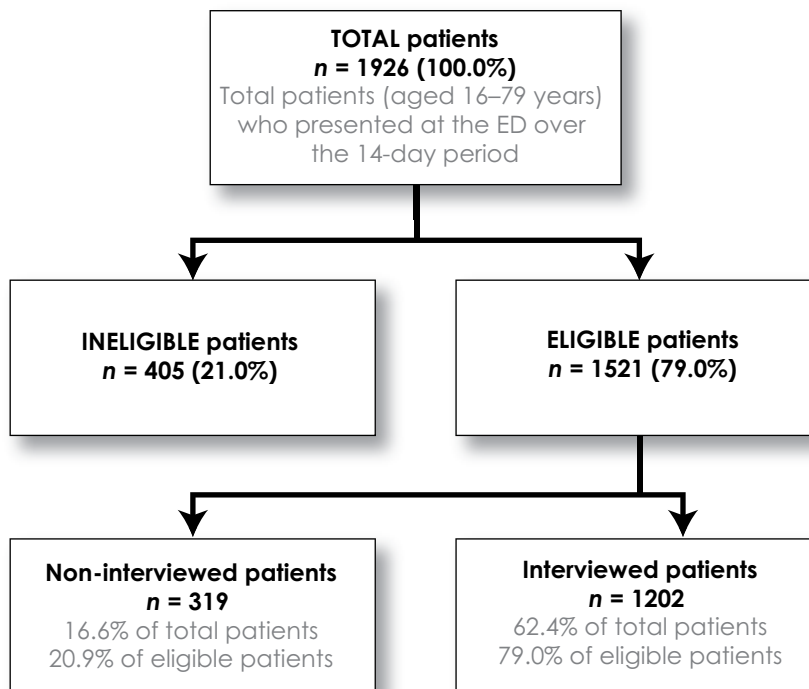
4 This occurred in instances where the patient's age had been incorrectly recorded by triage staff initially, or was unknown at the time of interview.

The remaining 1521 patients (79.0%) were classified as eligible for interview. Of these, 133 patients (8.7%) refused to be interviewed and 186 patients (12.2%) were missed (i.e. left hospital or were transferred to another ward before they could be interviewed).

Overall, 1202 of the 1521 eligible patients were interviewed. This represents a response rate of 79.0 per cent among eligible patients, and 62.4 per cent among the total number of presentations (aged 16–79 years) during the PADIE II data collection period. The sample appears to comprise a reasonable cross-section of the patients aged 16–79 years attending the Gold Coast Hospital ED.

While the Gold Coast Hospital was the only public hospital at the time of the data collection, the sample cannot be considered truly representative of all patients seeking emergency treatment in the Gold Coast region. Some patients may have sought treatment at nearby private hospitals, medical centres or general practitioners. In addition, we have no way of assessing how similar the patients in our study are to other hospital ED patients in Queensland.

Figure 2.1: Patients presenting at the ED during the PADIE II data collection period



Data used in this report

Hospital-recorded data

We accessed the details of all patients aged 16–79 years who presented for treatment from the Gold Coast Hospital’s Emergency Department Information System (EDIS). This information included:

- age
- gender
- presenting complaint as recorded by triage staff upon arrival at the ED
- triage code

- method of transportation to hospital
- time of presentation
- time of discharge
- departure status
- primary diagnosis and ICD-10 diagnosis code (International Statistical Classification of Diseases and Related Health Problems, 10th revision) as recorded by ED staff upon discharge.

This information was then recorded in a case logbook, allowing interviewers to locate eligible patients.

Self-reported data

Patients were approached by highly trained interviewers (primarily medical students or postgraduate psychology students) and asked to participate in the study. Wherever possible, interviews were conducted in a private location.

The PADIE II survey instrument consisted of 182 items and took approximately 20 minutes to administer. It included:

- demographic information (i.e. age, gender, marital status)
- a detailed description of the reason for the hospital visit, and if injured, the circumstances leading to the injury
- method of transportation to hospital
- medication use in the 6 hours and 24 hours prior to ED presentation⁵
- general tobacco use
- alcohol use
 - Alcohol Use Disorders Identification Test (AUDIT)
 - age of first alcoholic drink
 - quantity and type of alcohol consumed in the 6 hours and 24 hours prior to presentation
 - quantity, frequency and type of alcohol usually consumed
- illicit drug use
 - types of drugs ever used
 - age at first use
 - use in the past 12 months
 - use in the past 24 hours
 - use in the past 6 hours
 - usual frequency of use
 - usual quantity of substance used per occasion
 - injecting drug behaviour
 - polydrug use
 - recent problems associated with drug use
- criminal activity (i.e. drink spiking, assault, selling drugs and property crime)
- driving under the influence of alcohol or drugs
- mental health (Depression and Anxiety Stress Scale — DASS 42).⁶

5 These data are not reported in this report.

6 These data are not reported in this report.

The PADIE II survey replicated the PADIE I survey, but included additional questions. PADIE I (122 items) did not include detailed questions about:

- daily cigarette use (i.e. smoking when ill)
- some specific drugs (inhalant, methadone, benzodiazepine and hallucinogen use)
- specific driving history
- injury-related presentations (i.e. who caused the injury and where it occurred).⁷

General population data

Throughout the report we make reference to general population estimates. These estimates are sourced from:

- the Australian Bureau of Statistics (ABS)
- the 2004 National Drug Strategy Household Survey (NDSHS).

The 2004 NDSHS was conducted by the Australian Institute of Health and Welfare (AIHW) and provides estimates of licit and illicit drug use in the Australian population. We used estimates from the 2004 survey, and not the more recent 2007 survey, as the 2004 NDSHS data were more time-appropriate to the PADIE II data, collected in 2005.

Data analysis

Various statistical tests were used to analyse the data presented in this report. Chi-square analysis and multivariate analysis of variance (MANOVA) were undertaken for the categorical data. T-tests were also used to compare the means of different samples (e.g. PADIE I and PADIE II participants) on variables that collected continuous data (e.g. age). All significant findings ($p < .05$, $p < .01$ or $p < .001$) are reported.

Occasionally, 5 per cent trimmed means (averages) are provided in the report. In these cases, the averages have been calculated by omitting the lowest 5 per cent and highest 5 per cent of the data scores to exclude the extreme outliers that might distort the average.

When interpreting the data presented in this report, it is important to remember the following points:

- The total percentages may vary between the tables and figures due to missing data.
- Percentages are rounded to one decimal place (i.e. 5.6%) and rounding may be subject to slight error; hence some percentages will not add up to 100 per cent.
- Statistics with small counts are likely to be subject to variability over time and should not be relied upon when generalising to the larger population (especially illicit drug use in the past 6 hours and 24 hours).

We presented the results to Gold Coast Hospital ED staff on 3 April 2008 to receive their feedback about the results and to assist in data interpretation. We also presented the findings at the 2008 Winter School Conference (Seen and Unseen Harms) on 12 May 2008. Feedback from conference attendees was also incorporated into this report.

Limitations of the data

Representativeness of the PADIE II sample

Some patients were excluded from the study if they were too aggressive, too intoxicated or too sick to be interviewed. The effect of this on the representativeness of the data collected for this study is examined in Chapter 3 (see the section on ED presentations). In summary, 2.0 per cent of the interviewed sample

7 A full description of the differences between the PADIE I and PADIE II surveys is available on request from the CMC.

were diagnosed with an alcohol/drug condition compared with 4.3 per cent of the non-interviewed sample. Conversely, 10.7 per cent of the interviewed sample were independently rated as intoxicated compared with 7.3 per cent of the non-interviewed sample. Importantly, only 4.4 per cent of eligible patients were not interviewed because of the severity of their presenting complaint.

Hospital-recorded data

Routinely collected ED data (such as presenting complaints and diagnoses) must be considered in context. For example, an intoxicated patient may present to the ED with an injury, so their presenting complaint and diagnoses would relate to their injury without referring to their state of intoxication. Another limitation is that coding in ICD–10 is limited to conditions related to classes of drug rather than specific drug type (e.g. stimulant versus amphetamine). This makes it difficult to report with certainty the number of drug-related conditions in the PADIE II sample.

Self-reported data

Given that the majority of the findings are based on self-reported information, the accuracy and reliability of the results may be affected by participant recall or willingness to disclose. In particular, participants may have felt uncomfortable disclosing illegal activity or socially unacceptable behaviour. This issue is especially important when interpreting the information provided about initiation age to illicit drug use, drink/drug driving behaviour, other criminal activity and recent illicit drug use. Therefore, it is likely that the results presented in this report are an underestimate of the true prevalence of illicit drug use and criminal activity among the participants.

PROFILE OF PADIE II PARTICIPANTS

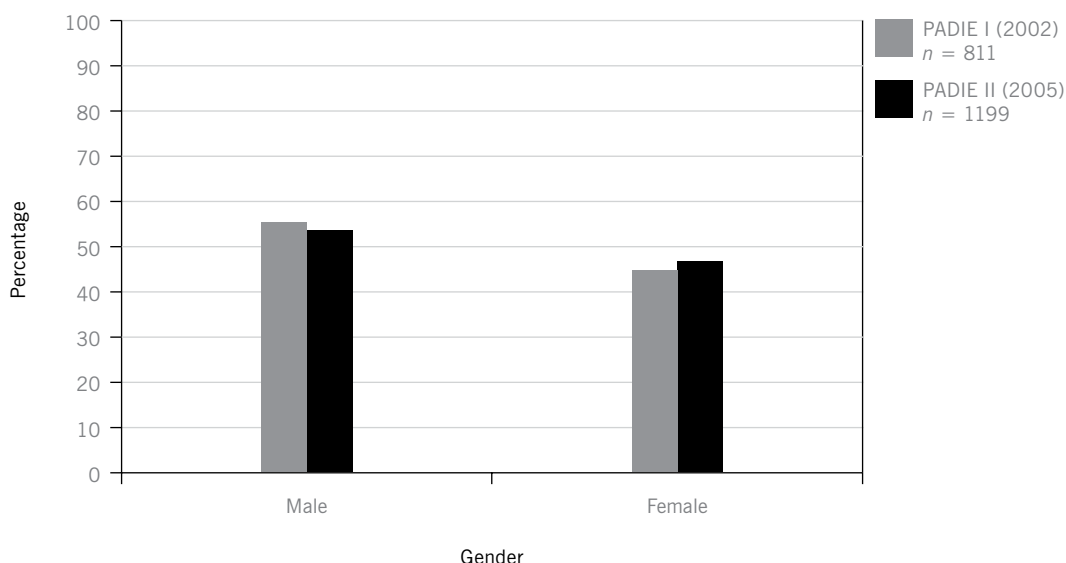
This chapter describes the demographic characteristics of the PADIE II participants. It also provides an overview of patients' reasons for attendance at the hospital, their methods of transportation to hospital and triage codes. We compare the PADIE II sample to the PADIE I sample to assess whether there have been any changes over time. We also compare these results to the general population, wherever possible,⁸ to estimate how representative the sample is of the general population and whether it varies from the general population in any particular way.

Demographic profile

Gender

Of the 1202 PADIE II participants, 53.5 per cent ($n = 641$) were male and 46.5 per cent ($n = 558$) were female (Figure 3.1 and Appendix 1).⁹ The Queensland population at that time comprised 49.9 per cent males and 50.1 per cent females, so males appear to be slightly over-represented in the hospital sample (ABS 2006a, 2006b). PADIE I had a similar gender profile (55.7% males; 44.3% females) to the PADIE II sample.

Figure 3.1: Gender profile (PADIE I and PADIE II participants)



⁸ To do this we used Australian Bureau of Statistics (ABS) population data.

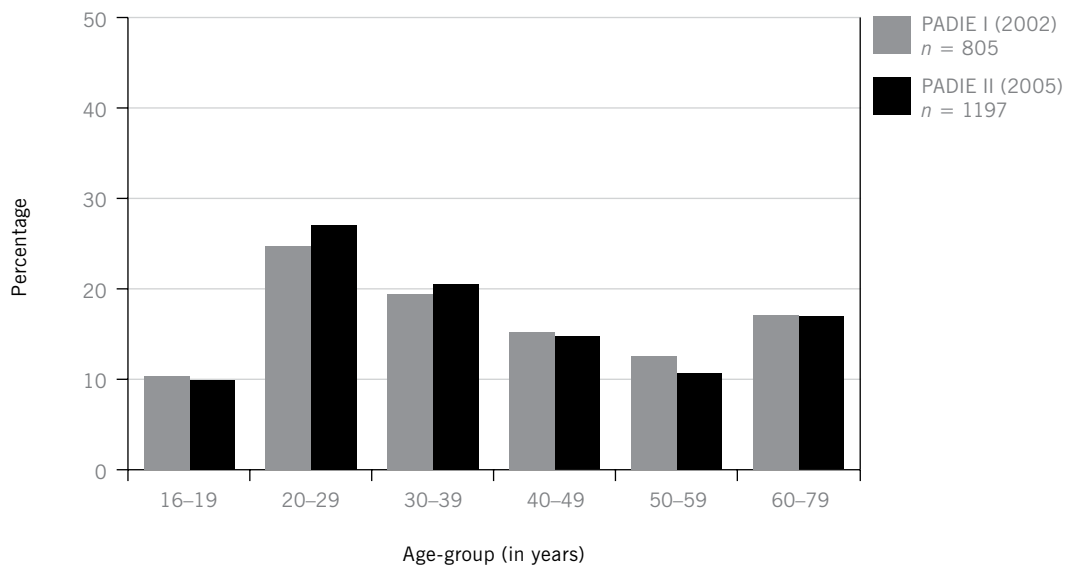
⁹ Some of the analyses presented in this report have smaller sample sizes due to missing data. Missing data are noted throughout the report (e.g. missing data for gender, $n = 3$).

Age

PADIE II participants ranged in age from 16 to 79 years as per the eligibility criteria. The average age was 39.6 years ($n = 1197$, $SD = 17.388$), slightly older than the average Queenslanders (37.1 years) (ABS 2006b, 2007a).¹⁰ The average age of PADIE I participants was similar (40.1 years, $n = 805$, $SD = 17.545$).

The average ages of PADIE II males (39.0 years, $n = 638$, $SD = 16.896$) and PADIE II females (40.2 years, $n = 557$, $SD = 17.941$) were similar. Figure 3.2 and Appendix 1 compare the age distribution of PADIE I and PADIE II participants.

Figure 3.2: Age distribution (PADIE I and PADIE II participants)



Indigenous identification

Just under 2 per cent ($n = 21$) of PADIE II participants identified as being Indigenous Australians (1.6% Aboriginal, $n = 19$; 0.2% Torres Strait Islander, $n = 2$) compared with 2.3 per cent of both the Gold Coast and Australian populations (ABS 2007c) and 2.7 per cent ($n = 22$) of PADIE I participants.

Marital status

The marital status of PADIE II participants was as follows:

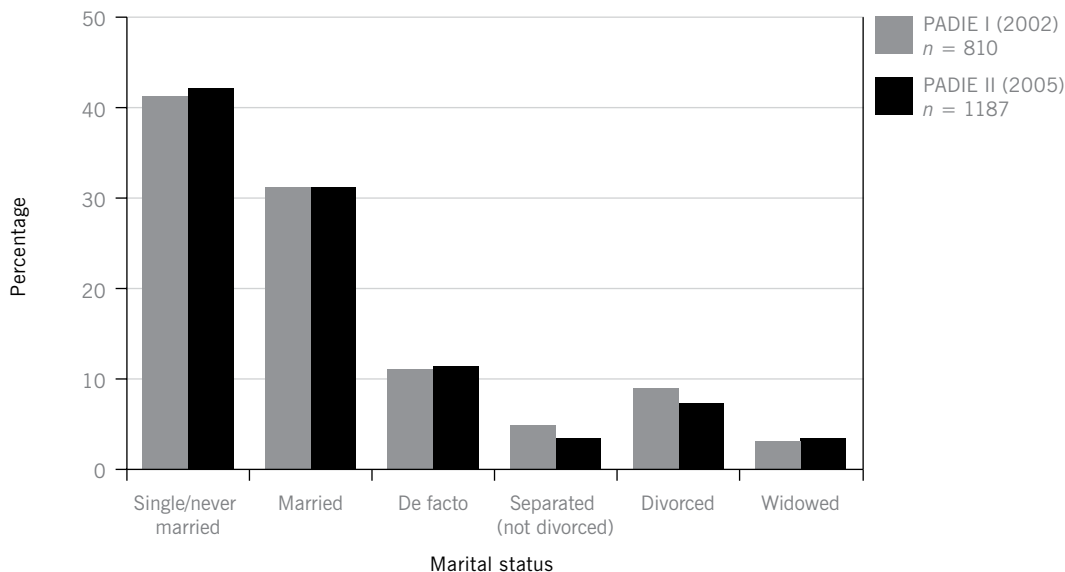
- 42.0% ($n = 499$) were single
- 31.4% ($n = 373$) were married
- 11.6% ($n = 138$) were living in a de facto relationship
- 3.5% ($n = 42$) were separated (not divorced)
- 7.8% ($n = 93$) were divorced
- 3.5% ($n = 42$) were widowed.

10 The PADIE II 5% trimmed mean was 38.8 years. The median age of PADIE II participants was 36.0 years, similar to the median age of the Gold Coast (37.4 years) and Queensland (35.9 years) populations as at June 2005 (ABS 2007b). Median age refers to the point at which half the participants are younger and half the participants are older.

Compared with the general population, the PADIE II sample appears to include more single and fewer married people — in 2006, 31.7 per cent of Queenslanders had never married, 49.9 per cent were married, 12.7 per cent were separated or divorced and 5.7 per cent were widowed (ABS 2006b).

The marital status of PADIE I and PADIE II participants was similar (see Figure 3.3 and Appendix 1).

Figure 3.3: Marital status (PADIE I and PADIE II participants)

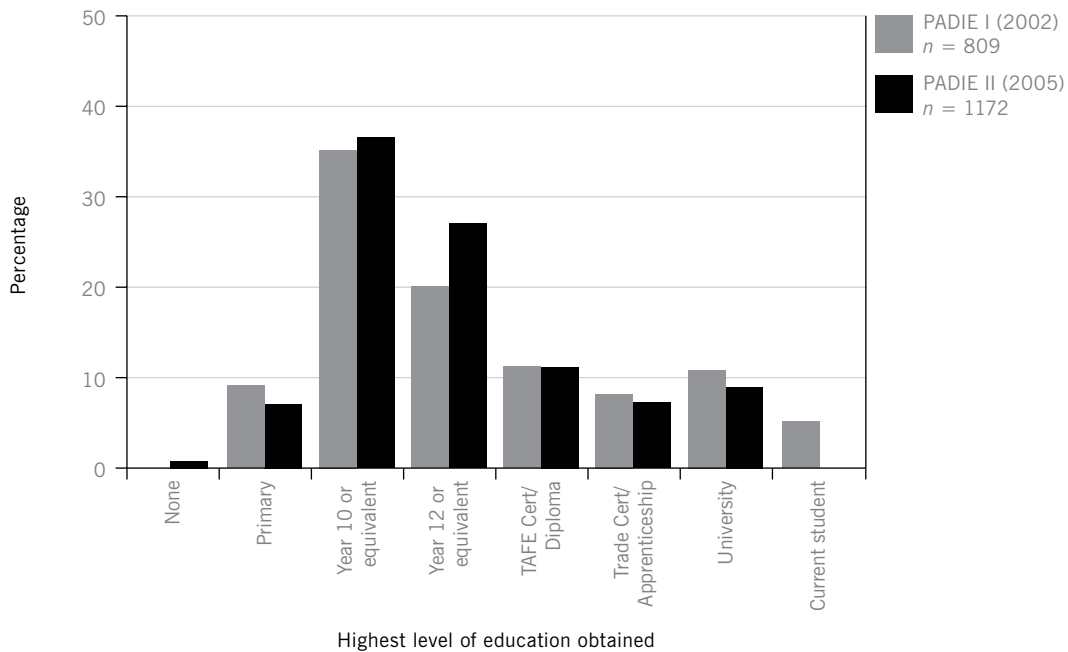


Level of education

Almost two in five PADIE II participants (37.5%, *n* = 440) reported that their highest level of educational achievement was equivalent to Year 10 level and 27.0 per cent (*n* = 317) of the sample had completed Year 12 or its equivalent. This profile is similar to the PADIE I sample and to the general population estimates (ABS 2007b). However, PADIE II participants appeared to have fewer post-school qualifications than the general population. For example, only 11.3 per cent (*n* = 133) of the sample had completed a TAFE certificate, compared with 16.0 per cent of the general population, and only 9.0 per cent (*n* = 106) of PADIE II participants had completed a university degree, compared with 21.0 per cent of the general population (ABS 2007b).

The highest level of education obtained by PADIE I and PADIE II participants is outlined in Figure 3.4 and Appendix 1. PADIE II participants did not have the option of selecting ‘current student’ and PADIE I participants did not have the option of selecting ‘none’.

Figure 3.4: Highest level of education obtained (PADIE I and PADIE II participants)



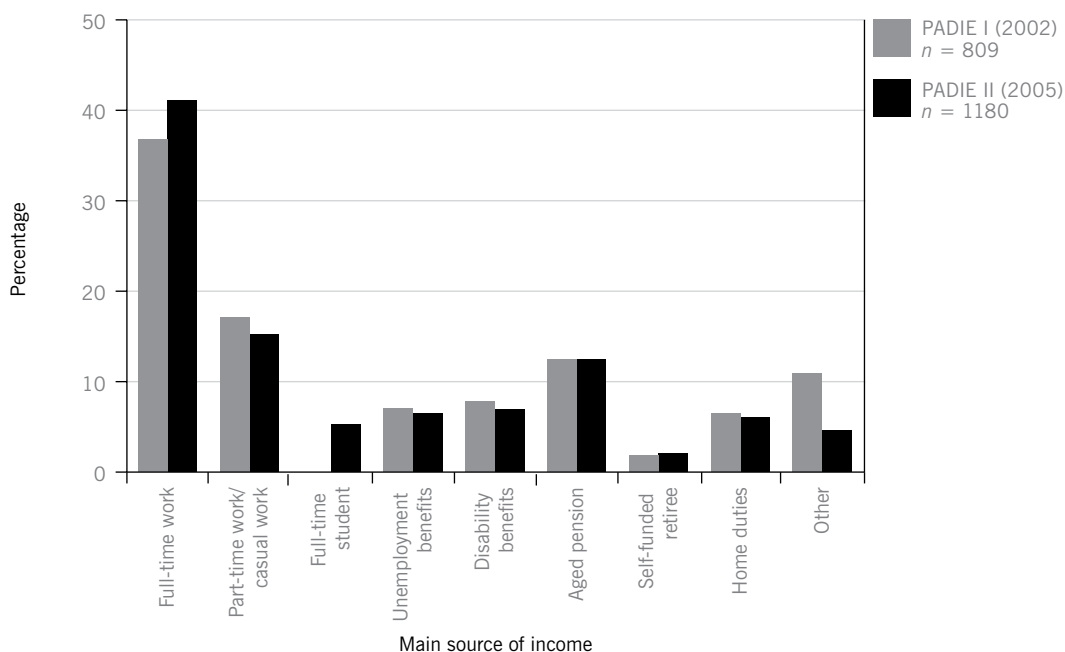
Main source of income and weekly income

Only 41.4 per cent ($n = 489$) of participants reported being employed in full-time work and 14.9 per cent ($n = 176$) in part-time work. Both figures are considerably lower than the estimates for the Queensland general population at the time (60.7% and 28.1%, respectively) (ABS 2006b).¹¹ Nearly 20 per cent (19.5%, $n = 230$) of participants were receiving a disability benefit or an aged pension and 6.4 per cent ($n = 76$) relied mainly on unemployment benefits for their income. These figures are similar to the overall Queensland population estimates. Full-time students accounted for 5.2 per cent ($n = 61$) of participants.

The main sources of income of PADIE I and PADIE II participants are outlined in Figure 3.5 and Appendix 1. Note that PADIE II participants had the option of selecting 'full-time student', while PADIE I participants did not.

¹¹ The ABS total labour force categories include employed full-time, employed part-time, employed away from work, employed hours not stated, unemployed and not in the labour force. Therefore, these statistics are not entirely comparable with the data collected for PADIE II.

Figure 3.5: Main source of income (PADIE I and PADIE II participants)



Total household weekly income (after tax) among PADIE II participants was as follows:

- 1.6% ($n = 18$) received no income
- 5.9% ($n = 66$) received less than \$200
- 44.5% ($n = 497$) received \$200–\$599
- 23.5% ($n = 262$) received \$600–\$999
- 23.2% ($n = 259$) received over \$1000.¹²

These figures could not be compared with the PADIE I participants as the studies used different scales.¹³

The overall demographic differences between the PADIE I and PADIE II samples were negligible (see Appendix 1). Compared with the general population, our sample overrepresented males, single people and those with fewer qualifications.

Emergency department presentations

Reasons for attendance

The reasons for attendance at the ED during the PADIE II study period were analysed using two sources of information:

- the presenting complaint as recorded by triage staff upon arrival at the ED
- the patient's ICD-10 diagnosis code as recorded by ED staff upon discharge.

¹² 1.3% ($n = 14$) 'did not know' how much weekly income they received.

¹³ Income comparison between PADIE I and PADIE II could not be undertaken because different questions were asked in the interviews. PADIE I participants were asked to indicate their total household income *before* tax in the past 12 months whereas PADIE II participants were asked to indicate their total household income *after* tax in the past 12 months. See Appendix 1.

Presenting complaint

Presenting complaints recorded by triage staff upon the patient's arrival at the ED were assessed.¹⁴ PADIE II participants most commonly attended the ED with a 'general medical' condition such as a cardiovascular, respiratory or pain complaint (62.8%, $n = 752$).

Approximately one-third of participants presented with an injury (31.6%, $n = 378$).¹⁵ Participants with injuries were asked about the circumstances leading to their injuries: one-quarter (25.4%, $n = 119$) reported that their injuries were caused by someone else, mainly strangers ($n = 62$), friends ($n = 16$), security guards/bouncers ($n = 7$), relatives ($n = 6$) and acquaintances ($n = 6$). One-third (33.5%, $n = 142$) of injuries occurred at the participant's own home.

Other reasons for ED attendance included mental health (3.7%, $n = 44$) and alcohol/drug presentations (2.0%, $n = 23$). Reasons for attendance at the ED for PADIE II participants were similar to the PADIE I sample.

Males and females were equally represented in mental health and alcohol/drug presentations. However, significantly more male (39.3%, $n = 251$) than female (22.8%, $n = 127$) participants presented with an injury ($p < .01$). On the other hand, significantly more female (70.7%, $n = 394$) than male (55.8%, $n = 356$) participants presented with a general medical condition ($p < .01$).

Diagnoses

On discharge, all patients at the Gold Coast Hospital ED are assigned a diagnosis using the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10). Table 3.1 shows the diagnoses assigned to all patients aged 16–79 years who attended the ED during the 14-day PADIE II data collection period, as well as the diagnoses of interviewed and non-interviewed and ineligible patients (see Figure 2.1 in the previous chapter for a chart showing the classification of patients).

The diagnostic profiles of the interviewed and non-interviewed and ineligible patients were generally similar (see Table 3.1). Of note, however, is the difference in the proportions of interviewed (3.2%) and non-interviewed and ineligible patients (8.9%) diagnosed with mental and behavioural disorders. Patients with these disorders may be under-represented in the study sample because they were unable to provide informed consent, were more likely to exhibit aggressive behaviour, or were less willing to participate in an interview, possibly due to other symptoms associated with their condition.

Of the total ED presentations during the 14-day data collection period, 51 presentations (2.8% of total ED presentations) were diagnosed by hospital staff as directly attributable to alcohol/drug use.¹⁶ This equates to almost four patients per day presenting to the Gold Coast Hospital ED with acute conditions directly attributable to alcohol/drug use (approximately one patient every 6.5 hours). Almost half of the patients whose hospital-recorded diagnosis was directly attributable to alcohol/drug use were interviewed for the PADIE II study during their hospital stay (45.1%, $n = 23$).

14 These data are separate to the ICD-10 code data presented in Table 3.1 (i.e. the presenting complaint is recorded *before* treatment and the ICD-10 code is recorded *after* treatment).

15 The National Health Survey conducted in 2004–05 noted that only 18% of participants reported medical treatment for an injury sustained in the previous four weeks (ABS 2006c).

16 Missing ($n = 132$) data.

Table 3.1: Diagnoses (ICD-10) of patients attending the ED during the PADIE II data collection period

Diagnoses	Interviewed patients (PADIE II participants) % <i>n</i> = 1144	Non-interviewed and ineligible patients % <i>n</i> = 650	Total ED presentations % <i>n</i> = 1794
Various diseases	38.3	33.8	36.7
Injury	31.1	20.8	27.4
Symptoms/signs/abnormal clinical and laboratory findings	14.8	11.7	13.7
Factors influencing health status (i.e. follow-up after treatment, procedure refusal)	7.7	16.6	10.9
Mental and behavioural disorders	3.2	8.9	5.3
Pregnancy/child birth	2.6	3.4	2.9
External causes of morbidity/mortality	0.3	0.5	0.3
Alcohol/drug ^a	2.0	4.3	2.8

Note: Due to rounding, percentages may not add up to 100. Missing diagnosis data (Interviewed patients *n* = 58; Non-interviewed and ineligible patients *n* = 74; Total ED presentations *n* = 132).

a For the purpose of this report, alcohol/drug presentations included only those acute conditions that could be directly attributed to the use of alcohol/drugs.

Transportation to hospital

PADIE II participants self-reported the following methods of getting to the ED:

- 46.8% (*n* = 557) were driven by a friend or family member
- 26.7% (*n* = 318) arrived by ambulance (including Careflight helicopter)
- 16.7% (*n* = 199) drove themselves
- 4.8% (*n* = 57) used public transport (including taxis)
- 3.0% (*n* = 36) walked or rode a bicycle
- 1.1% (*n* = 13) were brought to hospital by police
- 0.8% (*n* = 9) arrived by other means.¹⁷

Triage code

Triage code is used by hospital staff as an indicator of the urgency of treatment required by patients. It is based on information supplied by patients to triage staff upon arrival at the ED. The triage codes allocated to ED patients during the PADIE II data collection period are shown in Table 3.2.

¹⁷ Missing (*n* = 13) data from total sample. Hospital records indicate that of the total 1926 patients aged 16–79 years who attended the ED during the PADIE II data collection period, 31.8% (*n* = 612) were transported to hospital by ambulance. Self-reported information on how patients were transported to hospital was not collected in the PADIE I (2002) study; no comparison can be made.

Table 3.2: Triage codes of patients attending the ED during the PADIE II data collection period

Triage code		Interviewed patients (PADIE II participants) % <i>n</i> = 1200	Non-interviewed and ineligible patients % <i>n</i> = 720	Total ED presentations % <i>n</i> = 1920
1	Urgent, life threatening	0.2	2.1	0.9
2	Urgent, non-life threatening	8.4	12.6	10.0
3	Average	48.1	46.1	47.3
4	Non-life threatening	39.8	31.9	36.8
5	Non-urgent	3.6	7.2	4.9

Note: Due to rounding, percentages may not add up to 100. Missing data (Interviewed patients *n* = 2; Non-interviewed and ineligible patients *n* = 4; Total ED presentations *n* = 6).

Interviewed patients (8.6%, *n* = 103, *p* < .001) were less likely than non-interviewed and ineligible patients (14.7%, *n* = 106) to be triage coded as 1 ('urgent, life threatening') or 2 ('urgent, non-life threatening'). However, the interviewed and non-interviewed and ineligible patients were similar across the other presentation categories. The remaining PADIE II presentations were categorised as 'average' (48.1%, *n* = 577), 'non-life threatening' (39.8%, *n* = 477) and 'non-urgent' (3.6%, *n* = 43). This profile is similar to that of the PADIE I participants.

Not surprisingly, almost one in five PADIE II participants who arrived by ambulance were triage coded 1 or 2 (18.6%, *n* = 61), nearly four times the proportion of participants who used public or private transport who were also triage coded 1 or 2 (4.9%, *n* = 42).

Of the 23 interviewed patients whose presenting complaint was related to alcohol or drugs, only one was triage coded 'urgent, life threatening'. The remaining 22 alcohol/drug presentations were either considered 'average' (43.5%, *n* = 10) or 'non-life threatening'/'non-urgent' (52.2%, *n* = 12).

Table 3.3 provides the triage codes and diagnoses of patients attending the ED during the PADIE II data collection period.

It is important to note that among the patients who were diagnosed with explicit alcohol/drug conditions and who were not interviewed for the study (*n* = 28), 28.6 per cent were allocated a triage code of 1 or 2 ('urgent, life threatening' or 'urgent, non-life threatening') on arrival. In contrast, among the interviewed patients who were diagnosed with an alcohol/drug condition (*n* = 23), only 8.7 per cent were allocated these triage codes.

Table 3.3: Triage codes and diagnoses (ICD-10) of patients attending the ED during the PADIE II data collection period

Diagnoses	Interviewed patients (PADIE II participants)			Non-interviewed and ineligible patients			Total ED presentations		
	%			%			%		
	<i>n</i> = 1202			<i>n</i> = 724			<i>n</i> = 1926		
	Triage code			Triage code			Triage code		
	1 or 2	3	4 or 5	1 or 2	3	4 or 5	1 or 2	3	4 or 5
Various diseases	13.2	55.9	30.8	28.2	52.3	19.5	18.2	54.7	27.1
Injury	4.2	33.1	62.6	10.4	41.5	48.1	5.9	35.4	58.7
Symptoms/signs/abnormal clinical and laboratory findings	14.8	71.0	14.2	19.7	64.5	5.1	16.3	69.0	14.7
Factors influencing health status (i.e. follow-up after treatment, procedure refusal)	1.1	36.4	62.5	0.9	28.7	70.4	1.0	32.1	66.8
Mental and behavioural disorders	0.0	35.1	64.9	5.2	60.3	34.5	3.2	50.5	46.3
Pregnancy/child birth	3.3	73.3	23.3	4.5	45.5	50.0	3.8	61.5	34.6
External causes of morbidity/ mortality	33.3	0.0	66.7	0.0	0.0	100.0	16.7	0.0	83.3
Alcohol/drug	8.7	47.8	43.5	28.6	53.6	17.9	19.6	51.0	29.4

Note: Triage codes: 1: Urgent, life threatening; 2: Urgent, non-life threatening; 3: Average; 4: Non-life threatening; 5: Non-urgent.

Intoxication and aggression ratings

Interviewers or medical staff assigned independent intoxication and aggression ratings to interviewed and non-interviewed and ineligible patients (see Table 3.4). A five-point Likert scale was used to rate intoxication (1 = not at all intoxicated to 5 = extremely intoxicated) and another to rate aggression (1 = not at all aggressive to 5 = extremely aggressive). These ratings were later categorised into two groups (intoxicated/not intoxicated; aggressive/not aggressive; see Table 3.4).¹⁸ Note that the intoxication rating related to intoxication by alcohol, drugs, or both.

Table 3.4: Intoxication and aggression ratings of patients attending the ED during the PADIE II data collection period

Intoxication and aggression ratings	Interviewed patients (PADIE II participants)	Non-interviewed and ineligible patients
	%	%
	<i>n</i> = 1202	<i>n</i> = 724
Intoxicated ***	10.7	7.3
Aggressive *	8.2	15.7

* $p < .001$, *** $p < .05$.

Interviewed and non-interviewed and ineligible patients differed according to both aggression and intoxication levels. Interviewed patients (10.7%, $n = 129$) were significantly more likely to be independently rated as intoxicated than non-interviewed and ineligible patients (7.3%, $n = 53$, $p < .05$). In contrast, interviewed patients (8.2%, $n = 99$) were significantly less likely than non-interviewed and ineligible patients to be independently rated as aggressive (15.7%, $n = 114$, $p < .001$).

¹⁸ The Likert scales were collapsed into 'not intoxicated'/'not aggressive' (ratings of 1) and 'intoxicated'/'aggressive' (ratings of 2–5).

Additional information

Most PADIE II participants were Australian residents (94.7%, $n = 1118$), living on the Gold Coast (87.7%, $n = 1045$) and without private health insurance (84.4%, $n = 990$). This profile is similar to the PADIE I sample (see Appendix 1).

Just over one-third of PADIE II participants had visited a hospital ED in the past 12 months (36.3%, $n = 427$).¹⁹ Of these participants, 56.0 per cent ($n = 220$) had visited once only, 17.0 per cent ($n = 67$) had visited twice and 9.7 per cent ($n = 38$) had presented to an ED three times. The remaining participants self-reported an additional 4–20 separate presentations (17.3%, $n = 67$).

Chapter summary

We analysed the demographic characteristics of PADIE II participants and compared these with those of the PADIE I sample and of the general population.

PADIE II participants had similar demographic and presentation profiles to the participants in the PADIE I study (see Appendix 1). However, some differences between the PADIE II sample and the general population were noted:

- The proportion of males to females was slightly higher in the PADIE II sample than in the general population.
- PADIE II participants were slightly older (39.6 years) than the average Queenslander (37.1 years).
- The PADIE II sample had a higher proportion of single people (42.0%) and a lower proportion of people with university qualifications (9.0%) than the general population (31.7% and 21.0%, respectively).
- The proportion of people employed full time (41.4%) in the PADIE II sample was lower than in the general population (60.7%).

PADIE II participants presented to the ED for two main reasons — a general medical condition (62.8%) or injury (31.6%). One-quarter of the participants arrived by ambulance to the ED. Very few patients (8.6%) were assigned a triage code of 1 or 2 ('urgent, life-threatening' or 'urgent, non-life threatening').

¹⁹ This information was not collected in the PADIE I (2002) study; no comparison can be made.

PREVALENCE OF LICIT DRUG USE

This chapter presents information on the use of licit drugs (tobacco and alcohol) by PADIE II participants and compares the results to the PADIE I study and general population estimates.

Tobacco use

Tobacco use remains one of the leading causes of preventable death and illness in Queensland (Queensland Government 2006). In 2003, tobacco was ‘responsible for 7.8 per cent of the total burden of disease and injury in Australia’ (Begg et al. 2007, p. 76). Half of all Queenslanders have used tobacco at some point in their lives (AIHW 2005a, 2005b),²⁰ while about 2.9 million Australians are daily smokers (AIHW 2008).

In 2004 it was estimated that 19.5 per cent of Queenslanders aged over 14 years were daily smokers, slightly higher than the national estimate (17.4%) (AIHW 2005a, 2005b; Queensland Government 2006). This estimate has declined in recent years, with 16.6 per cent of Australians aged over 14 years reporting daily cigarette use in 2007 (AIHW 2008).

For this study (and for the PADIE I study), we defined smokers as participants who used cigarettes on a daily basis (41.1%, $n = 487$). Non-smokers were participants who had never smoked (32.3%, $n = 383$) and those who did not currently smoke, but had done so in the past (26.6%, $n = 316$).²¹

Prevalence

Overall, the prevalence of cigarette smoking was higher in the ED sample than in the general population at the time of data collection. About two in five PADIE II participants were smokers, double the Queensland population estimate. The percentage of smokers in the PADIE II sample (41.1%) was similar to the PADIE I sample (41.3%).

Number of cigarettes smoked

Of the PADIE II participants who smoked:

- 35.3% ($n = 170$) smoked 10 or less cigarettes per day
- 33.3% ($n = 160$) smoked 11–20 cigarettes per day
- 22.2% ($n = 107$) smoked 21–30 cigarettes per day
- 9.1% ($n = 44$) smoked more than 31 cigarettes per day.²²

One-third of PADIE II smokers (31.3%, $n = 151$) were considered heavy smokers (i.e. smoked more than 20 cigarettes a day).

20 This figure (50.6%) represents the proportion of the population who have smoked more than 100 cigarettes in their lifetime (AIHW 2005b).

21 Missing ($n = 13$) data.

22 Missing ($n = 6$) data.

One-quarter of PADIE II smokers reported having their first cigarette within five minutes of waking each morning (25.9%, $n = 125$) and 34.7 per cent ($n = 167$) smoked cigarettes when ill. About one in five smokers (22.6%, $n = 108$) experienced difficulty refraining from smoking cigarettes.²³

Demographic factors — Gender

Prevalence

The prevalence of smoking among male and female PADIE II participants was similar (n.s.):

- 38.0% ($n = 208$) of PADIE II females were smokers
- 43.6% ($n = 277$) of PADIE II males were smokers.

These figures are considerably higher than the Queensland population averages of 18.1 per cent for females and 21.5 per cent for males at the time of data collection (AIHW 2005b).

PADIE I had a similar profile — 37.3 per cent ($n = 133$) of female participants and 44.5 per cent ($n = 201$) of male participants were smokers ($p < .05$).

Number of cigarettes smoked

Among PADIE II smokers, 33.9 per cent ($n = 93$) of males and 28.3 per cent ($n = 58$) of females reported heavy use (more than 20 cigarettes a day), but the difference was not statistically significant.

Demographic factors — Age

Prevalence

An independent-samples t-test was conducted to compare the age of smokers and non-smokers. The smokers in the PADIE II sample were significantly younger ($M = 35.7$ years, $SD = 14.087$) than the non-smokers ($M = 42.2$ years, $SD = 18.988$; $t(1179) = 6.366$, $p = < .001$). However, the magnitude of the differences in the means was relatively small ($\eta^2 = 0.03$). These results are similar to those reported for the general population and in the PADIE I study.²⁴

Number of cigarettes smoked

Table 4.1 provides an overview of the number of cigarettes smoked per day by each age-group. Although younger PADIE II participants were more likely to smoke than older participants, older participants tended to smoke more heavily ($p < .001$). For example:

- 9.3% of 40–49 year olds smoked more than 31 cigarettes per day compared with 1.9% of 20–29 year olds and 3.7% of 30–39 year olds
- 19.8% of 40–49 year olds smoked 21 to 30 cigarettes per day, more than double the consumption of 20–29 year olds (8.3%).

23 This information was not collected in the PADIE I (2002) study; no comparison can be made.

24 PADIE I smokers ($M = 34.75$ years, $SD = 13.777$) and non-smokers ($M = 43.75$ years, $SD = 18.897$).

Table 4.1: Cigarettes smoked per day by age-group (PADIE II participants)

Cigarettes smoked per day	Age-group						Total *
	16–19 % <i>n</i> = 118	20–29 % <i>n</i> = 314	30–39 % <i>n</i> = 244	40–49 % <i>n</i> = 172	50–59 % <i>n</i> = 127	60–79 % <i>n</i> = 205	
None	63.6	48.7	59.8	46.8	58.3	83.9	59.3
10 or less	13.6	23.2	13.9	11.6	8.7	7.8	14.4
11–20	16.1	17.8	14.8	12.8	13.4	4.4	13.5
21–30	6.8	8.3	7.8	19.8	12.6	2.0	9.1
31 or more	0.0	1.9	3.7	9.3	7.1	2.0	3.7

Note: Due to rounding, percentages may not add up to 100. Missing (*n* = 22) data from total sample.

* *p* < .001.

The average age of smokers in each dosage-group further illustrates the clear relationship between age and number of cigarettes smoked per day:

- participants who smoked less than 10 cigarettes a day had an average age of 33.7 years (*SD* = 15.059)
- participants who smoked 11–20 cigarettes a day had an average age of 34.0 years (*SD* = 13.219)
- participants who smoked 21–30 cigarettes a day had an average age of 38.1 years (*SD* = 13.137)
- participants who smoked more than 31 cigarettes a day had an average age of 43.7 years (*SD* = 11.769).

Comparison with general population estimates

The finding that those who smoked more per day tended to be older than those who smoked less per day (*p* < .001) is consistent with the findings of the PADIE I study and estimates for the general population (AIHW 2005b).

Levels of tobacco consumption by PADIE II participants appear to be higher than in the general population across the age-groups. For example:

- 51.3% of participants aged 20–29 years were smokers, considerably higher than the Queensland population estimate of 30.0% and the overall Australian estimate of 23.5% for the same age-group (AIHW 2005c)
- 40.2% of 30–39 year olds were smokers, almost double the Queensland (23.0%) and Australian (22.8%) estimates (AIHW 2005c).

Less than 20 per cent of PADIE II participants aged over 60 years smoked and this was similar to the general population estimates for both Queensland and Australia.

Demographic factors — Other

Although half of all Indigenous PADIE II participants were smokers (*n* = 10), they were neither more nor less likely to smoke than non-Indigenous PADIE II participants.²⁵ These findings are similar to the results of the PADIE I study and various population estimates (ABS 2006b; Queensland Government 2006).

Smoking among PADIE II participants was found to vary significantly by marital status, highest level of education and main source of income (*p* < .001). For example, participants who were single, divorced or separated and those with fewer educational qualifications were more likely to smoke than married participants or those with higher educational achievements. Again, these results are similar to those of the PADIE I study. They also reflect the findings reported by the Queensland Government (2006) that Queenslanders who are

25 Caution should be used when interpreting these data due to small sample sizes (Indigenous participants *n* = 21).

unemployed and have fewer formal educational achievements smoke more than those who are employed or have higher educational achievements.²⁶

Alcohol use

The consumption of alcohol is highly prevalent in Australia, with alcohol-related problems common among presentations to Australian EDs (Tjijto, Taylor & Liew 2006; WHO 2007). In the 2004 National Drug Strategy Household Survey (NDSHS), 84.0 per cent of Queenslanders reported using alcohol within the past 12 months; almost 10 per cent of that sample reported drinking daily and about 40 per cent reported drinking on a weekly basis (AIHW 2005b).

Regular alcohol consumption

Prevalence

Almost 80 per cent of PADIE II participants (79.7%, $n = 944$) reported using alcohol, similar to the PADIE I study (80.8%, $n = 645$) and to the general population estimate noted previously (AIHW 2005b).

Of the PADIE II participants who reported total abstinence from drinking alcohol, 7.5 per cent ($n = 18$) reported a history of problem drinking.

Frequency of use

The frequency of alcohol consumption reported by PADIE II participants was as follows:

- 20.3% ($n = 240$) did not drink at all
- 26.4% ($n = 313$) drank monthly or less frequently
- 18.4% ($n = 218$) drank weekly
- 19.2% ($n = 227$) drank two to four times per week
- 15.7% ($n = 186$) drank more than five times per week.²⁷

This profile of alcohol consumption by PADIE II participants was similar to that of the PADIE I participants.

Comparisons with the general population

The frequency of alcohol consumption cannot be directly compared with the Australian general population as we used different frequency categories from the NDSHS. However, in 2004, the general Australian population estimates for alcohol consumption were (AIHW 2008):

- 9.3% never had a full serve of alcohol
- 7.1% were ex-drinkers
- 33.5% drank less than weekly
- 41.2% drank weekly
- 8.9% drank daily.

It therefore seems that about half of the PADIE II participants (53.3%) and about half of the general population (50.1%) drink alcohol weekly or more often.

26 A one-way between-groups multivariate analysis of variance (MANOVA) was undertaken to investigate the relative impact of each of the significant demographic factors noted above on smoking status; marital status, highest level of education and main source of income were entered into the model. Overall, smokers and non-smokers differed significantly ($p < .001$) on the combined dependent variables ($F(3, 1151) = 16.175, p < .001$; Wilks' Lambda = .96; partial eta squared = .04). Importantly, each of the three dependent variables considered separately — marital status ($p < .05$), education level ($p < .001$) and main source of income ($p < .001$) — retained their significance and their independent influence on whether participants were smokers or not.

27 Missing ($n = 18$) data.

Quantity consumed

Almost one-quarter of PADIE II participants (23.2%, $n = 273$) reported consuming more than six drinks during one occasion on a weekly basis and 8.0 per cent ($n = 97$) reported drinking six or more drinks on one occasion on a daily or almost daily basis. Single participants were more likely than other PADIE II participants to drink more than six standard drinks during one occasion on a monthly, weekly and daily basis ($p < .001$).

Demographic factors — Gender

Significantly more male than female (84.7%, $n = 535$ v 74.0%, $n = 404$, $p < .001$) participants reported regular use of alcohol, consistent with the general population (AIHW 2005b). One-quarter of all females (26.0%, $n = 142$) reported abstaining from alcohol compared with only 15.3 per cent of males ($n = 97$, $p < .001$). One-fifth of males drank more than five times per week, double the proportion of females (20.9%, $n = 133$ v 9.5%, $n = 52$, $p < .001$). See Table 4.2 and Appendix 3 for gender comparisons of regularity of alcohol consumption.

Table 4.2: Regularity of alcohol consumption by gender (PADIE II participants)

Regularity of alcohol consumption	Males	Females	Total *
	% $n = 635$	% $n = 546$	% $n = 1181$
Never	15.3	26.0	20.2
Monthly or less	21.4	32.5	26.5
Weekly	19.4	17.4	18.5
2–4 times per week	23.0	14.7	19.1
5 or more times per week	20.9	9.5	15.7

Note: Due to rounding, percentages may not add up to 100. Missing ($n = 21$) data from total sample.

* $p < .001$.

Demographic factors — Age

The frequency of alcohol consumption and age were significantly related ($p < .001$) with older participants more likely to abstain from drinking (see Table 4.3). For example:

- 8.3% ($n = 79$) of participants aged 60–79 years abstained from alcohol compared with 12.7% ($n = 40$) of 20–29 year olds and 16.9% ($n = 41$) of 30–39 year olds
- 24.3% ($n = 42$) of 40–49 year olds drank five or more times a week compared with 11.5% of 20–29 year olds and 5.1% ($n = 16$) of 16–19 year olds.

Table 4.3: Frequency of alcohol consumption by age-group (PADIE II participants)

Frequency of alcohol consumption	Age-group						Total *
	16–19 years % $n = 118$	20–29 years % $n = 314$	30–39 years % $n = 243$	40–49 years % $n = 173$	50–59 years % $n = 125$	60–79 years % $n = 206$	
Never	15.3	12.7	16.9	15.6	28.0	38.3	20.4
Monthly or less	33.1	26.8	26.3	27.7	24.8	22.8	26.5
Weekly	28.8	23.9	21.8	15.0	12.0	5.8	18.2
2–4 times a week	17.8	25.2	21.8	17.3	16.0	11.7	19.3
5 or more times a week	5.1	11.5	13.2	24.3	19.2	21.4	15.6

Note: Due to rounding, percentages may not add up to 100. Missing ($n = 23$) data from total sample.

* $p < .001$.

Demographic factors — Other

Single participants were more likely to report regular alcohol consumption than married, de facto, separated, divorced and widowed participants combined ($p < .001$). For example, one-quarter of all single participants

reported weekly alcohol consumption (25.8%, $n = 128$) compared with 13.0 per cent of other participants ($n = 81$, $p < .001$). Single participants were also more likely to drink more than six standard drinks during one occasion on a monthly, weekly and daily basis than other participants ($p < .001$).

Frequency of alcohol consumption also varied by main source of income ($p < .001$). Two-thirds of aged pensioners never drank, or if they did, drank monthly or less (66.5%, $n = 97$). One-quarter of full-time workers drank weekly (24.5%, $n = 120$) compared with 14.6 per cent ($n = 12$) of those on a disability benefit. Eighteen per cent (18.0%, $n = 88$) of full-time workers drank more than five times a week compared with 12.6 per cent ($n = 22$) of part-time workers.

NHMRC guidelines for long-term health

PADIE II participants' regular drinking behaviour was also analysed in relation to the National Health and Medical Research Council (NHMRC) drinking guidelines for *long-term* health (NHMRC 2001).²⁸ Almost half (47.0%, $n = 565$) of PADIE II participants were categorised as regular 'low-risk' drinkers, which for males is defined as 0–4 standard drinks per day and for females as 0–2 standard drinks per day. However, 20.4 per cent ($n = 245$) of participants regularly drank alcohol at levels considered 'risky' or 'high risk' by the NHMRC guidelines. Specifically, 8.8 per cent ($n = 106$) of participants reported regularly drinking at risky levels (males: 5–6 standard drinks per day; females: 3–4 standard drinks per day), and 11.6 per cent ($n = 139$) of participants reported regularly consuming alcohol at levels that placed them at high risk of harm in the long term (males: 7 or more standard drinks per day; females: 5 or more standard drinks per day).

Alcohol use prior to ED presentation

Prevalence

Eight per cent (8.3%, $n = 104$) of PADIE II participants reported consuming alcohol in the 6 hours prior to arriving at the ED. An additional 12.7 per cent ($n = 153$) reported drinking in the 24 hours (but not 6 hours) prior to presentation. Thus, 21.0 per cent ($n = 257$) of the PADIE II sample had consumed alcohol in the day prior to presenting to the ED for treatment.

While a similar proportion (8.5%, $n = 68$) of PADIE I participants reported drinking within 6 hours, many more (20.6%, $n = 165$) had consumed alcohol within 24 hours of attending the ED.

Quantity consumed

The average number of standard drinks consumed by PADIE II participants who drank within 24 hours of attending the ED was 1.27. The maximum number of drinks consumed in the 24 hours prior to presentation by a participant was 40 standard drinks (this quantity was reported by two participants).²⁹

The quantity of alcohol consumed by PADIE II participants who presented for treatment was assessed using the NHMRC drinking guidelines for short-term health. Of those who had consumed alcohol prior to presentation, 61.5 per cent ($n = 158$) had consumed alcohol at levels described as 'low-risk' by the NHMRC drinking guidelines (males: 0–6 standard drinks; females: 0–4 standard drinks). Another 12.1 per cent ($n = 31$) of PADIE II participants who had been drinking prior to presentation consumed alcohol at levels described as 'risky' (males: 7–10 standard drinks; females: 5–6 standard drinks) and almost one-quarter (23.7%, $n = 61$) of PADIE II participants had drunk at levels considered 'high-risk' (males: 11 or more standard drinks; females: 7 or more standard drinks).³⁰

28 We did not use the draft revised Australian alcohol guidelines for low-risk drinking in our analysis (released for community consultation on 12 October 2007).

29 This information was not collected in the PADIE I (2002) study; no comparison can be made.

30 There are missing ($n = 7$) data on quantity of alcohol consumed.

Demographic factors — Gender

Males reported consuming alcohol prior to arrival at the ED more often than females ($p < .001$). About one in eight males had drunk in the past 6 hours compared with one in 20 females (11.9%, $n = 74$ v 5.7%, $n = 30$). One in six males had consumed alcohol in the previous 24 hours compared with one in 10 females (16.3%, $n = 101$ v 9.8%, $n = 52$).

Alcohol-related harms — Alcohol Use Disorders Identification Test

The Alcohol Use Disorders Identification Test (AUDIT) was administered to PADIE II participants to explore the prevalence and severity of alcohol use. The AUDIT was developed by the World Health Organization (WHO) to establish the prevalence of low, hazardous, harmful or dependent patterns of alcohol consumption (Babor et al. 2001). The 10-item AUDIT instrument has been validated across age, gender and cultural groups and is used widely in primary care settings (see Appendix 2 for AUDIT subscales and domains). The responses to each item are collated to obtain a total AUDIT score (0–40) (NIAAA 2005).³¹ Risk categories have been developed by WHO with the following cut-offs:³²

- low risk (0–7 score)³³
- hazardous (8–15 score)
- harmful (16–19 score)
- alcohol dependence (20–40 score).

The AUDIT was used to assess PADIE II participants:

- 65.6% ($n = 777$) were assessed as low-risk drinkers³⁴
- 24.2% ($n = 287$) were assessed as hazardous drinkers
- 5.5% ($n = 65$) were assessed as drinking at harmful levels
- 4.7% ($n = 56$) drank at levels suggesting alcohol dependence.

More than one-third (34.4%, $n = 408$) of the PADIE II sample scored above 8 on the AUDIT, indicating at-risk drinking.

Comparison with the general population

The AUDIT is a screening tool — it is not generally used for clinical diagnosis or as an indicator of risky drinking in the general population. No specific comparisons can therefore be made to other general population estimates.

Change in AUDIT scores over time

Table 4.4 compares the AUDIT scores for PADIE I and PADIE II participants. Most PADIE I and II participants were low-risk drinkers rather than at-risk drinkers (hazardous, harmful or alcohol dependent drinking).³⁵ The prevalence of self-reported at-risk drinking was high in both samples with 34.4 per cent of PADIE II participants and 29.0 per cent of PADIE I participants scoring 8 or above on the AUDIT. However, significantly more PADIE II (29.7%, $n = 352$) participants self-reported hazardous and harmful drinking behaviours than did PADIE I participants (24.1%, $n = 187$, $p < .05$).

31 See Berner et al. (2007) for a more thorough discussion of the AUDIT.

32 Precise cut-off points for males and females vary between Western countries. In addition, distinguishing between hazardous, harmful and alcohol dependent drinkers is difficult, due to insufficient research to date (Babor et al. 2001). Because of this, we refer to participants as low-risk drinkers (AUDIT 0–7) and at-risk drinkers (AUDIT 8–40).

33 Low-risk drinkers also include participants who self-reported abstinence (i.e. an AUDIT score of zero) (WHO 2007).

34 This includes PADIE II participants who abstained from alcohol.

35 PADIE I AUDIT score ($M = 6.0$, $SD = 6.398$) and PADIE II AUDIT score ($M = 6.4$, $SD = 6.642$); $t(1962) = 1.286$, $p = .199$ (eta squared = .0008).

Table 4.4: AUDIT scores (PADIE I and PADIE II participants)

AUDIT scores	PADIE I 2002 % <i>n</i> = 779	PADIE II 2005 % <i>n</i> = 1185	Difference between the two samples *** %
Low-risk (0–7 score) ^a	71.1	65.6	– 5.5
Hazardous (8–15 score)	21.1	24.2	+ 3.1
Harmful (16–19 score)	3.0	5.5	+ 2.5
Alcohol dependence (20–40 score)	4.9	4.7	– 0.2

Note: Due to rounding, percentages may not add up to 100. Missing (PADIE I *n* = 32; PADIE II *n* = 17) data from total sample.
^a Low-risk drinkers include participants who self-reported abstinence (i.e. an AUDIT score of zero).
 *** *p* < .05.

PADIE II participants self-reported a higher incidence of hazardous and harmful drinking behaviour (*p* < .05) than did PADIE I participants.

Analysis of AUDIT scores by gender

PADIE II participants’ AUDIT scores varied by gender (*p* < .001, see Table 4.5), with males more likely to drink at risky levels. For example:

- 75.0% (*n* = 440) of females were low-risk drinkers or abstainers (AUDIT score of 7 or below) compared with 57.5% (*n* = 365) of males
- 42.5% (*n* = 270) of males were at-risk drinkers (AUDIT score of 8 or above) compared with 25.0% (*n* = 137) of females
- 7.5% (*n* = 41) of females drank at levels that were either harmful or indicated alcohol dependence (AUDIT score over 16) compared with 12.5% (*n* = 79) of males.

Table 4.5: AUDIT scores by gender (PADIE II participants)

AUDIT scores	Males % <i>n</i> = 635	Females % <i>n</i> = 547	Total * % <i>n</i> = 1182
Low-risk (0–7 score)	57.5	75.0	65.6
Hazardous (8–15 score)	30.1	17.6	24.3
Harmful (16–19 score)	6.8	4.0	5.5
Alcohol dependence (20–40 score)	5.7	3.5	4.7

Note: Due to rounding, percentages may not add up to 100. Missing (*n* = 20) data from total sample.
 * *p* < .001.

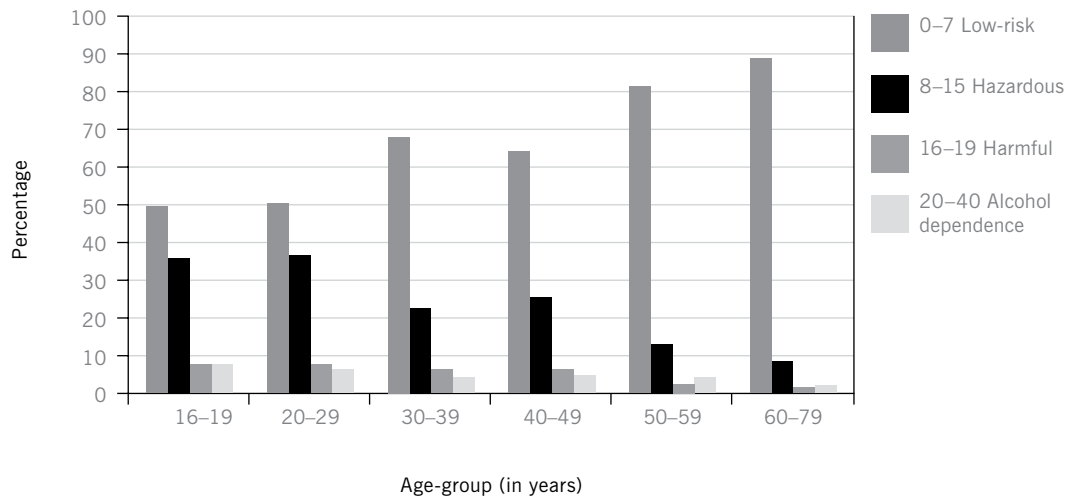
Analysis of AUDIT scores by age-group

AUDIT scores also varied by age (*p* < .001), with younger PADIE II participants drinking at more harmful levels than older participants. For example:

- 15.2% (*n* = 18) of 16–19 year olds had AUDIT scores that indicated harmful drinking and possible alcohol dependence, five times greater than 60–79 year old participants (3.4%, *n* = 7)
- 88.3% (*n* = 182) of 60–79 year olds had a low AUDIT score (0–7) compared with 50.0% (*n* = 157) of 20–29 year olds and 67.5% (*n* = 164) of 30–39 year olds.

See Figure 4.1 and Appendix 4 for a more detailed age comparison of alcohol consumption and AUDIT responses.

Figure 4.1: AUDIT scores by age-group (PADIE II participants)



Note: Missing ($n = 22$) data from total sample.

Age was also significantly associated with a number of negative consequences of excessive drinking such as ‘failing to do normally expected things because of drinking’, ‘feeling guilt or remorse because of drinking’ and ‘being unable to remember because of drinking’ ($p < .001$). In each case, PADIE II participants aged 20–29 years were more likely than those in other age-groups to agree with these statements (see Appendix 4).

Analysis of AUDIT scores by other demographic characteristics

Single PADIE II participants were more likely to report at-risk drinking ($p < .001$). For example, half of all single participants had AUDIT scores greater than 8, indicating at-risk drinking; this was double that of other participants (50.5%, $n = 251$ v 22.7%, $n = 155$).

Gender, level of income, age, marital status and main source of income independently predicted AUDIT scores ($p < .001$).³⁶

The AUDIT also measures serious symptoms of alcohol dependence (see Appendixes 2 and 3):

- 8.1% ($n = 95$) of PADIE II participants reported that a ‘relative, friend, doctor or health worker’ was ‘concerned about drinking/suggested they cut down’. Significantly more male participants (10.4%, $n = 65$) than female participants (5.5%, $n = 30$) reported this occurring in the past 12 months ($p < .05$).
- 8.3% ($n = 97$) of PADIE II participants also reported ‘being injured or injuring someone else as a result of drinking’.
- About 1% of the total PADIE II sample reported serious daily symptoms of alcohol dependence, such as ‘not being able to stop drinking’ ($n = 14$), ‘failing to do normally expected things because of drinking’ ($n = 10$), ‘feeling guilt or remorse because of their own drinking’ ($n = 13$) and ‘needing a drink first thing in the morning to get going after a heavy drinking session’ ($n = 9$).

36 Age was collapsed into six categories (16–19, 20–29, 30–39, 40–49, 50–59 and 60–79 years). AUDIT scores were collapsed into two groups: 0–7 (low-risk, includes abstainers) and 8–40 (at-risk). A one-way between-groups multivariate analysis of variance (MANOVA) was undertaken to investigate the relative impact of each of these significant demographic factors on AUDIT scores. Overall, participants who scored 0–7 (low-risk) and participants who scored 8–40 (at-risk) differed significantly on the combined dependent variables ($p < .001$; $F(5, 1090) = 32.591$, $p < .001$; Wilks’ Lambda = .13; partial eta squared = .926). Importantly, four of the five dependent variables considered separately — gender, age, marital status and main source of income — retained their significance ($p < .001$); level of income did not.

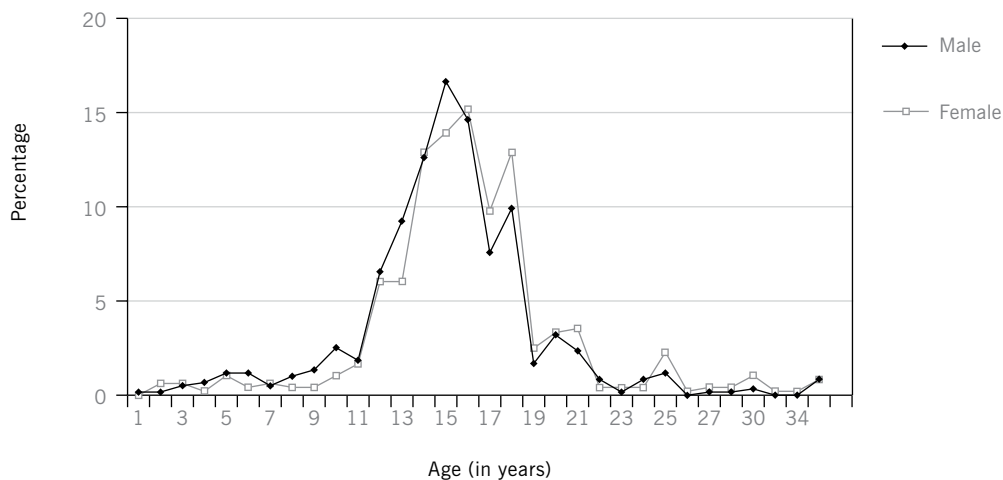
Initiation to alcohol use

PADIE II participants were asked how old they were when they had their first drink of alcohol. Participants ($n = 1079$) reported initial use of alcohol from the age of one to the age of 79 (range 78 years). The average age of initiation for the PADIE II sample was 15.7 years, lower than the general population estimate of 17.2 years (AIHW 2005b). The PADIE I average age of initiation was 15.4 years.

The average age of alcohol initiation was slightly lower among males in the PADIE I sample (14.7 years) than males in the PADIE II sample (15.3 years).³⁷ There were no group differences between PADIE I and II female participants in the age at which they first tried alcohol (both 16.3 years).

As shown in Figure 4.2, half (50.9%, $n = 550$) of all male and female PADIE II participants were between 13 and 16 years of age when they first tried alcohol. Three-quarters (75.0%, $n = 810$) of all PADIE II participants reported trying alcohol before the Australian legal drinking age of 18, similar to the PADIE I study.

Figure 4.2: Age of first alcoholic drink by gender (PADIE II participants)



Note: Missing ($n = 123$) data from total sample. Very few PADIE II participants ($n = 9$) reported alcohol initiation after 34 years.

Chapter summary

We analysed participants' use of tobacco and alcohol and compared our findings with those of the PADIE I study and with general population estimates. We found that, overall, PADIE I and II participants had similar tobacco and alcohol use profiles.

Levels of tobacco consumption by ED patients appear to be higher among PADIE I and PADIE II participants than in the general population. Younger PADIE II participants were more likely to smoke than older participants, but older PADIE II participants tended to smoke more cigarettes per day.

Alcohol consumption among PADIE II participants was comparable with the general population and with PADIE I participants, with four in five patients reporting regular alcohol use. Significantly more PADIE II participants self-reported hazardous and harmful drinking behaviours than did PADIE I participants. About one-third of PADIE II participants scored above 8 on the AUDIT, indicating at-risk drinking.³⁸

37 $t(1074) = 3.153, p < .01$; PADIE II $SD = 5.590$.

38 The AUDIT is primarily used to screen for alcohol-related harms and not to monitor drinking patterns at a population level. Thus, no comparison with general population estimates was undertaken.

Similar proportions of PADIE I (8.5%) and PADIE II (8.3%) participants reported drinking within 6 hours of attending the ED; however, many more PADIE I participants (20.6%) had consumed alcohol within 24 hours of attending the ED than PADIE II participants (12.7%). Of the PADIE II participants who had consumed alcohol prior to presenting at the ED, 12.1 per cent drank at risky levels and 23.7 per cent at high-risk levels.

The average age of initiation to alcohol use was similar (about 15.5 years old) among participants of both studies. Three-quarters of PADIE I and PADIE II participants reported trying alcohol before the Australian legal drinking age of 18 years.

PREVALENCE OF ILLICIT DRUG USE

This chapter presents information on the use of illicit drugs by the hospital ED sample. It compares drug use reported by the PADIE II sample with that reported by the PADIE I sample and with general population estimates.

Interpreting the data presented in this chapter

There are several important issues that need to be reiterated about the results reported in this chapter:³⁹

- PADIE II participants may have inadvertently answered ‘yes’ to using certain drugs illicitly when they may have used these drugs licitly (i.e. with a legitimate prescription); methadone, morphine and benzodiazepine use are particularly vulnerable to this possibility.
- PADIE I participants were not asked about their morphine, benzodiazepine and inhalant use, so relevant comparisons cannot be made to PADIE II results.
- The ‘hallucinogen’ drug category cannot be directly compared as terminology varied between the two studies (PADIE I: ‘LSD or acid’; PADIE II: ‘Hallucinogens e.g. LSD and mushrooms’).
- Caution must be exercised when interpreting self-reported illicit drug use in the past 24 hours and past 6 hours due to small sample sizes.

Table 5.1 shows the self-reported illicit drugs used by PADIE II participants over four separate periods:

- ever used (lifetime prevalence)
- within the past 12 months (recent use)
- within 24 hours of arriving at the ED
- within 6 hours of arriving at the ED.

³⁹ These issues are also relevant for Chapter 6.

Table 5.1: Prevalence of illicit drug use (PADIE II participants)

Drug type	Ever used ^a	Used in the past 12 months	Used in the past 24 hours	Used in the past 6 hours
	%	%	%	%
Any illicit drug	52.2	26.1	9.4	3.7
Cannabis	50.0	24.0	8.1	3.0
Amphetamine	20.8	10.0	1.1	0.4
Ecstasy	21.1	11.6	0.7	0.3
Cocaine	13.1	5.0	0.0	0.0
Heroin	5.4	0.9	0.0	0.0
Methadone	2.8	1.0	0.2	0.2
Morphine	3.4	1.4	0.2	0.0
Benzodiazepines	4.8	1.9	0.8	0.6
Hallucinogens	12.8	2.2	0.1	0.1
Ketamine	3.1	1.5	0.0	0.0
GHB/Fantasy	4.1	0.9	0.3	0.1
Inhalants	3.7	0.8	0.0	0.0
Any other drug	1.4	0.6	0.2	0.1

Note: Percentages are from available samples (missing data varies for each illicit drug and timeframe ($n = 0-98$); see Appendix 7.). Percentages will not add up to 100 as participants were able to report use of multiple illicit drugs.
^a Used at least once in their lifetime.

Appendix 5 provides an overview of the demographic profile of PADIE II participants who reported illicit drug use for the various timeframes. Appendix 6 compares PADIE I and PADIE II, with reference to general population estimates (the 2004 NDSHS). Appendix 7 lists the sample sizes for each illicit drug and timeframe. Appendixes 8–11 outline drug use over the four separate timeframes by age-group.

Lifetime use of illicit drugs

Prevalence

Comparison with general population estimates

It is estimated that 38.1 per cent of Australians aged 14 years or older have used an illicit drug at some point in their lives and that 15.3 per cent have used an illicit drug within the past 12 months (AIHW 2007). In comparison, more than half the PADIE II participants (52.2%, $n = 607$) reported using illicit drugs at some time in their life (see Appendix 6). The most commonly used illicit drug, cannabis, had been used by 50.0 per cent ($n = 585$) of PADIE II participants, much higher than the 33.6 per cent estimated for the general population (AIHW 2007).

All of the lifetime prevalence estimates were higher in the PADIE II sample than in the general population (see Appendix 6):

- 21.1% ($n = 247$) of PADIE II participants had used ecstasy compared with 7.5% of the general population
- 20.8% ($n = 243$) had used amphetamine compared with 9.1% of the general population
- 13.1% ($n = 153$) had used cocaine compared with 4.7% of the general population
- 12.8% ($n = 149$) had used hallucinogens compared with 7.5% of the general population.

Similarly, more participants reported lifetime use of heroin, benzodiazepines, GHB/Fantasy, inhalants, morphine, ketamine and methadone (levels ranged from 3.1% to 5.4%) than the general population (levels ranged from 0.5% to 2.8%).

Change over time

We compared the self-reported lifetime prevalence of *overall* illicit drug use by PADIE I and PADIE II participants to see if there had been any change over time. Any apparent difference in the PADIE I (55.3%, $n = 443$) and PADIE II (52.2%, $n = 607$) samples is due to chance; there was no statistically significant change over time.

There were no significant increases or decreases over time in overall illicit drug use.

We then compared the self-reported lifetime prevalence of *individual* illicit drugs used by PADIE I and PADIE II participants. We found no significant changes except that PADIE II participants self-reported higher lifetime ecstasy use (21.1% v 16.9%, $p < .05$) and lifetime cocaine use (13.1% v 9.2%, $p < .01$) compared with PADIE I participants (see Appendix 6).

PADIE II participants self-reported significantly higher levels of lifetime ecstasy use (+4.2%, $p < .05$) and lifetime cocaine use (+3.9%, $p < .01$) compared with PADIE I participants.

Demographic factors — Gender

The types of drugs that male and female PADIE II participants had tried throughout their lifetime are outlined in Table 5.2. Significantly more male than female (59.2%, $n = 369$ v 44.0%, $n = 236$, $p < .001$) participants reported trying an illicit drug at least once.

Significantly more males than females reported that they had used each of the following illicit drugs (see Table 5.2):

- cannabis ($p < .001$)
- amphetamine ($p < .001$)
- ecstasy ($p < .001$)
- heroin ($p < .001$)
- hallucinogens ($p < .001$)
- cocaine ($p < .01$)
- ketamine ($p < .01$)
- morphine ($p < .05$).

Table 5.2: Lifetime prevalence of illicit drug type by gender (PADIE II participants)

Drug type	Males % <i>n</i> = 625	Females % <i>n</i> = 541	Total % <i>n</i> = 1166
Any illicit drug*	59.2	44.0	52.2
Cannabis*	56.8	42.1	50.0
Amphetamine*	26.4	14.2	20.8
Ecstasy*	26.6	14.8	21.1
Cocaine**	15.9	10.0	13.1
Heroin*	7.5	2.8	5.3
Methadone	3.0	2.6	2.8
Morphine***	4.3	2.2	3.3
Benzodiazepines	5.1	4.3	4.7
Hallucinogens*	17.5	7.2	12.7
Ketamine**	4.5	1.5	3.1
GHB/Fantasy	5.0	3.1	4.1
Inhalants	4.5	2.6	3.6
Any other drug	1.8	0.9	1.4

Note: Percentages will not add up to 100 as participants were able to report use of multiple illicit drugs. There are missing (*n* = 36–43) data for each illicit drug category.

* *p* < .001, ** *p* < .01, *** *p* < .05.

Comparison with general population estimates

Both male (59.2%, *n* = 369) and female (44.0%, *n* = 236) PADIE II participants reported higher levels of illicit drug use than the general population estimates of 41.8 per cent for males and 34.4 per cent for females (AIHW 2005d). Similar differences were observed across all individual drugs in the PADIE II study (see Appendix 6). For example, 56.8 per cent of all male participants and 42.1 per cent of all female participants had used cannabis at some stage in their lives, compared with 37.4 per cent of males and 29.9 per cent of females in the general population (AIHW 2005d).

Change over time

No significant increases or decreases in illicit drug use over time by gender were noted. The greater lifetime prevalence of illicit drug use by males than females was consistent across PADIE I and PADIE II. For example, in both PADIE I and PADIE II, males reported higher:

- lifetime *overall* illicit drug use (PADIE II participants: 59.2% males v 44.0% females, *p* < .001; PADIE I participants: 60.5% males v 48.6% females, *p* < .001)
- lifetime amphetamine use (PADIE II participants: 26.4% males v 14.2% females, *p* < .001; PADIE I participants: 25.3% males v 15.6% females, *p* < .001)
- lifetime heroin use (PADIE II participants: 7.5% males v 2.8% females, *p* < .001; PADIE I participants: 7.8% males v 1.4% females, *p* < .001)
- lifetime cocaine use (PADIE II participants: 15.9% males v 10.0% females, *p* < .01; PADIE I participants: 13.1% males v 4.5% females, *p* < .001).

No significant increases or decreases in illicit drug use over time by gender were noted.

Demographic factors — Age

Appendix 8 documents the lifetime prevalence of each illicit drug by age-group for the PADIE II sample. Significantly higher proportions of younger people (16–39 years old) reported having tried an illicit drug at some point in their lives (*p* < .001). Apart from 16–19 year olds, the younger the participant, the more likely they

were to have tried an illicit drug. PADIE II participants who had tried an illicit drug at some point in their life included:

- 54.9% ($n = 62$) of 16–19 year olds
- 76.1% ($n = 239$) of 20–29 year olds
- 65.3% ($n = 154$) of 30–39 year olds
- 54.4% ($n = 92$) of 40–49 year olds
- 33.3% ($n = 41$) of 50–59 year olds
- 8.9% ($n = 18$) of 60–79 year olds.

Younger PADIE II participants were significantly more likely than older participants to have used ecstasy, amphetamine, cocaine, heroin, ketamine, GHB/Fantasy and inhalants ($p < .001$). Younger participants also reported higher lifetime methadone and morphine use ($p < .01$).

Cannabis was the most common illicit drug used across all of the age-groups. Among participants aged 16–29 years, the second most commonly reported drug was ecstasy ($n = 166$) followed by amphetamine ($n = 147$). The following points are also of interest as they illustrate the young age of participants self-reporting lifetime illicit drug use:

- lifetime amphetamine use was reported by 23.0% ($n = 26$) of 16–19 year olds and 38.3% ($n = 121$) of 20–29 year olds
- lifetime ecstasy use was reported by 26.5% ($n = 30$) of 16–19 year olds and 43.0% ($n = 136$) of 20–29 year olds.

However, older participants self-reported higher incidences of hallucinogen and heroin use compared with younger participants:

- lifetime hallucinogen use was reported by 17.2% ($n = 29$) of 40–49 years olds compared with 8.8% ($n = 10$) of 16–19 year olds
- lifetime heroin use was reported by 10.7% ($n = 18$) of 40–49 year olds compared with 4.4% ($n = 5$) of 16–19 year olds and 7.0% ($n = 22$) of 20–29 year olds.

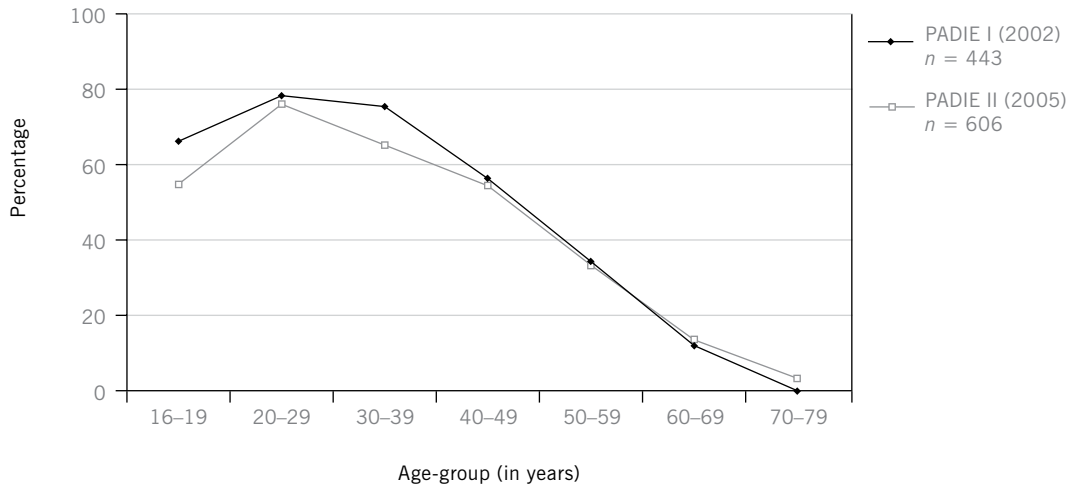
Change over time

Figure 5.1 reports the percentage of PADIE I and PADIE II participants who self-reported lifetime prevalence of overall illicit drug use across age-groups. PADIE II participants aged 16–59 reported significantly lower levels of illicit drug use compared with PADIE I participants aged 16–59 ($p < .001$). For example:

- just over half of PADIE II participants aged 16–19 years (54.9%, $n = 117$) had tried an illicit drug compared with two-thirds of PADIE I participants aged 16–19 years (66.3%, $n = 55$)
- two-thirds of PADIE II participants aged 30–39 years (65.3%, $n = 154$) had tried an illicit drug compared with three-quarters of PADIE I participants aged 30–39 years (75.5%, $n = 55$).

Overall, the results suggest there has been a decrease over time in self-reported illicit drug use by younger people.

Figure 5.1: Lifetime prevalence of illicit drug use (any drug) by age-group (PADIE I and PADIE II participants)



Demographic factors — Other

Further analyses were undertaken to determine the relationships between the lifetime prevalence of illicit drug use and various demographic characteristics such as marital status, highest level of education obtained, main source of income and weekly income (see Appendix 5). Indigenous identification was not included in these analyses due to small sample sizes.

Marital status

Lifetime illicit drug use varied significantly by marital status ($p < .001$). Three-quarters of participants in a de facto relationship (76.5%, $n = 104$) and two-thirds of single participants (67.4%, $n = 328$) had tried an illicit drug. Single people reported greater illicit drug use than married, de facto, separated, divorced and widowed people combined (54.2%, $n = 328$ v 45.8% $n = 277$, $p < .001$).⁴⁰

Level of education

Lifetime illicit drug use varied significantly by highest level of education obtained ($p < .01$, see Appendix 5). Those who self-reported lifetime illicit drug use included:

- 55.4% ($n = 236$) of participants who had obtained Year 10 or an equivalent qualification
- 63.9% ($n = 53$) of participants who had a trade certificate/apprenticeship
- 47.6% ($n = 50$) of participants who had completed a university degree.

Main source of income

Lifetime illicit drug use varied significantly by main source of income with two-thirds of full-time workers and participants receiving unemployment benefits having tried an illicit drug. Those who had tried an illicit drug at some point in their life ($p < .001$) included:

- 64.2% ($n = 308$) of full-time workers
- 65.3% ($n = 47$) of those receiving unemployment benefits.
- 9.7% ($n = 14$) of pensioners
- 8.3% ($n = 2$) of self-funded retirees.

⁴⁰ Marital status and age were significantly related ($p < .001$) with 81.8% ($n = 407$) of all single PADIE II participants aged 16–39 years. Therefore, the relationship between marital status and age may be confounded.

The same profiles were also shown for individual drug types such heroin, morphine, ecstasy ($p < .001$), methadone and benzodiazepine ($p < .05$).

Weekly income

The relationship between weekly income and lifetime illicit drug use shows that those with a higher weekly income were significantly more likely to have used illicit drugs than those earning a lower weekly income ($p < .001$). For example, two-thirds of participants (65.9%, $n = 89$) earning \$1000–\$1499 a week reported lifetime use of an illicit drug compared with 46.9 per cent ($n = 30$) of participants earning \$1–\$199 a week.

The results may be confounded, so multivariate statistics were used to determine the relative effects of each characteristic.⁴¹ Three of the four dependent variables considered separately — marital status ($p < .001$), main source of income ($p < .001$) and level of income ($p < .05$) — retained their significance, but highest level of education did not.

PADIE I and PADIE II participants who reported lifetime prevalence of illicit drug use had similar demographic profiles; they were more likely to be male, in their twenties, single or in a de facto relationship and more likely to have obtained education higher than Year 10 level than those who had never tried an illicit drug. There was no change in these associations over time.

Illicit drug use within the past 12 months (recent use)

Prevalence

Comparison with general population estimates

One-quarter of the PADIE II sample had used an illicit drug in the past 12 months (26.1%, $n = 303$). This is greater than the estimated 15.3 per cent of Australians who had recently used illicit drugs (AIHW 2007, see Appendix 6).

Just under one-quarter (24.0%, $n = 279$) of the PADIE II sample had used cannabis in the past 12 months; again, this is higher than the general population estimate of 11.3 per cent (AIHW 2007). Almost 12.0 per cent (11.6% $n = 135$) of the participants had used ecstasy within the past 12 months and 10.0 per cent ($n = 116$) of participants had used amphetamine in the same time period, three times greater than the general population estimate. Small proportions of participants reported recent GHB/Fantasy use (0.9%, $n = 11$), heroin use (0.9%, $n = 11$) and illicit benzodiazepine use (1.9%, $n = 22$).

Change over time

There were no significant differences between PADIE I and PADIE II in overall recent illicit drug use (PADIE I: 28.4%, $n = 303$; PADIE II: 26.4%, $n = 229$).⁴² The only notable change over time was recent ecstasy use, with PADIE II (11.6%, $n = 135$) participants self-reporting higher levels of use (+3.1%, $p < .05$) than PADIE I participants (8.5%, $n = 69$) (see Appendix 6). However, this higher level of recent ecstasy use did not significantly increase the total percentage of individuals reporting overall recent illicit drug use over time.

41 Education ($p < .01$), level of income, marital status and type of occupation ($p < .001$) each predicted lifetime prevalence of illicit drug use. A one-way between-groups multivariate analysis of variance (MANOVA) was undertaken to investigate the relative impact of each of these significant demographic factors on lifetime prevalence of any drug. Overall, participants who had ever used drugs compared with those who had not differed significantly on the combined dependent variables ($p < .001$; $F(1064) = 23.169$, $p < .001$; Wilks' Lambda = .92; partial eta squared = .08).

42 Missing ($n = 40$) data from PADIE II sample.

PADIE II participants self-reported significantly higher levels of recent ecstasy use compared with PADIE I participants (+3.1%, $p < .05$). No other significant changes in recent illicit drug use were noted over time.

Demographic factors — Gender

Table 5.3 shows that significantly more male than female participants reported using an illicit drug during the past 12 months (31.9%, $n = 199$ v 19.1%, $n = 102$, $p < .05$). Males consistently reported greater recent use for each illicit drug than females. For example, males reported twice the recent use of cannabis (30.6% v 16.1%), cocaine (6.3% v 3.5%), amphetamine (13.1% v 6.3%) and ecstasy (15.0% v 7.7%) compared with females ($p < .001$).

Comparison with general population estimates

The PADIE II figures are considerably higher than the general population estimates of 18.2 per cent for males and 12.5 per cent for females (AIHW 2007).

Table 5.3: Recent illicit drug use by gender (PADIE II participants)

Drug type	Males % $n = 625$	Females % $n = 542$	Total % $n = 1166$
Any illicit drug***	31.9	19.1	26.0
Cannabis*	30.6	16.1	23.9
Amphetamine*	13.1	6.3	9.9
Ecstasy*	15.0	7.7	11.6
Cocaine***	6.3	3.5	5.0
Heroin	1.3	0.6	0.9
Methadone	1.1	0.9	1.0
Morphine	1.8	0.9	1.4
Benzodiazepines	1.8	1.8	1.8
Hallucinogens***	3.2	1.1	2.2
Ketamine	1.9	0.9	1.5
GHB/Fantasy	1.3	0.6	0.9
Inhalants	1.2	0.2	0.7
Any other drug	1.0	0.2	0.6

Note: Percentages will not add up to 100 as some participants reported multiple use and some participants reported no use of illicit drugs in the past 12 months. There are missing ($n = 36-38$) data for each illicit drug category.

* $p < .001$, *** $p < .05$.

Change over time

Overall, the relationship between gender and recent illicit drug use was similar in both PADIE I and PADIE II samples. As with PADIE II, more PADIE I males than females (34.7% v 20.4%, $p < .001$) reported recent illicit drug use (overall and for each specific drug type).

Demographic factors — Age

The prevalence of recent illicit drug use across different age-groups is reported in Appendix 9. As with lifetime use, the recent use of all types of drugs in the PADIE II sample declines significantly as the age of the participants increases. The types of drugs used by participants in the 12 months prior to interview reflects the same pattern as for lifetime use: cannabis (38.0%, $n = 118$), ecstasy (25.6%, $n = 80$), amphetamine (20.8%, $n = 65$) and cocaine (11.5%, $n = 36$) were the most frequently used drugs by young people aged 20–29 years ($p < .001$).

Over one-third of all participants under the age of 40 years (37.1%, $n = 245$) reported recent illicit use, compared with 11.5 per cent ($n = 57$) of older participants ($p < .001$).

Demographic factors — Other

Further analyses were undertaken to determine the relationships between the recent use of illicit drugs and various demographic characteristics such as marital status, highest level of education obtained, main source of income and weekly income. Specific types of illicit drugs were also analysed (see Appendix 5). Indigenous identification was not included in these analyses due to small sample sizes.

About one-third (29.4%, $n = 126$) of participants who had obtained Year 10 or equivalent education reported using illicit drugs during the past 12 months. Fewer participants who had completed a university degree had done so (16.2%, $n = 17$).

About one-third of full-time workers (31.9%, $n = 153$) and one-third of those receiving disability benefits (33.3%, $n = 27$, $p < .001$) reported recent illicit drug use. About 40 per cent of participants who were receiving unemployment benefits self-reported recent illicit drug use (39.7%, $n = 29$). It appears that full-time workers were less likely to have used an illicit drug recently compared with unemployed participants.

Illicit drug use in the past 24 hours

The results reported in this section show the prevalence of illicit drug use in the 24-hour period prior to arrival at the ED. Caution must be exercised when interpreting this data due to small cell sizes.

Prevalence

About 10 per cent of PADIE II participants (9.4%, $n = 113$) self-reported using an illicit drug 24 hours prior to being interviewed (see Table 5.1).⁴³ The most commonly reported illicit drug used was cannabis, accounting for 85.0 per cent ($n = 97$) of all drugs consumed in the past 24 hours. Small numbers of PADIE II participants reportedly used amphetamine (1.1%, $n = 12$), ecstasy (0.7%, $n = 8$) and benzodiazepines (0.7%, $n = 8$) within this time period.

Change over time

We compared the self-reported prevalence of illicit drug use in the previous 24 hours by PADIE I and PADIE II participants. No significant change over time was noted (PADIE II: 9.4% v PADIE I: 8.1%, n.s.). A small number of PADIE I participants reported using heroin during this time period (0.4%, $n = 3$) whereas no PADIE II participants reported recent heroin use during the same timeframe (see Appendix 6).

There were no major changes in the self-reported prevalence of illicit drug use during the 24 hours prior to arrival at the ED in the PADIE II sample compared with the PADIE I sample.

Demographic factors — Gender

Gender predicted illicit drug use in the past 24 hours ($p < .05$). Twice as many males (12.0%, $n = 77$) as females (6.3%, $n = 35$) had used an illicit drug in the past 24 hours (see Table 5.4). More males than females also reported cannabis use (10.5% v 5.2%, $p < .001$) and amphetamine use (1.7% v 0.4%, $p < .05$).

43 Due to missing ($n = 3$) gender data, the percentage of PADIE II participants who used an illicit drug in the past 24 hours differs between Table 5.1 and 5.4.

Table 5.4: Illicit drug use in the past 24 hours by gender (PADIE II participants)

Drug type	Males % <i>n</i> = 641	Females % <i>n</i> = 558	Total % <i>n</i> = 1199
Any illicit drug***	12.0	6.3	9.3
Cannabis*	10.5	5.2	8.0
Amphetamine***	1.7	0.4	1.1
Ecstasy	1.0	0.4	0.7
Cocaine	0.0	0.0	0.0
Heroin	0.0	0.0	0.0
Methadone	0.2	0.4	0.3
Morphine	0.2	0.2	0.2
Benzodiazepines	0.8	0.7	0.8
Hallucinogens	0.2	0.0	0.1
Ketamine	0.0	0.0	0.0
GHB/Fantasy	0.3	0.2	0.3
Inhalants	0.0	0.0	0.0
Any other drug	0.3	0.0	0.2

Note: Percentages will not add up to 100 as some participants reported multiple use and some participants reported no use of illicit drugs in the 24 hours prior to arrival at the ED. Missing data (*n* = 3–101) for each illicit drug category.

* *p* < .001, *** *p* < .05.

Change over time

Males in the PADIE II study reported similar patterns of use as in the PADIE I study, with 12.0 per cent (*n* = 77) of PADIE II males and 11.8 per cent (*n* = 53) of PADIE I males having used an illicit drug within the past 24 hours. Of interest is that females in the PADIE II study reported almost twice the prevalence of illicit drug taking in the past 24 hours as PADIE I female participants (6.3%, *n* = 35 v 3.4%, *n* = 12, *p* < .05). Caution must be exercised when interpreting these data due to small cell sizes.

Female participants in the PADIE II study self-reported almost twice the prevalence of illicit drug taking in the past 24 hours as PADIE I female participants.

Demographic factors — Age

Appendix 10 outlines illicit drug use in the past 24 hours by age-group. Age predicted illicit drug use in the past 24 hours (*p* < .001). Just over half of the participants who had used an illicit drug within the past 24 hours were aged between 16–29 years (55.7%, *n* = 63, *p* < .001).

For example, illicit drug use in the past 24 hours was reported by:

- 9.3% (*n* = 11) of 16–19 year olds
- 16.4% (*n* = 52) of 20–29 years olds
- 9.7% (*n* = 24) of 30–39 year olds.

None of the participants who reported using illicit drugs during the past 24 hours were aged over 60.

Participants aged between 16–39 years consistently reported greater use of each illicit drug type than those aged 40–79 years. Cannabis use and age were significantly associated (*p* < .001); participants aged 16–39 were more likely to self-report using within the past 24 hours than those aged over 40 years. Statistically significant differences were not detected among many individual drug types, probably because of the small numbers.

Change over time

PADIE II participants had a similar age profile of use within the past 24 hours to PADIE I participants. In both PADIE I and PADIE II about three-quarters of participants who self-reported using various illicit drugs in the past 24 hours were younger than 40 years old.

Demographic factors — Other

The demographic profile of participants who reported illicit drug use in the previous 24 hours was similar to the demographic profile of participants reporting lifetime and recent illicit drug use.

Two-thirds of PADIE II participants who had used an illicit drug in the past 24 hours were single (64.6%, $n = 73$, $p < .001$). This equates to 14.6 per cent of single participants having used an illicit drug during this period compared with 3.2 per cent ($n = 12$) of married participants. Twelve per cent ($n = 5$) of participants living in a de facto relationship also reported using an illicit drug in the past 24 hours.

Fourteen per cent ($n = 12$) of participants who held a trade certificate/diploma had used an illicit drug in the past 24 hours compared with 2.8 per cent ($n = 3$) of participants who self-reported university as their highest level of completed education.

The main source of income of the participants also predicted illicit drug use in the past 24 hours ($p < .001$). Participants receiving a disability benefit (16.9%, $n = 14$) or unemployment benefits (15.7%, $n = 12$) were more likely than full-time workers (10.2%, $n = 50$) to have used an illicit drug in that timeframe.

Indigenous identification was not included in these analyses due to small sample sizes.

Illicit drug use in the past 6 hours

Prevalence

About four per cent (3.7%, $n = 46$) of all PADIE II participants reported using illicit drugs within the past 6 hours, with cannabis the most frequently reported (80.0%, $n = 36$). Other illicit drugs used in the last 6 hours included:

- benzodiazepines ($n = 7$)⁴⁴
- amphetamine ($n = 5$)
- ecstasy ($n = 4$)
- methadone ($n = 2$)
- hallucinogens ($n = 1$)
- GHB/Fantasy ($n = 1$)
- other drug ($n = 1$).

Change over time

We determined that there was no significant change over time in the percentage of participants who reported using illicit drugs within 6 hours of attending the ED (PADIE I: 3.6%, $n = 29$; PADIE II: 3.7%, $n = 46$).

44 Those who answered 'yes' to using benzodiazepines illicitly in the past 6 hours may have used them licitly (i.e. with a legitimate prescription).

Demographic factors — Gender

Four per cent of PADIE II males (4.0%, $n = 25$) and 3.4 per cent ($n = 19$) of PADIE II females self-reported using illicit drugs in the 6 hours prior to arrival at the ED (n.s.). Cannabis use within the past 6 hours was reported by 3.4 per cent ($n = 20$) of males and 2.9 per cent ($n = 15$) of females (n.s.). Amphetamine use was only reported by males (0.8%, $n = 5$), as were hallucinogens, GHB/Fantasy, cocaine, heroin and morphine use (see Table 5.5).

Table 5.5: Illicit drug use in the past 6 hours by gender (PADIE II participants)

Drug type	Males % $n = 623$	Females % $n = 541$	Total % $n = 1164$
Any illicit drug	4.0	3.4	3.8
Cannabis	3.4	2.9	3.1
Amphetamine***	0.8	0.0	0.4
Ecstasy	0.3	0.4	0.4
Cocaine	0.0	0.0	0.0
Heroin	0.0	0.0	0.0
Methadone	0.2	0.2	0.2
Morphine	0.0	0.0	0.0
Benzodiazepines	0.5	0.7	0.6
Hallucinogens	0.1	0.0	0.1
Ketamine	0.0	0.0	0.0
GHB/Fantasy	0.2	0.0	0.1
Inhalants	0.0	0.0	0.0
Any other drug	0.2	0.0	0.1

Note: Percentages will not add up to 100 as some participants reported multiple use and some participants reported no use of illicit drugs in the 6 hours prior to arrival at the ED. There are missing ($n = 38-85$) data for each illicit drug category.

*** $p < .05$ (given the small sample size, caution should be taken interpreting these results).

Change over time

No gender comparison with PADIE I was undertaken given the small sample sizes.

Demographic factors — Age

As for the other timeframes examined, younger age significantly predicted illicit drug use within the past 6 hours ($p < .05$). Three-quarters of the participants who had used illicit drugs in the past 6 hours were under the age of 40 ($p < .05$); none were aged over 60 years. About 6 per cent of 20–29 year olds self-reported using an illicit drug in the past 6 hours, with about 4 per cent of 30–59 years olds also reporting use within this timeframe (see Appendix 5 and 11).

Change over time

It is difficult to draw any meaningful comparison between PADIE I and PADIE II participants (given the small sample size) other than to say that the majority of those who had used an illicit drug in the past 6 hours in both samples were younger than 40 years.

Demographic factors — Other

Analysis of other demographic factors was not undertaken given the small sample sizes. Statistics with small counts are likely to be subject to variability over time and should not be relied upon when generalising to the larger population.

Chapter summary

The findings in this chapter reveal that among PADIE II participants:

- 52.2% had tried an illicit drug
- 26.1% had used an illicit drug in the past 12 months
- 9.4% had used an illicit drug in the past 24 hours
- 3.7% had used an illicit drug within 6 hours of presenting to the ED.

Males were more likely than females to report lifetime use of illicit drugs, as well as use of drugs in the past 12 months, 24 hours and 6 hours. Younger participants (16–39 years old) were more likely to report lifetime and recent illicit drug use than older participants (40–79 years old). Full-time workers were as likely as participants receiving unemployment benefits to have ever used an illicit drug but less likely to have used an illicit drug recently or within 24 hours.

Overall, PADIE I and PADIE II participants had very similar profiles in relation to illicit drug use, no matter what timeframe was examined. Both samples reported higher levels of lifetime prevalence and recent illicit drug use than the general population. Notable differences between the two samples include:

- significantly higher level of **lifetime ecstasy use** reported by PADIE II participants
- significantly higher level of **lifetime cocaine use** reported by PADIE II participants
- significantly higher level of **recent ecstasy use** reported by PADIE II participants.

In other words, over time there appears to have been an increase in self-reported ecstasy use and cocaine use (although the proportion of users is still minimal), but no other changes were noted. No significant increases or decreases over time by gender were noted. Overall, there has been a decrease in illicit drug use by younger people over time.

PATTERNS OF ILLICIT DRUG USE

Individual patterns of illicit drug use can vary along several dimensions, including the frequency of use, age of initiation, polydrug use and injecting practices. Information about these dimensions is presented in this chapter.

Frequency of illicit drug use

Information on the frequency of illicit drug use by PADIE II participants in the past 12 months is reported in Table 6.1. The information is based on participants who had used a specific illicit drug in the past 12 months.⁴⁵ It is also possible that participants may have misinterpreted survey questions and admitted to the illicit use of methadone, morphine and benzodiazepine when in fact their use may have been licit (i.e. with a legitimate prescription).

Table 6.1: Frequency of illicit drug use in the past 12 months (PADIE II participants)

Drug type	More than once a day %	Every day %	About once a week %	About once a month %	Every few months %	Once or twice a year %	Total <i>n</i>
Cannabis	8.6	29.0	23.3	10.6	13.1	15.5	245
Amphetamine	1.0	5.7	18.1	18.1	22.9	34.3	105
Ecstasy	0.8	0.8	15.8	23.3	25.8	33.3	120
Cocaine	1.9	1.9	7.7	5.8	28.8	53.8	52
Heroin	0.0	23.1	15.4	15.4	15.4	30.8	13
Methadone	0.0	30.0	0.0	10.0	40.0	20.0	10
Morphine	0.0	27.3	18.2	27.3	18.2	9.1	11
Benzodiazepines	7.7	23.1	30.8	7.7	15.4	15.4	13
Hallucinogens	0.0	0.0	19.0	14.3	14.3	52.4	21
Ketamine	0.0	0.0	6.3	6.3	18.8	68.8	16
GHB/Fantasy	0.0	0.0	8.3	0.0	16.7	75.0	12
Inhalants	0.0	14.3	28.6	0.0	28.6	28.6	7
Any other drug	0.0	20.0	0.0	20.0	20.0	40.0	5

Note: Percentages are based on those who had used a specific illicit drug in the past 12 months.

Cannabis: the illicit drug most likely to be used daily or more frequently by PADIE II participants who had used it in the previous 12 months (37.6%, $n = 92$).

Amphetamine: 34.3 per cent ($n = 36$) of participants who self-reported amphetamine use in the past 12 months used only once or twice a year, 41.5 per cent ($n = 43$) used monthly or every few months, and 6.7 per cent ($n = 7$) used daily or more frequently (representing 0.5% of PADIE II participants).

45 Data reported in Table 6.1 are based on participants who indicated *recent* illicit drug use and *frequency* of illicit drug use). For example, 245 participants indicated frequency of cannabis use in the past 12 months. There are missing ($n = 34$) data from total participants who indicated recent cannabis use ($n = 279$).

Ecstasy: 15.8 per cent ($n = 19$) of participants who self-reported ecstasy use in the past 12 months reported weekly use, 49.1 per cent ($n = 50$) reported using every few months or monthly, and 33.3 per cent ($n = 40$) reported using only once or twice a year.

Cocaine: 82.6 per cent ($n = 33$) of all participants who had used cocaine in the past 12 months had only done so every few months or once or twice a year, 3.8 per cent ($n = 2$) reported daily or more frequent use, and 7.7 per cent ($n = 4$) reported weekly use.

Hallucinogens: 52.4 per cent ($n = 11$) of those who reported using hallucinogens in the past 12 months had used only once or twice.

GHB/Fantasy: 75.0 per cent ($n = 9$) of participants who reported using GHB/Fantasy in the past 12 months had done so only once or twice.

Benzodiazepines: 30.8 per cent ($n = 3$) of participants reported using benzodiazepines illicitly every day or more frequently in the past 12 months, and 30.8 per cent ($n = 4$) did so about once a week.

Overall, the majority of participants who reported using illicit drugs in the past 12 months reported monthly or less frequent use of each drug, except for cannabis and benzodiazepines. It is important to reiterate that some PADIE II participants may have inadvertently answered ‘yes’ to using benzodiazepines illicitly when in actual fact they may have been using them licitly (i.e. with a legitimate prescription).

Change over time

Direct comparison with the PADIE I sample cannot be undertaken due to differences in interview scales.⁴⁶ Thus, change over time in frequency of illicit drug use cannot be reported.

Initiation to illicit drug use

The following analyses are based on the sample of PADIE II participants who indicated their age of initiation to illicit drug use. An overview of the number of participants who reported their age of first use for each illicit drug (and missing data) is provided in Table 6.2.

Average age of initiation

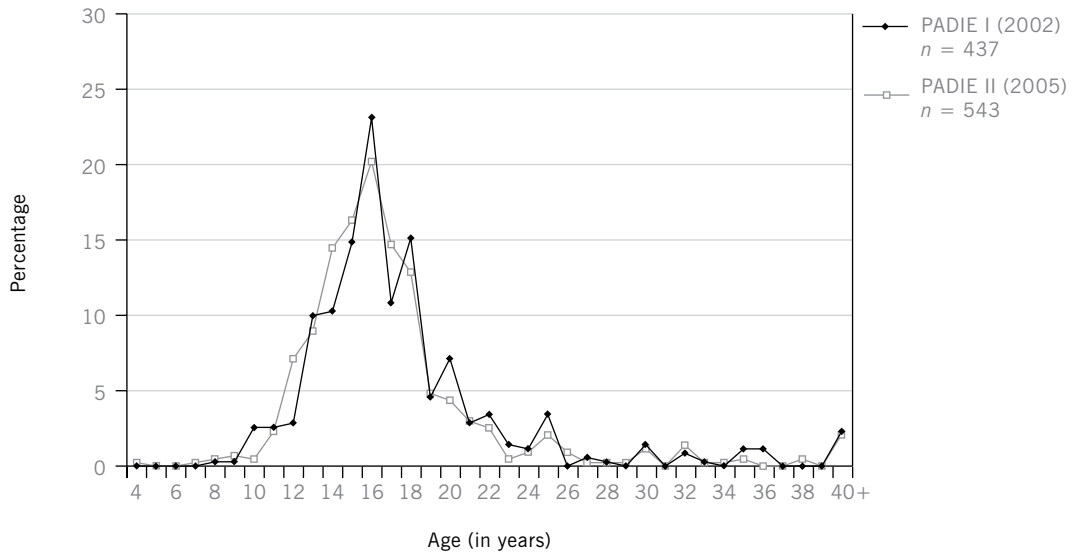
Initiation to illicit drug use for PADIE II participants was concentrated in the adolescent years (13–20 years), but ranged from 4 to 72 years (see Figure 6.1). The average age of initiation for the PADIE II sample was 20.0 years, similar to the general population estimate of 19.4 years (AIHW 2005a).

Change over time

The average age of initiation for participants in the PADIE I sample was younger at 17.8 years (range 8 to 63 years). Unlike PADIE II, the PADIE I average age of initiation does not include morphine, inhalant, benzodiazepine or hallucinogen use (see Table 6.2).

46 PADIE I participants were asked ‘How often and how much have you used?’ (nil use, about once a day, few times a month, few times a year). PADIE II participants were asked ‘Usual frequency last 12 months?’ (more than every day, every day, about once a week, about once a month, every few months, once or twice a year).

Figure 6.1: Age of initiation to illicit drug use (any drug) (PADIE I and PADIE II participants)



Age of initiation by illicit drug type

Approximately three-quarters of PADIE II participants who used cannabis, amphetamine, hallucinogens, inhalants and other drugs reported initiation during the adolescent years (13–20 years), similar to the PADIE I participants. About 60 per cent also reportedly first tried heroin, ecstasy and ketamine during this age period as well as 56 per cent of cocaine users. Half of participants were aged 13–20 years when they first tried morphine, methadone, benzodiazepines and GHB/Fantasy.

As shown in Table 6.2:

- the youngest average age of illicit drug initiation for PADIE II participants was for inhalants (16.5 years) followed by cannabis (17.2 years)
- the oldest average age of initiation was for illicit benzodiazepine use (23.4 years) followed by GHB/Fantasy (22.9 years) and methadone (22.5 years).

Table 6.2: Age of initiation for each illicit drug (PADIE I and PADIE II participants, general population)

Drug type	NDSHS 2004 ^a	PADIE I (2002)	PADIE II (2005)						
	Average age of initiation (years)	Average age of initiation (years)	Average age of initiation (years)	Min. age	Max. age ^b	5% trimmed mean (years)	SD	Sample size <i>n</i>	Missing data <i>n</i>
Cannabis	18.7	17.7	17.2	7	72	16.4	6.205	522	63
Amphetamine	20.8	20.1	19.0	12	40	18.6	4.569	214	29
Ecstasy	22.8	21.2	21.2	11	48	20.6	6.277	218	29
Cocaine	23.5	21.2	21.8	8	50	21.2	6.419	132	21
Heroin	21.2	20.7	20.2	12	40	19.7	5.421	56	7
Methadone ^c	24.8	28.0	22.5	12	53	21.6	8.994	26	7
Morphine ^c	+	+	22.5	12	71	21.2	10.538	34	6
Benzodiazepines ^c	25.2	+	23.4	13	57	22.4	8.636	48	8
Hallucinogens	19.5	+	18.2	8	37	18.0	4.004	126	23
Ketamine	23.7	21.4	20.7	15	34	20.3	4.893	31	5
GHB/Fantasy	23.7	23.5	22.9	14	48	22.3	6.895	44	4
Inhalants	18.6	+	16.5	10	24	16.4	3.450	35	8
Any other drug	+	17.3	17.3	4	25	17.6	5.294	12	4

+ NDSHS 2004 participants were not asked about their morphine use or other drug use; PADIE I participants were not asked about morphine, benzodiazepine, inhalant or hallucinogen use.

a NDSHS 2004 (AIHW 2005b) participants were aged 14 years and older (compared with PADIE I and PADIE II participants who were 16–79 years).

b For each maximum age presented in Table 6.2, only one count was noted (i.e. only one participant reported using cannabis for the first time at 72); 5% trimmed means are reported due to these extreme outliers.

c Relates to illicit use of methadone, morphine and benzodiazepines.

Comparison with the general population

Overall, PADIE II participants' initiation to each illicit drug occurred earlier than has been estimated for the general population (see NDSHS data in Table 6.2).

Change over time

The younger age at which people typically first tried illicit drugs was noted in the PADIE I study. The average ages of initiation to illicit drug use for the PADIE I and II samples are shown in Figure 6.2.

Compared with PADIE I participants, PADIE II participants, on average, self-reported younger ages of initiation to:

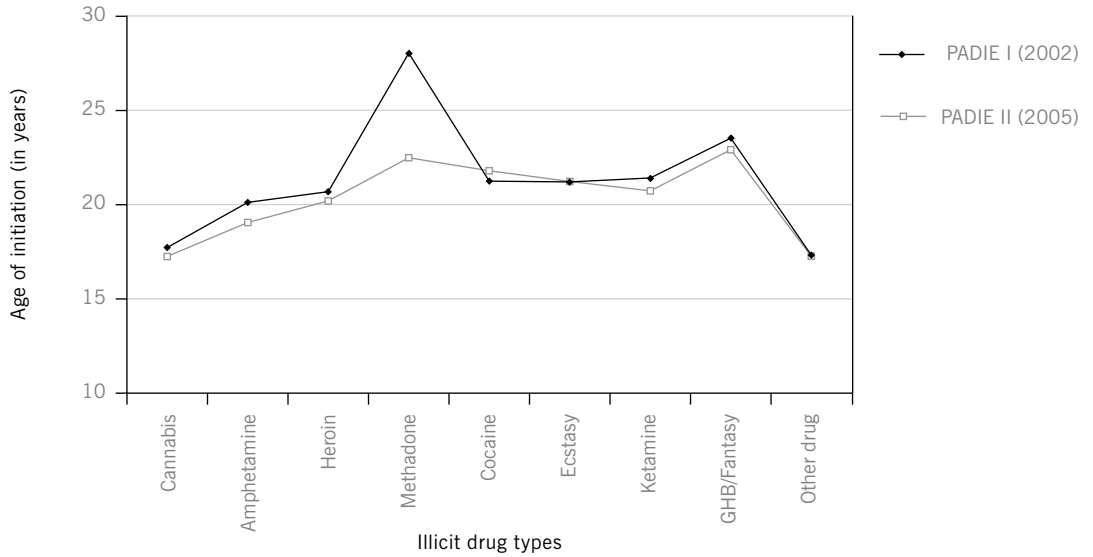
- cannabis
- amphetamine
- heroin
- methadone
- ketamine
- GHB/Fantasy.

Independent-samples t-tests were conducted to compare the age of initiation to individual illicit drugs among PADIE I and PADIE II participants. The analyses revealed only one small, but significant, difference:

- the average age for amphetamine initiation of PADIE II participants ($M = 19.0$ years, $SD = 4.569$, $p < .05$) was significantly younger than for PADIE I participants ($M = 20.1$ years, $SD = 5.656$, $p < .05$).⁴⁷

⁴⁷ $t(373) = 2.019$, $p = .044$, eta squared = .01 (small effect size).

Figure 6.2: Average age of initiation for each illicit drug (PADIE I and PADIE II participants)



Notes: Methadone figures relate to illicit use (see Table 6.2 for each sample size).

Data for morphine, benzodiazepine, hallucinogen and inhalant use are omitted as this information was not collected in PADIE I (2002).

Demographic factors — Gender

Information on the average age of initiation to different illicit drugs for male and female PADIE II participants is outlined in Table 6.3 and Figure 6.3. Independent-samples t-tests were conducted to compare the age of initiation for each illicit drug by gender. The only significant difference was for cannabis ($p < .05$), with male participants ($M = 16.8$ years, $SD = 4.874$) generally being younger at initiation than female participants ($M = 18.0$ years, $SD = 7.876$).⁴⁸

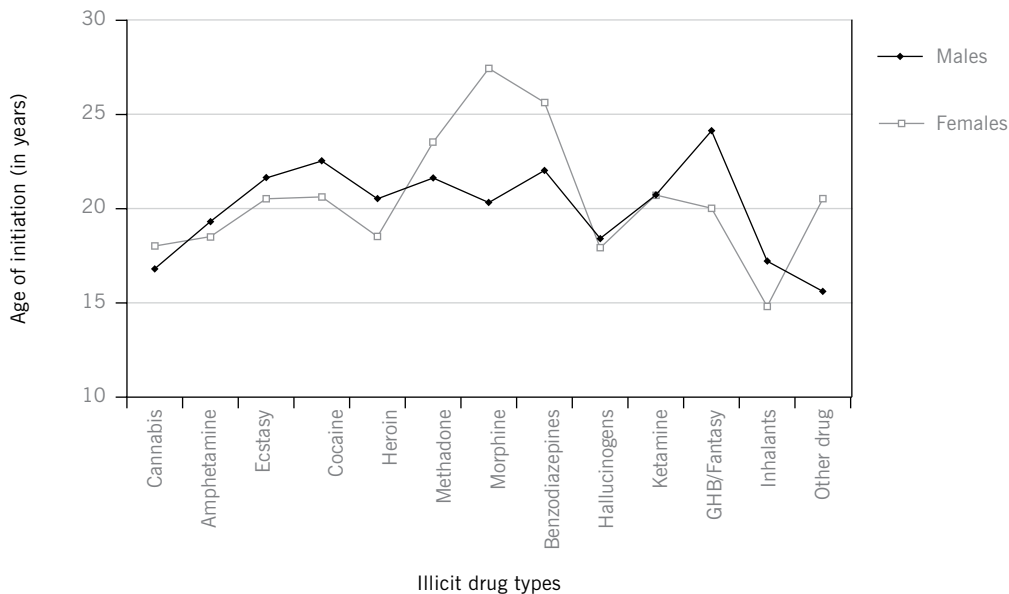
Table 6.3: Average age of initiation for each illicit drug by gender (PADIE II participants)

Drug type	Males		Females	
	<i>n</i>	Mean age (years)	<i>n</i>	Mean age (years)
Cannabis***	310	16.8	210	18.0
Amphetamine	142	19.3	71	18.5
Ecstasy	143	21.6	74	20.5
Cocaine	82	22.5	50	20.6
Heroin	43	20.5	12	18.5
Methadone	14	21.6	12	23.5
Morphine	23	20.3	10	27.4
Benzodiazepines	27	22.0	20	25.6
Hallucinogens	89	18.4	36	17.9
Ketamine	25	20.7	6	20.7
GHB/Fantasy	31	24.1	13	20.0
Inhalants	23	17.2	11	14.8
Any other drug	8	15.6	4	20.5

*** $p < .05$.

48 $t(518) = 2.137, p = .007, \eta^2 = .008$ (very small effect size).

Figure 6.3: Average age of initiation for each illicit drug by gender (PADIE II participants)



Note: Methadone, morphine and benzodiazepine figures relate to illicit use (see Table 6.2 for each sample size).

Number of illicit drugs ever tried and polydrug use

The number of illicit drugs ever tried by PADIE II participants is shown in Table 6.4. We consolidated participants' answers to each illicit drug, rather than asking them how many illicit drugs they had tried.⁴⁹ Of the participants who self-reported lifetime prevalence for various illicit drugs:

- 46.1% ($n = 279$) had only tried one type
- 33.9% ($n = 205$) had tried two to four illicit drugs
- 20.0% ($n = 121$) had tried five or more illicit drugs.

The majority of participants who had tried only one drug had tried cannabis (93.5%, $n = 261$).

PADIE II participants were also asked 'When you use alcohol or other drugs (including the illicit use of prescription drugs), how often do you use more than one substance at the same time?' Of those who responded ($n = 326$):

- 30.0% ($n = 98$) self-reported 'never' using an additional drug
- 18.4% ($n = 60$) self-reported 'hardly ever' using additional drugs
- 25.1% ($n = 82$) self-reported 'sometimes' using additional drugs
- 13.8% ($n = 45$) self-reported they used additional drugs 'most of the time'
- 12.6% ($n = 41$) 'always' used more than one drug.

⁴⁹ Drugs included in this analysis: cannabis, amphetamine, ecstasy, cocaine, heroin, methadone, morphine, benzodiazepines, hallucinogens, ketamine, GHB/Fantasy, inhalants and other. As an example, if a participant had used three drugs — cannabis, cocaine and amphetamine — this was categorised as 'two–four drugs'.

Demographic factors — Gender

As shown in Table 6.4, males tended to self-report having tried a greater number of different illicit drugs than females ($p < .01$). For example, 23.3 per cent ($n = 86$) of male participants had tried more than five illicit drugs compared with 14.8 per cent ($n = 35$) of female participants. More female than male participants (53.0%, $n = 125$ v 41.7%, $n = 154$, $p < .01$) reported trying only one drug (cannabis was the most frequently reported).

Table 6.4: Number of illicit drugs ever tried by gender (PADIE II participants)

Number of illicit drugs	Males	Females	Total **
	% $n = 369$	% $n = 236$	% $n = 605$
One drug	41.7	53.0	46.1
Two–four drugs	35.0	32.2	33.9
Five or more drugs	23.3	14.8	20.0

Note: Missing ($n = 2$) data from total sample.

** $p < .01$.

Demographic factors — Age

The relationship between PADIE II participants' current age and the number of illicit drugs they had ever used was also explored (see Table 6.5). Participants under the age of 40 years were significantly more likely to have tried a greater number of illicit drugs than those aged 40–79 ($p < .001$). For example:

- 40.4% ($n = 184$) of participants aged 16–39 years who had reported lifetime prevalence of illicit drug use had only ever used one type of drug compared with 63.6% ($n = 96$) of participants aged over 40.
- 37.8% ($n = 172$) of participants under the age of 40 who had reported lifetime prevalence of illicit drug use had used two to four drugs compared with 21.9% ($n = 33$) of participants aged over 40.
- 21.8% ($n = 99$) of participants under the age of 40 who had reported lifetime prevalence of illicit drug use had used five or more drugs compared with 14.6% ($n = 22$) of participants aged over 40.

Table 6.5: Number of illicit drugs ever tried by age at interview (PADIE II participants)

Number of illicit drugs	16–39 years	40–79 years	Total *
	% $n = 455$	% $n = 151$	% $n = 606$
One drug	40.4	63.6	46.1
Two–four drugs	37.8	21.9	33.8
Five or more drugs	21.8	14.6	20.1

Note: Missing ($n = 1$) data from lifetime prevalence of illicit drug use sample; due to rounding, percentages may not add up to 100.

* $p < .001$.

Age of initiation

We also examined the relationship between age of initiation to illicit drug use and the number of drugs ever tried (see Table 6.6). Participants who first tried an illicit drug before the age of 18 were more likely to have tried a greater number of drugs than those who first tried an illicit drug when aged 18 or older ($p < .001$). For example 26.5 per cent ($n = 99$) of participants who were 17 or younger when they first used an illicit drug self-reported use of five or more different drugs compared with 7.1 per cent ($n = 12$) of those aged 18 or older at the time of initiation ($p < .001$).

Table 6.6: Number of illicit drugs ever tried by age of initiation (PADIE II participants)

Number of illicit drugs	Under 18 when first used (1–17 years) % <i>n</i> = 374	18 or over when first used (18–79 years) % <i>n</i> = 168	Total * %
One drug	36.4	66.7	45.8
Two–four drugs	37.2	26.2	33.8
Five or more drugs	26.5	7.1	20.5

Note: Missing (*n* = 65) data from lifetime prevalence of illicit drug use sample; due to rounding, percentages may not add up to 100.

* *p* < .001.

Injecting illicit drugs

Prevalence

In 2007 it was estimated that 1.9 per cent of Australia's population had injected illicit drugs at some point in their life, with 0.4 per cent having injected recently (AIHW 2008). The proportion of PADIE II participants who self-reported injecting an illicit drug at least once in their lifetime was slightly higher — 3.6 per cent (*n* = 43). This equates to 7 per cent of PADIE II participants who indicated lifetime prevalence of illicit drug use and 14.2 per cent of PADIE II participants who had used an illicit drug in the past 12 months.

Change over time

No significant change over time was noted when comparing lifetime prevalence of injecting behaviour (4.8% of total PADIE I sample, *n* = 39).

Types of drugs injected

Information on the number of PADIE II participants indicating lifetime prevalence of illicit drug injecting as well as recent injecting is presented in Table 6.7.

The four drugs most likely to have been injected by PADIE II participants were:

- amphetamine (*n* = 31)
- heroin (*n* = 21)
- morphine (*n* = 14)
- methadone (*n* = 8).

Table 6.7: Lifetime and recent illicit injecting by type of drug and gender (PADIE II participants)

Drug type	Ever injected			% within lifetime prevalence for each drug	% within total PADIE II sample	Injected in last 12 months ^a <i>n</i>	% within recent use for each drug
	Male ^a <i>n</i> = 33	Female ^a <i>n</i> = 10	Total ^{***} <i>n</i> = 43				
Amphetamine	23	8	31	12.8	2.6	9	7.8
Ecstasy	6	1	7	2.8	0.6	1	7.4
Cocaine	5	1	6	3.9	0.5	1	1.7
Heroin	17	4	21	33.3	1.7	6	54.5
Methadone	6	2	8	24.2	0.7	2	16.7
Morphine	10	4	14	35.0	1.2	3	18.8
Benzodiazepines	0	1	1	1.8	0.1	0	0.0
Hallucinogens	2	1	3	2.0	0.2	0	0.0
Ketamine	1	0	1	2.8	0.1	1	5.9
GHB/Fantasy	2	0	2	4.2	0.2	1	9.1
Any other drug	4	0	4	25.0	0.3	2	28.6

^a Because of the low counts, numbers are provided instead of percentages.

*** $p < .05$: caution must be exercised when interpreting this table given the very low counts.

Among participants who had ever used heroin, 33.3 per cent ($n = 21$) had injected. However, more than half (54.5%) of recent heroin users had injected. Among participants who had used morphine at some stage in their life, 35.0 per cent ($n = 14$) had injected the drug. Three (18.8%) of the 16 participants who self-reported recent morphine use reported injecting the drug. And 12.8 per cent ($n = 31$) of PADIE II participants who had used amphetamine at some point in their life had also injected the drug.

Demographic factors — Gender

More males ($n = 33$) than females ($n = 10$) who had used illicit drugs reported injecting illicit drugs at some stage in their lives (8.9% v 4.2%, $p < .05$) and this was the case for each drug type, except benzodiazepines. For example, 74.2 per cent ($n = 23$) of participants who had injected amphetamine and 81.0 per cent of participants who had injected heroin ($n = 8$) were male.

These results reflect the general population estimates, which show that males are more likely to inject illicit drugs than females (2.4% v 1.4%) (AIHW 2005b).

Demographic factors — Age

The relationship between age and lifetime prevalence of injecting any drug was explored. For these analyses, age was dichotomised into 16–39 years and 40–79 years. About 7 per cent (7.3%, $n = 33$) of participants aged under 40 had injected an illicit drug compared with 6.6 per cent ($n = 10$) aged 40–79 years. No significant relationship between age and injecting behaviour was identified.

Chapter summary

This chapter has provided an in-depth analysis of the patterns of illicit drug use by ED participants.

Among PADIE I and PADIE II participants, cannabis was the drug most frequently used on a daily basis. More than one-third of PADIE II participants who reported using cannabis in the past 12 months, or 7.6 per cent of all PADIE II participants, used cannabis daily or more frequently. More than half of all recent amphetamine users self-reported using only every few months or once or twice a year. About 7 per cent of recent amphetamine users, or less than 0.5 per cent of the total PADIE II participants, used daily or more often.

The average age of initiation to illicit drug use was 20.0 years (range 4–72 years), similar to the general population estimate of 19.4 years. Initiation to most drugs generally occurred during the teenage years or in early adulthood.

Participants who first tried an illicit drug before the age of 18 were more likely to have tried a greater number of drugs than those who first tried an illicit drug when aged 18 or older.

Almost half of PADIE II participants had only tried one illicit drug, one-third had tried two to four different illicit drugs, and one-fifth had used more than five illicit drugs in their lifetime. Males were more likely to report using a greater number of drugs than females.

Fewer than 4 per cent of the total sample had injected an illicit drug at some point in their life, a similar finding to the PADIE I sample. Both samples of ED patients self-reported higher levels of injecting behaviour than general population estimates. The four illicit drugs most likely to have been injected by PADIE II participants were amphetamine, heroin, morphine and methadone. More males reported this behaviour.

PATTERNS OF RISKY BEHAVIOUR

This chapter presents information about the prevalence of driving under the influence of alcohol or drugs, arrest and prison history, physical violence resulting from alcohol and drug use, other criminal activity and self-reported victimisation. Participants' perceived problems in the past six months relating to alcohol and/or drug use are also explored.

Driving under the influence of alcohol and drugs

It is estimated that 13.4 per cent of the general Australian population have driven under the influence of alcohol in the past 12 months, four times more than the estimate of those driving under the influence of illicit drugs (3.3%, AIHW 2005d).⁵⁰

PADIE II participants were asked about their driving history (i.e. 'Have you driven a vehicle in the last 12 months?'), whether they had driven under the influence of alcohol or illicit drugs in the same time period and the frequency of this high-risk behaviour. Three-quarters of interviewed PADIE II participants (77.7%, $n = 867$) had driven a vehicle in the past 12 months (we refer to them as 'recent drivers'), equating to 84.2 per cent ($n = 511$) of male and 70.0 per cent ($n = 354$) of female participants.⁵¹

Participants were not asked if they drove under the influence of both alcohol and illicit drugs on the same occasion, or whether they had driven under the influence of a combination of illicit drugs.⁵²

The results reported below reflect their responses to separate questions about drink driving and drug driving.

Drink driving

Prevalence and frequency

One-fifth (20.6%, $n = 179$) of recent drivers self-reported drink driving during the past 12 months. This equates to 14.9 per cent of all interviewed PADIE II participants, slightly higher than the general population estimate of 13.4 per cent (AIHW 2005d). Table 7.1 shows the self-reported frequency of drink driving by PADIE II participants.

50 NDSHS 2004 participants were aged 14 years and older (AIHW 2005d).

51 1115 participants answered 'yes/no' to driving history ($n = 87$ missing data). Missing ($n = 89$) data for gender/recent driver analysis.

52 7.4% ($n = 65$) of PADIE II reported both drink *and* drug driving in separate responses to questions about drink and drug driving.

Table 7.1: Frequency of driving under the influence of alcohol (PADIE II participants)

Frequency	Recent drink drivers	Recent drivers
	(driven under the influence of alcohol in the past 12 months)	(driven a vehicle in the past 12 months)
	%	%
	<i>n</i> = 176	<i>n</i> = 867
Every day/nearly every day	5.2	1.0
About once a week	15.0	3.0
About once a month	13.2	2.7
About once every few months	30.0	6.0
Once only	36.4	7.3
Total	100.0	20.3 ^a

Note: Due to rounding, percentages may not add up to 100.

a Differences in percentages are due to missing (*n* = 3) data.

Distance driven

The majority of recent drink drivers suggested that they only drove a short distance (73.9%, *n* = 130), rather than a moderate (15.3%, *n* = 27) or long (9.7%, *n* = 17) distance the last time they drove while under the influence.⁵³

AUDIT scores

Nearly 80 per cent (78.2%, *n* = 140) of recent drink drivers scored 8 or above on the AUDIT (indicating at-risk drinking behaviour), compared with 26.7 per cent (*n* = 181) of recent drivers who had not driven under the influence of alcohol (*p* < .001).

Accidents and injuries

Almost 40 per cent (38.4%, *n* = 68) of recent drink drivers recalled at least one other passenger being in the vehicle the last time they drove under the influence of alcohol. Five per cent (*n* = 10) of recent drink drivers reported an accident arising while under the influence of alcohol, with half reporting a death or injury (*n* = 5).

Drug driving

Prevalence and frequency

Twelve per cent (11.9%, *n* = 103) of recent drivers admitted to driving under the influence of drugs in the past 12 months. This equates to 8.6 per cent of interviewed PADIE II participants, which is much higher than the general population estimate of 3.3 per cent (AIHW 2005d). Table 7.2 shows the frequency of drug driving by PADIE II participants.

53 'Short,' 'moderate' and 'long' distance categories were not defined by kilometres/miles. Two participants (1.1%) could not recall the distance they drove the last time they were drink driving. These findings should be interpreted with caution given the subjective nature of these categories.

Table 7.2: Frequency of driving under the influence of drugs (PADIE II participants)

Frequency	Recent drug drivers (driven under the influence of drugs in the past 12 months)	Recent drivers (driven a vehicle in the past 12 months)
	% <i>n</i> = 103	% <i>n</i> = 867
Every day/nearly every day	25.2	3.0
About once a week	26.2	3.1
About once a month	16.5	2.0
About once every few months	16.5	2.0
Once only	15.5	1.8
Total	100.0	11.9

Note: Due to rounding, percentages may not add up to 100.

Among recent drug drivers:

- 25.2% (*n* = 26) reported driving every day or nearly every day under the influence of a drug
- 26.2% (*n* = 27) reported driving under the influence about once a week
- 15.5% (*n* = 16) reported only one instance in the past 12 months
- 6.1% (*n* = 53) drove weekly or nearly daily under the influence of a drug.

Types of drugs used

The illicit drugs most likely to have been used within two hours of driving a vehicle were:

- cannabis (*n* = 82)
- amphetamine (*n* = 18)
- ecstasy (*n* = 17)
- cocaine (*n* = 5).

Distance driven

Thirty per cent of recent drug drivers (30.4%, *n* = 31) reported driving a long distance the last time they drove under the influence of drugs, three times more than drink drivers who self-reported driving a long distance (9.7%, *n* = 17) under the influence of alcohol. The majority of drug drivers self-reported moderate (22.5%, *n* = 23) or short distances (46.1%, *n* = 47) on the last occasion of drug driving.⁵⁴

Accidents and injuries

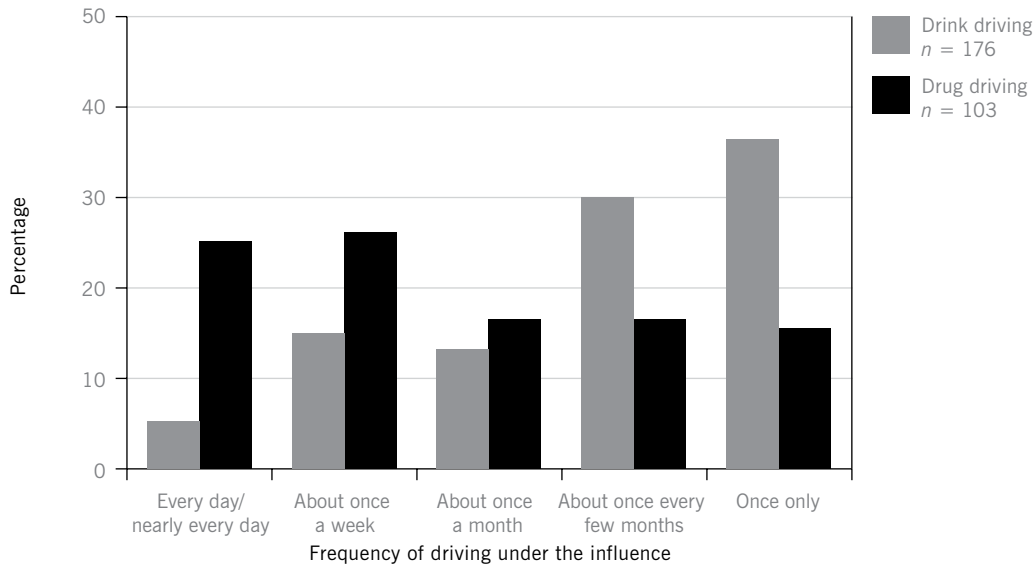
About 55 per cent of recent drug drivers (54.3%, *n* = 56) recalled at least one other passenger being in the vehicle the last time they were driving under the influence of drugs. Overall, 6.7 per cent of the drug driving sample (*n* = 7) reported an accident arising from their drug driving experience, with four reports of persons requiring hospitalisation.

Comparison of drink and drug driving

Figure 7.1 shows the proportion of PADIE II participants driving under the influence of alcohol and illicit drugs (based on 176 drink drivers and 103 drug drivers only). More PADIE II participants self-reported drink driving than drug driving; however, recent drug drivers were more likely to report driving every day or weekly under the influence of illicit drugs than recent drink drivers.

54 Again, 'short,' 'moderate' and 'long' distance categories were not defined by kilometres/miles. One participant (1.0%) could not recall the distance they drove the last time they were drug driving. These findings should be interpreted with caution given the subjective nature of these categories.

Figure 7.1: Frequency of driving under the influence of alcohol or drugs in the past 12 months (PADIE II recent drink drivers and recent drug drivers only)



Note: Missing ($n = 3$) data from drink driving sample.

Demographic characteristics of drink drivers and drug drivers

Gender

Significantly more male drivers (23.6%, $n = 119$) than female drivers (17.1%, $n = 60$) reported recent drink driving behaviour ($p < .05$).

Significantly more male drivers (15.3%, $n = 78$) than female drivers (6.8%, $n = 24$) reported recent drug driving behaviour ($p < .001$).

Age

Table 7.3 outlines the proportion of recent drivers who had driven under the influence of alcohol or drugs in the past 12 months by age. Younger age significantly predicted drink driving and drug driving behaviour ($p < .001$):

- 31.7% ($n = 19$) of recent 16–19 year old drivers self-reported drink driving in the past 12 months and 23.2% ($n = 13$) self-reported drug driving in the past 12 months
- 30.0% ($n = 77$) of recent 20–29 year old drivers self-reported drink driving in the past 12 months and 18.9% ($n = 49$) self-reported drug driving in the past 12 months
- 20.7% ($n = 42$) of recent 30–39 year old drivers self-reported drink driving in the past 12 months and 10.7% ($n = 14$) self-reported drug driving in the past 12 months
- 7.0% ($n = 8$) of recent 60–79 year old drivers self-reported drink driving in the past 12 months, and none self-reported drug driving in the past 12 months.

Table 7.3: Proportion of recent drivers who had driven under the influence of alcohol or drugs in the past 12 months by age (PADIE II participants)

	Age-group						Recent drivers %
	16–19 % <i>n</i> = 60	20–29 % <i>n</i> = 257	30–39 % <i>n</i> = 203	40–49 % <i>n</i> = 132	50–59 % <i>n</i> = 88	60–79 % <i>n</i> = 114	
Drink driving*	31.7	30.0	20.7	18.9	9.1	7.0	21.0
Drug driving*	23.2	18.9	10.7	10.5	4.3	0.0	11.8

Note: Missing data from total drink driving sample (*n* = 13) and total drug driving sample (*n* = 3).

* *p* < .001.

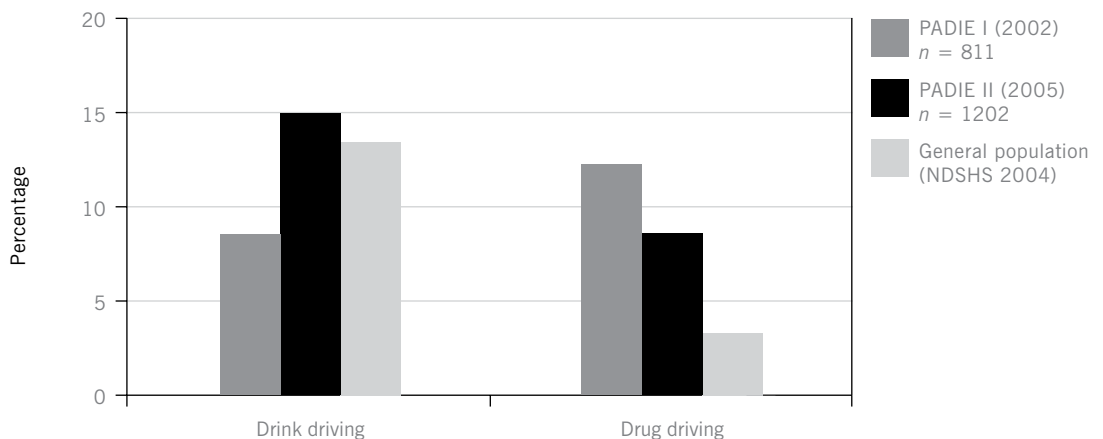
Change over time

The prevalence of driving under the influence of alcohol or drugs among PADIE I and PADIE II participants is shown in Figure 7.2. In the PADIE I study, participants were not asked whether they had driven a vehicle in the past 12 months nor about their frequency of drink driving or drug driving behaviour. (Thus, no comparison can be made to these PADIE II responses.) PADIE I participants were only asked ‘In the last year, have you driven a car or a motorbike within two hours of using drugs/having [6 for males, 4 for females] standard drinks of alcohol?’ Because of this, Figure 7.2 is based on percentages of total participants from PADIE I (*n* = 811) and PADIE II (*n* = 1202), rather than from a sample of recent drivers. The general population estimates from the NDSHS 2004 survey (AIHW 2005b) are also provided. The analysis reveals that:

- PADIE II participants (14.9%, *n* = 179) reported a higher incidence of drink driving than PADIE I participants (8.5%, *n* = 69, *p* < .001)
- PADIE II participants (8.6%, *n* = 103) reported a lower incidence of driving under the influence of drugs than PADIE I participants (12.2%, *n* = 99, *p* < .01).

It appears that both samples report higher incidences of drug driving behaviour than has been estimated for the general population. Only PADIE II participants reported a slightly higher incidence of drink driving than has been estimated for the general population.

Figure 7.2: Proportion driving under the influence of alcohol or drugs in the past 12 months (PADIE I and PADIE II participants, general population)



PADIE II participants self-reported a **higher** incidence of drink driving than PADIE I participants (*p* < .001).
 PADIE II participants self-reported a **lower** incidence of drug driving than PADIE I participants (*p* < .01).

Self-reported criminal activity

PADIE II participants were asked about their experiences of criminal activity. The questions we asked related to participants' arrest history, whether they had been to prison (and if so, whether they had used drugs in prison), whether they had sold or given anyone else drugs, and whether they had been physically violent to someone because of their alcohol or drug use.

PADIE I used similar questions, but only participants who self-reported recent illicit drug use were asked to comment. In contrast *all* PADIE II participants had the option of commenting. For this reason, direct comparisons between PADIE I and PADIE II were not undertaken.

Arrest history

PADIE II participants were interviewed about their arrest history, either for drugs or for other criminal activity. This information is shown in Tables 7.4 and 7.5 in relation to gender and age, along with the corresponding sample sizes for each question.

Prevalence

Multiple analyses revealed that a small proportion (6.4%, $n = 72$) of PADIE II participants had been arrested for drug-related activity and that 14.2 per cent ($n = 144$) of participants had been arrested for criminal behaviour not involving drugs.

Demographic factors — Gender

Significantly more male participants than female participants had been arrested for both drug and non-drug related activity ($p < .001$):

- 9.9% ($n = 60$) of males had been arrested for drug involvement compared with 2.1% ($n = 11$) of female participants⁵⁵
- 20.4% ($n = 114$) of males had been arrested for other criminal activity compared with 6.6% ($n = 30$) of females.⁵⁶

Demographic factors — Age

The average age of first arrest for criminal behaviour involving drugs was 20.1 years ($SD = 2.652$). The average age of first arrest for criminal behaviour not related to drugs was 20.4 years ($SD = 2.123$). About 20 per cent (20.7%, $n = 55$) of participants aged 20–29 years self-reported a previous arrest for a crime other than drugs as did 17.6 per cent ($n = 27$) of participants aged 40–49 years (see Table 7.5).

Prison history

PADIE II participants were asked 'Have you ever been in prison?' Five per cent said that they had been (5.1%, $n = 51$), half more than once ($n = 26$). Twelve participants self-reported two separate instances of imprisonment and 14 participants self-reported 3–20 separate instances. Sixty per cent of those who had been in prison reported using drugs during incarceration (62.7%, $n = 32$).⁵⁷ Eight participants reported injecting drugs while in prison.

Demographic factors — Gender

More males (8.3%, $n = 46$) than females (1.1%, $n = 5$) reported a history of imprisonment.

55 Missing ($n = 82$) data: equates to 9.4% of total PADIE II male participants and 2.0% of total female PADIE II participants.

56 Missing ($n = 185$) data: equates to 17.8% of total PADIE II male participants and 5.4% of total female PADIE II participants.

57 Caution is required when interpreting this finding as PADIE II participants may have inadvertently answered 'yes' to using illicit drugs in prison when they may have intended to answer 'yes' to ever using illicit drugs.

Other criminal activity

PADIE II participants were asked additional questions about their involvement in criminal activity in the past 12 months. The responses are provided in Tables 7.4 and 7.5 and show that, among PADIE II participants:

- 7.8% ($n = 88$) self-reported having committed a property crime
- 7.1% ($n = 80$) self-reported they had sold, bought or traded stolen goods⁵⁸
- 14.2% ($n = 160$) self-reported they had given someone else illicit drugs in the past 12 months.

Further analysis of the data shows that:

- 57.7% ($n = 64$) of those who had used an illicit drug in the past 24 hours self-reported giving someone else illicit drugs; this was significantly higher than for participants who had not used an illicit drug in the past 24 hours (9.5%, $n = 97$, $p < .001$)
- 70.3% ($n = 102$) of those who disclosed that they had been physically violent as a result of their alcohol use had scored 8 or above on the AUDIT, indicating at-risk drinking ($p < .001$).

Demographic factors — Gender

Male participants self-reported higher levels of criminal activity than female participants (see Table 7.4):

- 10.7% ($n = 65$) of males self-reported involvement in the trade of stolen goods, significantly higher than females (2.9%, $n = 15$, $p < .001$)
- 10.4% ($n = 63$) of males self-reported selling illicit or prescription drugs for profit, significantly higher than females (3.7%, $n = 19$, $p < .001$)
- 17.6% ($n = 107$) of males self-reported having been physically violent towards someone because of their own alcohol use, significantly higher than females (7.3%, $n = 38$, $p < .001$)
- 19.4% ($n = 118$) of males self-reported giving someone else illicit drugs in the past 12 months, significantly higher than females (8.1%, $n = 42$, $p < .001$).

Table 7.4: Criminal activity in the past 12 months by gender (PADIE II participants)

Criminal activity	Males	Females	Total	
	% $n = 612$	% $n = 520$	%	n
Arrested for drug involvement*	9.9	2.1	6.3	1120
Arrested for criminal behaviour not involving drugs*	20.4	6.6	14.2	1017
Ever been to prison*	8.3	1.1	5.1	1005
Ever used illicit drugs in prison ^a	4.3	1.7	3.1	1039
Ever injected illicit drugs in prison ^a	1.1	0.4	0.8	1037
Ever given illicit drugs to another person*	19.4	8.1	14.2	1126
Ever given someone else illicit drugs to have sex with them	1.8	0.2	1.1	1118
Ever had sex to obtain illicit drugs	1.3	1.5	1.4	1127
Ever committed a property crime*	11.6	3.3	7.8	1132
Sold, bought or traded stolen goods*	10.7	2.9	7.1	1126
Sold illicit or prescription drugs for profit*	10.4	3.7	7.3	1123
Physically violent towards anyone because of own alcohol use*	17.6	7.3	12.9	1128
Physically violent towards anyone because of own illicit drug use	6.4	4.3	5.4	1122

Note: Due to rounding, percentages will not add up to 100 as some participants reported multiple or no experiences.

Missing ($n = 70$ –197) data.

^a Caution is required when interpreting this finding as PADIE II participants may have inadvertently answered ‘yes’ to using illicit drugs in prison when they may have intended to answer ‘yes’ to ever using illicit drugs.

* $p < .001$, ** $p < .01$.

58 Missing data from ‘property crime’ sample ($n = 68$) and from ‘stolen goods’ sample ($n = 74$).

Demographic factors — Age

Age was dichotomised (16–39 years and 40–79 years) to determine whether there were any significant relationships with other criminal activities. Younger age was predictive of the following self-reported criminal activities:

- selling illicit or prescription drugs for profit ($p < .001$)
- committing a property crime ($p < .001$)
- selling, buying or trading in stolen goods ($p < .001$)
- being physically violent towards someone due to alcohol use and/or drug use ($p < .001$).

PADIE II participants aged 16–39 years reported higher incidences of these criminal activities than older participants in the past 12 months. Of interest:

- 20.9% ($n = 23$) of participants aged 16–19 years and 26.2% ($n = 79$) of 20–29 year olds had given illicit drugs to another person ($p < .001$)
- 20.7% ($n = 23$) of 16–19 year olds reported that they had been physically violent towards another person because of their alcohol use, twice the proportion of 40–49 year olds (10.1%, $n = 17$).

Table 7.5: Criminal activity in the past 12 months by age (PADIE II participants)

Criminal activity	Age-group						Total %
	16–19 %	20–29 %	30–39 %	40–49 %	50–59 %	60–79 %	
Arrested for drug involvement*	4.5	11.1	6.5	7.8	5.1	0.0	6.4
Arrested for criminal behaviour not involving drugs*	15.7	20.7	15.1	17.6	11.2	1.6	14.2
Ever been to prison	1.0	7.6	4.5	8.4	6.7	0.6	5.1
Ever used illicit drugs in prison**	2.0	5.2	2.4	5.6	0.9	0.5	3.1
Ever injected illicit drugs in prison***	0.0	0.4	0.9	2.5	0.9	0.0	0.8
Ever given illicit drugs to another person*	20.9	26.2	15.0	10.7	4.3	0.5	14.3
Ever given someone else illicit drugs to have sex with them	0.9	1.7	1.3	1.2	0.9	0.0	1.1
Sold illicit or prescription drugs for profit*	13.5	14.1	6.0	4.8	2.6	0.0	7.3
Ever had sex to obtain illicit drugs	2.7	1.3	1.7	1.8	1.7	0.0	1.4
Ever committed a property crime*	13.4	14.0	5.2	7.1	5.0	0.5	7.8
Sold, bought or traded stolen goods*	8.9	14.1	5.6	6.0	4.2	0.0	7.1
Physically violent towards anyone because of own alcohol use*	20.7	17.3	15.5	10.1	11.8	1.5	12.9
Physically violent towards anyone because of own illicit drug use*	13.5	7.7	4.8	6.0	0.9	0.5	5.4

Note: Due to rounding, percentages will not add up to 100 as some participants reported multiple or no experiences. Missing data from each age-group category ($n = 0–143$).

* $p < .001$, ** $p < .01$, *** $p < .05$

Overall, gender and age were predictive of various criminal activities in the PADIE II sample; males and younger participants self-reported higher incidences than females and older participants.

Self-reported victimisation

PADIE II participants were asked whether they had ever been physically assaulted and whether they had ever experienced drink spiking. PADIE I participants were not asked about their experiences of physical assault. However, PADIE I participants were asked about drink spiking; thus, possible changes over time were examined. This information is reported in Tables 7.6 and 7.7.

Physical assault

PADIE II participants were asked 'Have you ever been physically assaulted due to somebody else's alcohol use/illicit drug use?'; 30.6 per cent ($n = 348$) self-reported being assaulted due to somebody's alcohol use and 19.8 per cent ($n = 224$) self-reported being assaulted due to somebody else's drug use.

Demographic factors — Gender

Significantly more male PADIE II participants (37.8%, $n = 232$) than female PADIE II participants (22.0%, $n = 115$) reported that they had been physically assaulted due to somebody else's alcohol use ($p < .001$) and drug use (males: 24.3%, $n = 148$ v females: 14.4%, $n = 75$, $p < .001$).

Demographic factors — Age

Age was also dichotomised for these analyses (16–39 years and 40–79 years). Younger age was predictive of being physically assaulted due to someone else's alcohol use ($p < .001$) or drug use ($p < .001$). For example, 40.5 per cent ($n = 123$) of 20–29 year olds self-reported being physically assaulted due to someone else's alcohol use compared with 9.7 per cent ($n = 19$) of 60–79 year olds ($p < .001$).

Demographic factors — Marital status

Single participants reported a higher incidence of assault due to somebody else's alcohol use ($p < .001$) and drug use ($p < .001$) than those who were either married, de facto, separated, divorced or widowed (non-single):

- 37.4% ($n = 179$) of single participants reported an incidence of assault due to someone else's alcohol use compared with 25.6% ($n = 168$) of non-single participants ($p < .001$)
- 27.5% ($n = 131$) of single participants reported an incidence of assault due to someone else's drug use compared with 14.2% ($n = 93$) of non-single participants ($p < .001$).

Drink spiking

PADIE II participants were asked 'Have you ever had your drink spiked with an unknown substance?' Just under 10 per cent (9.8%, $n = 111$) of PADIE II participants indicated that they had experienced drink spiking.

Demographic factors — Gender

No significant gender differences were noted, with 8.4 per cent ($n = 52$) of males and 11.3 per cent ($n = 59$) of females indicating they had had their drink spiked.

Demographic factors — Age

Age differences were noted: 13.0 per cent ($n = 85$) of participants aged 16–39 reported being a victim of drink spiking compared with 5.4 per cent ($n = 26$) of 40–79 year olds ($p < .001$). The highest incidence of drink spiking victimisation was in the 20–29 year old age-group (17.6%, $n = 54$).

Table 7.6: Victimisation in the past 12 months by gender (PADIE II participants)

Victimisation	Males	Females	Total
	% <i>n</i> = 616	% <i>n</i> = 522	% <i>n</i> = 1138
Physically assaulted due to somebody else's alcohol use*	37.8	22.0	30.6
Physically assaulted due to somebody else's illicit drug use*	24.3	14.4	19.8
Ever had drink spiked by unknown substance	8.4	11.3	9.8

Note: Missing (*n* = 64–70) data from total sample.

* *p* < .001.

Table 7.7: Victimisation in the past 12 months by age (PADIE II participants)

Victimisation	Age-group						Total %
	16–19 % <i>n</i> = 113	20–29 % <i>n</i> = 307	30–39 % <i>n</i> = 235	40–49 % <i>n</i> = 169	50–59 % <i>n</i> = 119	60–79 % <i>n</i> = 195	
Physically assaulted due to somebody else's alcohol use*	33.0	40.5	32.5	37.3	25.2	9.7	30.7
Physically assaulted due to somebody else's illicit drug use*	22.3	29.3	20.5	27.5	9.3	2.6	19.8
Ever had drink spiked by unknown substance*	9.7	17.6	8.5	9.5	5.1	2.1	9.8

Note: Missing (*n* = 66–72) data from total sample.

* *p* < .001.

Participants who were male, single or aged between 16–39 years self-reported a higher incidence of physical assault due to someone else's alcohol and drug use compared with participants who were female, non-single or aged between 40–79 years (*p* < .001).

Self-reported problems caused by alcohol and drugs

Participants were asked whether they had experienced any problems in the past six months as a result of their alcohol or drug use. This information was not collected in the PADIE I study, so no comparisons can be made. Specific domains were presented and the responses were explored (see Table 7.8). It is important to note that these responses may be an underestimate of any of the problems experienced by PADIE II participants, as participants may not have felt comfortable disclosing this information to the interviewers.

In the past six months, PADIE II participants reported the following problems as a result of their alcohol or drug use:

- 11.4% (*n* = 125) had experienced aggression or irritation problems
- 11.2% (*n* = 122) had experienced relationship problems
- 6.2% (*n* = 68) had experienced legal/police problems
- 6.0% (*n* = 65) had experienced financial problems
- 3.7% (*n* = 40) had experienced work or study problems.

PADIE II participants were asked ‘Overall, what is the substance that is causing you the most problems at the moment?’ The main substance named was alcohol ($n = 64$) followed by cannabis ($n = 29$) and amphetamine ($n = 8$).

Demographic factors — Gender

Male participants were significantly more likely than female participants to state that their alcohol or drug use in the past six months had caused:

- relationship or social problems (13.4%, $n = 79$ v 8.6%, $n = 43$, $p < .05$)
- legal/police problems (8.8%, $n = 52$ v 3.2%, $n = 16$, $p < .001$).

Table 7.8: Self-reported problems experienced in the past 6 months caused by a combination of alcohol and drugs by gender (PADIE II participants)

Self-reported problems	Males % $n = 592$	Females % $n = 501$	Total % $n = 1092$
Relationship/social ***	13.4	8.6	11.2
Financial	7.1	4.6	6.0
Legal/police *	8.8	3.2	6.2
Work/study	3.6	3.8	3.7
Aggression/Irritation/Combative	12.0	10.6	11.4

Note: Missing ($n = 110$ – 113) data from total sample.

* $p < .001$, *** $p < .05$.

Demographic factors — Age

Younger age significantly predicted all five problem categories ($p < .001$; age dichotomised as 16–39 years and 40–79 years). For example:

- younger participants reported a higher incidence of relationship problems than older participants (14.6%, $n = 91$ v 6.7%, $n = 31$, $p < .001$)
- younger participants reported a higher incidence of work/study problems than older participants (5.0%, $n = 31$ v 1.9%, $n = 9$, $p < .001$).

Demographic factors — Marital status

Single participants reported a higher incidence of problems in all five categories compared with married, de facto, separated, divorced and widowed participants combined ($p < .001$). For example:

- single participants reported a higher incidence of financial problems than non-single participants (10.2%, $n = 47$ v 2.7%, $n = 17$, $p < .001$)
- single participants reported a higher incidence of legal/police problems than non-single participants (8.3%, $n = 52$ v 3.5%, $n = 16$, $p < .001$)
- single participants reported a higher incidence of aggression/irritation problems than non-single participants (18.0%, $n = 83$ v 6.7%, $n = 42$, $p < .001$).

Participants who were male, single or aged between 16–39 years self-reported a higher incidence of problems caused by a combination of alcohol and drugs compared with participants who were female, non-single or aged between 40–79 years ($p < .001$). All problems were mainly attributed to alcohol.

Chapter summary

The findings in this chapter suggest that, among the PADIE II sample, the prevalence of drink driving and drug driving is high. Twenty per cent of recent drivers (14.9% of the total sample) had driven under the influence of alcohol and 11.9 per cent of recent drivers (8.5% of the total sample) had driven under the influence of a drug. PADIE II participants reported a higher incidence of drink driving than PADIE I participants ($p < .001$) whereas PADIE II participants reported a lower incidence of drug driving than PADIE I participants ($p < .01$). Recent drug drivers in the PADIE II sample drove more frequently under the influence than recent drink drivers.

A small proportion (6.4%) of the PADIE II participants had been arrested for drug-related activity and 14.2 per cent had been arrested for criminal activity not involving drugs. Five per cent of PADIE II participants had been imprisoned at some point in their life. Fourteen per cent disclosed that they had given someone else illicit drugs. Male participants reported higher incidences of criminal activities than female participants. Younger age also appears to predict involvement in criminal activity such as committing a property crime or selling illicit or prescription drugs for profit.

PADIE II participants claimed that alcohol and cannabis use were responsible for a number of personal problems they had experienced in the past six months. Males, single participants or those younger than 40 years self-reported a higher incidence of problems caused by a combination of alcohol and drugs compared with females, older participants and married, de facto, separated, divorced and widowed participants combined. Problems were mainly attributed to alcohol.

DISCUSSION

This research project was designed to gather data on the patterns of drug use and drug-related problems among people presenting at a hospital ED, and to gain a greater understanding of the potential health consequences of use. This report provides a comprehensive description of the characteristics of a sample of ED patients in terms of demographics, licit and illicit drug use, and drug/alcohol-related risky behaviours. In addition, the report describes changes over time between two samples of ED patients, and provides data that can be used to inform harm reduction strategies. Early intervention may play a critical role in minimising risk-taking behaviours of ED patients.

Overview of key findings

Profile of PADIE I and PADIE II participants

The demographic profiles of PADIE I and PADIE II participants were remarkably similar. The majority of participants from both samples were Australian residents, living on the Gold Coast, and without private health insurance. A small proportion of each sample identified as being Indigenous Australian. There were slightly more males than females and the average age of participants was 40 years.

Prevalence of licit drug use

PADIE II participants who presented for treatment for any reason (not specifically alcohol or drug-related) demonstrated higher levels of tobacco use and risky alcohol use than the general population.

The prevalence of tobacco smoking was much higher in both PADIE samples than estimated for the general population. Forty per cent of both ED samples were smokers, double the general population estimate.

The prevalence of self-reported at-risk drinking was high in both samples with 34.4 per cent of PADIE II participants and 29.0 per cent of PADIE I participants scoring 8 or above on the AUDIT. About 12 per cent (12.1%, $n = 31$) of PADIE II participants had drunk alcohol at levels described as 'risky' and 23.7 per cent ($n = 61$) had drunk alcohol at levels considered 'high-risk' prior to arrival at the ED.

Prevalence of illicit drug use

The self-reported illicit drug use of PADIE I and PADIE II participants indicates a higher level of use among ED patients than the general population. Overall, the PADIE I and PADIE II samples had very similar profiles in relation to illicit drug use.

Some of the key results from the PADIE II sample were as follows:

- 52.2% had tried an illicit drug
- 26.1% had used an illicit drug within 12 months
- 9.4% had used an illicit drug within the past 24 hours
- 3.7% self-reported using an illicit drug within 6 hours of presenting to the ED.

Changes over time

The demographic profiles of PADIE I and PADIE II participants were similar: no major changes over time were detected. No major differences in licit drug use were identified between the samples over time.

In contrast, we detected slight increases in self-reported use of some illicit substances over time. Compared with PADIE I participants, PADIE II participants self-reported:

- a significantly higher incidence of lifetime ecstasy use
- a significantly higher incidence of lifetime cocaine use
- a significantly higher incidence of recent ecstasy use.

We did detect a significant decrease in illicit drug use by younger people, with just over half of PADIE II participants aged 16–19 years (54.9%, $n = 117$) having tried an illicit drug compared with two-thirds of the PADIE I participants in the same age group (66.3%, $n = 55$).

Are the results a true reflection of ED presentations?

Not all of our study participants may have self-reported illicit drug use prior to arrival at the ED. There are two main reasons for us to assume that this might be the case.

First, not all patients feel comfortable disclosing their licit and illicit drug use to researchers. The accuracy and validity of self-reported data is very much dependent on participants' confidence in those conducting the interviews. Also, patients may not feel at ease verbally disclosing licit and illicit drug use to hospital staff.

Second, we excluded patients if they were too aggressive, too intoxicated or too sick to be interviewed. Because of this, there is a chance we may have excluded some ED patients who had used alcohol and illicit drugs in the 24 hours and 6 hours prior to arrival at the hospital. However, the number of patients excluded from our study for these reasons represents less than 5 per cent ($n = 85$) of the total number of patients who presented to the ED for treatment during the data collection period, and we believe the impact of these exclusions on our results to be minimal.

As previously stated, we have no way of assessing how truly representative the patients in the PADIE II studies are of patients in other hospitals throughout Queensland. Some patients may have sought treatment at nearby private hospitals, medical centres or general practitioners; we have no way of identifying how the demographic or licit/illicit substance use profiles of those patients might compare with the patients attending the Gold Coast Hospital.

Implications and future directions

Why are the PADIE studies important?

The PADIE I and PADIE II studies provide information about the prevalence and nature of licit and illicit drug use among two cross-sectional samples of ED patients. This source of information is unique and has not previously been accessed by researchers. The results presented in this report have important implications for both the health and the criminal justice systems. These are discussed below.

Opportunity for screening and prevention

Regarding health, our results highlight an ideal opportunity for screening and brief interventions for tobacco and alcohol use among ED patients. Given that a significant proportion of PADIE I and PADIE II participants consumed tobacco at levels greater than the general population, interventions that target ED patients may warrant investigation. Although brief interventions are not usually recommended for those drinking at dependence levels, they still provide an opportunity for identifying and referring patients to other relevant health professionals. Brief interventions which target at-risk drinkers who are not dependent could also be administered. The ED may represent the only point of contact these patients have with the health system, and therefore the only opportunity for screening and/or intervention. At a minimum, the PADIE I and PADIE II data support the use of the ED for administering screening instruments.

There is also the potential for criminal justice system intervention. Recent drink drivers in the PADIE II sample had much higher AUDIT scores (indicating at-risk drinking behaviour) than recent drivers who had not driven intoxicated. There may be an opportunity to screen for early intervention or treatment, using the AUDIT, police detainees or prison detainees (e.g. detainees arrested for drink or drug driving).

Opportunity to review staff resources and training

It seems that alcohol and drug use by ED patients places a disproportional burden on ED staff: alcohol and drug use among ED patients has been shown to be higher than the general population, and patients affected by illicit substances or excessive alcohol can be difficult, overly aggressive, combative or loud. These findings have implications for staff resources and drug and alcohol training for staff.

Opportunity for ongoing monitoring

Relying on routinely collected hospital-recorded data may not be the most appropriate method for obtaining estimates of licit or illicit drug use in the community. This may be due to coding issues (i.e. selecting the most appropriate ICD-10 code, and primary versus secondary diagnoses) or the unwillingness of patients to disclose such information to hospital staff. However, the participants interviewed for PADIE I and PADIE II have shown that ED patients are willing to participate in such studies with external researchers (about 80% response rate for both studies) and may be responsive to approaches made by hospital staff. Ongoing monitoring of drug-related presentation in EDs provides an additional population sample not often explored in drug research. Ongoing monitoring would assist in the planning of services provided by EDs.

Such population studies also provide rich information about the prevalence and patterns of licit and illicit drug use in the community. They extend our understanding beyond the prevalence rates reported for treatment centres, prisons or police watch-houses.

The trends observed in the PADIE studies are consistent with the population trends identified in the NDSHS. However, studies such as PADIE I and PADIE II are much less expensive to administer than the NDSHS. Also, the NDSHS may miss those who abuse or are dependent on drugs (as they may not respond to household surveys). Again, these people may be identified through studies such as PADIE I and PADIE II if they ultimately seek medical assistance.

Opportunity for expanding the PADIE studies

A statewide or nationwide monitoring system such as PADIE I and PADIE II in hospital EDs may help to:

- monitor the effectiveness of existing drug-related strategies: for example, interviewing ED patients about risky driving may provide opportunities to assess the recent introduction of roadside drug driving tests in Queensland
- guide the development of collaborative research with key stakeholders such as health and law enforcement agencies.

Opportunity for collaborative research

ED staff may be too busy to undertake research without the assistance of external collaborators. External researchers such as universities or alcohol and drug research centres may be able to undertake pertinent research in ED samples, filling the unintentional gaps left by understaffed, under-resourced EDs. Funding opportunities may exist for external collaborators and hospitals to engage in outcome-driven research. For example, licit and illicit drug use may not necessarily be causing a patient's ED visit, but it could provide a research opportunity to further investigate the ED-seeking health behaviour of patients who use these drugs. Questions such as whether patients are more or less likely to visit a general practitioner if they use illicit drugs or alcohol at risky levels may be worthy of examination.

Conclusion

In conclusion, we found high levels of licit drug use, such as tobacco and alcohol, among PADIE I and PADIE II patients. The results also illustrate the high levels of illicit drug use by patients in EDs compared with the general population. The results support the screening and ongoing monitoring of risky licit and illicit use in both health settings and the criminal justice system.

APPENDIXES

Appendix 1: Demographic profile of interviewed PADIE I (2002) and PADIE II (2005) participants

	PADIE I (2002) <i>n</i> = 812		PADIE II (2005) <i>n</i> = 1202	
	<i>n</i>	%	<i>n</i>	%
Gender	811		1199	
Male	452	55.7	641	53.5
Female	359	44.3	558	46.5
Indigenous status	809		1146	
Indigenous	22	2.7	21	1.8
Non-Indigenous	787	97.3	1125	98.2
Age (in years)	805		1197	
16–19	83	10.3	118	9.9
20–29	199	24.7	318	26.6
30–39	156	19.4	247	20.6
40–49	126	15.7	176	14.7
50–59	102	12.7	131	10.9
60–79	139	17.3	207	17.3
Average age ^a	40.1 years		39.6 years	
Marital status	810		1187	
Single/never married	334	41.2	499	42.0
Married	254	31.4	373	31.4
De facto	89	11.0	138	11.6
Separated (not divorced)	36	4.4	42	3.5
Divorced	73	9.0	93	7.8
Widowed	24	3.0	42	3.5
Highest level of education obtained ^b	809		1172	
None	+	+	7	0.6
Primary	75	9.3	83	7.1
Year 10 or equivalent	286	35.3	440	37.5
Year 12 or equivalent	162	20.0	317	27.0
TAFE Cert/Diploma	92	11.4	133	11.3
Trade Cert/Apprenticeship	66	8.1	86	7.3
University	88	10.9	106	9.0
Current student	41	5.1	+	+
Main source of income	809		1180	
Full-time work	296	36.6	489	41.4
Part-time work/casual work	139	17.2	176	14.9
Full-time student	+	+	61	5.2
Unemployment benefits	56	6.9	76	6.4
Disability benefits	64	7.9	83	7.0
Aged pension	101	12.5	147	12.5
Self-funded retiree	15	1.9	24	2.0
Home duties	51	6.3	70	5.9
Other	87	10.8	54	4.6

Weekly income (after tax) in the past 12 months ^c	755		1116	
Nil income	+	+	18	1.6
\$1 – \$199 per week	+	+	66	5.9
\$200 – \$599 per week	+	+	497	44.5
\$600 – \$999 per week	+	+	262	23.5
\$1000 – \$1499 per week	+	+	137	12.3
\$1500 + per week	+	+	122	10.9
Don't know	+	+	14	1.3
Private health insurance	811		1173	
Yes	108	13.3	183	15.6
No	703	86.7	990	84.4
Australian resident	809		1180	
Yes	769	95.1	1118	94.7
No	40	4.9	62	5.3
Gold Coast resident	811		1192	
Yes	715	88.2	1045	87.7
No	96	11.8	147	12.3

Note: Due to rounding, percentages may not add up to 100.

a An independent-samples t-test was conducted to compare the age of PADIE I and PADIE II participants. The average age of PADIE I participants ($M = 40.1$ years, $SD = 17.545$) and PADIE II participants ($M = 39.6$ years, $SD = 17.388$; $t(2000) = .588$, $p = .557$) did not differ significantly. The magnitude of the differences in the means was very small ($\eta^2 = .00017$).

b PADIE I recorded as 'incomplete high school'; PADIE I recorded as 'TAFE/Trade'.

c PADIE I total household income before tax in the past 12 months recorded as \$0–\$10 000 (15.5%, $n = 117$); \$10 001–\$30 000 (43.2%, $n = 350$); \$30 001–\$50 000 (22.8%, $n = 172$); \$50 001+ (15.4%, $n = 116$).

+ Participants not asked.

Appendix 2: Alcohol Use Disorders Identification Test (AUDIT) questions (subscales, domains and sample sizes)

AUDIT question	Sample size
SUBSCALE 1 Domain: Hazardous alcohol use	
Question 1: How often do you have a drink containing alcohol? <input type="checkbox"/> Never <input type="checkbox"/> Monthly or less <input type="checkbox"/> Weekly <input type="checkbox"/> 2 to 4 times per week <input type="checkbox"/> 5 or more times a week	(n = 1184)
Question 2: How many standard drinks do you usually consume when you are drinking? <input type="checkbox"/> 1 or 2 <input type="checkbox"/> 3 or 4 <input type="checkbox"/> 5 or 6 <input type="checkbox"/> 7 to 9 <input type="checkbox"/> 10 or more	(n = 1171)
Question 3: How often do you have six or more drinks on one occasion? <input type="checkbox"/> Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily	(n = 1178)
SUBSCALE 2 Domain: Dependence symptoms	
Question 4: How often during the last year have you found that you were not able to stop drinking once you had started? <input type="checkbox"/> Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily	(n = 1174)
Question 5: How often during the last year have you failed to do what was normally expected from you because of drinking? <input type="checkbox"/> Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily	(n = 1177)
Question 6: How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session? <input type="checkbox"/> Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily	(n = 1177)
SUBSCALE 3 Domain: Harmful alcohol use	
Question 7: How often during the last year have you had a feeling of guilt or remorse after drinking? <input type="checkbox"/> Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily	(n = 1175)
Question 8: How often during the last year have you been unable to remember what happened the night before you had been drinking? <input type="checkbox"/> Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily	(n = 1176)
Question 9: Have you or someone else been injured as a result of your drinking? <input type="checkbox"/> No <input type="checkbox"/> Yes, but not in the last year <input type="checkbox"/> Yes, during the last year	(n = 1173)
Question 10: Has a relative or friend or doctor or other health worker been concerned about your drinking or suggested you cut down? <input type="checkbox"/> No <input type="checkbox"/> Yes, but not in the last year <input type="checkbox"/> Yes, during the last year	(n = 1172)

Note: Missing (n = 18–31) data from each sample size.

Appendix 3: AUDIT responses by gender

Not able to stop drinking in the last year

Frequency	Males <i>n</i> = 632 %	Females <i>n</i> = 539 %	Total <i>n</i> = 1171 %
Never	82.9	86.6	84.6
Less than monthly	6.8	7.1	6.9
Monthly	3.8	2.6	3.2
Weekly	4.9	3.0	4.0
Daily or almost daily	1.6	0.7	1.2

Note: Missing (*n* = 31) data from total sample; due to rounding, not all percentages may add up to 100.

Failed to do normally expected things because of drinking in the last year

Frequency	Males % <i>n</i> = 632	Females % <i>n</i> = 542	Total % <i>n</i> = 1174
Never	84.8	88.7	86.6
Less than monthly	8.7	6.3	7.6
Monthly	3.5	2.4	3.0
Weekly	1.7	2.2	2.0
Daily or almost daily	1.3	0.4	0.9

Note: Missing (*n* = 28) data from total sample; due to rounding, not all percentages may add up to 100.

Needed a first drink in the morning to get going after a heavy drinking session in the last year

Frequency	Males % <i>n</i> = 632	Females % <i>n</i> = 542	Total % <i>n</i> = 1174
Never	94.3	95.2	94.7
Less than monthly	3.5	2.0	2.8
Monthly	0.9	1.1	1.0
Weekly	0.6	0.7	0.7
Daily or almost daily	0.6	0.9	0.8

Note: Missing (*n* = 28) data from total sample; due to rounding, not all percentages may add up to 100.

Feeling of guilt or remorse after drinking in the last year

Frequency	Males % <i>n</i> = 630	Females % <i>n</i> = 542	Total % <i>n</i> = 1172
Never	85.9	87.1	86.4
Less than monthly	9.2	6.8	8.1
Monthly	2.5	3.1	2.8
Weekly	1.7	1.3	1.5
Daily or almost daily	0.6	1.7	1.1

Note: Missing (*n* = 30) data from total sample; due to rounding, not all percentages may add up to 100.

Unable to remember what happened the night before because of drinking in the last year

Frequency	Males % <i>n</i> = 631	Females % <i>n</i> = 542	Total *** % <i>n</i> = 1173
Never	74.6	83.0	78.5
Less than monthly	18.2	11.4	15.1
Monthly	3.8	3.0	3.4
Weekly	2.5	2.2	2.4
Daily or almost daily	0.8	0.4	0.6

Note: Missing (*n* = 23) data from total sample; due to rounding, not all percentages may add up to 100.

*** *p* < .05.

Being injured or injured someone else as a result of drinking

Frequency	Males % <i>n</i> = 629	Females % <i>n</i> = 541	Total % <i>n</i> = 1170
No	84.1	87.8	85.8
Yes, but not in the last year	6.2	5.5	5.9
Yes, during the last year	9.7	6.7	8.3

Note: Missing (*n* = 32) data from total sample; due to rounding, not all percentages may add up to 100.

Relative, friend, doctor or health worker concerned about drinking/suggested to cut down

Frequency	Males % <i>n</i> = 628	Females % <i>n</i> = 541	Total *** % <i>n</i> = 1169
No	85.0	91.7	88.1
Yes, but not in the last year	4.6	2.8	3.8
Yes, during the last year	10.4	5.5	8.1

Note: Missing (*n* = 33) data from total sample; due to rounding, not all percentages may add up to 100.

*** *p* < .05.

Appendix 4: AUDIT responses by age-group

Not able to stop drinking in the last year

Frequency	Age-group						Total *
	16–19	20–29	30–39	40–49	50–59	60–79	
	%	%	%	%	%	%	%
	<i>n</i> = 118	<i>n</i> = 312	<i>n</i> = 242	<i>n</i> = 172	<i>n</i> = 125	<i>n</i> = 203	<i>n</i> = 1172
Never	9.1	24.2	20.4	14.5	11.5	99.5	84.5
Less than monthly	14.6	34.1	26.8	15.9	7.3	1.2	7.0
Monthly	21.1	47.4	21.1	7.9	2.6	0.0	3.3
Weekly	14.9	55.3	17.0	12.8	0.0	0.0	4.0
Daily or almost daily	7.1	7.1	14.3	50.0	21.4	0.0	1.2

Note: Missing (*n* = 33) data from total sample; due to rounding, not all percentages may add up to 100.

* *p* < .001.

Failed to do normally expected things because of drinking in the last year

Frequency	Age-group						Total *
	16–19	20–29	30–39	40–49	50–59	60–79	
	%	%	%	%	%	%	%
	<i>n</i> = 118	<i>n</i> = 312	<i>n</i> = 242	<i>n</i> = 172	<i>n</i> = 125	<i>n</i> = 203	<i>n</i> = 1172
Never	9.2	24.7	20.3	14.3	11.7	99.0	86.6
Less than monthly	13.5	43.8	27.0	12.4	3.4	0.0	7.6
Monthly	17.1	37.1	20.0	20.0	2.9	0.5	3.0
Weekly	26.1	34.8	17.4	21.7	0.0	0.0	2.0
Daily or almost daily	10.0	10.0	10.0	40.0	20.0	0.5	0.9

Note: Missing (*n* = 30) data from total sample; due to rounding, not all percentages may add up to 100.

* *p* < .001.

Needed a first drink in the morning to get going after a heavy drinking session in the last year

Frequency	Age-group						Total ***
	16–19	20–29	30–39	40–49	50–59	60–79	
	%	%	%	%	%	%	%
	<i>n</i> = 118	<i>n</i> = 312	<i>n</i> = 242	<i>n</i> = 172	<i>n</i> = 125	<i>n</i> = 203	<i>n</i> = 1172
Never	10.1	26.2	20.4	14.4	10.9	18.0	94.7
Less than monthly	12.1	45.5	30.3	6.1	3.0	3.3	2.8
Monthly	8.3	41.7	16.7	33.3	0.0	0.0	1.0
Weekly	12.5	12.5	12.5	50.0	12.5	0.0	0.8
Daily or almost daily	0.0	0.0	33.3	22.2	22.2	22.2	0.8

Note: Missing (*n* = 30) data from total sample; due to rounding, not all percentages may add up to 100.

*** *p* < .05.

Feeling of guilt or remorse after drinking in the last year

Frequency	Age-group						Total *
	16–19	20–29	30–39	40–49	50–59	60–79	
	%	%	%	%	%	%	%
	<i>n</i> = 118	<i>n</i> = 312	<i>n</i> = 242	<i>n</i> = 171	<i>n</i> = 125	<i>n</i> = 202	<i>n</i> = 1170
Never	9.6	24.4	20.8	14.5	11.2	19.6	86.3
Less than monthly	10.4	45.8	20.8	13.5	7.3	2.1	8.2
Monthly	18.2	33.3	27.3	15.2	6.1	0.0	2.8
Weekly	27.8	50.0	0.0	22.2	0.0	0.0	1.5
Daily or almost daily	0.0	15.4	23.1	23.1	23.1	15.4	1.1

Note: Missing (*n* = 32) data from total sample; due to rounding, not all percentages may add up to 100.

* *p* < .001.

Unable to remember what happened the night before because of drinking in the last year

Frequency	Age-group						Total *
	16–19 % <i>n</i> = 118	20–29 % <i>n</i> = 312	30–39 % <i>n</i> = 242	40–49 % <i>n</i> = 171	50–59 % <i>n</i> = 125	60–79 % <i>n</i> = 203	
Never	8.5	22.6	19.9	15.6	12.3	21.1	78.5
Less than monthly	16.4	44.1	23.7	10.2	4.5	1.1	15.1
Monthly	17.5	35.0	25.0	15.0	2.5	5.0	3.4
Weekly	14.3	39.3	21.4	10.7	3.6	10.7	2.4
Daily or almost daily	0.0	14.3	14.3	14.3	28.6	28.6	0.6

Note: Missing (*n* = 31) data from total sample; due to rounding, not all percentages may add up to 100.

* *p* < .001.

Being injured or injured someone else as a result of drinking

Frequency	Age-group						Total *
	16–19 % <i>n</i> = 118	20–29 % <i>n</i> = 311	30–39 % <i>n</i> = 242	40–49 % <i>n</i> = 169	50–59 % <i>n</i> = 125	60–79 % <i>n</i> = 203	
No	8.8	23.7	20.9	15.0	11.8	20.0	85.8
Yes, but not in the last year	4.3	52.2	23.2	13.0	5.8	1.4	5.9
Yes, during the last year	27.8	39.2	17.5	10.3	3.1	2.1	8.3

Note: Missing (*n* = 33) data from total sample; due to rounding, not all percentages may add up to 100.

* *p* < .001.

Relative, friend, doctor or health worker concerned about drinking/suggested to cut down

Frequency	Age-group						Total
	16–19 % <i>n</i> = 118	20–29 % <i>n</i> = 310	30–39 % <i>n</i> = 242	40–49 % <i>n</i> = 169	50–59 % <i>n</i> = 125	60–79 % <i>n</i> = 203	
No	10.1	26.0	20.5	13.9	10.9	18.6	88.1
Yes, but not in the last year	9.1	38.6	15.9	20.5	6.8	9.1	3.8
Yes, during the last year	10.5	27.4	25.3	17.9	10.5	8.4	8.1

Note: Missing (*n* = 35) data from total sample; due to rounding, not all percentages may add up to 100.

Appendix 5: Demographic characteristics of lifetime drug use (ever used), recent drug use (past 12 months) and use in the past 24 hours and the past 6 hours

	Ever used ^a		Used in past 12 months		Used in past 24 hours		Used in past 6 hours	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Total number ^b	607	52.2	303	26.1	113	9.4	46	3.8
Gender	605*	52.2	301*	26.0	112*	9.3	45	3.7
Male	369	59.2	199	31.9	77	12.0	26	4.0
Female	236	44.0	102	19.1	35	6.3	19	3.4
Age	606*	52.4	302*	26.1	113*	9.4	46***	3.8
16–19	62	54.9	38	33.3	11	9.3	3	2.6
20–29	239	76.1	138	44.4	52	16.4	20	6.5
30–39	154	65.3	69	29.4	24	9.7	11	4.5
40–49	92	54.4	39	22.7	18	10.2	6	3.5
50–59	41	33.3	14	11.4	8	6.2	6	3.9
60–79	18	8.9	4	2.0	0	0.0	0	0.0
Marital status	605*	52.2	301*	26.0	113*	9.5	45**	3.9
Single	328	67.4	194	39.7	73	14.6	31	6.4
Married	109	29.9	39	10.7	12	3.2	6	1.6
De facto	104	76.5	42	31.3	17	12.3	5	3.8
Separated, not divorced	21	52.5	10	24.4	5	11.9	3	7.1
Divorced	39	43.8	14	15.7	6	6.5	0	0.0
Widowed	4	9.5	2	4.9	0	0.0	0	0.0
Education	602**	52.5	301	26.3	112	9.6	44	3.8
None	3	42.9	1	14.3	0	0.0	0	0.0
Primary	29	36.3	15	18.8	7	8.4	1	1.2
Year 10 or equivalent	236	55.4	126	29.4	50	11.4	22	5.1
Year 12 or equivalent	157	50.2	82	26.5	26	8.2	9	2.9
TAFE Cert/Diploma	74	56.1	33	25.0	14	10.5	6	4.6
Trade Cert/Apprenticeship	53	63.9	27	32.1	12	14.0	4	4.8
University	50	47.6	17	16.2	3	2.8	2	1.9
Main source of income	604*	52.3	302*	26.1	113*	9.6	45*	3.9
Full-time work	308	64.2	153	31.9	50	10.2	18	3.7
Part-time/ casual work	104	59.8	54	31.4	25	14.2	8	4.7
Full-time student	24	41.4	13	21.7	3	4.9	0	0.0
Unemployment benefits	47	65.3	29	39.7	12	15.8	7	9.2
Disability benefits	49	60.5	27	33.3	14	16.9	9	11.3
Aged pension	14	9.7	3	2.1	1	0.7	1	0.7
Self-funded retiree	2	8.3	0	0.0	0	0.0	0	0.0
Home duties	30	44.1	6	9.0	3	4.3	1	1.4
Other	26	50.0	17	31.5	5	9.3	1	1.9
Weekly income (after tax) in the past 12 months	576*	52.7	286***	26.2	108	9.7	42	3.8
Nil income	5	27.8	5	27.8	1	5.5	0	0.0
\$1 – \$199 per week	30	46.9	6	25.4	8	12.1	3	4.5
\$200 – \$599 per week	217	44.7	113	23.2	43	8.7	15	3.1
\$600 – \$999 per week	153	59.5	68	26.3	27	10.3	9	3.5
\$1000 – \$1499 per week	89	65.9	40	30.3	14	10.2	6	4.4
\$1500 + per week	73	60.3	39	32.3	13	10.7	7	5.8
Don't know	9	69.2	5	38.5	2	14.3	2	14.3

^a Used at least once.

^b Total number may vary due to missing data; due to rounding, percentages may not add up to 100.

* $p < .001$, ** $p < .01$, *** $p < .05$.

Appendix 6: Comparative overview of illicit drug use between the general population and PADIE I and PADIE II participants

Drug type	Ever used (lifetime prevalence)			Used within 12 months (recent use)						Used within 24 hours						Used within 6 hours					
	PADIE I		PADIE II	NDSHS 2004		PADIE I		PADIE II		NDSHS 2004		PADIE I		PADIE II		PADIE I		PADIE II			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%			
Any illicit drug	443	55.3	607	52.2	38.1	229	28.4	303	26.1	15.3	65	8.1	113	9.4	29	3.6	45	3.8			
Cannabis	432	53.4	585	50.0	33.6	210	26.0	279	24.0	11.3	53	6.6	97	8.1	18	2.2	36	3.2			
Amphetamine	170	21.0	243	20.8	9.1	79	9.8	116	10.0	3.2	11	1.4	12	1.1	8	1.0	5	0.4			
Ecstasy	137	16.9***	247	21.1***	7.5	69	8.5***	135	11.6***	3.4	8	1.0	8	0.7	6	0.7	4	0.4			
Cocaine	75	9.2**	153	13.1**	4.7	27	3.3	58	5.0	1.0	0	0.0	0	0.0	0	0.0	0	0.0			
Heroin	40	4.9	63	5.4	1.4	9	1.1	11	0.9	0.2	3	0.4***	0	0.0***	0	0.0	0	0.0			
Methadone ^a	20	2.5	33	2.8	0.3	7	0.9	12	1.0	0.1	1	0.2	3	0.2	1	0.1	2	0.2			
Morphine ^a	+	+	40	3.4	-	+	+	16	1.4	-	+	+	2	0.2	+	+	0	0.0			
Benzodiazepines ^a	+	+	56	4.8	2.8	+	+	22	1.9	1.0	+	+	9	0.8	+	+	7	0.6			
Hallucinogens ^b	+	+	149	12.8	7.5	+	+	26	2.2	0.7	+	+	1	0.1	+	+	1	0.1			
LSD/Acid ^b	123	15.2	+	+	-	16	2.0	+	+	-	1	0.1	+	+	0	0.0	+	+			
Ketamine	24	3.0	36	3.1	1.0	12	1.5	17	1.5	0.3	1	0.1	0	0.0	0	0.0	0	0.0			
GHB/Fantasy	24	3.0	48	4.1	0.5	9	1.1	11	0.9	0.1	0	0.0	3	0.3	0	0.0	1	0.1			
Inhalants	+	+	43	3.7	2.5	+	+	9	0.8	0.4	+	+	0	0.0	+	+	0	0.0			
Any other drug	30	3.7	16	1.4	-	6	0.7	7	0.6	-	1	0.1	2	0.2	1	0.1	1	0.1			

^a Caution should be taken interpreting these results as some PADIE II participants may have answered 'yes' to using methadone, morphine and benzodiazepines illicitly when they may have used them licitly (i.e. with a legitimate prescription).

^b The 'hallucinogen' and 'LSD/Acid' drug categories cannot be directly compared as terminology varied between the two studies (PADIE I: 'LSD or acid'; PADIE II: 'Hallucinogens e.g. LSD and mushrooms'). The term 'hallucinogens' was used in the NDSHS 2004 survey.

* p < .001, ** p < .01, *** p < .05.

+ Participants not asked.

- NDSHS participants not asked.

Appendix 7: Prevalence of illicit drug use among PADIE II participants (sample sizes and missing data)

Drug type	Ever used		Used in the past 12 months		Used in the past 24 hours		Used in the past 6 hours	
	Missing data	Sample size	Missing data	Sample size	Missing data	Sample size	Missing data	Sample size
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Any illicit drug	40	1162	40	1162	1	1201	20	1182
Cannabis	33	1169	39	1163	–	1202	83	1119
Amphetamine	33	1169	42	1160	86	1116	62	1140
Ecstasy	33	1169	38	1164	98	1104	70	1132
Cocaine	35	1167	35	1167	–	1202	46	1156
Heroin	35	1167	35	1167	–	1202	41	1161
Methadone	34	1168	36	1166	–	1202	40	1162
Morphine	34	1168	35	1167	–	1202	41	1161
Benzodiazepines	34	1168	33	1169	7	1195	39	1163
Hallucinogens	34	1168	38	1164	21	1181	44	1158
Ketamine	34	1168	31	1171	13	1189	35	1167
GHB/Fantasy	34	1168	33	1169	8	1194	35	1167
Inhalants	34	1168	65	1137	–	1202	36	1166
Any other drug	34	1168	39	1163	–	1202	35	1167

– Not missing any data.

Appendix 8: Lifetime illicit drug use (ever used) by age-group

Drug type	Age-group													
	16-19		20-29		30-39		40-49		50-59		60-79		Total	
	<i>n</i> = 113		<i>n</i> = 314-316		<i>n</i> = 236-238		<i>n</i> = 169		<i>n</i> = 123-125		<i>n</i> = 202-203		<i>n</i> = 1157-1164	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	% ^a
Any illicit drug*	62	54.9	239	76.1	154	65.3	92	54.4	41	33.3	18	8.9	606	52.4
Cannabis*	57	50.4	231	73.1	150	63.0	89	52.7	40	32.0	17	8.4	584	50.2
Amphetamine*	26	23.0	121	38.3	62	26.1	30	17.8	3	2.4	0	0.0	242	20.8
Ecstasy*	30	26.5	136	43.0	56	23.5	22	13.0	2	1.6	0	0.0	246	21.1
Cocaine*	9	8.0	81	25.7	37	15.6	20	11.8	5	4.0	1	0.5	153	13.2
Heroin*	5	4.4	22	7.0	15	6.3	18	10.7	2	1.6	0	0.0	62	5.3
Methadone**	1	0.9	14	4.4	6	2.5	10	5.9	2	1.6	0	0.0	33	2.8
Morphine**	1	0.9	18	5.7	7	3.0	9	5.3	3	2.4	1	0.5	39	3.4
Benzodiazepines*	1	0.9	24	7.6	12	5.1	15	8.9	3	2.4	0	0.0	55	4.7
Hallucinogens*	10	8.8	68	21.5	34	14.3	29	17.2	5	4.0	2	1.0	148	12.7
Ketamine*	4	3.5	26	8.2	5	2.1	1	0.6	0	0.0	0	0.0	36	3.1
GHB/Fantasy*	5	4.4	27	8.5	12	5.1	3	1.8	1	0.8	0	0.0	48	4.1
Inhalants*	7	6.2	22	7.0	6	2.5	6	3.6	1	0.8	0	0.0	42	3.6
Any other drug	0	0.0	8	2.5	4	1.7	2	1.2	2	1.6	0	0.0	16	1.4

Note: Due to rounding, percentages may not add up to 100.

a Percentage of sample (varies due to missing data 38-45).

* $p < .001$, ** $p < .01$, *** $p < .05$.

Appendix 9: Illicit drug use within 12 months (recent use) by age-group

Drug type	Age-group													
	16-19		20-29		30-39		40-49		50-59		60-79		Total	
	<i>n</i> = 112-114	<i>n</i> = 312-316	<i>n</i> = 234-238	<i>n</i> = 167-169	<i>n</i> = 123-125	<i>n</i> = 202-203	<i>n</i> = 1157-1166	<i>n</i>	% ^a	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Any illicit drug*	38	33.3	138	44.4	69	29.4	39	22.7	14	11.4	4	2.0	302	26.1
Cannabis*	38	33.3	119	38.0	67	28.4	39	22.7	12	9.6	2	1.0	278	24.0
Amphetamine*	17	15.2	65	20.8	21	9.0	9	5.4	3	2.4	0	0.0	115	10.0
Ecstasy*	22	19.3	80	25.6	24	10.3	9	5.4	0	0.0	0	0.0	135	11.6
Cocaine*	6	5.3	36	11.5	11	4.7	5	3.0	0	0.0	0	0.0	58	5.0
Heroin	0	0.0	20	1.9	2	0.8	3	1.8	0	0.0	0	0.0	11	0.9
Methadone	1	0.9	7	2.2	1	0.4	2	1.2	1	0.8	0	0.0	12	1.0
Morphine	1	0.9	8	2.5	2	0.8	4	2.4	0	0.0	1	0.5	16	1.4
Benzodiazepines***	0	0.0	11	3.5	4	1.7	4	2.4	2	1.6	0	0.0	21	1.8
Hallucinogens**	5	4.4	13	4.1	4	1.7	4	2.4	0	0.0	0	0.0	26	2.2
Ketamine**	2	1.8	12	3.8	2	0.8	1	0.6	0	0.0	0	0.0	17	1.5
GHB/Fantasy***	1	0.9	8	2.5	2	0.8	0	0.0	0	0.0	0	0.0	11	0.9
Inhalants***	1	0.9	6	2.0	0	0.0	1	0.6	0	0.0	0	0.0	8	0.7 ^b
Any other drug	0	0.0	3	1.0	1	0.4	2	1.2	1	0.8	0	0.0	7	0.6

Note: Due to rounding, percentages may not add up to 100.
 a Percentage of sample (varies due to missing data 36-45).
 b Inhalant sample size *n* = 1132, missing *n* = 70 data.
 * *p* < .001, ** *p* < .01, *** *p* < .05.

Appendix 10: Illicit drug use within 24 hours by age-group

Drug type	Age-group													
	16-19		20-29		30-39		40-49		50-59		60-79		Total *	
	<i>n</i> = 102-118	<i>n</i> = 256-318	<i>n</i> = 232-247	<i>n</i> = 171-176	<i>n</i> = 131	<i>n</i> = 207	<i>n</i> = 1099-1197	<i>n</i>	% ^a	<i>n</i>	%	<i>n</i>	%	<i>n</i>
Any illicit drug*	11	9.3	52	16.4	24	9.7	18	10.2	8	6.2	0	0.0	113	9.4
Cannabis*	9	7.6	45	14.2	21	8.5	16	9.1	6	4.6	0	0.0	97	8.1
Amphetamine	2	1.9	7	2.7	2	0.9	1	0.6	0	0.0	0	0.0	12	1.1
Ecstasy	1	1.0	4	1.6	2	0.9	1	0.6	0	0.0	0	0.0	8	0.7
Cocaine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Heroin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Methadone	0	0.0	2	0.6	0	0.0	0	0.0	1	0.8	0	0.0	3	0.3
Morphine	0	0.0	1	0.3	1	0.4	0	0.0	0	0.0	0	0.0	2	0.2
Benzodiazepines	0	0.0	4	1.3	1	0.4	2	1.1	2	1.4	0	0.0	9	0.8
Hallucinogens	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	1	0.1
Ketamine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
GHB/Fantasy	1	0.8	2	0.6	0	0.0	0	0.0	0	0.0	0	0.0	3	0.3
Inhalants	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Any other drug	0	0.0	1	0.3	0	0.0	0	0.0	1	0.8	0	0.0	2	0.2

Note: Due to rounding, percentages may not add up to 100.

a Percentage of sample (varies due to missing data 5-103).

* $p < .001$.

Statistically significant: any illicit drug ($p < .001$), cannabis ($p < .01$) and amphetamine ($p < .01$) when aged collapsed as 16-39 and 40-79.

Appendix 11: Illicit drug use within 6 hours by age-group

Drug type	Age-group													
	16–19		20–29		30–39		40–49		50–59		60–79		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	% ^a
Any illicit drug	3	2.6	20	6.5	11	4.5	6	3.5	5	3.9	0	0.0	45	3.8
Cannabis	3	2.7	16	5.4	11	4.9	4	2.5	2	1.7	0	0.0	36	3.2
Amphetamine	0	0.0	2	0.7	2	0.9	1	0.6	0	0.0	0	0.0	5	0.4
Ecstasy	0	0.0	3	1.0	0	0.0	1	0.6	0	0.0	0	0.0	4	0.4
Cocaine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Heroin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Methadone	0	0.0	1	0.3	0	0.0	0	0.0	1	0.8	0	0.0	2	0.2
Morphine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benzodiazepines	0	0.0	2	0.6	1	0.4	2	1.2	2	1.6	0	0.0	7	0.6
Hallucinogens	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	1	0.1
Ketamine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
GHB/Fantasy	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Inhalants	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Any other drug	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1

Note: Due to rounding, percentages may not add up to 100.

^a Percentage of sample (varies due to missing data 5–75).

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