New Zealand Arrestee Drug Use Monitoring

(NZ-ADUM)

2011 Report

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Executive Summary

Aim and methodology

The aim of NZ-ADUM is to monitor trends in alcohol and drug use among police detainees and investigate the role alcohol and drug use plays in criminal offending. The 2011 NZ-ADUM interviewed 828 police detainees at Whangarei, Auckland Central, Wellington Central and Christchurch Central police watch houses about their drug use and criminal offending. This report presents the findings from the 2011 NZ-ADUM and compares them with the previous 2010 NZ-ADUM wave. The completion of the interviews at the Christchurch site in 2011 was delayed by six months due to the earthquakes there and this delayed the overall completion of the study.

Alcohol and drug use prior to arrest

Forty-one percent of the police detainees had been drinking alcohol at the time of their arrest and 21% had been using a drug other than alcohol at the time of their arrest. The proportion of detainees who had been drinking alcohol prior to arrest increased from 36% in 2010 to 41% in 2011. Increases in the prevalence of drinking prior to arrest were found in Whangarei (up from 32% in 2010 to 42% in 2011) and in Auckland (up from 35% in 2010 to 42% in 2011).

Alcohol

The average number of alcoholic drinks the detainees consumed prior to their arrest increased from 12 in 2010 to 16 in 2011. The detainees consumed a higher number of drinks on a typical day, up from 12 in 2010 to 15 in 2011. Detainees from Auckland Central considered alcohol to be more easily available in 2011 compared to 2010.

Methamphetamine

The proportion of detainees in Central Auckland who had used methamphetamine in the previous year increased from 29% in 2010 to 38% in 2011. The proportion of detainees who had been using methamphetamine prior to their arrest increased from 3% in 2010 to 5% in 2011. These findings should be interpreted with caution as they may reflect the greater enforcement focus on methamphetamine in the past year rather than any increase in methamphetamine use among the offender population. The price of methamphetamine stabilised in Auckland Central in 2011. There was some evidence of an increase in the price and decline in the availability of methamphetamine in Christchurch. It is unclear the extent to which the Christchurch earthquakes may have been responsible for this disruption. Nearly half of the detainees who used methamphetamine and drove had completed at least some of their driving under the influence of methamphetamine in the previous 12 months.

Ecstasy

The proportion of detainees who had used ecstasy in the previous 12 months increased from 22% in 2010 to 28% in 2011 and the number of days on which ecstasy was used in the past year increased from 11 days in 2010 to 15 days in 2011. The magnitude of the increase in the prevalence of ecstasy use was particularly pronounced in Whangarei (increasing from 8% in 2010 to 36% in 2011). The proportion of detainees in Auckland Central who could purchase ecstasy in one hour or less increased from 49% in 2010 to 74% in 2011. The average price of a pill of ecstasy declined from $50 in 2010 to $46 in 2011. The ecstasy using detainees had completed more of their driving under the influence of ecstasy in 2011 compared to 2010.

Cannabis

Seventy-five percent of the detainees had used cannabis in the previous 12 months in 2011. Thirty-five percent of the cannabis using detainees felt they were

dependent on the drug. The proportion of detainees in Whangarei who had used cannabis in the previous 12 months increased from 68% in 2010 to 83% in 2011. A higher proportion of detainees in Auckland Central could purchase cannabis in one hour or less in 2011 compared to 2010 (88% vs. 76%). Half of the cannabis using detainees who drove had completed at least some of their driving under the influence of cannabis in the previous 12 months.

New drugs

Twenty-five percent of the detainees had tried a drug for the first time in the previous 12 months in 2011. The drug types which the detainees had most commonly used for the first time in 2011 were synthetic cannabis (26% of those detainees who had tried a drug for the first time in 2011) (e.g. Kronic), ecstasy (22%), hallucinogenic mushrooms (psilocybin) (12%), methamphetamine (9%), LSD (7%) and 'street' BZP (7%). The proportion of detainees who had tried synthetic cannabis for the first time increased from 0% in 2010 to 26% in 2011. A lower proportion of the detainees had tried methamphetamine for the first time, down from 20% in 2010 to 9% in 2011.

Table E1: Summary of the main drugs types used by the police detainees, 2011

	Alcohol	Meth-ampheta mine	Cannabis	Ecstasy	Opioids	Cocaine
Ever tried	99%	45%	91%	51%	15%	18%
Used in the past 12 months	92%	30%	75%	28%	6%	4%
Mean number of days used in past 12 months*	104 days	76 days	168 days	15 days	101 days	31 days
Quantity used on typical day (mean)*	15 standard drinks	3.5 points	1.8 grams	1.5 pills	98 milligrams	
Felt dependent on drug in the last 12 months*	23%	23%	35%	4%	41%	
Using when arrested*	41%	5%	17%	1%	1%	
Quantity used before arrest*	16 standard drinks	4.1 points	1.3 grams	1.2 pills	70 milligrams	

Current availability*	Very easy	Easy/ very easy	Very easy/ easy	Easy/ difficult	Difficult/ very easy	Difficult/ very difficult
Change in availability*	Stable	Stable	Stable/ more difficult	Stable	Stable/ more difficult	Stable/ more difficult
Purchase in one hour or less*	96%	60%	81%	52%	48%	
Median price ($)*		$100 per point $750 per gram	$20 per 'tinny' $320 per ounce	$40 per pill	$1 per milligram	$300 per gram
Change in price*	Increasing/ stable	Stable/ fluctuating	Stable	Stable/ fluctuating	Stable	Stable
Completed at least some driving under influence**	20%	46%	50%	17%	49%	

* of those who had used drug in the past 12 months

** of those who drove and used the drug

Self-reported offending behavior

The proportion of detainees who reported they had committed a violent crime in the past month declined from 23% in 2010 to 19% in 2011. The largest decline in violent crime was reported in Christchurch Central, down from 27% in 2010 to 19% in 2011. A lower proportion of detainees in Christchurch Central had also reported selling drugs in 2011 compared to 2010 (16% vs. 29%). Detainees who had consumed larger quantities of alcohol, frequently used cannabis and often used methamphetamine were more likely to have committed a property crime and sold drugs in the previous month (Figure E1 & E2). Detainees who consumed larger quantities of alcohol were more likely to have committed a violent crime in the past month.

Figure E1: Proportion of police detainees who committed a property crime in the previous month by level of alcohol and drug use, 2011

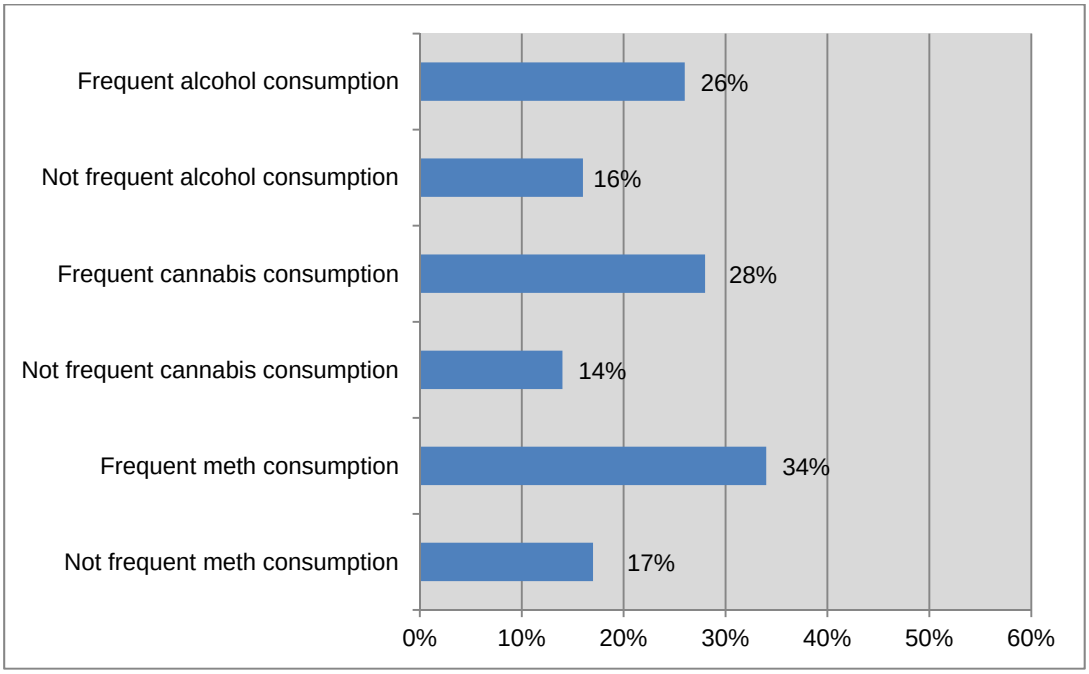
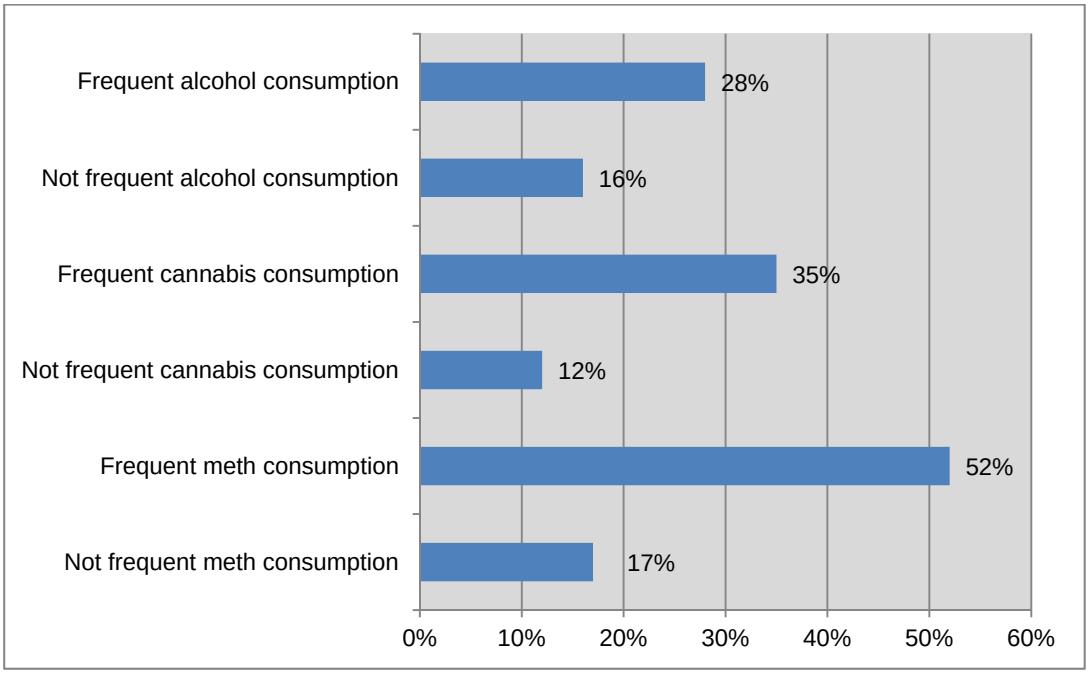


Figure E2: Proportion of police detainees who sold drugs in the previous month by level of alcohol and drug use, 2011



Arrest, conviction and imprisonment

The detainees had been arrested an average of three times in the previous 12 months. They were arrested for a wide range of offences, including 'Against Justice' (41%) (e.g. breach of bail, breach of parole, breach of protection order), 'assault' (29%), 'driving offences' (18%), 'public disorder' (15%), 'burglary' (12%), 'theft' (11%), 'destruction of property' (9%) and a drug offence (9%). A lower proportion of the detainees had been arrested for a drug offence, down from 15% in 2010 to 9% in 2011. However, a higher proportion of those who had been arrested for a drug offence had been arrested for a methamphetamine offence, up from 21% in 2010 to 45% in 2011. A higher proportion of the detainees had been imprisoned for a drug offence in the previous 12 months in 2011 compared to 2010 (12% vs. 3%). A higher proportion of the detainees had received treatment for alcohol and drug issues as part of their conviction and imprisonment.

Family and adolescent life

Fourteen percent of the detainees had been in Child, Youth and Family (CYF) care when they were growing up. Thirty-one percent of the detainees said at least one of their parents was drunk 'often' or 'all the time' when they were growing up. Twenty-four percent said the main income earner in their family was unemployed or in temporary employment 'often' or 'all the time', and 19% had a parent who was physically aggressive 'often' or 'all the time'. Maori detainees were more likely to experience risky family environments and to be involved in risky behavior as adolescents. Detainees who had experienced high risk parenting when they were growing up were more likely to be heavier alcohol users, heavier cannabis users and methamphetamine users, and were more likely to be involved in property offending and selling drugs.

Chapter 1 - Methodology

Introduction

The New Zealand Arrestee Drug Use Monitoring (NZ-ADUM) study was primarily developed to measure levels of drug use among police detainees and to investigate the role drug use plays in criminal offending in New Zealand (see Wilkins et al., 2010b). This report compares findings from the 2011 NZ-ADUM with those from the previous 2010 NZ-ADUM and investigates differences between the four study locations in 2011.

Intended use

NZ-ADUM is intended to inform policy development, policy evaluation, strategic direction and best practice in regard to issues around drug use and criminal offending in New Zealand. NZ-ADUM also contributes to an understanding of current trends in drug use and drug markets, including the identification of new and emerging drug types. Finally, NZ-ADUM will assist in the development of a body of knowledge of the underlying drivers of drug use and crime which will contribute to long term strategies to reduce drug use and criminal offending in New Zealand.

Impact of the Christchurch earthquakes

The interviewing of police detainees for NZ-ADUM is usually completed at the four police watch houses from April to September in each year. The Christchurch earthquakes delayed the commencement of interviewing at the Christchurch watch house until August 2011. It was decided to persevere with the Christchurch site despite these delays to ensure the ongoing compatibility of the annual samples. A large number of interviews and urine samples were able to be eventually completed at the Christchurch Central site and this is a testimony to the professionalism of Christchurch Police staff, our Christchurch NZ-ADUM interviewers and the resilience of the Christchurch community.

Background

NZ-ADUM[1] was developed from the ADAM methodology (Arrestee Drug Abuse Monitoring System) which was first developed in the United States during the mid-1980s (Hart, 2003; Taylor, 2002). Studies based on the core ADAM methodology are conducted in Australia (i.e. Drug Use Monitoring in Australia or DUMA) and England and Wales (i.e. New England and Wales Arrestee Drug Abuse Monitoring Research or NEW-ADAM) (see Boreham et al., 2007; Gaffney et al., 2010). The United States ADAM programme was extended in 2000 and is currently conducted in 10 key sites in the United States (Office of National Drug Control Policy, 2009, 2011). The core component of the ADAM methodology is the interviewing of individuals detained in police stations about their alcohol and drug use and criminal offending behavior (Hunt & Rhodes, 2001; National Institute of Justice, 2003). The second key component of the ADAM methodology is the verification of self-reported drug using behavior through scientific testing of urine or oral fluids. ADAM research is conducted by an independent research group which guarantees that the interviews with detainees will be voluntary, private and confidential, and information will only be reported in aggregate (i.e. no individual detainee is ever identified) and other high ethical standards of research are maintained.

NZ-ADUM was adapted from the international ADAM in 2003 (Wilkins & Rose, 2003) and a local pilot of the NZ-ADUM methodology was completed in 2004 at Papakura Police Station (Wilkins et al., 2004). A national NZ-ADUM was conducted from 2005 to 2009 (Wilkins et al., 2010b) and the NZ-ADUM methodology reviewed and enhanced in 2010.

[1] NZ-ADUM was originally known as the NZ-ADAM (New Zealand Arrestee Drug Abuse Monitoring System)

Aims

- To measure the level of alcohol and drug use among police detainees
- To monitor trends in drug use among police detainees
- To investigate the role alcohol and drug use plays in criminal offending
- To monitor trends in the price and availability of key drugs of concern
- To identify the level of demand for help services for alcohol and drug problems among police detainees
- To identify barriers experienced by police detainees when attempting to find help for alcohol and drug issues
- To identify underlying drivers of crime and drug use

Method

NZ-ADUM is conducted in four central city police watch houses in New Zealand (i.e. Whangarei, Auckland Central, Wellington Central and Christchurch Central). The study involves the face-to-face interviewing of a total of 800 police detainees at the four selected police watch houses for a period of approximately three months at each site. The four watch houses were selected as sites for the study as they are considered to be key strategic locations for policing in New Zealand and likely to provide the best representative picture of the police detainee population in each location. The selected watch houses were also required to be busy enough to have a sufficient throughput of detainees to facilitate approximately two shifts of interviewing per day, be large enough to have a private interview room available for full time interviewing, and have toilet facilities located near interview rooms to permit the collection of urine samples.

The study sites were established on a rolling basis with interviewing beginning in Auckland in late April, in Wellington in early May and in Whangarei in mid-May in 2011. As outlined earlier, interviewing in the Christchurch site was delayed by the earthquakes there and consequently interviewing occurred from end of August to late October in 2011. A total of 200 urine samples were collected from all four sites during the first half of the interviewing at each site. Early morning and early evening interviewing shifts were conducted every day of the week for the whole three months of interviewing at each site. The interviewing shift times were selected to match the two periods in a 24 hour day when the police cells were at their fullest (i.e. following the night shift and following the day shift). Table 1.1 shows completed interviews by day of the week for the 2011 and 2010 NZ-ADUM. Interviews were distributed fairly evenly between the days of the week. A higher proportion of interviews were conducted on a Sunday as a greater number of detainees are available on this day as there is no court in operation on Sunday for them to attend.

Table 1.1: Distribution of interviews by day of the week by location, 2010 & 2011

Day (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=114)	2011 (n=150)	2010 (n=282)	2011 (n=316)	2010 (n=151)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=809)	2011 (n=828)
Sunday	7	25	23	31	23	22	20	20	20	26
Monday	25	13	9	9	15	11	15	13	14	11
Tuesday	7	7	8	10	13	8	14	17	11	11
Wednesday	24	15	13	10	12	12	11	16	14	13
Thursday	16	13	14	12	12	16	9	14	12	13
Friday	12	12	17	13	13	15	16	10	15	13
Saturday	9	14	16	16	13	15	15	10	14	14

It is not practical to interview some police detainees in a safe and ethical manner due to their level of intoxication, violent behavior, emotional state, mental illness or lack of English language competency. Detainees were excluded from the study if they were:

- under 17 years of age;
- unfit for interview due to intoxication from alcohol/drugs or medication;
- unfit for interview due to mental health issues;
- unable to understand the questions due to poor English language comprehension;
- unfit for interview due to threatening or violent behavior;
- held in custody for more than 48 hours;
- deemed unavailable by watch house staff due to ongoing legal/administrative proceedings

Police watch house staff were responsible for assessing the safety and suitability of detainees to be interviewed. The watch house staff initially approached suitable detainees in the cells to ask them if they wanted to participate in the study. Those detainees who were interested in participating were escorted to a private interview room where the ADUM interviewer introduced themselves, explained the purpose of the study and invited them to participate in an interview. The interviewer explained to the detainee that participation in the study was voluntary, everything they said was confidential, they could choose not to answer any question if they didn't want to, and the results of the study would only be reported in aggregate. The interviewer explained that no information was required about specific people, places, times or events. The interviewers were directed to terminate an interview if detainees started to voluntarily provide any specific details about offending to avoid the risk of the study becoming embroiled in any subsequent legal proceedings. The ethical protocols used in NZ-ADUM have been reviewed and approved by the Massey University Human Subjects Ethics Committee.

Analysis

Statistical analysis was completed to compare results between the 2011 and 2010 NZ-ADUM surveys and between the four watch house sites of the study in 2011. When testing between sites, differences between proportions (e.g. ever used cannabis) were tested using logistic regression analysis and differences between

continuous variables (e.g. age) were tested using regression analysis. When testing between years, chi-square tests were used to make comparisons between proportions and t-tests were used for continuous variables. Some continuous variables were positively skewed (e.g. frequency of use of methamphetamine) hence statistical testing was run on the log-transformed values for these items. Ordered categorical questions (e.g. frequency unemployed or in temporary employment over the past five years, where the options range from “Never” to “All the time”) were assigned numbers and tested using regression analysis. The Christchurch earthquakes meant the number of interviews completed in each site in the 2011 NZ-ADUM differed from the original study targets and what was completed in the 2010 NZ-ADUM. To address this problem site weights were created for the 2011 data so the weighted number of interviews matched the 2010 NZ-ADUM. These weights were applied when comparing overall results between 2010 and 2011. Analysis was only completed for questions where there were sufficient numbers of detainees answering the question. All analysis was run using SAS version 9.2.

Chapter 2 - Demographics

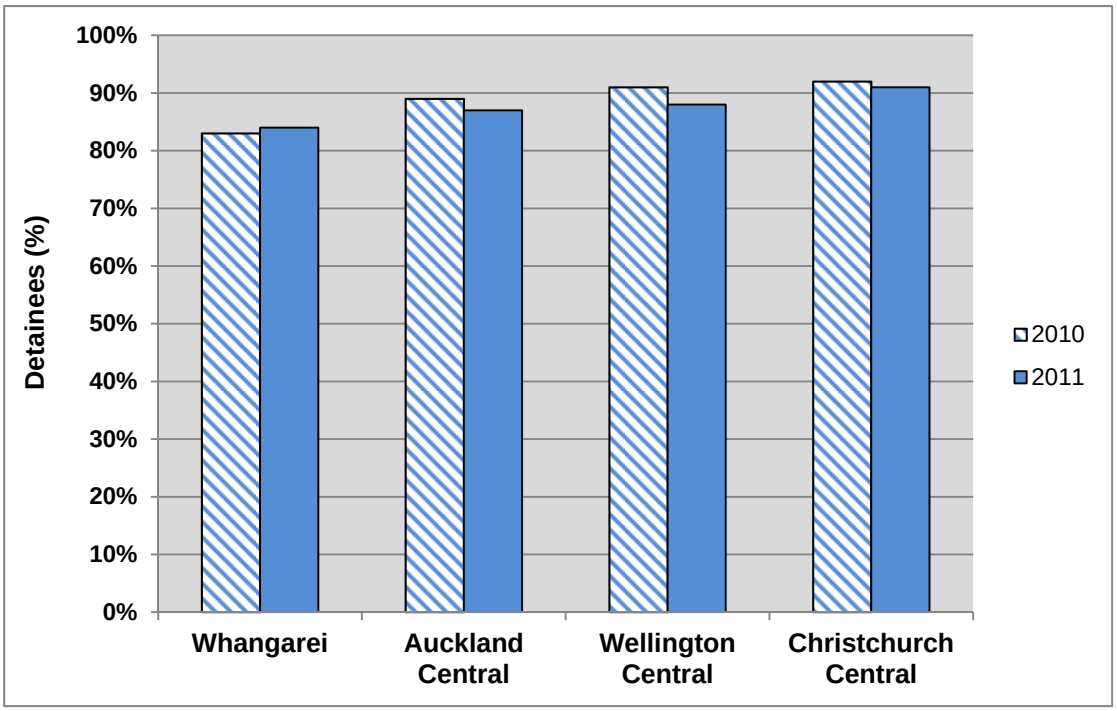
Introduction

Police detainees are often disproportionately male, young, poorly educated, unemployed, of poor mental health and members of disadvantaged ethnic minorities (see Boreham et al., 2007; Gaffney et al., 2010; Office of National Drug Control Policy, 2009). The detainees interviewed for the 2010 NZ-ADUM sample were disproportionately male (89%), young (median age 24), Maori (38%), Pacific (14%), poorly educated (i.e. 54% had not completed compulsory high school years of education), had low levels of employment (i.e. only 37% were employed) and high levels of recent prison history (13% had been in prison in the past 12 months) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) (Wilkins et al., 2010b) . Thirty-two percent of the detainees in 2010 had suffered from a mental illness. This chapter presents the demographic characteristics of the police detainee sample from the 2011 NZ-ADUM and compares these with the 2010 NZ-ADUM sample.

Gender

Eighty-eight percent of the detainees were male in 2011. There was no change in the proportion of the detainees who were male in 2011 compared to 2010 (88% vs. 89%, p=0.3397). There was also no difference in the proportion of detainees who were male between the study sites in 2011 (Figure 2.1).

Figure 2.1: Proportion of the police detainees who were male by location, 2010 & 2011



Age

The mean age of the detainees was 28 years old in 2011 (median 25 years, range 17-77 years) (Table 2.1). The mean age of the detainees in Christchurch Central was higher in 2011 than in 2010 (29 vs. 27 years) and this difference was close to being statistically significant (p=0.0515). There was no difference in the mean age of the detainees between the different site locations in 2011.

Table 2.1 Mean age of the police detainees by location, 2010 & 2011

	2010		2011	
Site	Mean age (years)	Age range	Mean age (years)	Age range
	n=114	n=114	n=148	n=148
Whangarei	27	17-60	28	17-62
	n=284	n=284	n=311	n=311
Auckland Central	29	17-63	28	17-67
	n=152	n=152	n=171	n=171
Wellington Central	28	17-62	28	17-61
	n=262	n=262	n=191	n=191
Christchurch Central	27	17-63	29	17-77
	n=812	n=812	n=821	n=821
All sites	28	17-63	28	17-77

Ethnicity

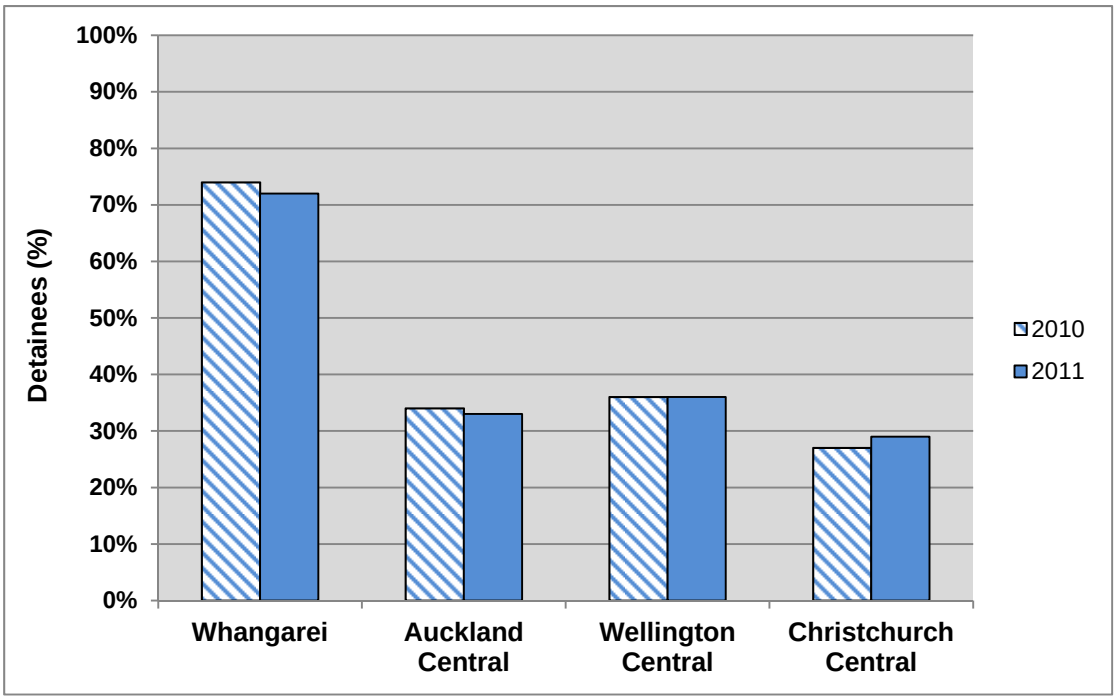
The detainees were asked two questions about their ethnicity: 'Which ethnic group do you mainly belong to?'; and 'Is there any other ethnic group you belong to?'. For the purposes of this report we classified the detainees by their primary ethnicity. In 2011, 40% of the detainees identified their primary ethnicity as Maori, 39% were European, 16% were Pacific and 3% were Asian (Table 2.2). There was no statistically significant change in the proportion of the detainees who were Maori in 2011 compared to 2010 (39% vs. 38%).

Table 2.2: Primary ethnicity of the police detainees by location, 2010 & 2011

Primary ethnicity (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
	n=114	n=148	n=285	n=315	n=151	n=169	n=262	n=191	n=812	n=823
European	23	24	32	29	42	43	67	64	44	39
Maori	74	72	34	33	36	36	27	29	38	40
Pacific	4	4	24	31	15	11	5	6	14	16
Asian	0	0	5	4	1	7	0	0	2	3
Other	0	0	5	3	6	3	<1	1	3	2

In 2011, a higher proportion of the detainees were Maori in Whangarei compared to Auckland Central (72% vs. 33%, p=<0.0001), Wellington Central (72% vs. 36%, p=<0.0001) and Christchurch Central (72% vs. 29%, p=<0.0001) (Figure 2.2).

Figure 2.2: Proportion of the police detainees who were Maori by location, 2010 & 2011



Iwi affiliation

The detainees who identified as Maori as their primary or secondary ethnicity were asked if they knew their iwi affiliation. Overall, 89% of the Maori detainees knew their iwi (Table 2.3). A higher proportion of Maori detainees in Whangarei knew their iwi in 2011 compared to 2010 (97% vs. 81%, p=0.0001). In 2011, a higher proportion of Maori detainees in Whangarei knew their iwi than those in Auckland Central (97% vs. 81%, p=0.0007) and Wellington Central (97% vs. 89%, p=0.0268).

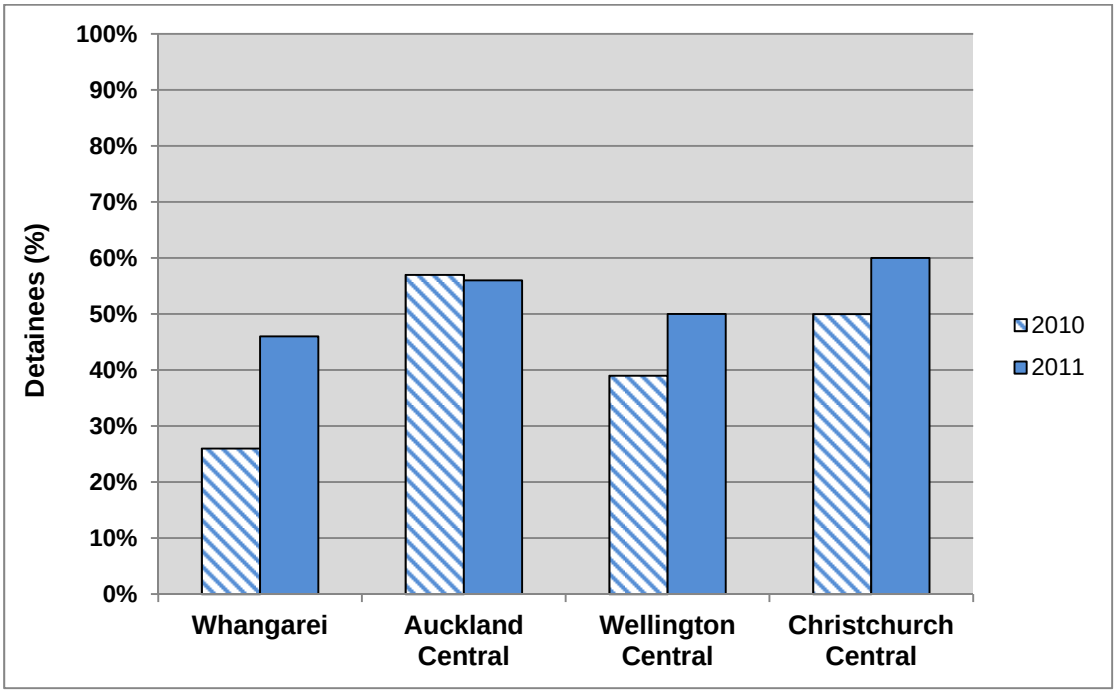
Table 2.3: Proportion of Maori detainees who knew their iwi by location, 2010 & 2011

Site	Knowledge of iwi (%)	
	2010	2011
	n=91	n=114
Whangarei	81	97
	n=123	n=135
Auckland Central	88	81
	n=62	n=71
Wellington Central	92	89
	n=104	n=71
Christchurch Central	87	92
	n=380	n=391
All sites	87	89

Education

The detainees were asked about their highest level of educational achievement. A higher proportion of the detainees had completed the compulsory years of high school education in 2011 compared to 2010 (54% vs. 47%, p=0.0034). A higher proportion of detainees in 2011 compared to 2010 had completed their compulsory high school education in Whangarei (46% vs. 26%, p=0.0011), Wellington Central (50% vs. 39%, p=0.0494) and Christchurch Central (60% vs. 50%, p=0.0292) (Figure 2.3). In 2011, detainees in Whangarei were less likely to have completed the compulsory years of high school than detainees in Christchurch Central (46% vs. 60%, p=0.0106) and Auckland Central (46% vs. 56%, p=0.0540).

Figure 2.3: Proportion of police detainees who completed compulsory high school years by location, 2010 & 2011



Employment status

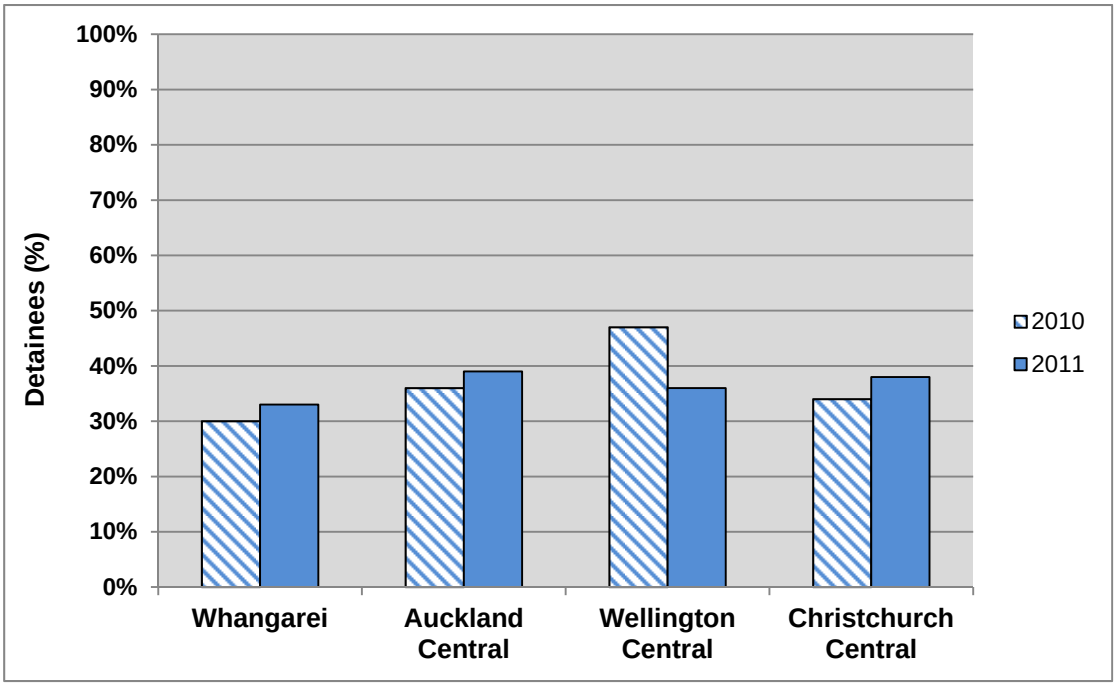
In 2011, 55% of the detainees were unemployed or on a sickness benefit, 37% were employed (12% part-time and 25% full-time), and 8% were students (Table 2.4). There was no change in the employment status of the detainees in 2011 compared to 2010.

Table 2.4: Employment status of police detainees by location 2010 & 2011

Employment status (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=115)	2011 (n=149)	2010 (n=283)	2011 (n=315)	2010 (n=152)	2011 (n=170)	2010 (n=262)	2011 (n=191)	2010 (n=812)	2011 (n=825)
Unemployed/ sickness	64	61	55	54	45	52	61	56	56	55
Employed	30	33	36	39	47	36	34	38	37	37
Students	5	6	9	7	8	12	5	6	7	8

There was no statistically significant difference in the proportion of detainees who were employed between the sites in 2011 (Figure 2.4).

Figure 2.4: Proportion of the police detainees who were employed by location, 2010 & 2011



Unemployed or temporary employment over the past five years

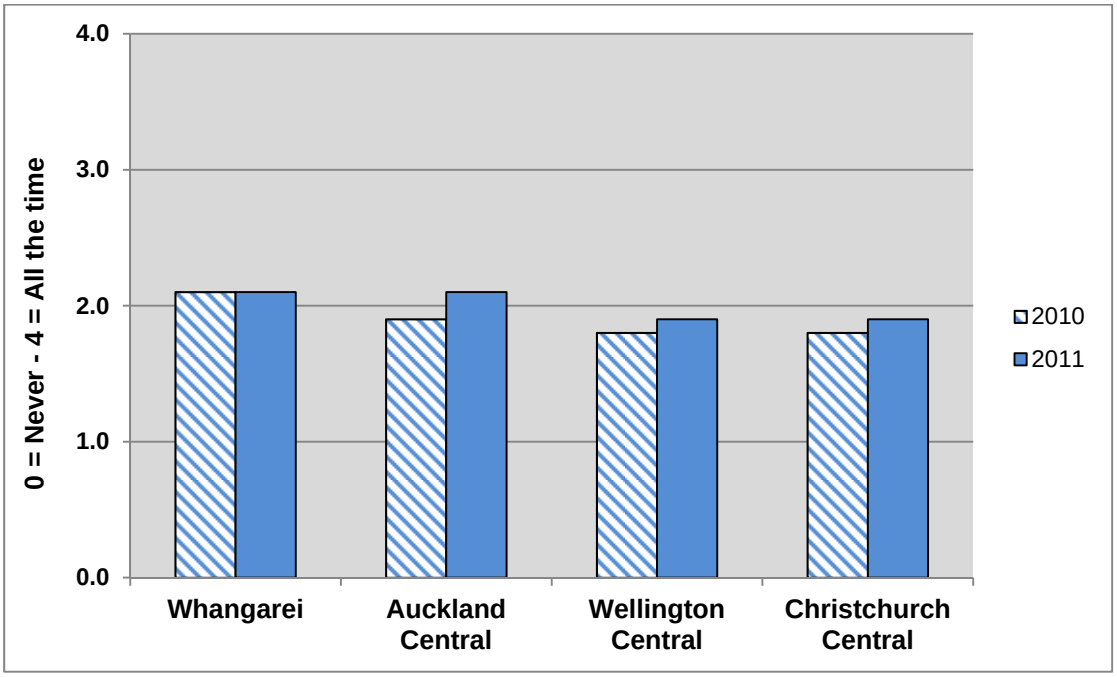
All the detainees were asked to describe how often they had been unemployed or in temporary employment during the past five years using a five point scale (i.e. 1=never – 5=all the time). Thirty-nine percent of the detainees had been unemployed or in temporary employment 'often' or 'all the time' over the previous

five years (Table 2.5). The detainees were more likely to be unemployed or in temporary employment in 2011 compared to 2010 (2.0 vs. 1.9, p=0.0503). Detainees in Auckland were more likely to be unemployed or in temporary work in 2011 compared to 2010 (2.1 vs. 1.9) and this difference was close to being statistically significant (p=0.0733) (Figure 2.5).

Table 2.5: Frequency police detainees had been unemployed or in temporary employment during the previous five years by location, 2010 & 2011

Frequency (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites (n=789)	
	2010 (n=109)	**2011** (n=149)	**2010** (n=280)	**2011** (n=311)	**2010** (n=145)	**2011** (n=170)	**2010** (n=255)	**2011** (n=191)	**2010** (n=789)	**2011** (n=821)
Never [0]	9	13	21	15	19	21	15	20	17	17
Hardly any [1]	20	21	23	22	25	19	30	23	25	21
Sometimes [2]	39	25	23	23	25	22	29	23	28	23
Often [3]	15	26	12	20	19	24	16	19	15	22
All the time [4]	17	14	21	20	12	14	11	15	15	17
Mean frequency (0=never – 4 = all the time) 5=5	2.1	2.1	1.9	2.1	1.8	1.9	1.8	1.9	1.9	2.0

Figure 2.5: Mean frequency police detainees had been unemployed or in temporary employment during the previous five years by location, 2010 & 2011



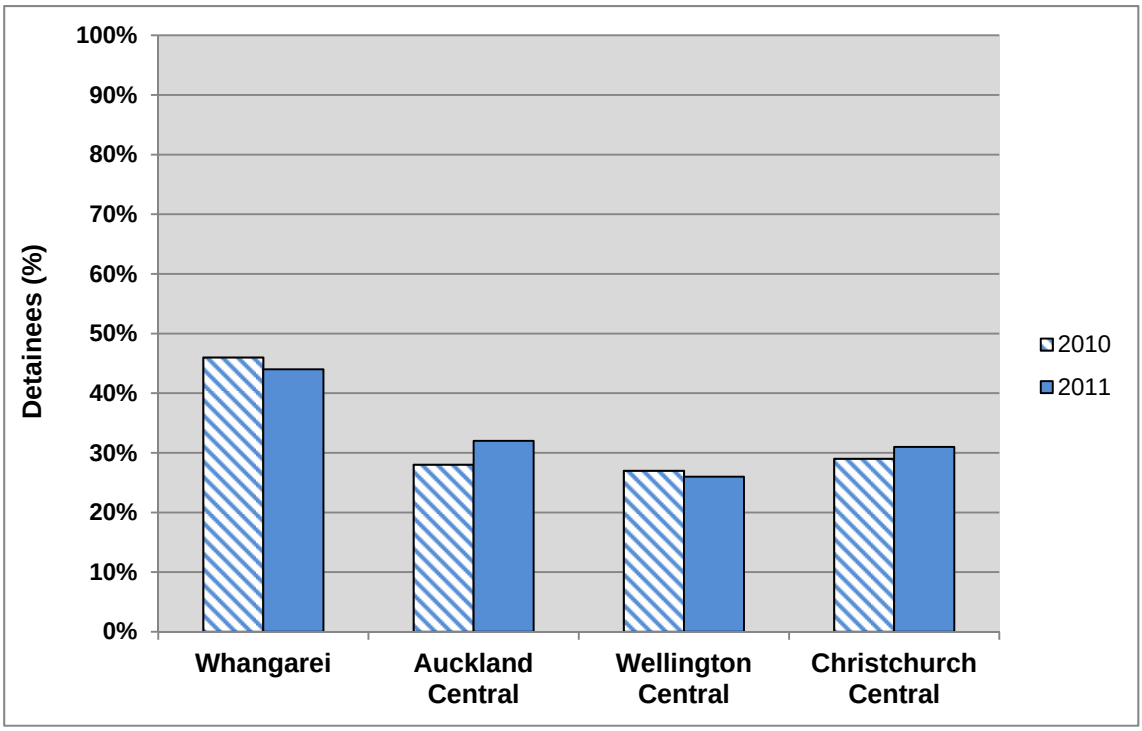
Marital status

Sixty-two percent of the detainees were single, 26% were living in a de facto relationship and 5% were married in 2011. There was no change in the marital status of the detainees in 2011 compared to 2010.

Number of dependent children

Thirty-two percent of the detainees had dependent children in 2011. In 2011, the detainees in Whangarei were more likely to have dependent children than those in Auckland Central (44% vs. 32%, p=0.0164), Wellington Central (44% vs. 26%, p=0.0008) and Christchurch Central (44% vs. 31%, p=0.0228) (Figure 2.6).

Figure 2.6: Proportion of the police detainees who had dependent children by location, 2010 & 2011



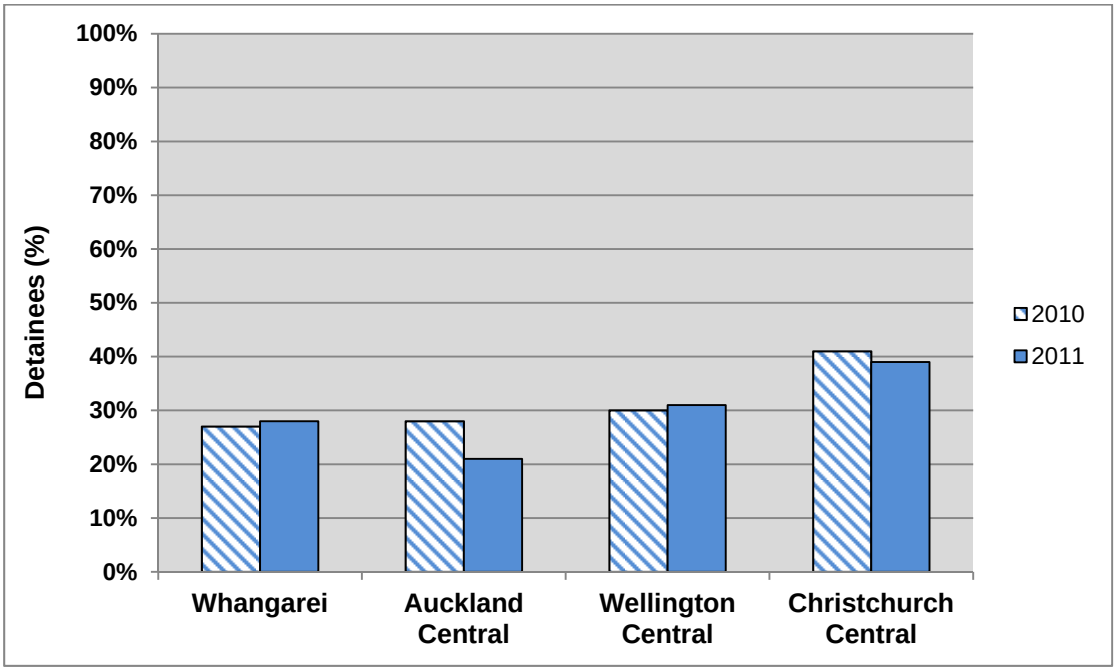
Accommodation

In 2011, 52% of the detainees were living in someone else's house and 43% in their own house in the previous 30 days. Three percent of the detainees had no fixed address.

Mental illness

In 2011, 29% of the detainees reported having had a mental illness at some point in their life. Detainees in Auckland Central were less likely to report having ever had a mental illness in 2011 compared to 2010 (21% vs. 28%) and this difference was close to being statistically significant (p=0.0558). In 2011, detainees in Auckland Central were less likely to have ever had a mental illness than detainees in Wellington Central (21% vs. 31%, p=0.0150) and Christchurch Central (21% vs. 39%, p=<0.0001) (Figure 2.7). Detainees in Whangarei were also less likely to have had a mental illness than those in Christchurch Central (28% vs. 39%, p=0.0428).

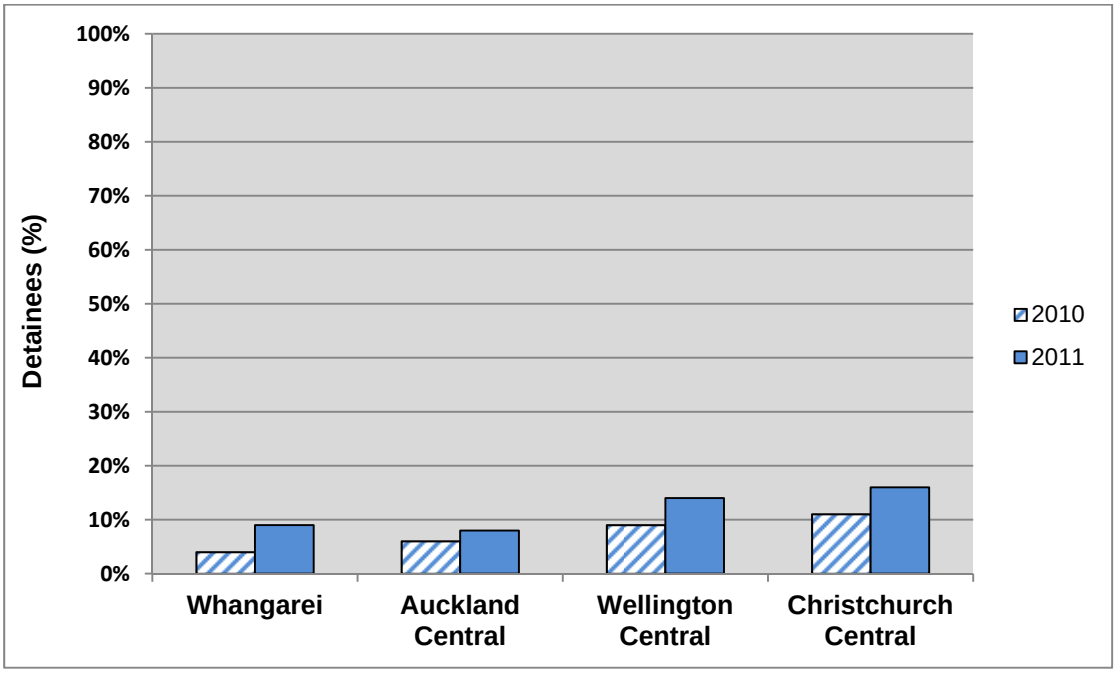
Figure 2.7: Proportion of the police detainees who had ever had a mental illness by location, 2010 & 2011



Psychiatric inpatient

Eleven percent of the detainees had been a patient in a psychiatric ward or hospital for overnight stay or longer at some point in their lives (Table 2.11). A higher proportion of detainees had ever been in a psychiatric ward or hospital in 2011 compared to 2010 (11% vs. 8%, p=0.0169). In 2011, detainees in Christchurch Central were more likely to have ever been a patient in a psychiatric ward/hospital than detainees in Auckland Central (16% vs. 8%, p=0.0073) (Figure 2.8). Detainees in Wellington Central were also more likely to have ever been a psychiatric patient than detainees in Auckland Central (14% vs. 8%, p=0.0508).

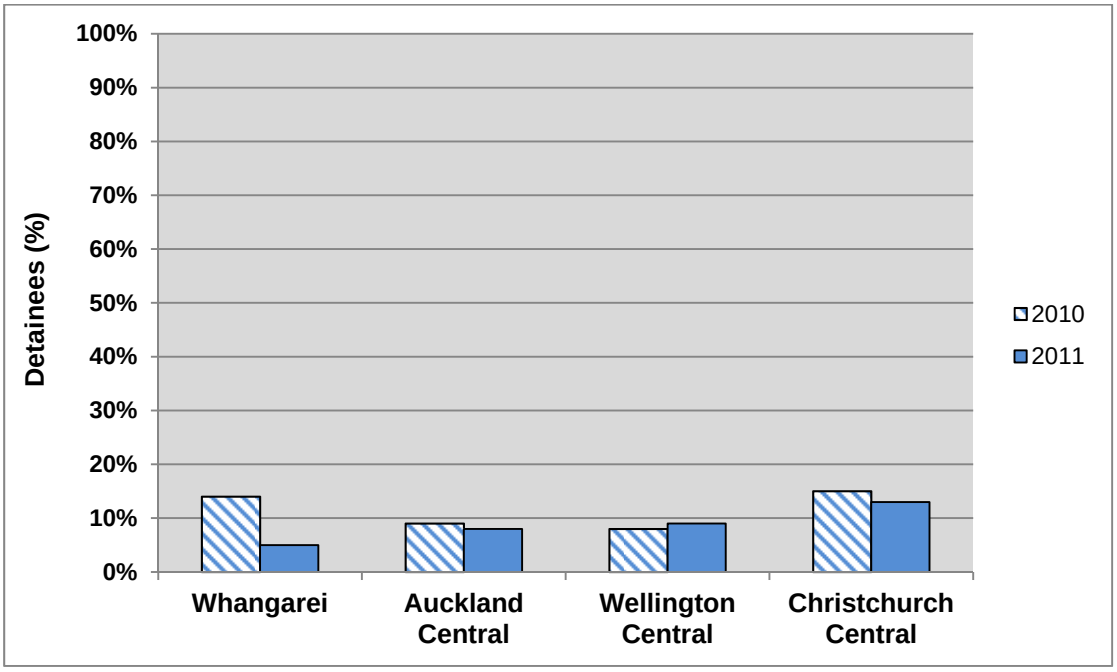
Figure 2.8: Proportion of police detainees who had ever been a patient in a psychiatric ward or hospital for an overnight stay or longer by location, 2010 & 2011



Current treatment or medication for mental illness

Nine percent of the detainees were currently receiving treatment or medication for a mental illness at the time of their arrest in 2011. A lower proportion of detainees in Whangarei were currently receiving treatment or medication for a mental illness in 2011 compared to 2010 (5% vs. 14%, p=0.0099) (Figure 2.9).

Figure 2.9: Proportion of police detainees currently receiving treatment or medication for a mental illness by location, 2010 & 2011



Summary

- Eighty-eight percent of the detainees were male
- The detainees had a mean age of 28 years old
- Forty percent of the detainees were Maori, 39% were European and 16% were Pacific
- A higher proportion of detainees were Maori in the Whangarei site than in the other sites
- Fifty-five percent of the detainees were unemployed or on a sickness benefit and 37% were employed
- The detainees were more likely to be unemployed or in temporary work over the previous five years in 2011 compared to 2010
- Forty-six percent of the detainees had not completed the compulsory high school years of education
- Thirty-two percent of the detainees had dependent children

- Detainees in Whangarei were more likely to have dependent children than those in the other sites

- Twenty-nine percent of the police detainees had suffered from a mental illness in their lifetimes

- Detainees in Wellington Central and Christchurch Central were more likely than detainees in Auckland Central to have ever suffered from a mental illness

- A higher proportion of detainees had ever been in a psychiatric ward for at least an overnight stay in 2011 compared to 2010 (11% vs. 8%)

- Detainees in Christchurch Central and Wellington Central were more likely than detainees in Auckland Central to have ever been a patient in a psychiatric ward for at least an overnight stay

- Nine percent of the detainees were receiving treatment or medication for a mental illness at the time of their arrest

Chapter 3 – Alcohol

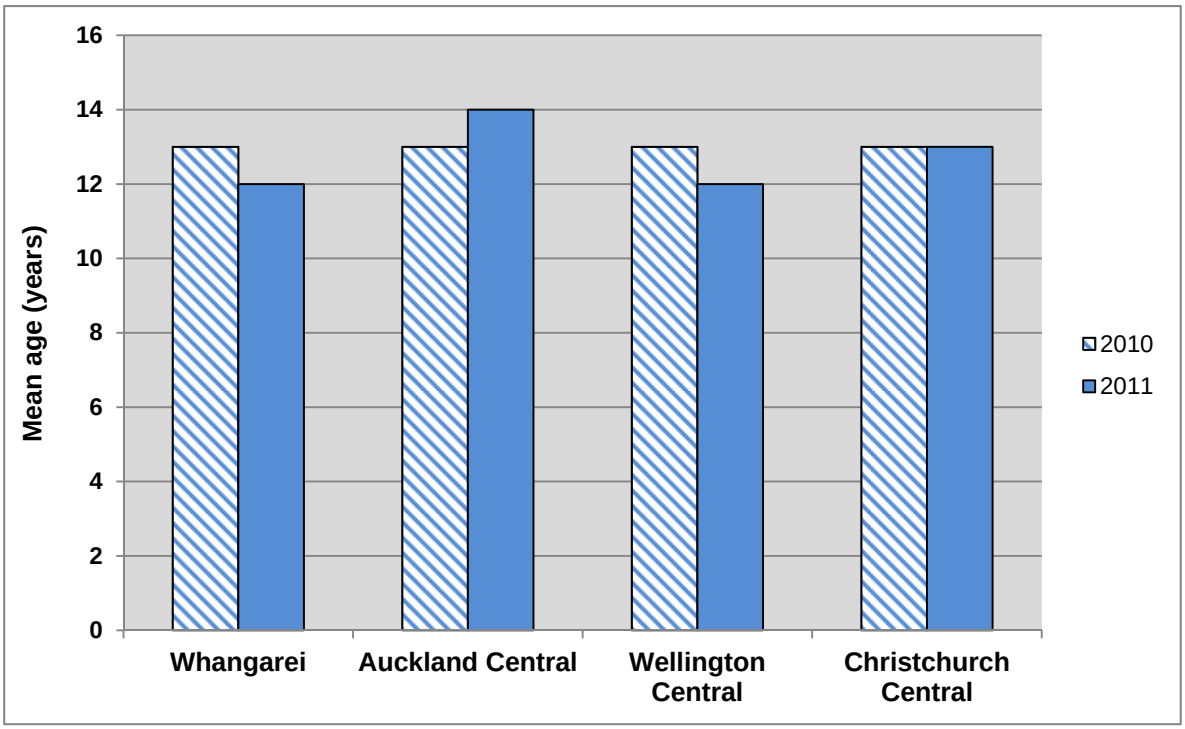
Introduction

The use of alcohol contributes to a range of social problems including public disorder, crime, violence, family and partner violence, dangerous driving, injury and accidents, suicide, work absenteeism, low work performance and unsafe work practices (Babor et al., 2010; Kleiman, 1992). Alcohol use is also a risk factor in serious health disorders including liver damage, cardiovascular disease, pancreatitis, hypertension, cancer, brain damage and alcoholism (Babor et al., 2010). Alcohol is the most widely available recreational drug in New Zealand (Wilkins & Sweetsur, 2008b, 2008c). In the 2010 NZ-ADUM, 92% of the police detainees who had used alcohol considered it 'easy' or 'very easy' to obtain(Wilkins et al., 2010b). Thirty-seven percent of the detainees in the 2010 NZ-ADUM had been drinking alcohol prior to their arrest, consuming an average of 12 standard drinks before being arrested (Wilkins et al., 2010b). Male detainees and those receiving social welfare benefits were more likely to be heavier drinkers (Wilkins et al., 2010b).

Use of alcohol

In 2011, 92% of the detainees had consumed alcohol in the previous year (Table 3.1). Eighty-one percent of the detainees had drunk alcohol in the past month. Detainees in Whangarei had first drunk alcohol at a younger age in 2011 compared to 2010 (12 vs. 13 years, p=0.0489) (Figure 3.1). Detainees in Wellington Central had also first drunk alcohol at a younger age in 2011 than in 2010 (12 vs. 13 years, p=0.0054).

Figure 3.1: Mean age at which police detainees first tried alcohol by location, 2010 & 2011



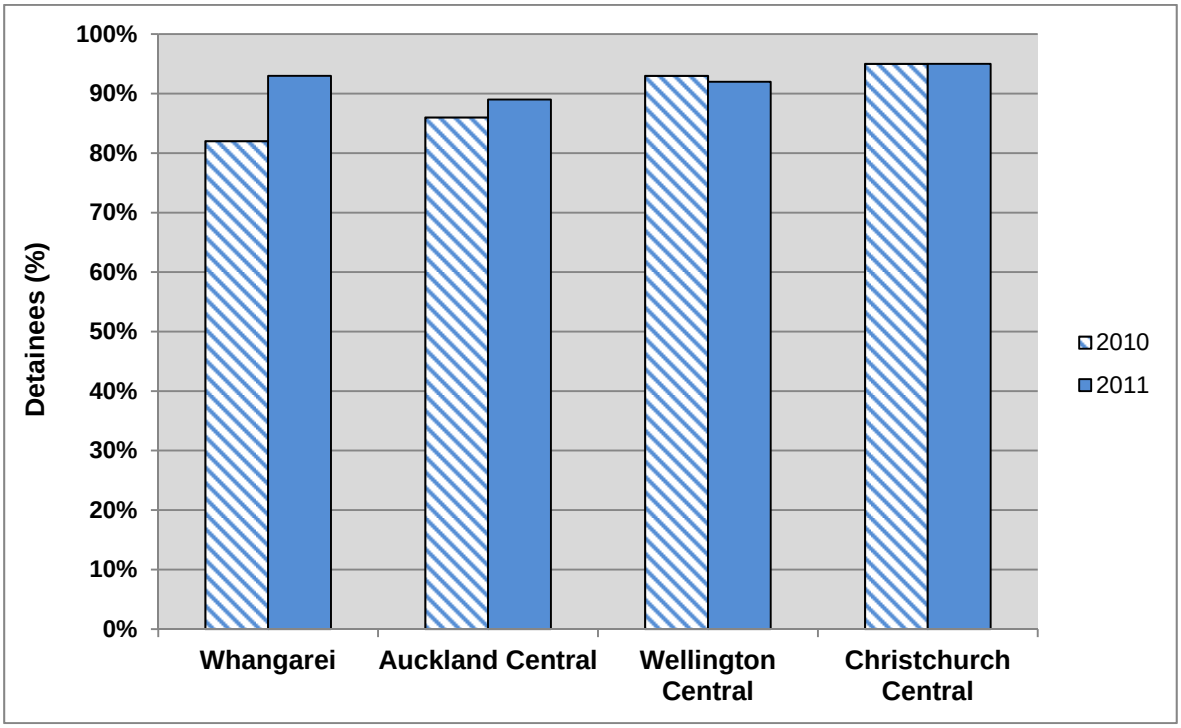
Detainees in Whangarei were more likely to have drunk alcohol in the past year in 2011 compared to 2010 (93% vs. 82%, p=0.0070) (Figure 3.2).

Table 3.1: Police detainees' patterns of alcohol use by location, 2010 & 2011

Use of alcohol	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=115)	**2011 (n=149)**	**2010 (n=285)**	**2011 (n=316)**	**2010 (n=152)**	**2011 (n=171)**	**2010 (n=262)**	**2011 (n=191)**	**2010 (n=814)**	**2011 (n=827)**
Ever used (%)	97	99	97	99	99	99	100	100	98	99
Mean age first used (years)	13	12	13	14	13	12	13	13	13	13
Used in past 12 months (%)	82	93	86	89	93	92	95	95	90	92
Mean number of days used in past 12 months*	89	85	118	107	100	111	109	107	108	104
Mean number of standard drinks per day*	15	19	11	13	13	17	12	15	12	15
Felt dependent in past 12 months (%)*	21	19	26	26	26	24	21	21	23	23
Used in past month (%)	74	83	76	78	84	81	86	85	80	81
Mean number of days used in past month**	8	8	10	10	8	10	9	10	9	9
Mean number of days males had 5 or more drinks in past month**	6	7	8	10	8	9	9	9	8	9
Mean number of days females had 3 or more drinks in past month**	7	11	8	6	2	9	7	12	7	9

* of those who drank alcohol in the past 12 months ** of those who drank alcohol in the past month

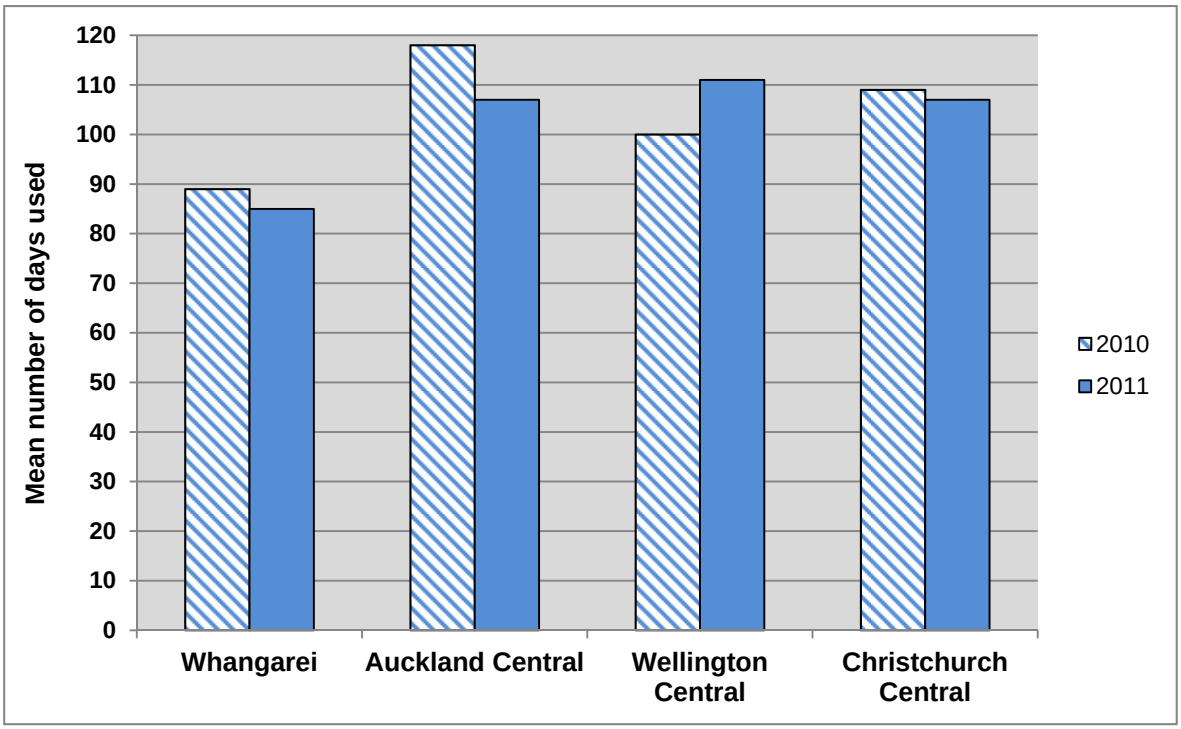
Figure 3.2: Proportion of police detainees who used alcohol in the past 12 months by location, 2010 & 2011



Frequency of alcohol use

The detainees drank alcohol on a mean of 104 days in the past 12 months in 2011 (median 52, range 1-365 days). There was no statistically significant difference in the mean number of days on which the detainees drank alcohol in the past year between 2010 and 2011 (108 vs. 104 days). In 2011, detainees in Whangarei drank alcohol on a lower number of days in the past 12 months than those in Auckland Central (85 vs. 107 days, p=0.0408), Wellington Central (85 vs. 111 days, p=0.0326) and Christchurch Central (85 vs. 107 days, p=0.0514) (Figure 3.3).

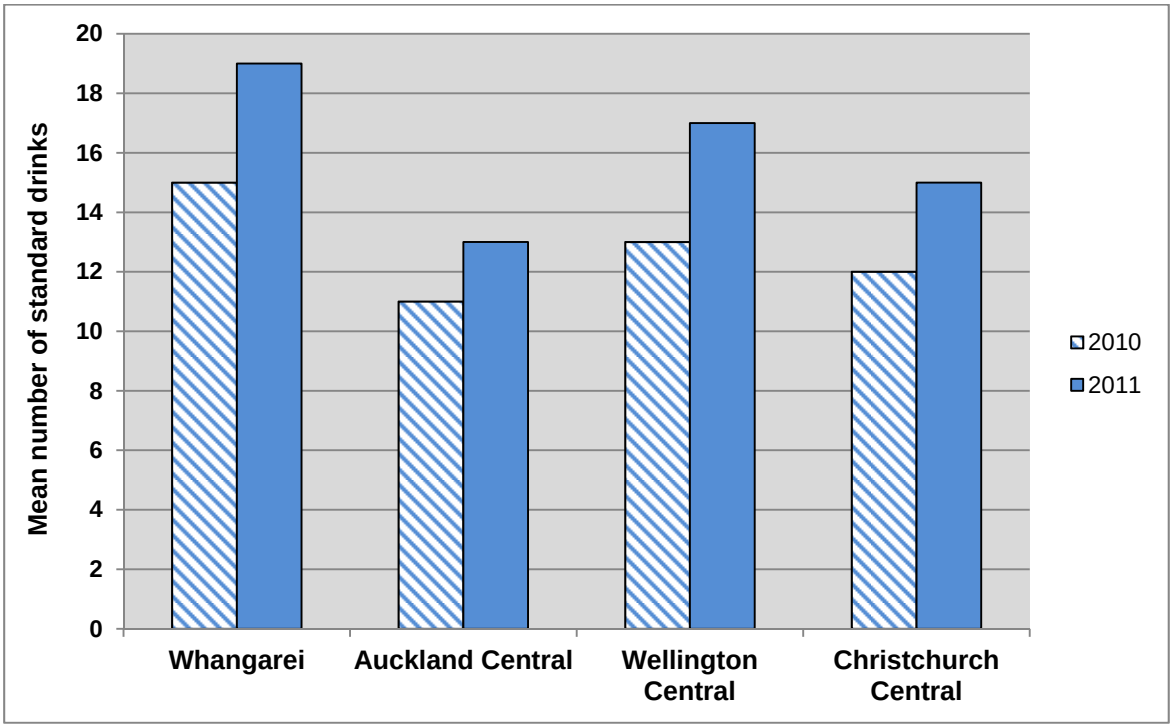
Figure 3.3: Number of days alcohol consumed in the past 12 months by location, 2010 & 2011



Quantity of alcohol consumed

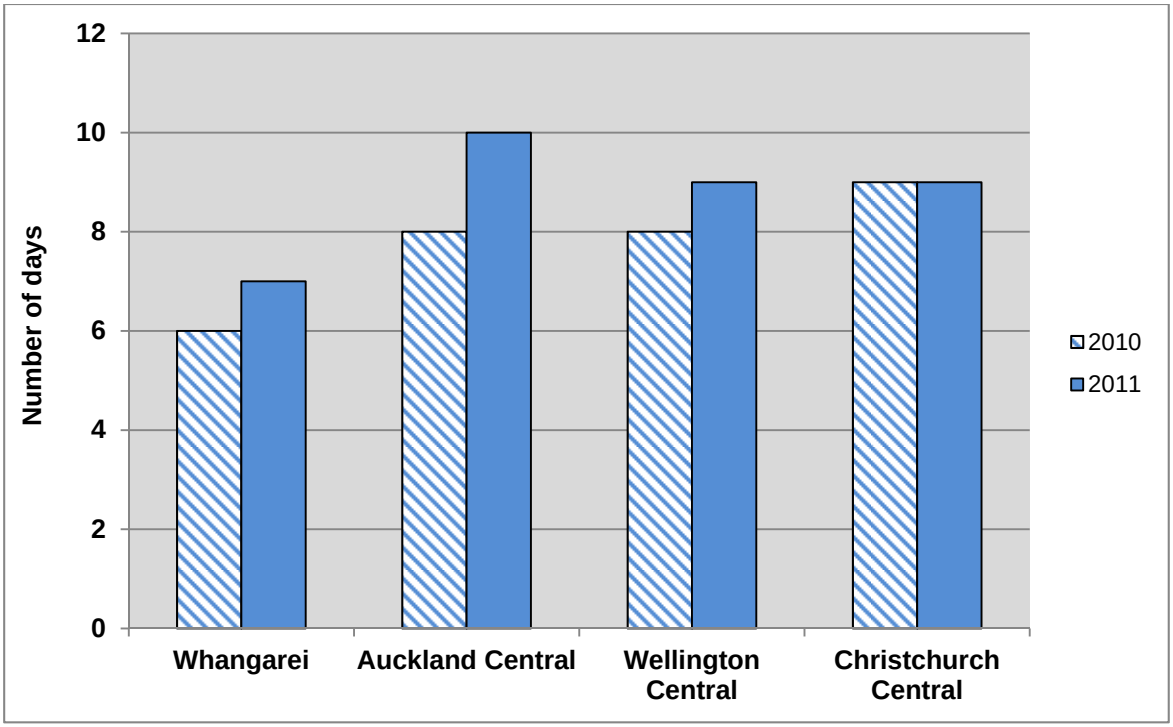
The detainees drank a higher mean number of alcoholic drinks on a typical day of use in 2011 compared to 2010 (15 vs. 12 standard drinks, p=0.0015). Detainees in Auckland Central drank a higher number of drinks on a typical day of use in 2011 compared to 2010 (13 vs. 11 standard drinks, p=0.0346) (Figure 3.4). Detainees in Wellington Central also drank a higher number of drinks on a day of typical use in 2011 compared to 2010 (17 vs. 13 standard drinks), but this difference was not statistically significant (p=0.1022). In 2011, detainees in Whangarei drank more drinks on a typical day than detainees in Auckland Central (19 vs. 13 standard drinks, p=0.0009) and Christchurch Central (19 vs. 15 standard drinks, p=0.0231).

Figure 3.4: Mean number of standard alcohol drinks consumed by police detainees on a typical day by location (of those who had drunk alcohol in the previous 12 months), 2010 & 2011



The detainees who had drunk alcohol in the past month were asked on how many days during the past month they had drunk larger quantities of alcohol (i.e. five or more drinks for men on a single occasion or three or more drinks for women on a single occasion). Male detainees in Auckland Central had drunk five or more standard drinks on more days in the past month in 2011 compared to 2010 (10 vs. 8 days, p=0.0359) (Figure 3.5). In 2011, male detainees in Whangarei drank five or more standard drinks on a typical day on fewer occasions in the past month than detainees in Auckland Central (7 vs. 10 days, p=0.0018), Wellington Central (7 vs. 9 days, p=0.0185) and Christchurch Central (7 vs. 9 days, p=0.0429).

Figure 3.5: Mean number of days on which male detainees had drunk five or more standard alcoholic drinks in the past 30 days by location (of those who had drunk alcohol in the previous month), 2010 & 2011



Dependency on alcohol

The detainees who had drunk alcohol in the past 12 months were asked if they felt they were dependent on alcohol during this time. Twenty-three percent of the alcohol using detainees felt they were dependent of alcohol in 2011. There was no change in the proportion of alcohol using detainees who felt they were dependent on alcohol in 2011 compared to 2010 (23% in both years).

Alcohol use at time of arrest

Forty-one percent of the detainees had been drinking alcohol prior to their arrest in 2011. A higher proportion of detainees had been drinking prior to their arrest in 2011 compared to 2010 (41% vs. 36%) and this difference was close to being statistically significant (p=0.0627) (Table 3.2). Higher proportions of detainees in Auckland Central had been drinking prior to their arrest in 2011 compared to 2010 (42% vs. 35%) and this difference was also close to being statistically significant (p=0.0805) (Figure 3.6). A higher proportion of detainees in Whangarei had also been

drinking prior to their arrest in 2011 compared to 2010 (42% vs. 32%) but again the difference was not quite statistically significant (p=0.1057).

Figure 3.6: Proportion of police detainees who had been drinking alcohol prior to their arrest by location, 2010 & 2011

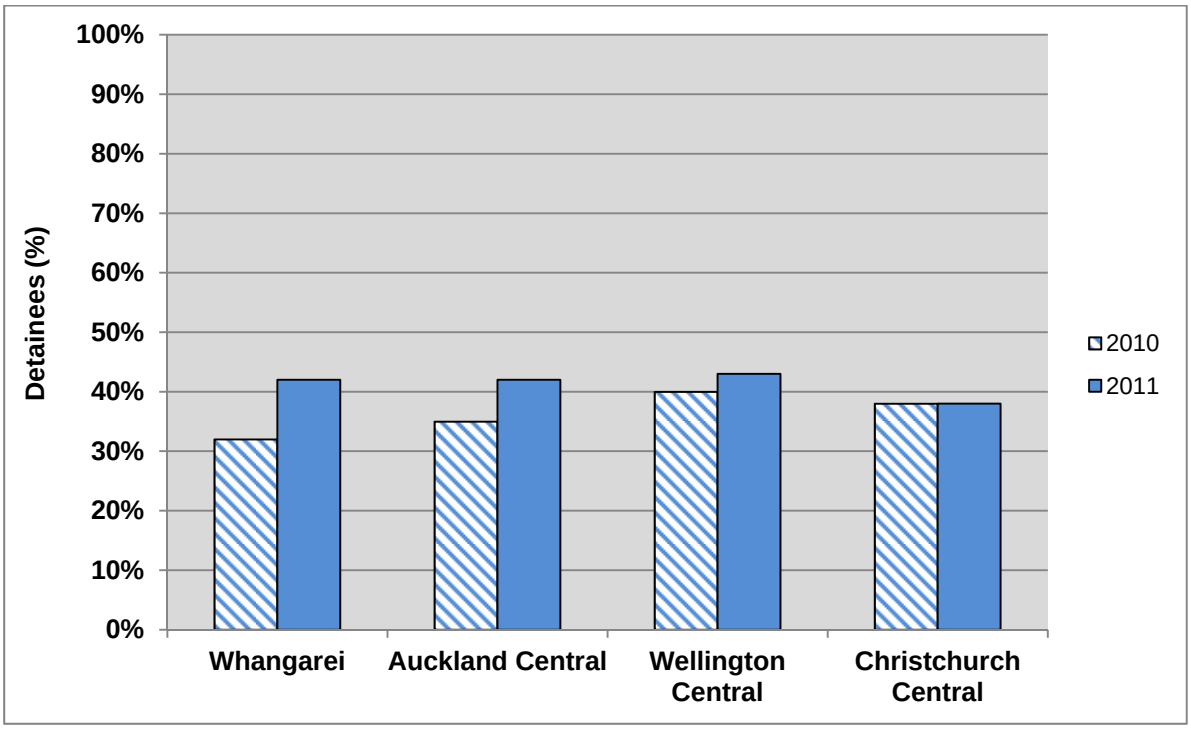


Table 3.2: Proportion of police detainees who were drinking alcohol at the time of their arrest by location, 2010 & 2011

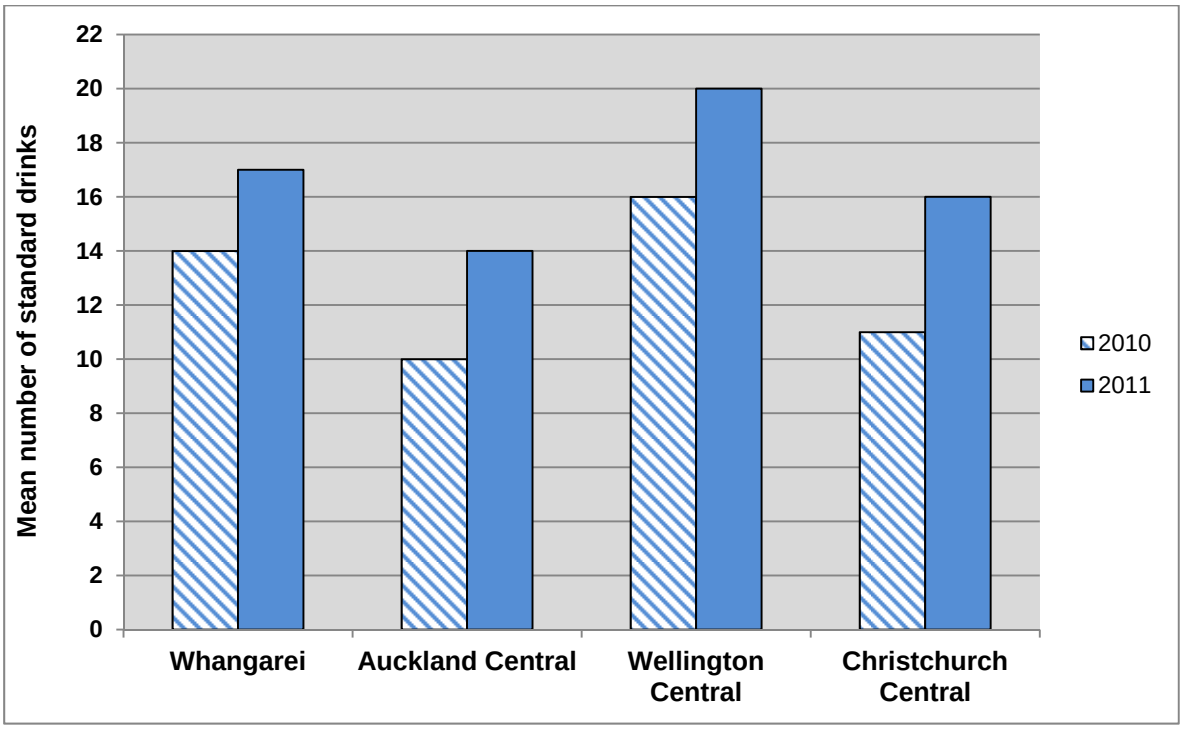
Use of alcohol	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=111)	2011 (n=149)	2010 (n=283)	2011 (n=310)	2010 (n=147)	2011 (n=170)	2010 (n=262)	2011 (n=189)	2010 (n=803)	2011 (818)
Using when arrested (%)	32	42	35	42	40	43	38	38	36	41
Mean number of standard drinks before arrest*	14	17	10	14	16	20	11	16	12	16

* of those who had been drinking alcohol when arrested

The detainees had consumed a mean of 16 standard alcoholic drinks before their arrest in 2011 (median 12). The detainees drank a higher mean number of drinks

before their arrest in 2011 compared to 2010 (16 vs. 12 standard drinks, p=0.0018). The detainees in Auckland Central had consumed more drinks before their arrest in 2011 compared to 2010 (14 vs. 10 standard drinks, p=0.0036) (Figure 3.7).

Figure 3.7: Mean number of standard alcoholic drinks consumed at the time of arrest by location, 2010 & 2011



Current availability of alcohol

The detainees reported the current availability of alcohol was 'very easy' in 2011 (Table 3.3). Auckland Central detainees considered alcohol to be more easily available in 2011 compared to 2010 (3.8 vs. 3.7, p=0.0221) (Figure 3.8). Detainees in Wellington Central thought that alcohol was less available in 2011 compared to 2010 (3.5 vs. 3.6) and this difference was close to being statistically significant (p=0.0501).

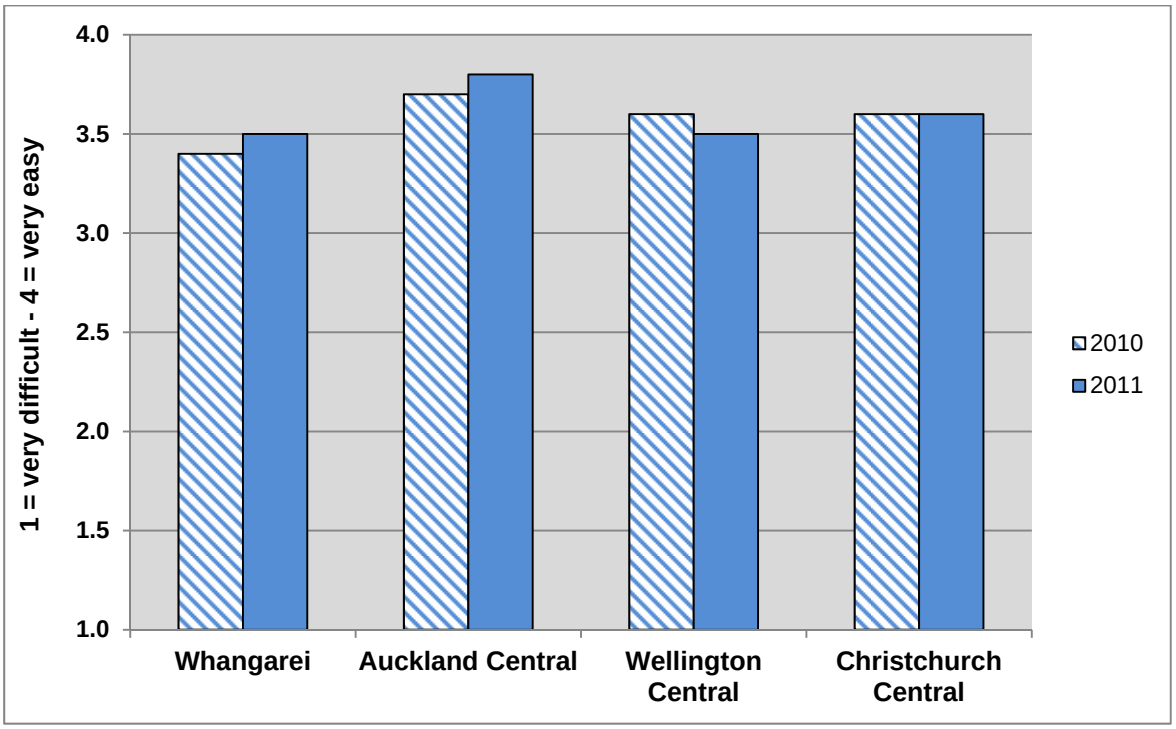
Table 3.3: Police detainees' perceptions of the current availability of alcohol by location, 2010 & 2011

Current availability of alcohol	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=97)	2011 (n=139)	2010 (n=245)	2011 (n=278)	2010 (n=138)	2011 (n=155)	2010 (n=248)	2011 (n=181)	2010 (n=728)	2011 (n=753)

Very easy [4]	49%	60%	77%	85%	70%	61%	72%	69%	70%	71%
Easy [3]	41%	28%	17%	12%	23%	28%	18%	24%	22%	21%
Difficult [2]	7%	10%	4%	2%	5%	8%	9%	6%	6%	6%
Very difficult [1]	2%	2%	2%	1%	1%	3%	2%	2%	2%	2%
Average availability (1 = very difficult – 4 = very easy)	3.4	3.5	3.7	3.8	3.6	3.5	3.6	3.6	3.6	3.6
Overall current availability	Very easy/ easy	Very easy/ Easy	Very easy	Very easy	Very easy	Very easy/ Easy	Very easy	Very easy/ easy	Very easy	Very easy

In 2011, alcohol was considered to be more available in Auckland Central than in Whangarei (3.8 vs. 3.5, p=<0.0001), Wellington Central (3.8 vs. 3.5, p=<0.0001) and Christchurch Central (3.8 vs. 3.5, p=0.0005).

Figure 3.8: Current availability of alcohol by location, 2010 & 2011



Change in availability of alcohol

The detainees reported the availability of alcohol had been 'stable' over the past six months in 2011 (Table 3.4). Detainees in Whangarei were more likely to report that obtaining alcohol had become harder in 2011 compared to 2010 (2.1 vs. 2.2, p=0.0433).

Table 3.4: Change in availability of alcohol by location, 2010 & 2011

Change in availability of alcohol	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=96)	2011 (n=137)	2010 (n=242)	2011 (n=269)	2010 (n=137)	2011 (n=151)	2010 (n=248)	2011 (n=180)	2010 (n=723)	2011 (n=737)
Easier [3]	26%	18%	22%	19%	19%	11%	21%	23%	22%	18%
Stable [2]	64%	67%	69%	77%	71%	83%	67%	69%	68%	74%
Fluctuates [2]	5%	4%	2%	2%	3%	1%	6%	0%	4%	2%
More difficult [1]	5%	11%	7%	2%	7%	5%	6%	7%	6%	6%
Mean change in availability (1 = more difficult – 3 = easier)	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1
Overall change in availability	Stable/ easier	Stable/ easier	Stable/ easier	Stable	Stable	Stable	Stable/ easier	Stable/ easier	Stable/ easier	Stable

In 2011, detainees in Auckland Central were less likely to report that the availability of alcohol was becoming harder than detainees in Whangarei (2.2 vs. 2.1, p=0.0441) and Wellington Central (2.2 vs. 2.1, p=0.0044). Detainees in Christchurch Central were more likely to report that they thought alcohol was getting easier to obtain than detainees in Wellington Central (2.2 vs. 2.1, p=0.0343).

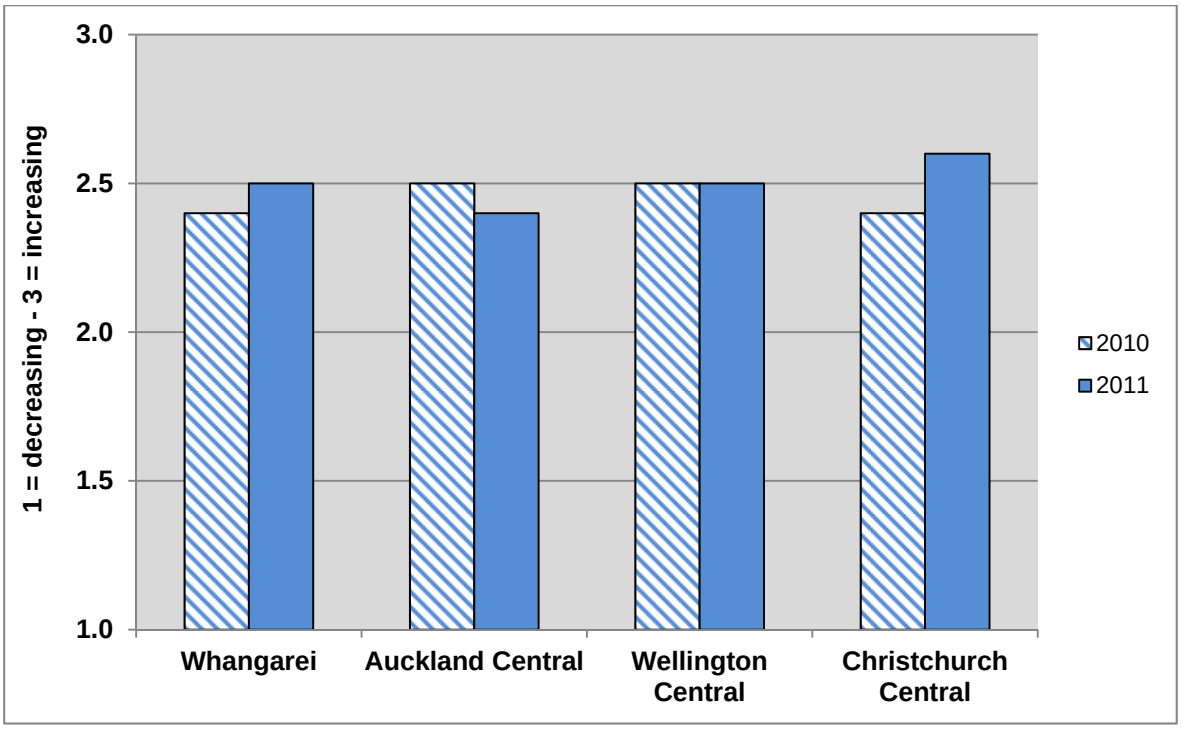
Change in the price of alcohol

The detainees reported the price of alcohol had been 'increasing/stable' over the previous six months in 2011 (Table 3.5). A higher proportion of detainees in Christchurch Central said the price of alcohol was increasing in 2011 compared to 2010 (2.6 vs. 2.4, p=0.0144) (Figure 3.9). In 2011, detainees in Christchurch Central were more likely to say the price of alcohol was increasing than those in Auckland Central (2.6 vs. 2.4, p=0.0118).

Table 3.5: Police detainees' perceptions of the change in the price of alcohol in the past six months by location, 2010 & 2011

Change in price of alcohol	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=91)	2011 (n=121)	2010 (n=224)	2011 (n=256)	2010 (n=116)	2011 (n=143)	2010 (n=238)	2011 (n=171)	2010 (n=669)	2011 (n=691)
Increasing [3]	46%	56%	54%	52%	57%	52%	53%	65%	53%	57%
Fluctuating [2]	22%	12%	9%	12%	9%	13%	5%	8%	10%	11%
Stable [2]	24%	22%	29%	29%	28%	30%	32%	22%	29%	26%
Decreasing [1]	8%	10%	8%	7%	6%	4%	9%	5%	8%	7%
Mean change in price (1 = decreasing – 3 = increasing)	2.4	2.5	2.5	2.4	2.5	2.5	2.4	2.6	2.5	2.5
Overall change in availability	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable	Increasing/ stable

Figure 3.9: Police detainees' perceptions of the change in the price of alcohol in the past six months by location, 2010 & 2011



Time taken to purchase alcohol

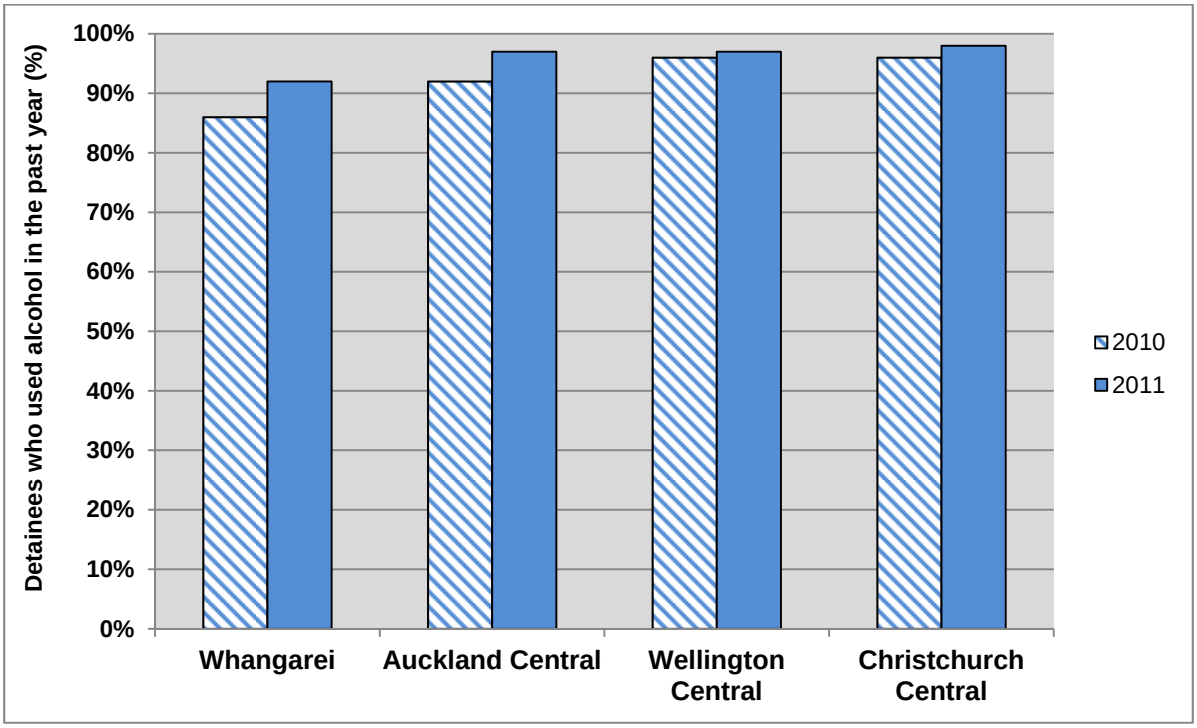
A higher proportion of the detainees who drank alcohol in the past year could purchase it in one hour or less in 2011 compared to 2010 (96% vs. 93%, p=0.0167) (Table 3.6). Eighty-three percent of the detainees could purchase alcohol in less than 20 minutes. A higher proportion of detainees in Auckland Central could purchase alcohol in one hour or less in 2011 compared to 2010 (97% vs. 92%, p=0.0127) (Figure 3.10).

Table 3.6: Time taken by police detainees to purchase alcohol, by location, 2010 & 2011

Time taken to purchase alcohol (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=96)	2011 (n=138)	2010 (216)	2011 (n=276)	2010 (n=137)	2011 (n=154)	2010 (n=247)	2011 (n=181)	2010 (n=696)	2011 (749)
Weeks	2%	2%	1%	0%	0%	0%	<1%	0%	1%	<1%
Days	6%	2%	1%	<1%	0%	0%	0%	0%	1%	1%
About 1 day	1%	1%	3%	<1%	1%	1%	0%	1%	1%	1%
Hours	4%	2%	3%	1%	3%	3%	3%	2%	3%	2%
1 hour	13%	18%	14%	9%	15%	11%	12%	16%	13%	13%
Less than 20 mins	74%	74%	78%	88%	82%	86%	84%	82%	80%	83%

In 2011, a lower proportion of detainees could purchase alcohol in one hour or less in Whangarei compared to Auckland Central (92% vs. 97%, p=0.0259) and Christchurch Central (92% vs. 98%, p=0.0244).

Figure 3.10: Proportion of the police detainees who could purchase alcohol in one hour or less by location, 2010 & 2011



Effect of alcohol on the likelihood of becoming angry

Those detainees who reported using alcohol in the past 12 months were asked what effect drinking alcohol has on their likelihood of becoming angry. Thirty-five percent of the alcohol using detainees said using alcohol was 'more likely' or 'much more likely' to make them become angry in 2011 (Table 3.7).

Table 3.7: Effect of alcohol on police detainees' likelihood of becoming angry, 2010 & 2011

Effect of alcohol on likelihood of becoming angry	All sites	
	2010 (n=720)	2011 (n=741)
Much more likely [5]	11%	8%
More likely [4]	26%	27%
No effect [3]	32%	41%
Less likely [2]	23%	19%
Much less likely [1]	8%	5%
Mean impact on likelihood to become angry(1 = much less – 5 = much more)	3.1	3.1

Driving under the influence of alcohol

Those detainees who had drunk alcohol in the past year were asked how often they drove under the influence of alcohol. Twenty-four percent of the alcohol using detainees said they did not drive and a further 7% said their driver licence was suspended. Twenty percent of the detainees who drove and drank alcohol had completed at least some of their driving under the influence of alcohol in 2011 (Table 3.8). Detainees in Whangarei had completed less of their driving under the influence of alcohol in 2011 compared to 2010 (0.5 vs. 0.8, p=0.0149). In 2011, detainees in Auckland Central had completed more of their driving under the influence of alcohol than those in Whangarei (0.8 vs. 0.5, p=0.0038).

Table 3.8: Extent police detainees who drove and who had used alcohol in the past 12 months had driven under the influence of alcohol by location, 2010 & 2011

Extent drove under the influence of alcohol (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=79)	2011 (n=100)	2010 (n=165)	2011 (n=198)	2010 (n=91)	2011 (n=98)	2010 (n=54)	2011 (n=124)	2010 (n=489)	2011 (n=520)
All [4]	3%	2%	2%	2%	4%	2%	2%	0%	3%	1%
Most [3]	3%	0%	3%	5%	3%	3%	6%	3%	4%	3%
Some [2]	14%	8%	18%	20%	14%	14%	19%	18%	17%	16%
Hardly any [1]	37%	26%	19%	20%	18%	18%	18%	19%	21%	20%
None [0]	44%	64%	58%	54%	60%	62%	55%	60%	55%	59%
Mean score of extent drove under influence (0 = none – 4 = all)	0.8	0.5	0.7	0.8	0.7	0.6	0.8	0.6	0.8	0.7

Summary

- Ninety-two percent of the detainees had drunk alcohol in the past 12 months in 2011
- Detainees in Whangarei and Wellington Central had first drunk alcohol at a younger age in 2011 compared to 2010 (12 vs. 13 years for both sites)
- The detainees drank a higher mean number of alcoholic drinks on a typical day of drinking in 2011 compared to 2010 (15 vs. 12 standard drinks)
- Detainees in Auckland Central drank a higher number of drinks on a typical day of use in 2011 compared to 2010 (13 vs. 11 standard drinks)
- In 2011, Whangarei detainees drank more standard drinks on a typical day of use than detainees in Auckland Central and Christchurch Central
- Male detainees in Auckland Central drank five or more drinks on more days in the past month in 2011 than in 2010 (10 vs. 8 days)

- Twenty-three percent of the alcohol using detainees felt they were dependent on alcohol in 2011
- A higher proportion of detainees had been drinking prior to their arrest in 2011 compared to 2010 (41% vs. 36%)
- Detainees had consumed more alcoholic drinks before their arrest in 2011 compared to 2010 (16 vs. 12 drinks)
- Auckland Central detainees had consumed more drinks prior to their arrest in 2011 than in 2010 (14 vs. 10 drinks)
- Auckland Central detainees considered alcohol to be more easily available in 2011 than in 2010
- In 2011, alcohol was reported to be more easily available in Auckland Central than in Whangarei, Wellington Central and Christchurch Central
- Whangarei detainees thought that obtaining alcohol had become harder in 2011 compared to 2010
- The price of alcohol was reported to be 'increasing/stable' over the previous six months in 2011
- A higher proportion of detainees in Christchurch Central considered the price of alcohol to be increasing in 2011 compared to 2010
- A higher proportion of detainees could purchase alcohol in one hour or less in 2011 compared to 2010 (96% vs. 93%)
- A higher proportion of Auckland Central detainees could purchase alcohol in one hour or less than in 2011 compared to 2010 (97% vs. 92%)
- Thirty-five percent of the alcohol using detainees said drinking alcohol was 'more likely' or 'much more likely' to make them become angry in 2011
- Twenty percent of the detainees who drove and drank alcohol had completed at least some of their driving under the influence of alcohol in 2011

Chapter 4 - Methamphetamine

Introduction

Methamphetamine, known colloquially in New Zealand as 'P', is a powerful psycho-stimulant with pharmacological characteristics and effects closely resembling those of cocaine (Gawin & Ellinwood, 1988; Hall & Hando, 1994; Kuhn et al., 1998; Shearer et al., 2002). Chronic and high dose use of methamphetamine can cause hostility, paranoia, hallucinations, obsessive behavior and drug dependency (Hall & Hando, 1994; Kuhn et al., 1998; Shearer et al., 2002).

Methamphetamine use emerged in New Zealand in the late 1990s (Wilkins et al., 2002a). The population prevalence of methamphetamine use reached its peak in the early 2000s before leveling off in the mid-2000s (Wilkins & Sweetsur, 2008c). The Government announced a broad programme of policy measures to reduce methamphetamine use in New Zealand in October 2009 - known as the Methamphetamine Action Plan (Department of the Prime Minister and Cabinet, 2009). The Methamphetamine Action Plan included initiatives to reduce methamphetamine supply by controlling precursors, actively targeting methamphetamine supply chains through intelligence-led policing and new legislative tools (e.g. criminal proceeds recovery), reducing demand for methamphetamine through community action programmes (i.e. CAYAD) and community policing, and by helping users into alcohol and drug (AOD) treatment programmes and investing in additional residential AOD treatment places. The various initiatives from the Methamphetamine Action Plan were implemented over the course of 2010 and 2011 (Department of the Prime Minister and Cabinet, 2010a, 2010b).

The 2010 Illicit Drug Monitoring System (IDMS) found a steady increase in the gram price of methamphetamine in New Zealand over the past five years (from $610 per gram in 2006 to $780 per gram in 2010) and a more recent decline in potency

(Wilkins et al., 2011b). The 2010 NZ-ADUM found police detainees over the age of 25, who had not completed the compulsory high school years of education, were unemployed, had been recently imprisoned and were of Maori ethnicity were more likely to be frequent methamphetamine users (Wilkins et al., 2010b).

Findings from the 2011 Drug Use Monitoring in Australia (DUMA) indicate that methamphetamine use among Australian detainees has increased since 2009 following a long decline in use after 2004 (MacGregor & Payne, 2011). The 2011 Illicit Drug Reporting System (IDRS) also found the use of crystal methamphetamine/ice among a sample of frequent Australian injecting drug users increased in 2011 compared to 2010 (45% vs. 39%) (Stafford & Burns, 2011).

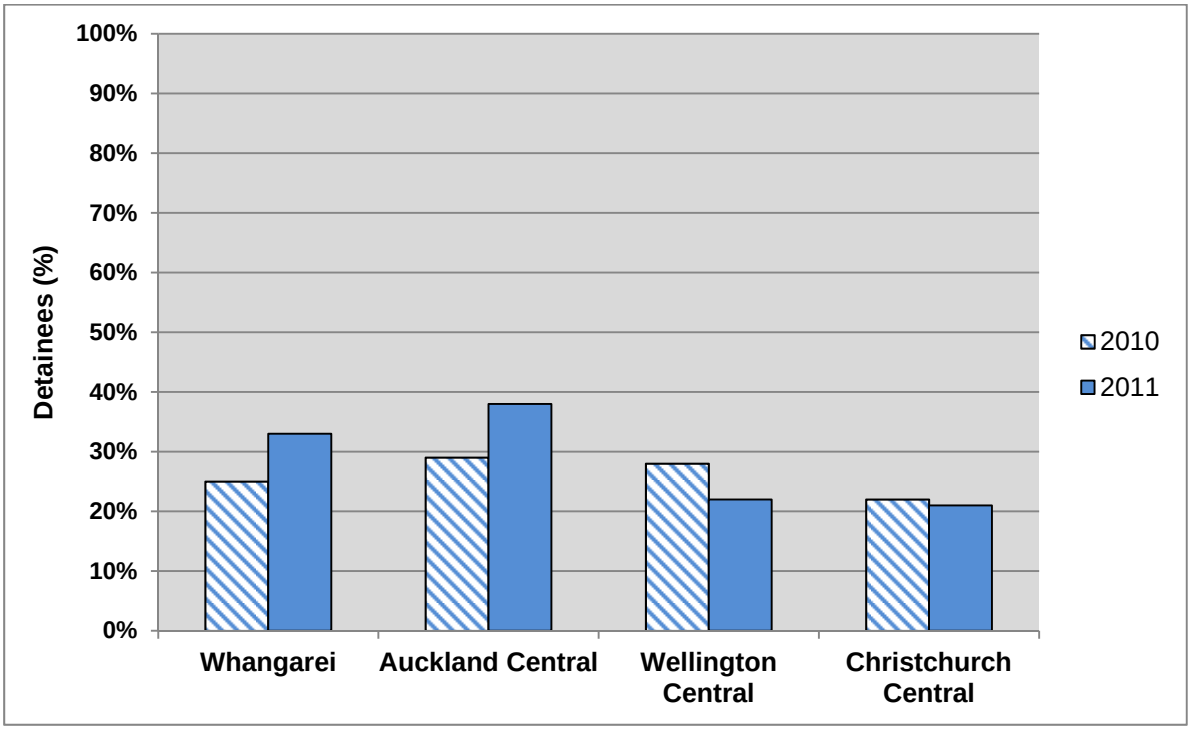
Patterns of methamphetamine use

In 2011, 45% of the police detainees had tried methamphetamine in their lifetimes, 30% had used methamphetamine in the past year and 18% had used it in the past month (Table 4.1). In 2011, detainees in Auckland Central were more likely to have ever used methamphetamine than detainees in Wellington Central (51% vs. 38%, p=0.0054) and Christchurch Central (51% vs. 41%, p=0.0312) (Figure 4.1).

Figure 4.1: Proportion of police detainees who had ever used methamphetamine by location, 2010 & 2011

Detainees in Auckland Central were more likely to have used methamphetamine in the past 12 months in 2011 compared to 2010 (38% vs. 29%, p=0.0191) (Figure 4.2). In 2011, detainees in Auckland Central were more likely to have used methamphetamine in the past year than detainees in Wellington Central (38% vs. 22%, p=0.0002) and Christchurch Central (38% vs. 21%, p=<0.0001). Detainees in Whangarei were more likely to have used methamphetamine in the past 12 months than detainees in Christchurch Central (33% vs. 21%, p=0.0107).

Figure 4.2: Proportion of police detainees who used methamphetamine in the past 12 months by location, 2010 & 2011



A higher proportion of detainees had used methamphetamine in the past month in 2011 compared to 2010 (18% vs. 14%, p=0.0331). Detainees in Auckland Central were more likely to have used methamphetamine in the past month in 2011 compared to 2010 (26% vs. 19%, p=0.0224) (Figure 4.3). In 2011, detainees in Auckland Central were more likely to have used methamphetamine in the past month than detainees in Wellington Central (26% vs. 11%, p<0.0001) and Christchurch Central (26% vs. 10%, p=<0.0001). Detainees in Whangarei were also more likely to have used methamphetamine in the past 12 months than detainees in Christchurch Central (33% vs. 21%, p=0.0107).

Figure 4.3: Proportion of police detainees who used methamphetamine in the past month by location, 2010 & 2011

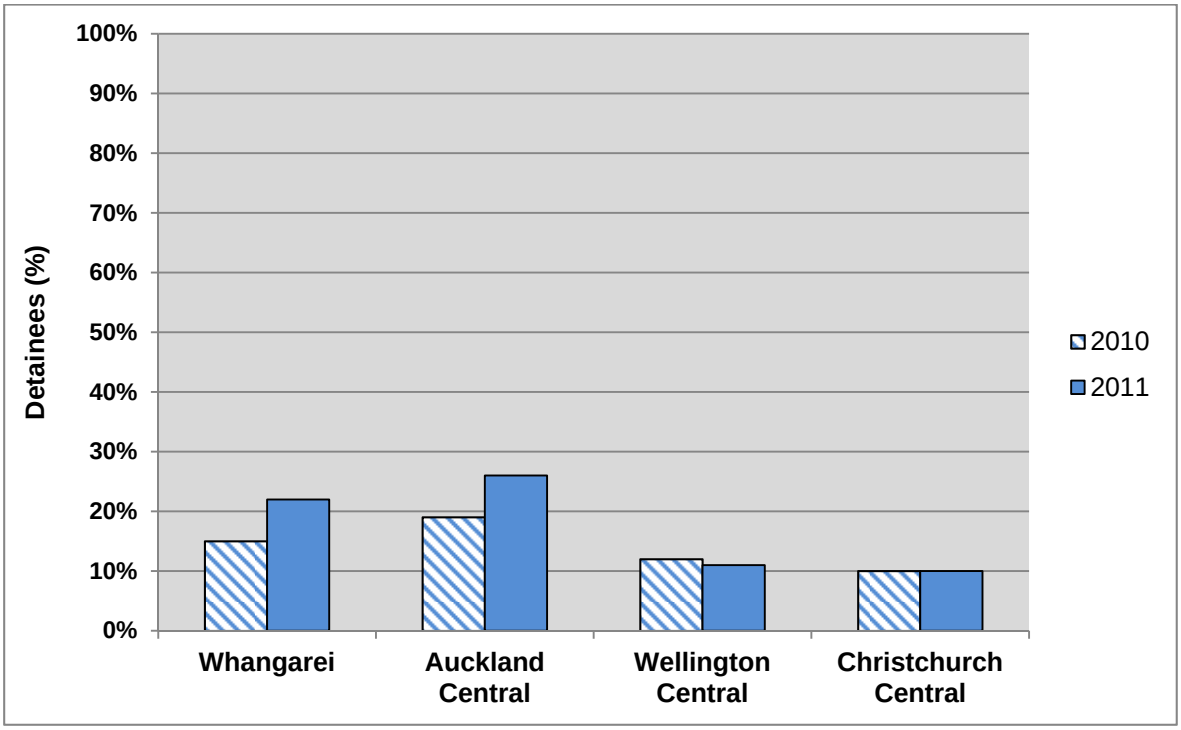


Table 4.1: Police detainees' patterns of methamphetamine use by location, 2010 & 2011

Use of meth-amphetamine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=115)	2011 (n=149)	2010 (n=284)	2011 (n=316)	2010 (n=152)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=813)	2011 (n=827)
Ever used (%)	43	46	45	51	42	38	35	41	41	45
Mean age first used (years)*	22	21	22	22	22	23	22	22	22	22
Used in past 12 months (%)	25	33	29	38	28	22	22	21	26	30
Mean number of days used in past 12 months**	44	77	102	82	67	77	35	59	68	76
Injected in past 12 months**	10	8	29	20	18	16	15	19	20	17
Felt dependent in past 12 months (%)**	19	16	36	31	28	24	7	8	25	23
Used in past month (%)	15	22	19	26	12	11	10	10	14	18
Mean number of days used in past month***	7	10	12	8	9	10	5	8	9	8

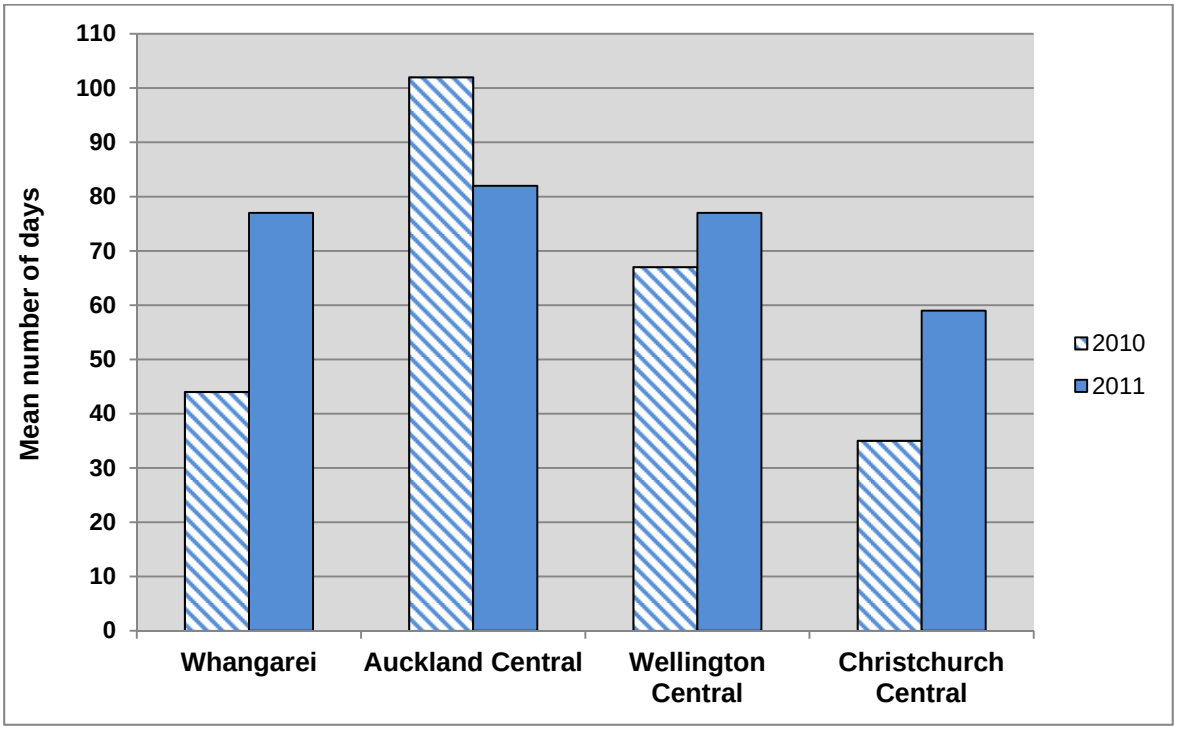
* of those who had ever tried
** of those who had used in the past 12 months
*** of those who had used in the past month

Seventeen percent of the detainees who had used methamphetamine in the past 12 months had injected it in 2011. There was no change in level of injection of methamphetamine in 2011 compared to 2010 (17% vs. 20%, p=0.3852).

Frequency of methamphetamine use

The detainees had used methamphetamine on a mean of 76 days in the past 12 months (median 12 days, range of 1-365 days). The detainees had used methamphetamine on more days in the past 12 months in 2011 compared to 2010 (76 vs. 68 days) and this difference was close to being statistically significant (p=0.0665).

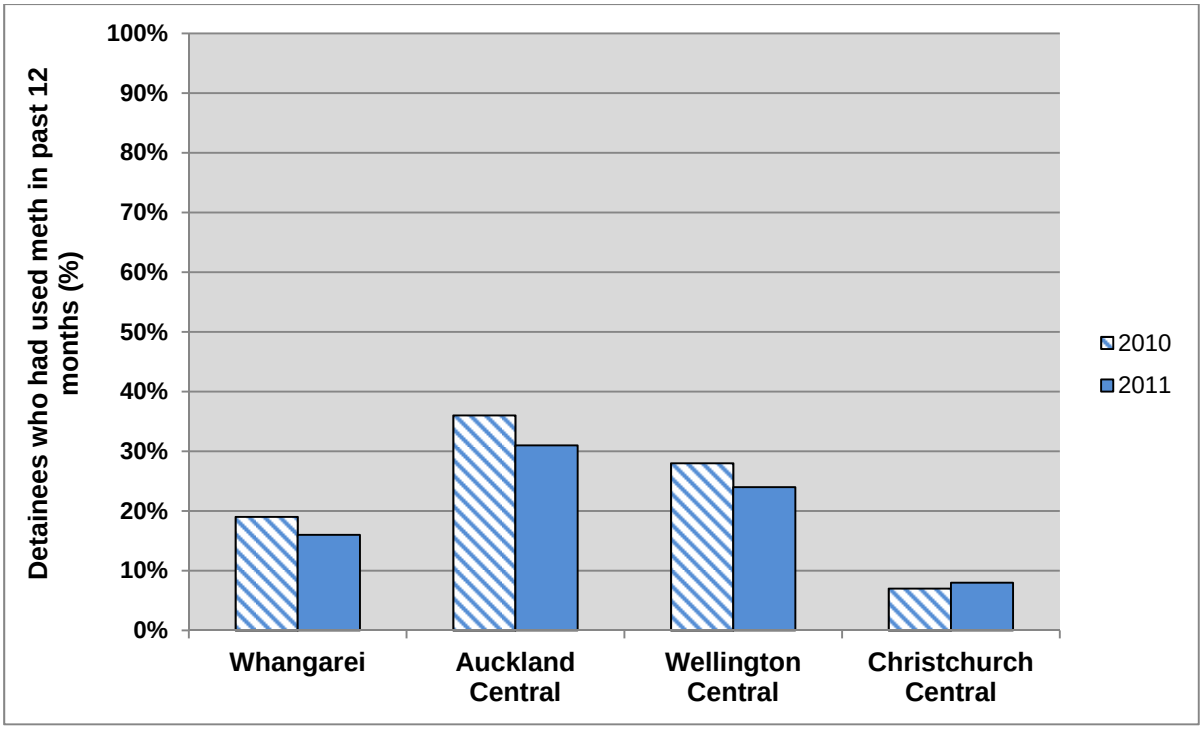
Figure 4.4: Mean number of days police detainees used methamphetamine in the past 12 months by location, 2010 & 2011



Dependency on methamphetamine

The detainees who had used methamphetamine in the past 12 months were asked if they felt they had been dependent on methamphetamine during the previous 12 months. In 2011, 23% of the detainees who had used methamphetamine in the past year indicated that they had felt dependent on methamphetamine. There was no change in the level of dependency on methamphetamine in 2011 compared to 2010 (23% vs. 25%, p=0.6162). In 2011, detainees in Auckland Central were more likely to report dependency on methamphetamine than those in Christchurch Central (31% vs. 8%, p=0.0083) (Figure 4.5). Detainees in Auckland Central were also more likely to report dependency on methamphetamine than detainees in Whangarei and this difference was nearly statistically significant (31% vs. 16%, p=0.0571). Detainees in Wellington Central were more likely to feel dependent on methamphetamine than those in Christchurch Central (24% vs. 8%) and this was also close to being statistically significant (p=0.067).

Figure 4 5: Proportion of police detainees who felt they were dependent on methamphetamine in the past 12 months by location (of those who had used methamphetamine in the past 12 months), 2010 & 2011



Methamphetamine use at the time of arrest

Five percent of the detainees reported they were using methamphetamine at the time of their arrest in 2011 (Table 4.2). A higher proportion of detainees were using methamphetamine at the time of their arrest in 2011 compared to 2010 (5% vs. 3%) and this difference was very close to being statistically significant (p=0.0558).

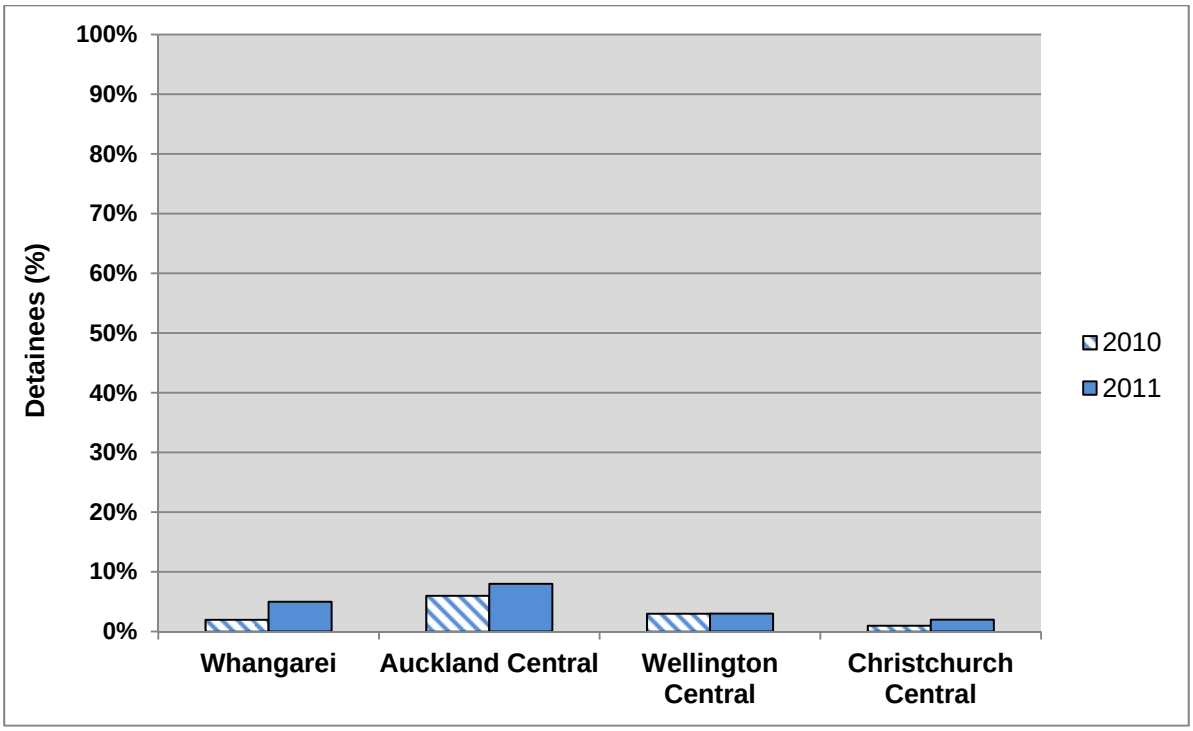
Table 4.2: Methamphetamine use by police detainees at time of arrest by location, 2010 & 2011

Use of meth-amphetamine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=113	2011 (n=148)	2010 (n=280)	2011 (n=309)	2010 (n=149)	2011 (n=170)	2010 (n=262)	2011 (n=190)	2010 (n=804)	2011 (n=817)
Using when arrested (%)	2	5	6	8	3	3	1	2	3	5

In 2011, detainees in Auckland Central were more likely to have been under the influence of methamphetamine at the time of their arrest than detainees in Wellington Central (8% vs. 3%, p=0.0332) and Christchurch Central (2% vs. 8%, p=0.0060) (Figure 4.6). Detainees in Whangarei were also more likely to have been

under the influence of methamphetamine when arrested than detainees in Christchurch Central (5% vs. 2%) and this difference was close to being statistically significant (p=0.0648).

Figure 4.6: Proportion of police detainees who were using methamphetamine when arrested by location, 2010 & 2011



Change in use of methamphetamine

Those detainees who had used methamphetamine in the previous year were asked how their use had changed compared to a year ago. In 2011, 41% of the methamphetamine using detainees were using 'less' methamphetamine and 32% were using 'more' methamphetamine (Table 4.3). There was no statistically significant change in the level of methamphetamine use in 2011 compared to 2010 (p=0.2395).

Table 4.3: Police detainees' change in methamphetamine use by location, 2010 & 2011

Change in use of meth-amphetamine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=30)	2011 (n=49)	2010 (n=81)	2011 (n=119)	2010 (n=41)	2011 (n=38)	2010 (n=54)	2011 (n=39)	2010 (n=206)	2011 (n=245)

More [3]	37%	39%	41%	33%	24%	37%	33%	21%	35%	32%
Same [2]	10%	4%	7%	22%	20%	13%	7%	31%	10%	19%
Less [1]	33%	45%	41%	38%	39%	47%	35%	38%	38%	41%
Stopped [0]	20%	12%	11%	8%	17%	3%	24%	10%	17%	8%
Mean score of change in use (0=stopped - 3=more)	1.6	1.7	1.8	1.8	1.5	1.8	1.5	1.6	1.6	1.8
Overall change in use	More/ less	Less/ more	More/ less	Less/ more	Less/ more	Less/ more	Less/ more	Less/ same	Less/ More	Less/ more

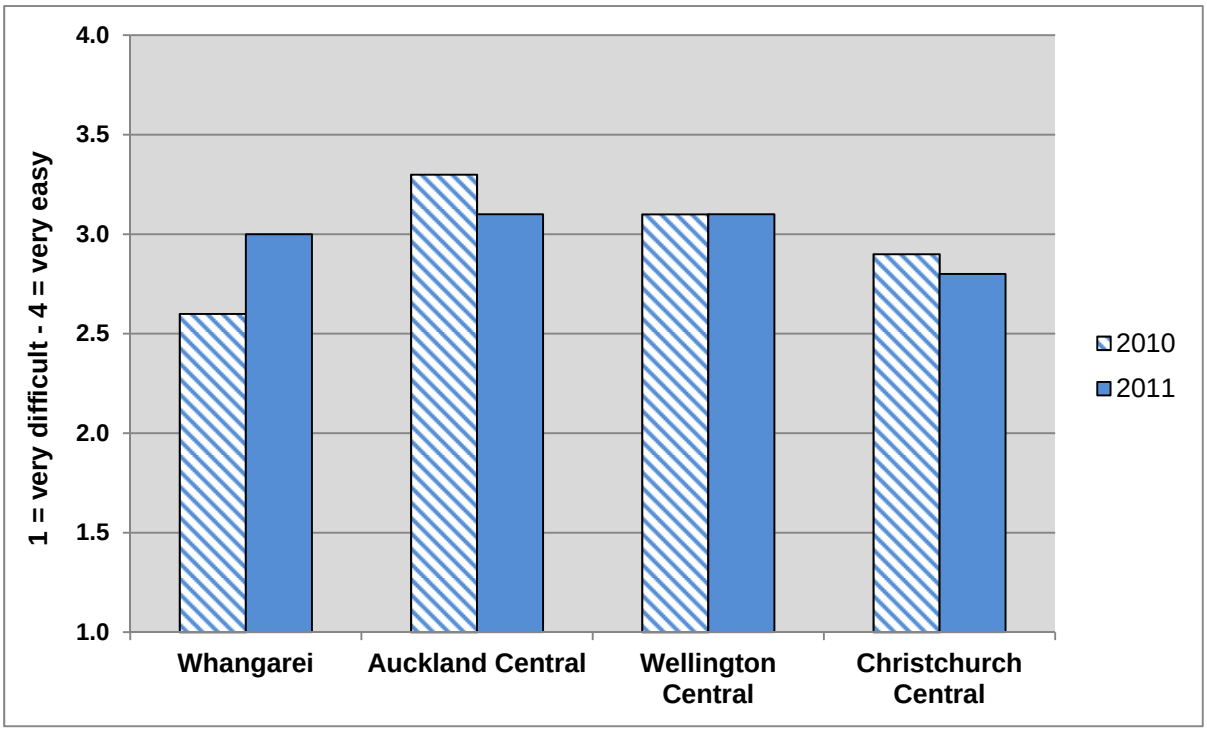
Current availability of methamphetamine

The detainees reported the current availability of methamphetamine to be 'easy/very easy' in 2011 (Table 4.4). There was no change in the overall current availability of methamphetamine in 2011 compared to 2010. However, the availability of methamphetamine was higher in Whangarei in 2011 compared to 2010 (3.0 vs. 2.6) and this difference was close to being statistically significant (p=0.0774) (Figure 4.7).

Table 4.4: Police detainees' perceptions of the current availability of methamphetamine by location, 2010 & 2011

Current availability of meth-amphetamine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=29)	2011 (n=48)	2010 (n=82)	2011 (n=112)	2010 (n=39)	2011 (n=33)	2010 (n=54)	2011 (n=34)	2010 (n=204)	2011 (n=227)
Very easy [4]	17%	35%	50%	38%	44%	36%	35%	29%	40%	36%
Easy [3]	38%	33%	28%	38%	31%	45%	33%	29%	31%	37%
Difficult [2]	34%	27%	20%	18%	13%	12%	19%	32%	20%	21%
Very difficult[1]	10%	4%	2%	5%	13%	6%	13%	9%	8%	6%
Average availability score (1=very difficult – 4=very easy)	2.6	3.0	3.3	3.1	3.1	3.1	2.9	2.8	3.0	3.0
Overall current status	Easy/ difficult	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Easy/ very easy	Very easy/ easy	Difficult/ easy	Very easy/ easy	Easy/ very easy

Figure 4.7: Mean score of current availability of methamphetamine by location, 2010 & 2011



Change in availability of methamphetamine

In 2011, 48% of the detainees reported the availability of methamphetamine had been 'stable', 20% said it had become 'easier' and 18% said it had become 'more

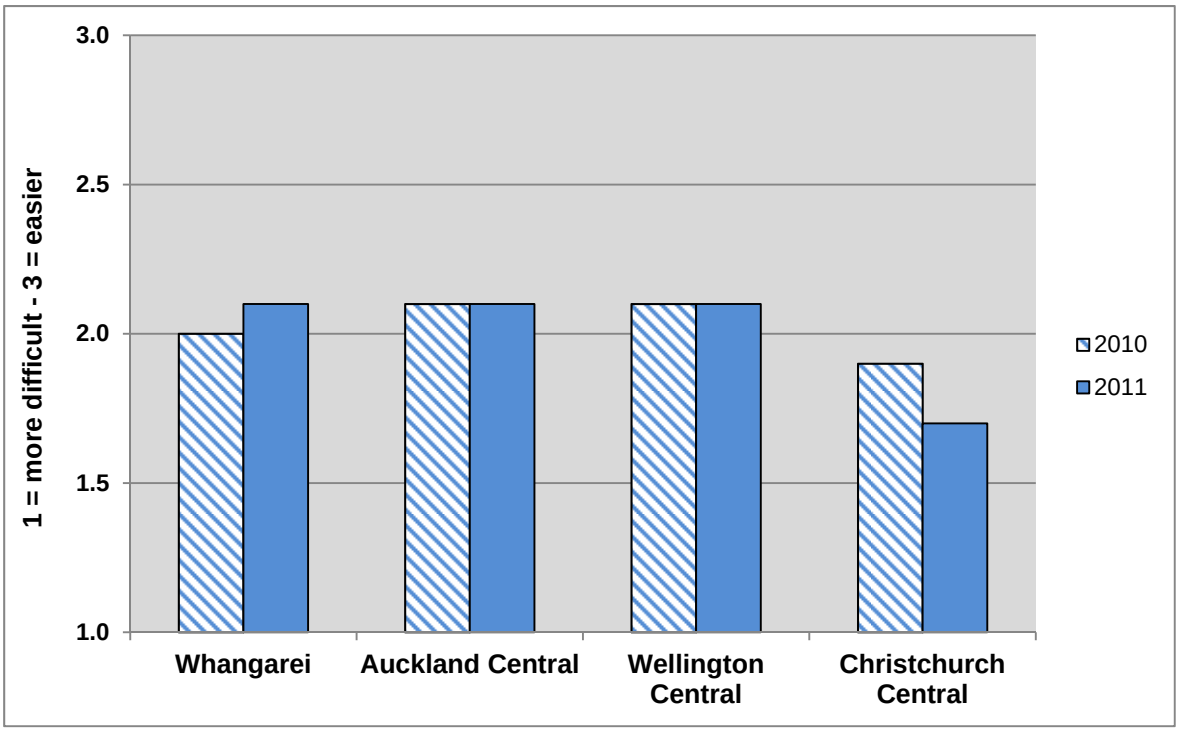
difficult' (Table 4.5). There was no change in the availability of methamphetamine in 2011 compared to 2010 (2.0 in both years).

Table 4.5: Police detainees' perceptions of the change in availability of methamphetamine by location, 2010 & 2011

Change in availability of meth-amphetamine	Whangarei		Auckland central		Wellington central		Christchurch central		All sites	
	2010 (n=27)	2011 (n=48)	2010 (n=76)	2011 (n=104)	2010 (n=30)	2011 (n=30)	2010 (n=51)	2011 (n=34)	2010 (n=184)	2011 (n=216)
Easier [3]	19%	31%	32%	20%	27%	20%	16%	6%	24%	20%
Stable [2]	33%	33%	32%	50%	33%	63%	39%	47%	34%	48%
Fluctuates [2]	26%	19%	12%	15%	27%	7%	16%	12%	17%	14%
More difficult [1]	22%	17%	25%	14%	13%	10%	29%	35%	24%	18%
Average change in availability score (1=more difficult – 3=easier)	2.0	2.1	2.1	2.1	2.1	2.1	1.9	1.7	2.0	2.0
Overall recent change	Stable/ fluctuates	Stable / easier	Stable / easier	Stable / easier	Stable/ fluctuates	Stable / easier	Stable / more difficult	Stable / more difficult	Stable / more difficult	Stable / easier

In 2011, detainees in Christchurch Central were less likely to report that it had become easier to obtain methamphetamine in the past six months than detainees in Whangarei (1.7 vs. 2.1, p=0.0018), Auckland Central (1.7 vs. 2.1, p=0.0024) and Wellington Central (1.7 vs. 2.1, p=0.0053) (Figure 4.8).

Figure 4.8: Mean score of change in the availability of methamphetamine by location, 2010 & 2011



Current price of methamphetamine

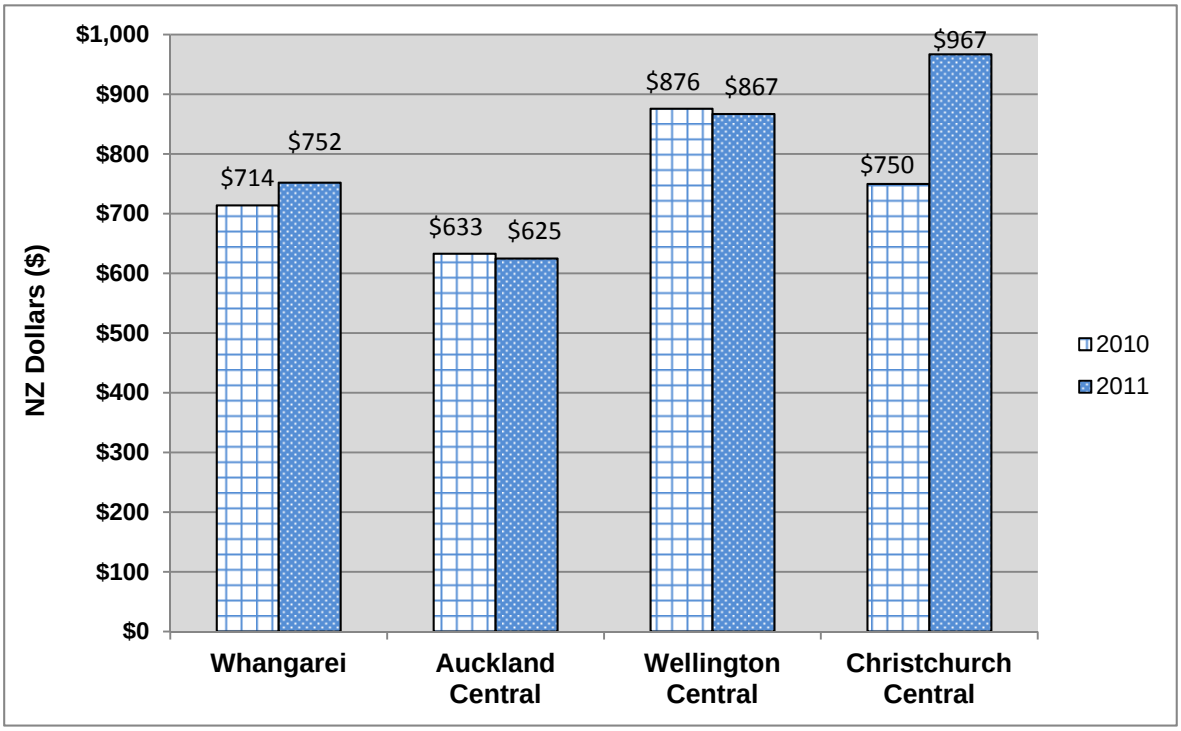
The detainees reported the median price of a 'point' (0.1 grams) of methamphetamine was $100 and the median price of a gram of methamphetamine was $750 in 2011 (Table 4.6). There was no statistically significant change in the mean price of a 'point' of methamphetamine in 2011 compared to 2010. The mean price of a gram of methamphetamine was higher in 2011 compared to 2010 ($769 vs. $723) but this increase was not statistically significant (p=0.2209). The mean price of a gram of methamphetamine was higher in Christchurch Central in 2011 compared to 2010 ($967 vs. $750) and this difference was close to being statistically significant (p=0.0989).

Table 4.6: Current median (mean) price paid by police detainees for a 'point' and gram of methamphetamine (NZD) by location, 2010 & 2011

Current price of methamphetamine ($)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
Number with knowledge	2010 (n=24)	2011 (n=36)	2010 (n=63)	2011 (n=89)	2010 (n=22)	2011 (n=25)	2010 (n=47)	2011 (n=20)	2010 (n=156)	2011 (n=170)
Median (mean) price 'point' (0.1 grams)	$100 ($102)	$100 ($107)	$100 ($108)	$100 ($97)	$100 ($101)	$100 ($107)	$100 ($110)	$100 ($110)	$100 ($107)	$100 ($102)
Number with knowledge	2010 (n=7)	2011 (n=22)	2010 (n=34)	2011 (n=34)	2010 (n=18)	2011 (n=16)	2010 (n=12)	2011 (n=15)	2010 (n=71)	2011 (n=87)
Median (mean) price gram	$800 ($714)	$775 ($752)	$600 ($633)	$600 ($625)	$850 ($876)	$888 ($867)	$900 ($750)	$1000 ($967)	$700 ($723)	$750 ($769)

In 2011, the mean price for a 'point' of methamphetamine was lower in Auckland Central than in Whangarei ($97 vs. $107, p=0.0492) and Christchurch Central ($97 vs. $110, p=0.0378). The mean price of a gram of methamphetamine in 2011 was also lower in Auckland Central than in Whangarei ($625 vs. $752, p=0.0429), Wellington Central ($625 vs. $867, p=<0.0001) and Christchurch Central ($625 vs. $967, p=0.0007) in 2011 (Figure 4.9). Detainees in Whangarei reported that the mean price of a gram of methamphetamine in 2011 was lower than in Wellington Central ($752 vs. $867, p=0.0491) and Christchurch Central ($752 vs. $967, p=0.0387).

Figure 4.9: Mean price paid for a gram of methamphetamine by location, 2010 & 2011



Change in the price of methamphetamine

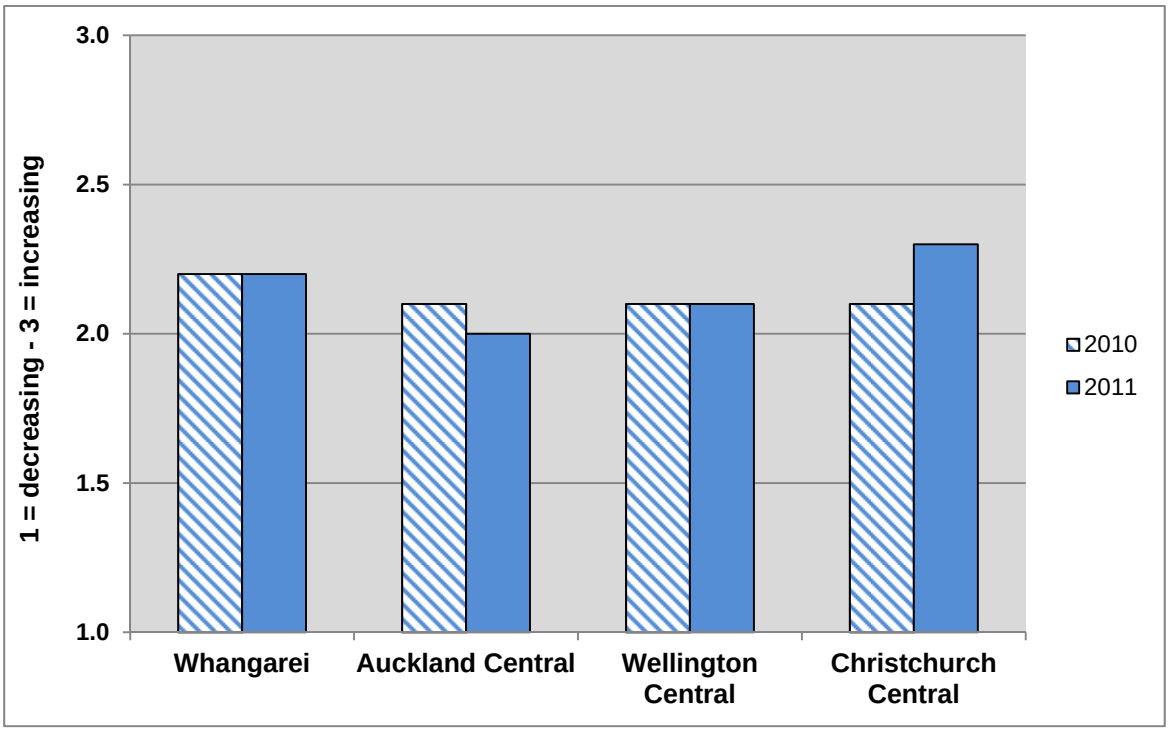
The detainees reported the price of methamphetamine had been 'stable/fluctuating' over the past six months in 2011 (Table 4.7). Detainees in Auckland Central were less likely to report that the price of methamphetamine had been increasing in 2011 than in 2010 (2.0 vs. 2.1, p=0.0338).

Table 4.7: Police detainees' perception of the change in the price of methamphetamine in the past six months by location, 2010 & 2011

Change in price of meth - amphetamine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=28)	2011 (n=42)	2010 (n=81)	2011 (n=100)	2010 (n=31)	2011 (n=32)	2010 (n=50)	2011 (n=33)	2010 (n=190)	2011 (n=207)
Increasing [3]	21%	29%	22%	8%	23%	16%	20%	30%	22%	17%
Fluctuating [2]	18%	21%	10%	22%	10%	19%	8%	9%	11%	19%
Stable [2]	57%	43%	58%	58%	52%	59%	64%	58%	58%	55%
Decreasing [1]	4%	7%	10%	12%	16%	6%	8%	3%	9%	9%
Average change in price score (1=decreasing – 3=increasing)	2.2	2.2	2.1	2.0	2.1	2.1	2.1	2.3	2.1	2.1
Overall recent change	Stable/ increasing	Stable/ increasing	Stable/ increasing	Stable/ fluctuating	Stable/ increasing	Stable/ fluctuating	Stable/ increasing	Stable/ increasing	Stable/ increasing	Stable/ fluctuating

In 2011, detainees in Auckland Central were more likely to report that the price of methamphetamine was stable than detainees in Whangarei (2.0 vs. 2.2, p=0.0101) and Christchurch Central (2.0 vs. 2.3, p=0.0020) (Figure 4.10).

Figure 4.10: Mean score of change in the price of methamphetamine by location, 2010 & 2011



Time taken to purchase to purchase methamphetamine

Sixty percent of the detainees who used methamphetamine in the past year were able to purchase it in one hour or less in 2011 (Table 4.8). There was no change in the proportion of detainees who could purchase methamphetamine in one hour or less in 2011 compared to 2010 (60% vs. 57%, p=0.5501). A lower proportion of detainees in Christchurch Central could purchase methamphetamine in one hour or less in 2011 compared to 2010 (30% vs. 47%) but this difference was not statistically significant (p=0.1124).

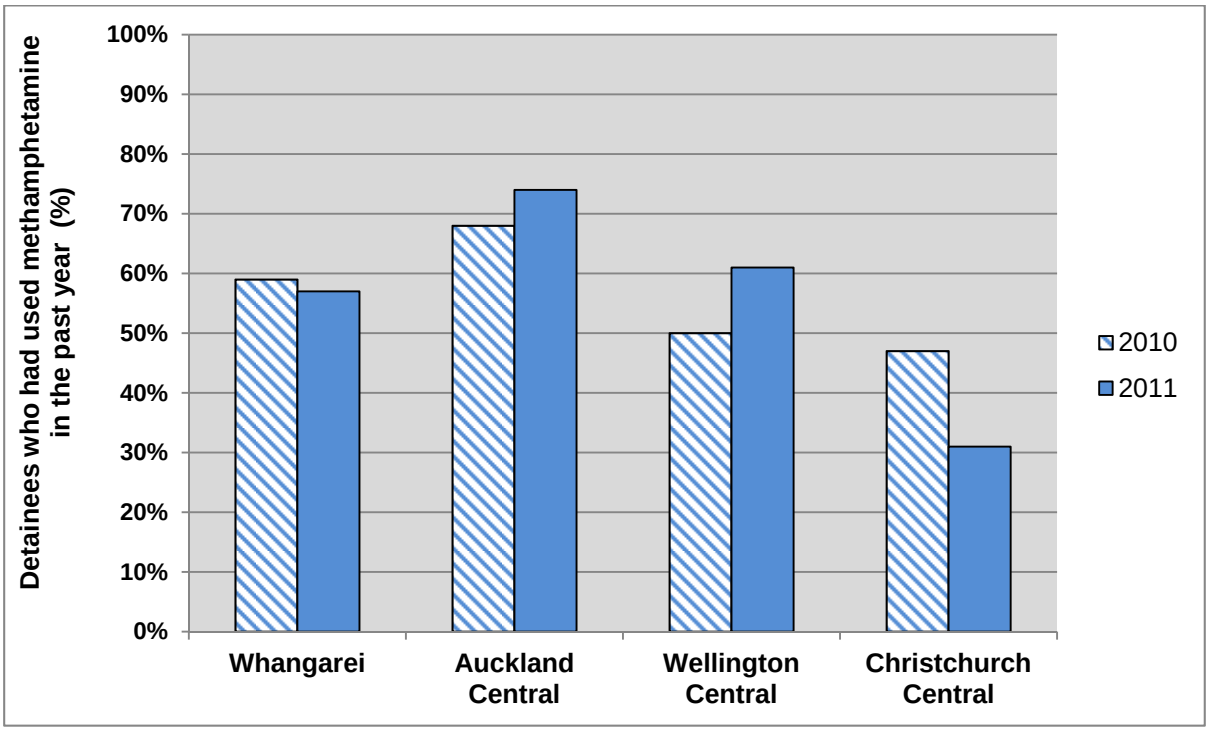
Table 4.8: Time taken by police detainees to purchase methamphetamine by location, 2010 & 2011

Time to purchase meth-amphetamine(%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=28)	2011 (n=49)	2010 (n=81)	2011 (n=106)	2010 (n=31)	2011 (n=31)	2010 (n=50)	2011 (n=36)	2010 (n=194)	2011 (n=222)
Months	0	0	0	2	0	3	0	3	0	2
Weeks	7	4	3	2	3	3	4	0	4	2
Days	7	18	5	0	11	6	4	17	6	8
About one day	10	4	8	8	8	6	16	17	11	9
Hours	17	16	16	14	28	19	29	33	22	19
1 Hour	34	22	34	37	11	23	25	11	27	27
Less than 20 mins	24	35	34	37	39	39	22	19	30	33

In 2011, detainees in Christchurch Central were less likely to be able to purchase methamphetamine in one hour or less than detainees in Whangarei (30% vs. 57%, p=0.0176), Auckland Central (30% vs. 74%, p=<0.0001) and Wellington Central (30% vs. 62%, p=0.0140) (Figure 4.11). Detainees in Whangarei were less likely to be able

to purchase methamphetamine in an hour or less than detainees in Auckland Central (57% vs. 74%, p=0.0444).

Figure 4.11: Proportion of police detainees who could purchase methamphetamine in one hour or less by location, 2010 & 2011



Effect of methamphetamine on the likelihood of becoming angry

Those detainees who reported using methamphetamine in the past 12 months were asked what effect using methamphetamine has on the likelihood of them becoming angry. Thirty-five percent of the methamphetamine using detainees said using methamphetamine was 'more likely' or 'much more likely' to make them become angry in 2011 (Table 4.9). Detainees in Auckland Central were more likely to report that using methamphetamine increased their likelihood of becoming angry in 2011 than in 2010 (3.3 vs. 2.9, p=0.0056).

Table 4.9: Effect of methamphetamine on police detainees' likelihood of becoming angry, 2010 & 2011

Effect of meth-amphetamine on likelihood of becoming angry	All sites	
	2010 (n=201)	2011 (n=232)
Much more likely [5]	13%	11%
More likely [4]	19%	24%
No effect [3]	44%	45%
Less likely [2]	15%	14%
Much less [1]	8%	5%
Mean impact on likelihood to become angry (1=much less - 5=much more)	3.1	3.2

Driving under the influence of methamphetamine

Those detainees who had used methamphetamine in the past year were asked how often they drove under the influence of methamphetamine. Twenty-six percent of the methamphetamine using detainees said they did not drive and a further 7% said their driver licence was suspended. Forty-six percent of the detainees who used methamphetamine and drove had completed at least some of their driving under the influence of methamphetamine (Table 4.10). There was no statistically significant change in the level of driving under the influence of methamphetamine among the detainees in 2011 compared to 2010 (1.5 vs. 1.3, p=0.4095).

Table 4.10: Extent to which police detainees who drove and who had used methamphetamine in the past 12 months had driven under the influence of methamphetamine by location, 2010 & 2011

Extent drove under the influence of methamphetamine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=26)	2011 (n=34)	2010 (n=54)	2011 (n=73)	2010 (n=29)	2011 (n=23)	2010 (n=30)	2011 (n=26)	2010 (n=139)	2011 (n=156)
All [4]	8%	12%	7%	10%	28%	43%	10%	8%	12%	14%
Most [3]	12%	9%	17%	10%	10%	9%	3%	8%	12%	9%
Some [2]	27%	24%	20%	34%	14%	4%	10%	12%	18%	23%
Hardly any [1]	15%	9%	13%	15%	10%	17%	17%	23%	14%	16%
None [0]	38%	47%	43%	31%	38%	26%	60%	50%	44%	38%
Mean score of extent drove under influence (0=none -4=all)	1.3	1.3	1.3	1.5	1.8	2.3	0.9	1.0	1.3	1.5

In 2011, methamphetamine using detainees in Wellington Central did more of their driving under the influence of methamphetamine than detainees in Whangarei (2.3 vs. 1.3, p=0.0297) and Christchurch Central (2.3 vs. 1.0, p=0.0051). Detainees in Wellington Central also did more of their driving under the influence of methamphetamine than detainees in Auckland Central and this difference was close to being statistically significant (2.3 vs. 1.5, p=0.0580). The number of detainees answering the methamphetamine driving questions was low in some locations and consequently these findings should be interpreted with some caution.

Summary

- Forty-five percent of the detainees had tried methamphetamine in their lifetimes in 2011
- In 2011, detainees in Auckland Central were more likely to have ever used methamphetamine than detainees in Wellington Central and Christchurch Central
- Thirty percent of the detainees had used methamphetamine in the past year in 2011

- Detainees in Auckland Central were more likely to have used methamphetamine in the past year in 2011 compared to 2010 (38% vs. 29%)
- In 2011, detainees in Auckland Central were more likely to have used methamphetamine in the past year than detainees in Wellington Central and Christchurch Central
- In 2011, detainees in Whangarei were also more likely to have used methamphetamine in the past year than detainees in Christchurch Central
- A higher proportion of detainees had used methamphetamine in the past month in 2011 compared to 2010 (18% vs. 14%)
- Detainees in Auckland Central were more likely to have used methamphetamine in the past month in 2011 than in 2010 (26% vs. 19%)
- In 2011, detainees in Whangarei and Auckland Central were more likely to have used methamphetamine in the past month than detainees in the other two locations
- Seventeen percent of detainees who had used methamphetamine in the past year had injected it in 2011
- The detainees had used methamphetamine on more days in the past year in 2011 compared to 2010 (76 vs. 68 days)
- Twenty-three percent of the methamphetamine using detainees felt dependent on methamphetamine in 2011
- In 2011, detainees in Auckland Central were more likely to feel dependent on methamphetamine than detainees in Christchurch Central (31% vs. 8%)
- A higher proportion of detainees were using methamphetamine at the time of their arrest in 2011 compared to 2010 (5% vs. 3%)
- Detainees in Auckland Central were more likely to have been under the influence of methamphetamine at the time of their arrest than detainees in Wellington Central and Christchurch Central
- The current availability of methamphetamine was reported to be 'easy/very easy' in 2011
- The current availability of methamphetamine was higher in Whangarei in 2011 compared to 2010

- In 2011, detainees in Christchurch Central were more likely to report that methamphetamine had become more difficult to obtain than detainees in the other three sites

- The median price reported for methamphetamine was $100 a 'point' and $750 a gram in 2011

- In 2011, the mean price for a 'point' of methamphetamine was lower in Auckland Central than in Whangarei and Christchurch Central

- In 2011, the mean price for a gram of methamphetamine was lower in Auckland Central than in the other three sites in 2011

- The mean price for a gram of methamphetamine was also lower in Whangarei than in Wellington Central and Christchurch Central in 2011

- The detainees reported the price of methamphetamine had been 'stable/fluctuating' over the previous six months in 2011

- Detainees in Auckland Central were more likely to report that the price of methamphetamine had been stable in 2011 compared to 2010

- Sixty percent of the detainees could purchase methamphetamine in an hour or less in 2011

- In 2011, detainees in Christchurch Central were less likely to be able to purchase methamphetamine in an hour or less than detainees in the other three sites

- In 2011, 35% of the detainees who had used methamphetamine in the past year said it made them 'more likely' or 'much more likely' to become angry

- Forty-six percent of detainees who used methamphetamine and drove completed at least some of their driving under the influence of methamphetamine in 2011

- In 2011, detainees in Wellington Central completed more of their driving under the influence of methamphetamine than detainees in the other three sites

Chapter 5 - Cannabis

Introduction

Cannabis has been the most widely used illegal drug in New Zealand for a number of decades (Wilkins et al., 2002b). However, national household surveying indicates there has been some decline in cannabis use among the general New Zealand population in the past decade. Last year use of cannabis in New Zealand declined from 20% in 2001 to 18% in 2006 (i.e. among the population aged 15-45 years old) (Wilkins & Sweetsur, 2008c). Similar declines in the population prevalence of cannabis use have been found in Australia, the United Kingdom, Western Europe and the United States in the 2000s suggesting broad socio-cultural factors may be contributing to some decline in the use of the drug (European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), 2009).

The retail black market for cannabis in New Zealand has been estimated to have an annual dollar turnover of $131-$190 million (NZD) (Wilkins & Casswell, 2002; Wilkins et al., 2005b). Exploration of the structure of the cannabis market in New Zealand suggests that many cannabis users receive their cannabis for 'free' during group consumption sessions, and that some heavy cannabis users finance their spending on cannabis through selling cannabis to others (Wilkins & Sweetsur, 2006). Cannabis is generally sold within private social networks (MacCoun & Reuter, 2001). In New Zealand, cannabis is also sold semi-publicly from drug houses, known as 'tinny' houses, and from street drug markets (Wilkins et al., 2005a). Adolescent cannabis users have been found to be more likely than adult cannabis users to purchase their cannabis from 'tinny' houses (Wilkins et al., 2005a).

The 2010 IDMS found the availability of cannabis had been increasing since 2008 (Wilkins et al., 2011b). There was also a modest increase in the price of an ounce of cannabis from $295 in 2006 to $326 in 2010 (Wilkins et al., 2011b). The 2010 NZ-ADUM found those police detainees under the age of 25, who did not complete the compulsory years of high school education, were unemployed, had recently been in

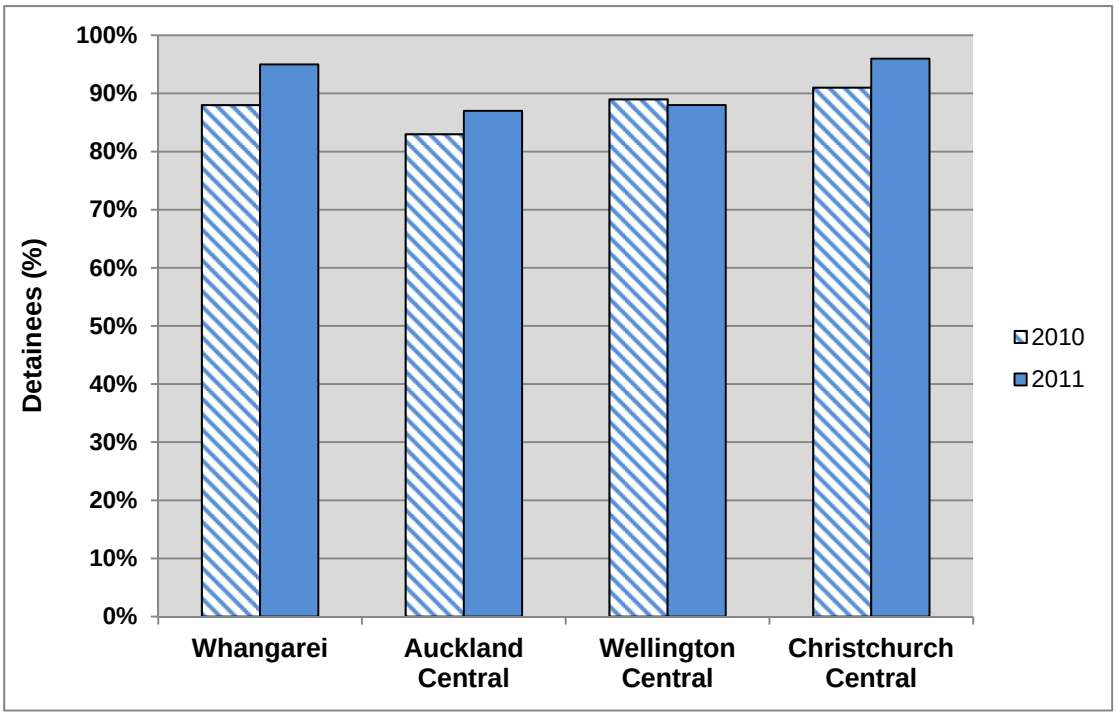
prison and were of Maori ethnicity were more likely to be frequent cannabis users (Wilkins et al., 2010b).

In Australia, the proportion of the general population who used cannabis in the past year increased from 9.1% in 2007 to 10.3% in 2010 (Australian Institute of Health and Welfare (AIHW), 2011). Previously, the use of cannabis in Australia had been declining for a number of years, down from 13.1% in 1998 to 9.1% in 2007 (Australian Institute of Health and Welfare (AIHW), 2011).

Use of cannabis

In 2011, 91% of the police detainees had tried cannabis, 75% had used cannabis in the past 12 months and 64% had used it in the past month (Table 5.1). The proportion of detainees who had tried cannabis in their lifetimes increased in 2011 compared to 2010 (91% vs. 87%, p=0.0200). The percentage of detainees who had ever used cannabis increased in 2011 compared to 2010 in Whangarei (95% vs. 88%, p=0.0260) and Christchurch Central (96% vs. 91%, p=0.0414) (Figure 5.1). In 2011, detainees in Whangarei were more likely to have ever used cannabis than detainees in Auckland Central (95% vs. 87%, p=0.0089) and Wellington Central (95% vs. 88%, p=0.0212). Detainees in Christchurch Central were also more likely to have ever used cannabis than those in Auckland Central (96% vs. 87%, p=0.0021) and Wellington Central (96% vs. 88%, p=0.0069).

Figure 5.1: Proportion of police detainees who have ever used cannabis by location, 2010 & 2011



The detainees had first tried cannabis at a mean age of 14 years old in 2011. The mean age at which cannabis was first used was lower in Whangarei in 2011 compared to 2010 (14 vs. 15 years) and this difference was close to being statistically significant (p=0.0635) (Figure 5.2).

Figure 5.2: Age of first cannabis use by location 2010 & 2011

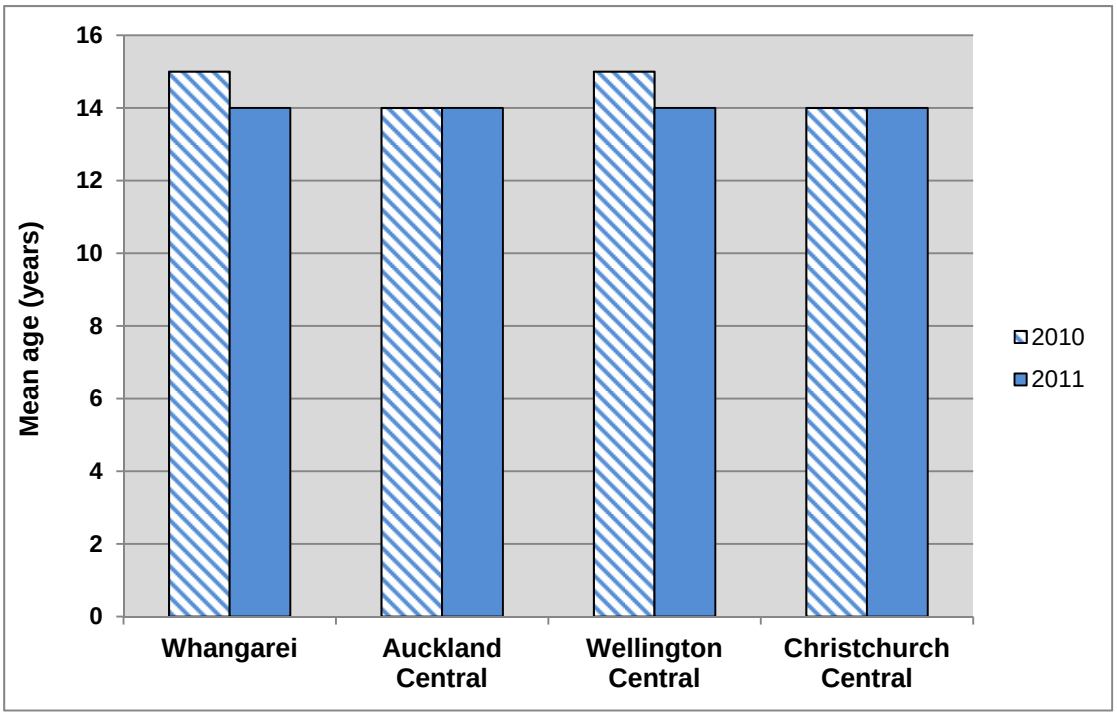


Table 5.1: Police detainees' patterns of cannabis use by location, 2010 & 2011

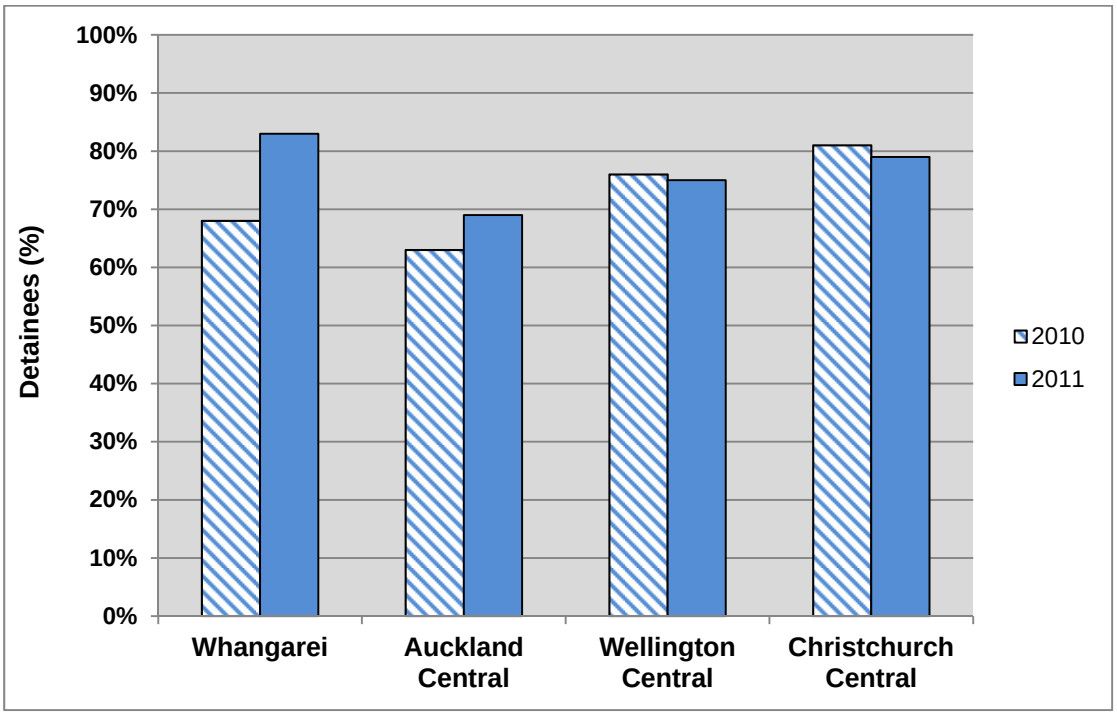
Use of cannabis	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All Sites	
	2010 (n=115)	2011 (n=149)	2010 (n=285)	2011 (n=316)	2010 (n=152)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=814)	2011 (n=827)
Ever used (%)	88	95	83	87	89	88	91	96	87	91
Mean age first used (years)*	15	14	14	14	15	14	14	14	14	14
Used in past 12 months (%)	68	83	63	69	76	75	81	79	72	75
Mean number of days used in past 12 months**	160	186	196	151	181	178	191	169	187	168
Felt dependent in the past 12 months (%)**	30	36	43	30	44	42	34	34	38	35
Used in past month (%)	58	73	57	58	63	63	71	67	63	64
Mean number of days used in past month***	16	17	17	15	18	17	18	16	18	16

* of those who had ever tried
** of those who had used in the past 12 months
*** of those who had used in the past month

There was no overall change in the proportion of detainees who used cannabis in the past year in 2011 compared to 2010 (75% vs. 72%, p=0.1102). However, there was

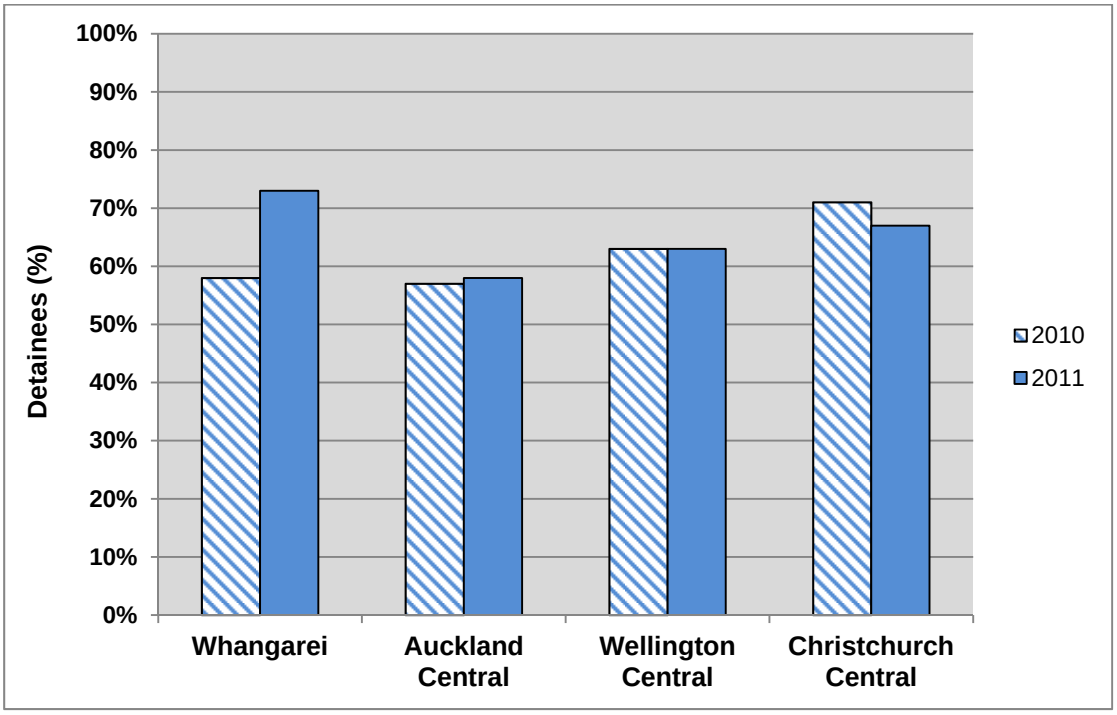
an increase in the proportion of detainees in Whangarei who had used cannabis in the past 12 months in 2011 compared to 2010 (83% vs. 68%, p=0.0044) (Figure 5.3). In 2011, detainees were more likely to have used cannabis in the previous 12 months in Whangarei than in Auckland Central (83% vs. 69%, p=0.0014) and in Christchurch Central than in Auckland Central (79% vs. 69%, p=0.0108).

Figure 5.3: Proportion of police detainees who used cannabis in the past 12 months by location, 2010 & 2011



The proportion of detainees in Whangarei who had used cannabis in the past month was also higher in 2011 compared to 2010 (73% vs. 58%, p=0.0120) (Figure 5.4). Detainees were more likely to have used cannabis in the previous month in Whangarei than in Auckland Central (73% vs. 58%, p=0.0021) and Wellington Central (73% vs. 63%, p=0.0487).

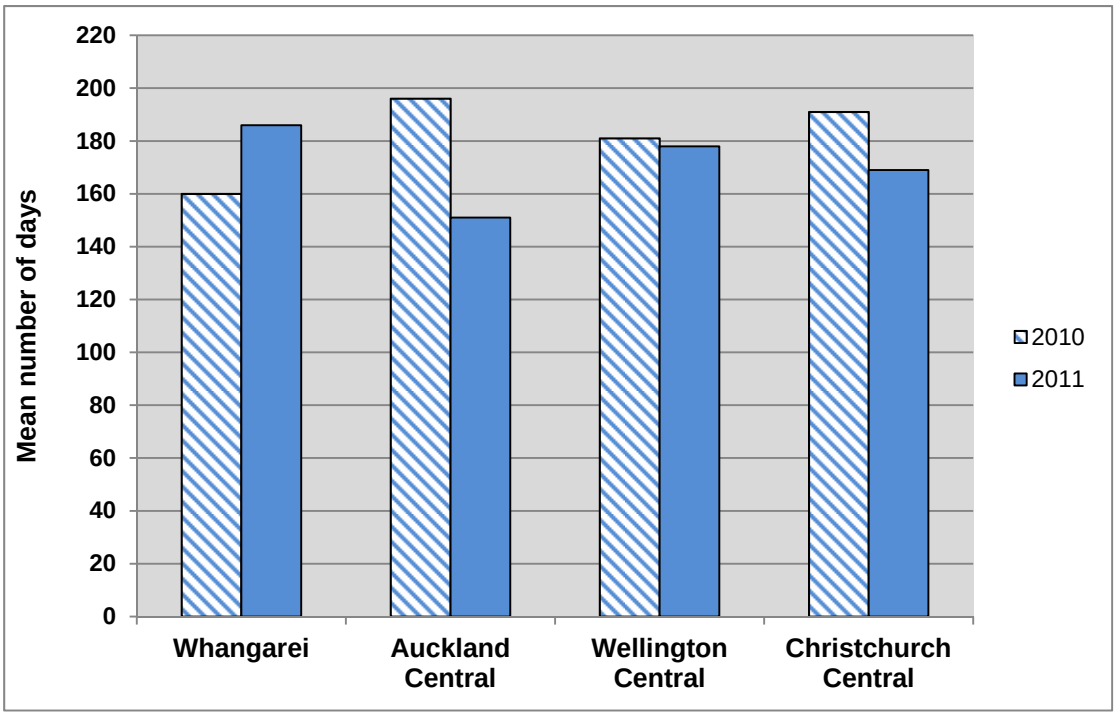
Figure 5.4: Proportion of police detainees who used cannabis in the past 30 days by location, 2010 & 2011



Frequency of cannabis use

The detainees had used cannabis on a mean of 168 days in the past 12 months in 2011 (median 104, 1-365 days). The mean number of days in which the detainees had used cannabis is the past 12 months decreased in 2011 compared to 2010 (168 days vs. 187 days, p=0.0038). The mean number of days of cannabis use decreased in Auckland Central in 2011 compared to 2010 (151 days vs. 196 days, p=0.0038) (Figure 5.5). In 2011, the mean number of days of cannabis use was higher in Whangarei than in Auckland Central (186 days vs. 151 days, p=0.0416).

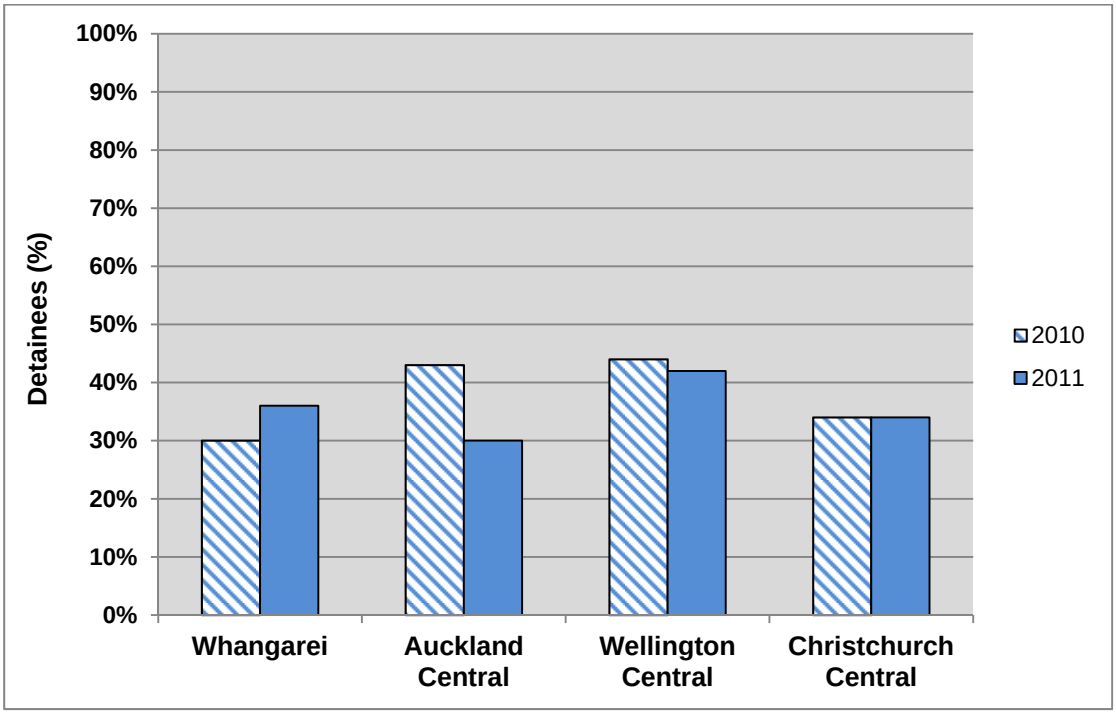
Figure 5.5: Mean number days of cannabis use in the past 12 months by location, 2010 & 2011



Dependency on cannabis

Thirty-five percent of the cannabis using detainees felt they were dependent on cannabis in 2011. Detainees in Auckland Central were less likely to feel dependent on cannabis in 2011 than in 2010 (30% vs. 43%, p=0.0082) (Figure 5.6).

Figure 5.6: Proportion of police detainees who felt dependent on cannabis in the past year by location (of those who had used cannabis in the past 12 months), 2010 & 2011



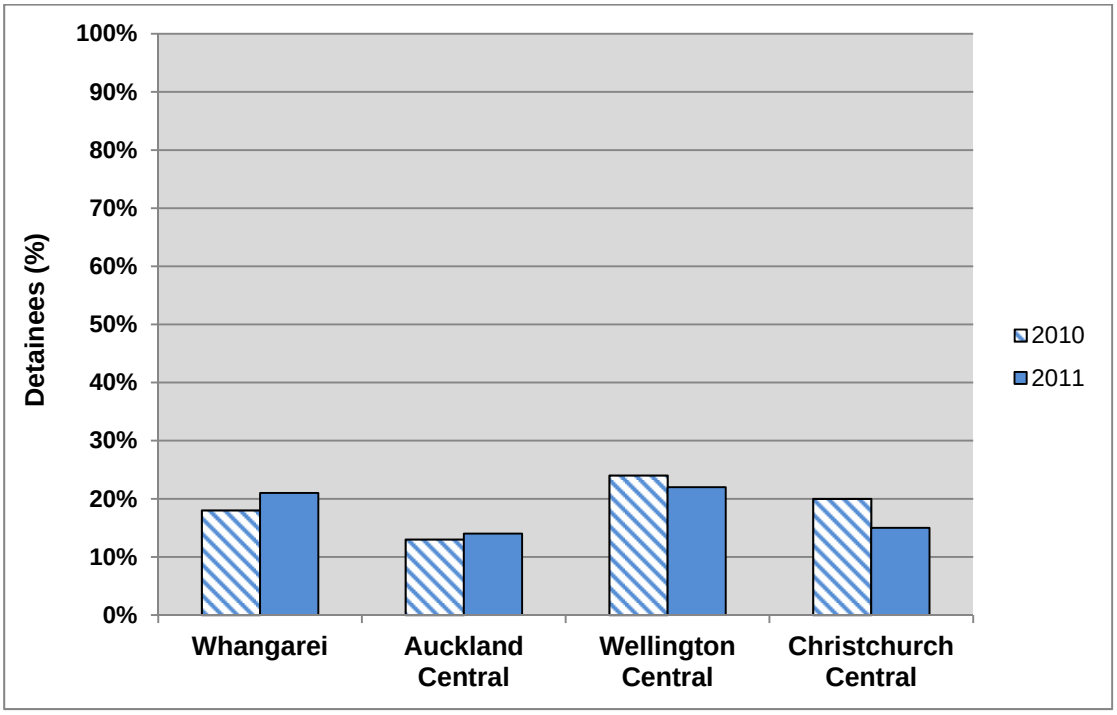
Cannabis use at the time of arrest

Seventeen percent of the detainees reported they were using cannabis at the time of their arrest in 2011 (Table 5.2). There was no change in the incidence of cannabis use at the time of arrest in 2011 compared to 2010 (17% vs. 18%, p=0.5094). In 2011, detainees in Whangarei were more likely to report using cannabis prior to being arrested than those in Auckland Central (21% vs. 14%, p=0.0323) (Figure 5.7). Detainees in Wellington Central were also more likely to report using cannabis before they were arrested than those in Auckland Central (22% vs. 14%, p=0.0185).

Table 5.2: Cannabis use by police detainees at time of arrest by location, 2010 & 2011

Use of cannabis	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All Sites	
	2010 (n=110)	2011 (n=149)	2010 (n=281)	2011 (n=310)	2010 (n=150)	2011 (n=168)	2010 (n=259)	2011 (n=188)	2010 (n=800)	2011 (n=815)
Using when arrested (%)	18	21	13	14	24	22	20	15	18	17

Figure 5.7: Proportion of police detainees who were using cannabis prior to being arrested by location, 2010 & 2011



Current availability of cannabis

The detainees described the current availability of cannabis as 'very easy/easy' in 2011 (Table 5.3). There was no overall change in the current availability of cannabis in 2011 compared to 2010 (3.3 in both years). However, the current availability of cannabis was considered to be lower in Christchurch Central in 2011 compared to 2010 (3.2 vs. 3.4, p=0.0390) (Figure 5.8).

Figure 5.8: Current availability of cannabis by location, 2010 & 2011

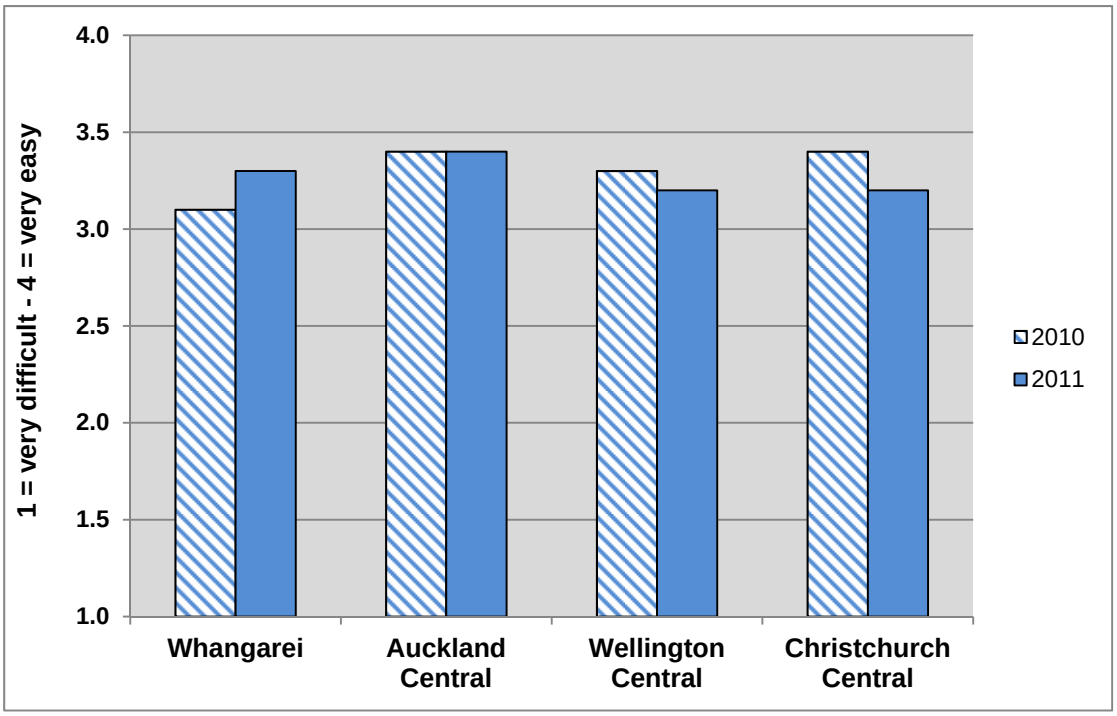


Table 5.3: Police detainees' perceptions of the current availability of cannabis by location, 2010 & 2011

Current availability of cannabis	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All Sites	
	2010 (n=80)	2011 (n=121)	2010 (n=175)	2011 (n=205)	2010 (n=110)	2011 (n=125)	2010 (n=209)	2011 (n=143)	2010 (n=574)	2011 (n=594)
Very easy [4]	41%	45%	55%	53%	54%	46%	58%	48%	54%	49%
Easy [3]	34%	39%	30%	34%	31%	31%	28%	31%	30%	33%
Difficult [2]	21%	12%	13%	11%	11%	15%	12%	15%	13%	13%
Very difficult [1]	4%	3%	2%	4%	5%	7%	2%	5%	3%	5%
Average availability score (1=very difficult – 4=very easy)	3.1	3.3	3.4	3.4	3.3	3.2	3.4	3.2	3.3	3.3
Overall current status	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy / easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy	Very easy/ easy

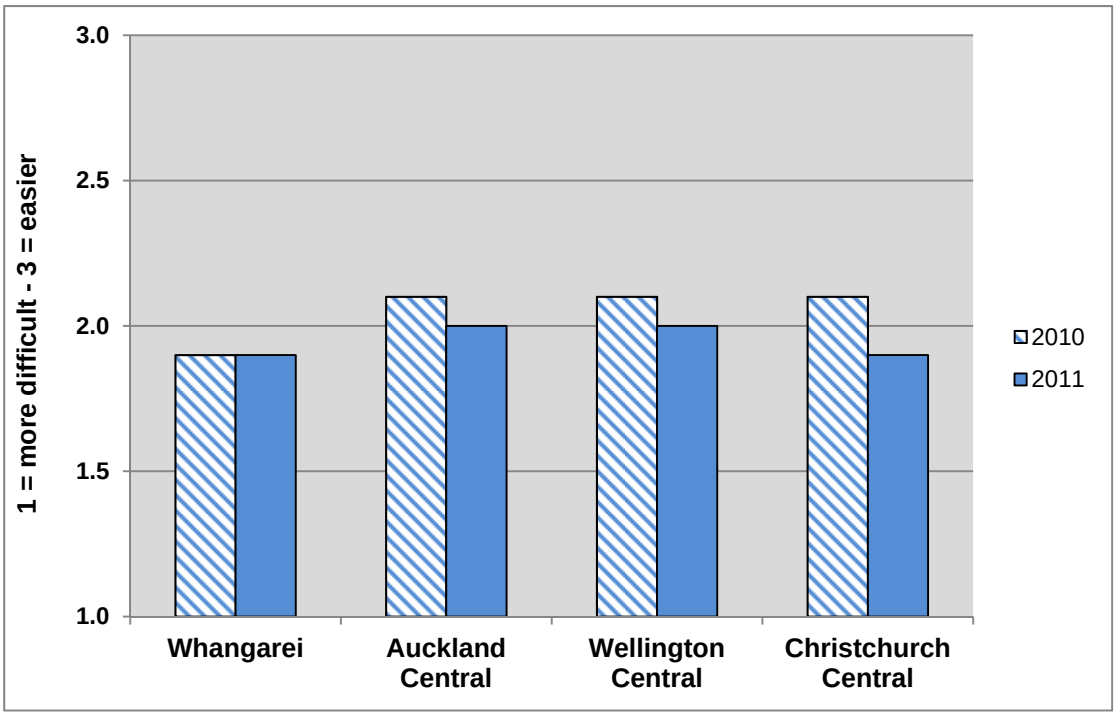
Change in availability of cannabis

The detainees reported the availability of cannabis had been 'stable/more difficult' over the past six months in 2011 (Table 5.4). Cannabis was reported to be more difficult to obtain in 2011 compared to 2010 (2.0 vs. 2.1, p=0.0014). Cannabis was more difficult to obtain in Christchurch Central in 2011 compared to 2010 (1.9 vs. 2.1, p=0.0016) (Figure 5.9). In 2011, the detainees in Christchurch Central were more likely to describe the availability of cannabis as becoming 'more difficult' compared with those in Auckland Central (1.9 vs. 2.0, p=0.0067) and Wellington Central (1.9 vs. 2.0, p=0.0462).

Table 5.4: Police detainees' perceptions of the change in availability of cannabis by location, 2010 & 2011

Change in availability of cannabis (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All Sites	
	2010 (n=78)	2011 (n=120)	2010 (n=167)	2011 (n=203)	2010 (n=109)	2011 (n=117)	2010 (n=206)	2011 (n=141)	2010 (n=560)	2011 (n=581)
Easier [3]	12%	15%	25%	17%	21%	13%	18%	12%	20%	15%
Stable [2]	58%	45%	49%	63%	62%	64%	59%	50%	57%	56%
Fluctuates [2]	10%	18%	13%	7%	7%	11%	12%	13%	11%	12%
More difficult [1]	21%	23%	13%	13%	9%	12%	11%	25%	13%	18%
Average change in availability score (1=more difficult – 3=easier)	1.9	1.9	2.1	2.0	2.1	2.0	2.1	1.9	2.1	2.0
Overall recent change	Stable/ more difficult	Stable/ more difficult	Stable/ easier	Stable/ easier	Stable/ easier	Stable/ easier	Stable/ easier	Stable/ more difficult	Stable/ easier	Stable/ more difficult

Figure 5.9: Change in the availability of cannabis by location, 2010 & 2011



Current price of cannabis

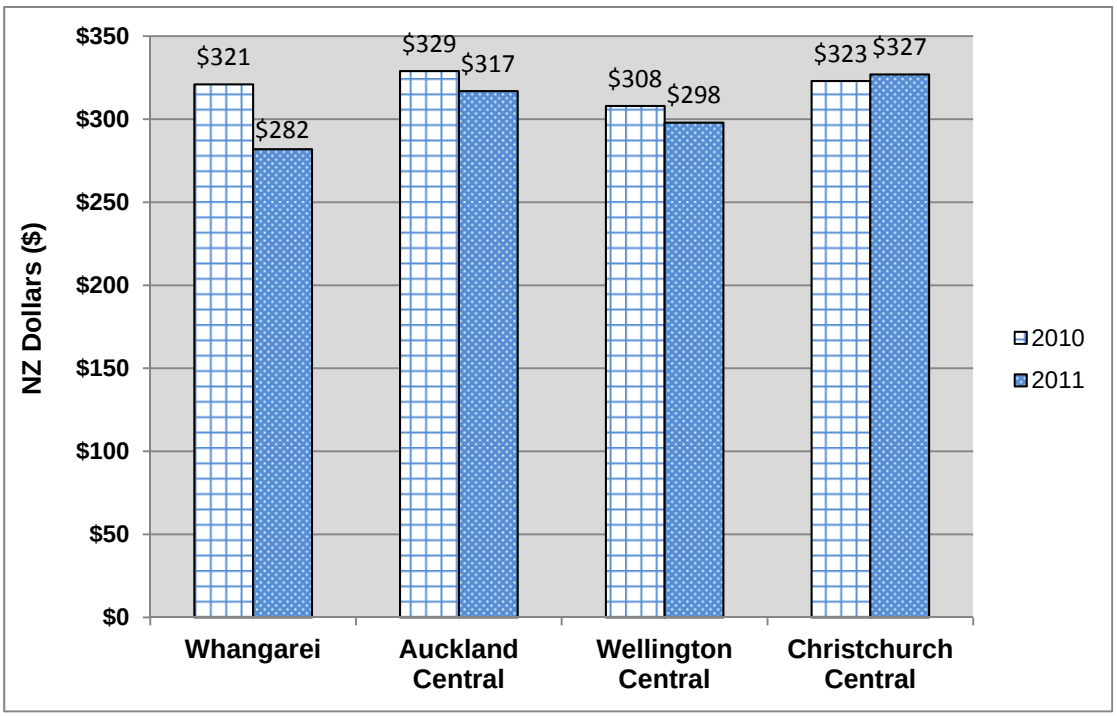
The detainees reported paying a median price of $20 for a 'tinny' of cannabis, $320 for an ounce of cannabis and $3,500 for a pound of cannabis in 2011 (Table 5.5). The mean price of an ounce of cannabis was lower in 2011 than in 2010 ($312 vs. $322) and this difference was close to being statistically significant (p=0.0654).

Table 5.5: Current median (mean) price paid by police detainees for cannabis (NZD) by location, 2010 & 2011

Current price of cannabis ($)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
Number with knowledge	2010 (n=73)	2011 (n=106)	2010 (n=124)	2011 (n=187)	2010 (n=87)	2011 (n=93)	2010 (n=191)	2011 (n=135)	2010 (n=475)	2011 (n=521)
Median (mean) price per 'tinny'	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)	$20 ($20)
Number with knowledge	2010 (n=6)	2011 (n=42)	2010 (n=41)	2011 (n=58)	2010 (n=26)	2011 (n=31)	2010 (n=33)	2011 (n=66)	2010 (n=107)	2011 (n=197)
Median (mean) price per 'ounce'	$325 ($321)	$275 ($282)	$350 ($329)	$350 ($317)	$300 ($308)	$300 ($298)	$340 ($323)	$345 ($327)	$325 ($322)	$320 ($312)
Number with knowledge	2010 (n=2)	2011 (n=11)	2010 (n=16)	2011 (n=13)	2010 (n=10)	2011 (n=1)	2010 (n=14)	2011 (n=13)	2010 (n=42)	2011 (n=38)
Median (mean) price per 'pound'	$1925 ($1925)	$2500 ($2582)	$3100 ($2677)	$2550 ($2558)	$1240 ($2152)	$2500 ($2500)	$3500 ($3700)	$4500 ($4346)	$3100 ($2857)	$3500 ($3298)

In 2011, the mean price for an ounce of cannabis was lower in Whangarei than in Auckland Central ($282 vs. $317, p=0.0015), and lower in Whangarei than Christchurch Central ($282 vs. $327, p=<0.0001) (Figure 5.10). The mean price of an ounce of cannabis was also lower in Wellington Central compared to Christchurch Central ($298 vs. $327, p=0.0104).

Figure 5.10: Mean price of an ounce of cannabis by location 2010 & 2011



Change in the price of cannabis

The detainees reported the price of cannabis had been 'stable' over the past six months in 2011 (Table 5.6). There was no change in perceptions of the change in the price of cannabis in 2011 compared to 2010 (i.e. 2.1 in both years)

Table 5.6: Police detainees' perception of the change in the price of cannabis in the past six months by location, 2010 & 2011

Change in price of cannabis (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=77)	2011 (n=122)	2010 (n=168)	2011 (n=203)	2010 (n=97)	2011 (n=120)	2010 (n=204)	2011 (n=143)	2010 (n=546)	2011 (n=588)
Increasing [3]	8%	16%	9%	10%	11%	7%	8%	10%	9%	11%
Fluctuating [2]	9%	7%	5%	9%	10%	8%	8%	6%	8%	8%
Stable [2]	82%	70%	85%	80%	76%	81%	82%	82%	82%	79%
Decreasing [1]	1%	6%	1%	1%	2%	4%	1%	2%	1%	3%
Average change in price score (1= decreasing – 3= increasing)	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1
Overall recent change	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Stable

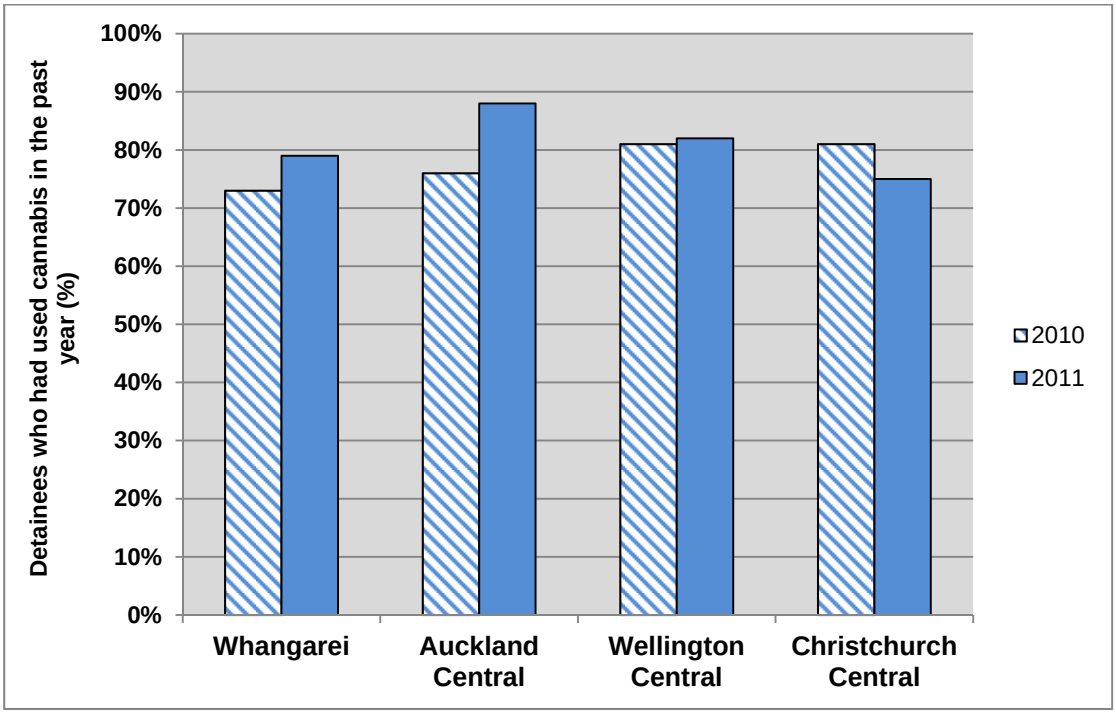
Time taken to purchase cannabis

Eighty-one percent of the detainees who had used cannabis in the past 12 months were able to purchase it in one hour or less in 2011 (Table 5.7). A higher proportion of detainees in Auckland Central could purchase cannabis in one hour or less in 2011 compared to 2010 (88% vs. 76%, p=0.0023) (Figure 5.11). In 2011, detainees in Auckland Central were more likely to be able to purchase cannabis in one hour or less than detainees in Whangarei (88% vs. 79%, p=0.0308) and Christchurch Central (88% vs. 75%, p=0.0016).

Table 5.7: Time taken by police detainees to purchase cannabis by location, 2010 & 2011

Time to purchase cannabis (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=79)	2011 (n=124)	2010 (n=152)	2011 (n=201)	2010 (n=110)	2011 (n=117)	2010 (n=208)	2011 (n=146)	2010 (n=549)	2011 (n=588)
Months	1	1	1	0	2	0	0	0	1	0
Weeks	3	2	1	0	0	1	<1	0	1	0
Days	6	2	7	0	1	3	3	4	4	2
About one day	4	6	8	3	8	7	5	8	6	6
Hours	13	10	8	9	8	8	11	13	10	10
1 Hour	19	25	20	31	31	25	23	27	23	27
Less than 20 mins	54	54	56	57	50	57	58	48	55	54

Figure 5.11: Proportion of police detainees who could purchase cannabis in one hour or less, 2010 & 2011



Effect of cannabis on the likelihood of becoming angry

Those detainees who reported using cannabis in the past 12 months were asked what effect using cannabis has on their likelihood of becoming angry. In 2011, 33% of the detainees said that using cannabis was 'much less likely' to make them

become angry and a further 31% said it was 'less likely' to make them become angry (Table 5.8).

Table 5.8: Effect of cannabis on police detainees' likelihood of becoming angry, 2010 & 2011

Effect of cannabis on likelihood of becoming angry	All sites	
	2010 (n=575)	2011 (n=613)
Much more likely [5]	1%	1%
More likely [4]	2%	2%
No effect [3]	29%	33%
Less likely [2]	27%	31%
Much less [1]	41%	33%
Mean impact on likelihood to become angry (1=much less - 5=much more)	1.9	2.1

Driving under the influence of cannabis

Those detainees who had used cannabis in the past year were asked how often they drove under the influence of cannabis. In 2011, 26% of the cannabis using detainees said they did not drive and a further 7% said their driver license was suspended. Fifty percent of the detainees who drove and used cannabis had completed at least some of their driving under the influence of cannabis (Table 5.9). There was no change in the level of driving under the influence of cannabis in 2011 compared to 2010.

In 2011, detainees in Wellington Central were more likely to have driven under the influence of cannabis than detainees in Whangarei (1.9 vs. 1.4, p=0.0431) and Auckland Central (1.9 vs. 1.3, p=0.0046). Detainees in Wellington Central were also more likely to have driven while under the influence of cannabis than detainees in Christchurch Central, and this difference was close to being statistically significant (1.9 vs. 1.5, p=0.0676).

Table 5.9: Mean score of extent to which police detainees who drove and who had used cannabis in the past 12 months had driven under the influence of cannabis by location, 2010 & 2011

Extent drove under the influence of cannabis	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=63)	2011 (n=83)	2010 (n=110)	2011 (n=143)	2010 (n=80)	2011 (n=80)	2010 (n=125)	2011 (n=96)	2010 (n=378)	2011 (n=402)
All [4]	10%	16%	8%	7%	18%	24%	14%	14%	12%	14%
Most [3]	13%	13%	13%	8%	11%	14%	14%	12%	13%	10%
Some [2]	24%	13%	22%	33%	20%	23%	22%	25%	22%	26%
Hardly any [1]	16%	13%	17%	15%	13%	10%	15%	14%	15%	13%
None [0]	38%	45%	40%	37%	39%	30%	34%	35%	38%	37%
Mean score of extent drove under influence (0=none - 4=all)	1.4	1.4	1.3	1.3	1.6	1.9	1.6	1.5	1.5	1.5

Summary

- The proportion of detainees who had ever tried cannabis increased in Whangarei and Christchurch Central in 2011 compared to 2010
- The detainees had first tried cannabis at a mean age of 14 years
- Seventy-five percent of the detainees had used cannabis in the past 12 months in 2011
- The proportion of detainees in Whangarei who used cannabis in the past year was higher in 2011 compared to 2010 (83% vs. 68%)
- In 2011, detainees were more likely to have used cannabis in the past 12 months in Whangarei and Christchurch Central
- The detainees had used cannabis on a lower mean number of days in 2011 compared to 2010 (168 vs. 187 days)
- The mean number of days of cannabis use was lower in Auckland Central in 2011 compared to 2010 (151 vs. 196 days)
- Thirty-five percent of the cannabis using detainees felt they were dependent on cannabis in 2011
- Seventeen percent of the detainees had been using cannabis prior to their arrest in 2011
- In 2011, detainees in Whangarei and Wellington Central were more likely to report using cannabis prior to their arrest
- The current availability of cannabis was described as 'very easy/easy' in 2011
- The current availability of cannabis was lower in Christchurch Central in 2011 compared to 2010
- The availability of cannabis was reported to have been 'stable/more difficult' in 2011

- Cannabis was reported to be more difficult to obtain in 2011 compared to 2010

- Detainees in Christchurch Central thought cannabis was more difficult to obtain in 2011 than in 2010

- The median price of cannabis was $20 for a 'tinny' and $320 for an ounce in 2011

- In 2011, the mean price of an ounce of cannabis was lower in Whangarei than Auckland Central and Christchurch Central

- A higher proportion of detainees in Auckland Central could purchase cannabis in one hour or less in 2011 compared to 2010 (88% vs. 76%)

- In 2011, 64% of cannabis using detainees said cannabis was 'less likely' or 'much less likely' to make them become angry

- Fifty percent of cannabis using detainees who drove had completed at least some of their driving under the influence of cannabis in 2011

Chapter 6 – Ecstasy

Introduction

Ecstasy (3,4-methylenedioxymethamphetamine, MDMA) has both amphetamine and hallucinogenic effects (Gowing et al., 2002; Gowing et al., 2001; Kuhn et al., 1998; Topp et al., 1998). High doses of MDMA cause teeth clenching, paranoia, anxiety and confusion (Kuhn et al., 1998). MDMA can cause hyperthermia (extreme heat stroke) resulting in death when combined with sustained physical exercise and elevated temperatures, conditions commonly found in dance clubs (Gowing et al., 2002; Gowing et al., 2001). MDMA can also cause water intoxication and death when excessive amounts of water are consumed by users as the drug inhibits the body's ability to excrete fluid (Gowing et al., 2002; Topp et al., 1998). Although cases of serious adverse effects from MDMA use appear low relative to the extent of its use, it is the unpredictability of adverse events (dose is not predictive of adverse effects) including the risk of death that makes the risks significant (Gowing et al., 2002). Long term effects from MDMA include insomnia, energy loss, depression, anxiety, irritability, muscle aches, and blurred vision (Topp et al., 1998).

Ecstasy use emerged in the general population in New Zealand in the early/mid 2000s and has increased steadily over the subsequent decade (Wilkins & Sweetsur, 2008c). The proportion of New Zealanders who had used ecstasy in the previous year increased from 1.5% in 1998 to 3.9% in 2006 (i.e. among population aged 15-45 years old) (Wilkins & Sweetsur, 2008c). The 2010 IDMS found an increase in the availability and use of ecstasy particularly in the Auckland area (Wilkins et al., 2011b). The price of ecstasy decreased from $59 per pill in 2006 to $47 per pill in 2010 and potency also decreased over these years (Wilkins et al., 2011b). The 2010 IDMS also found growing ethnic diversity among frequent ecstasy users suggesting a broadening of the user group (Wilkins et al., 2011b).

It remains unclear to what extent drugs sold as 'ecstasy' contain MDMA or a mix of other substances. Pharmacological analysis of so called 'ecstasy' pills in a number of

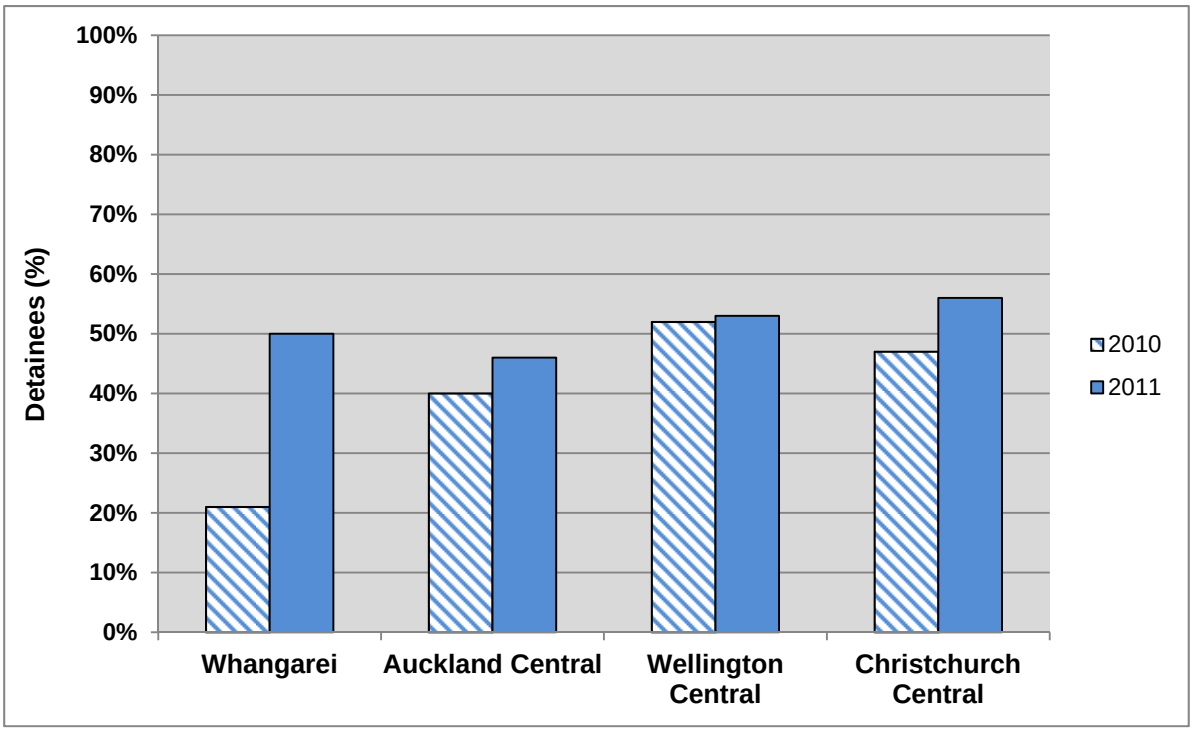
countries around the world has revealed they contain substances other than, or in addition to, MDMA including caffeine, methamphetamine, piperazines, cathinones and ketamine (United Nations Office on Drugs and Crime, 2008). In New Zealand, 'ecstasy' tablets seized by the authorities have been found to contain BZP (benzylpiperazine), MDPV (methylenedioxypurovalerone), mephedrone and methylone (methylenedioxymethcathinone) (Wilkins et al., 2011b).

The population prevalence of ecstasy use has declined in Australia in recent years (Australian Institute of Health and Welfare (AIHW), 2011). The 2011 Ecstasy and Related Drugs Reporting System (EDRS) also found a declining proportion of Australian frequent ecstasy users nominating ecstasy as their drug of choice, down from 52% in 2003 to 27% in 2011 (Sindicich & Burns, 2011). A higher proportion of the Australian frequent ecstasy users reported the purity of ecstasy as 'low' in 2010 compared to 2009 (56% vs. 24%) (Sindicich & Burns, 2010)

Use of ecstasy

In 2011, 51% of the police detainees had tried ecstasy in their lifetimes, 28% had used it in the past 12 months and 12% had used it in the past month (Table 6.1). A higher proportion of detainees had ever tried ecstasy in 2011 compared to 2010 (51% vs. 42%, $p=0.0002$). The proportion of detainees in Whangarei who had ever used ecstasy increased in 2011 compared to 2010 (51% vs. 21%, $p<0.0001$) (Figure 6.1). A higher proportion of detainees in Christchurch Central had also tried ecstasy in 2011 compared to 2010 (56% vs. 47%) and this difference was close to being statistically significant ($p=0.0604$).

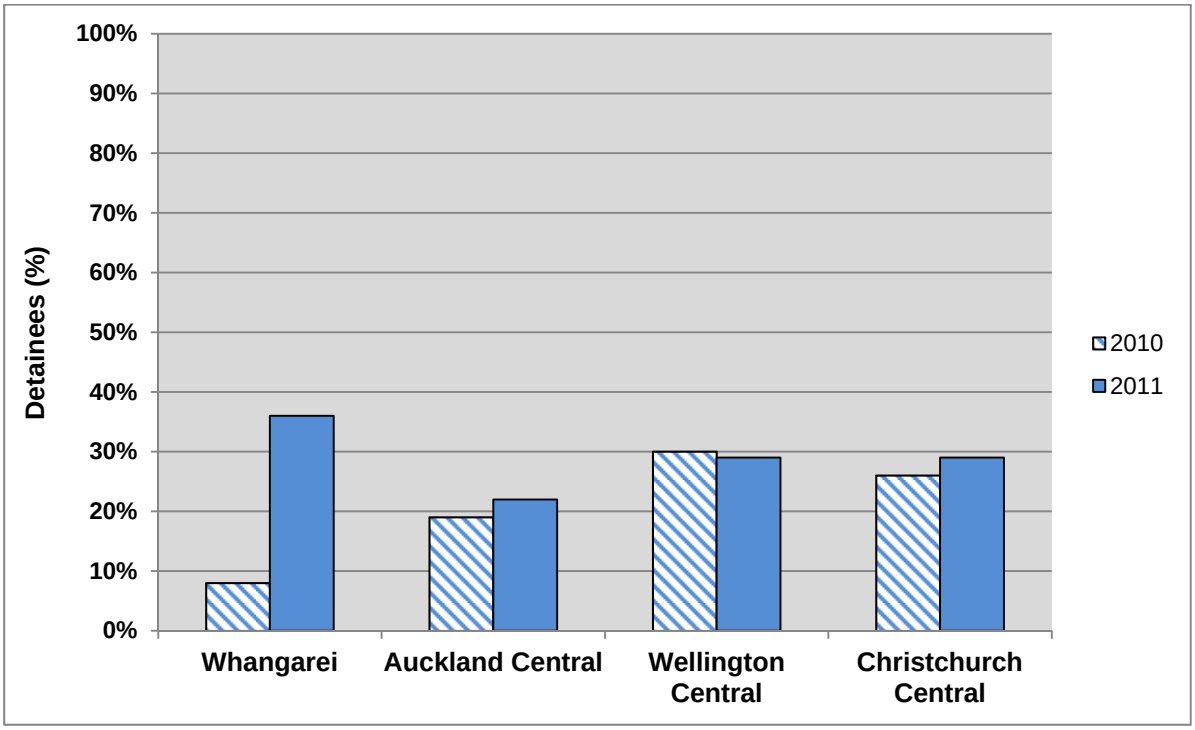
Figure 6.1: Proportion of police detainees who had ever used ecstasy by location, 2010 & 2011



The detainees had used ecstasy for the first time at a mean age of 20 years old in 2011. The mean age of first use of ecstasy was lower in Auckland Central in 2011 compared to 2010 (20 vs. 21 years) and this difference was very close to being statistically significant (p=0.0570).

The proportion of detainees who had used ecstasy in the past 12 months increased in 2011 compared to 2010 (28% vs. 22%, p=0.0074). This increase was largely due to the substantial increase in ecstasy use reported in Whangarei in 2011 compared with 2010 (36% vs. 8%, p<0.0001) (Figure 6.2). In 2011, detainees were more likely to have used ecstasy in the past 12 months in Whangarei than in Auckland Central (36% vs. 22%, p=0.0012).

Figure 6.2: Proportion of police detainees who used ecstasy in the past 12 months by location, 2010 & 2011



The proportion of the detainees who used ecstasy in the past month also increased in 2011 compared with 2010 (12% vs. 8%, p=0.0107). Again, the increase largely came from Whangarei where there was a significant increase in the prevalence of ecstasy use in the past month in 2011 compared to 2010 (17% vs. 4%, p=0.0005) (Figure 6.3).

Figure 6.3: Proportion of police detainees who had used ecstasy in the past month by location, 2010 & 2011

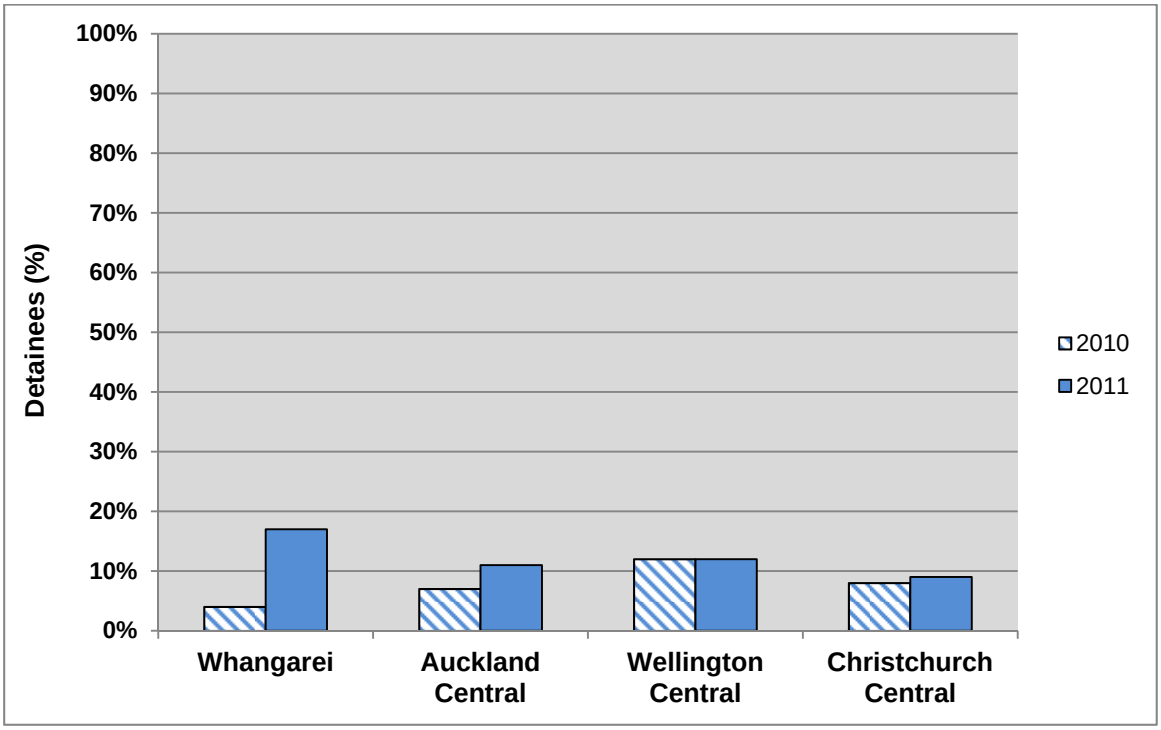


Table 6.1: Police detainees' patterns of ecstasy use by location, 2010 & 201

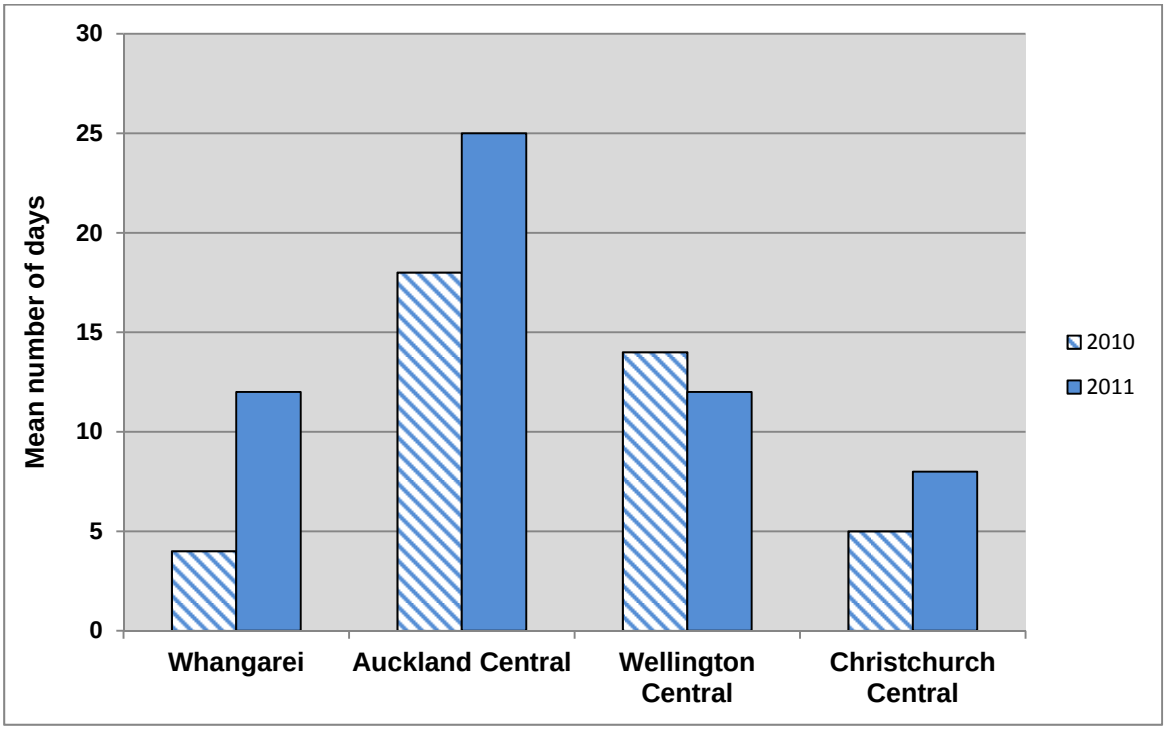
Use of ecstasy	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=115)	2011 (n=149)	2010 (n=284)	2011 (n=316)	2010 (n=152)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=813)	2011 (n=827)
Ever used (%)	21	50	40	46	52	53	47	56	42	51
Mean age first used (years)*	21	21	21	20	21	21	20	19	21	20
Used in past 12 months (%)	8	36	19	22	30	29	26	29	22	28
Mean number of days used in past 12 months	4	12	18	25	14	12	5	8	11	15
Felt dependent in the past 12 months (%)**	9	6	6	5	5	6	0	2	4	4
Used in past month (%)	4	17	7	11	12	12	8	9	8	12
Mean number of days used in past month***	2	3	3	3	2	3	2	2	2	3

* of those who had ever tried
** of those who had used in the past 12 months
*** of those who had used in the past month

Frequency of ecstasy use

The detainees had used ecstasy on a mean of 15 days in the past 12 months in 2011 (median 4, range 1-365 days). The detainees used ecstasy on a greater number of days in the past 12 months in 2011 compared to 2010 (15 vs. 11 days, p=0.0001). The mean number of days that the detainees had used ecstasy in the previous 12 months increased in 2011 compared to 2010 in Auckland Central (25 vs. 18 days, p=0.0384) and Christchurch Central (8 vs. 5 days, p=0.0029) (Figure 6.4).

Figure 6.4: Mean number of days police detainees used ecstasy in the past year by location, 2010 & 2011



Dependency on ecstasy

The detainees who had used ecstasy in the past 12 months were asked if they had felt dependent on ecstasy during this time. Four percent of the ecstasy using detainees said they had felt dependent on ecstasy in 2011 and this had not changed from the previous year.

Ecstasy use at the time of arrest

Only one percent of the detainees had been using ecstasy at the time of their arrest in 2011. This had not changed from 2010.

Change in use of ecstasy

Those detainees who had used ecstasy in the previous year were asked how their ecstasy use had changed compared to a year ago. In 2011, 40% of the ecstasy using detainees said they were using 'more' ecstasy, 34% were using 'less' and 20% were

using the 'same' amount of ecstasy (Table 6.2). There was no statistically significant change in the level of ecstasy use in 2011 compared to 2010 (1.9 vs. 1.8, p=0.3147).

Table 6.2: Last year ecstasy users' change in ecstasy use by location, 2010 & 2011

Change in use of ecstasy	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All Sites	
	2010 (n=11)	2011 (n=54)	2010 (n=52)	2011 (n=68)	2010 (n=45)	2011 (n=50)	2010 (n=61)	2011 (n=54)	2010 (n=169)	2011 (n=226)
More [3]	36%	43%	31%	44%	58%	60%	23%	19%	36%	41%
Same [2]	18%	15%	23%	15%	13%	20%	28%	30%	22%	19%
Less [1]	18%	28%	35%	38%	22%	18%	41%	44%	33%	33%
Stopped [0]	27%	15%	12%	3%	7%	2%	8%	7%	10%	7%
Mean score of change in use compared to 12 months ago (0=stopped – 3=more)	1.6	1.9	1.7	2.0	2.2	2.4	1.7	1.6	1.8	1.9
Overall change in use	More/ stopped	More/ less	Less/ more	More/ less	More/ less	More/ same	Less/ same	Less/ same	More/ less	More/ less

Current availability of ecstasy

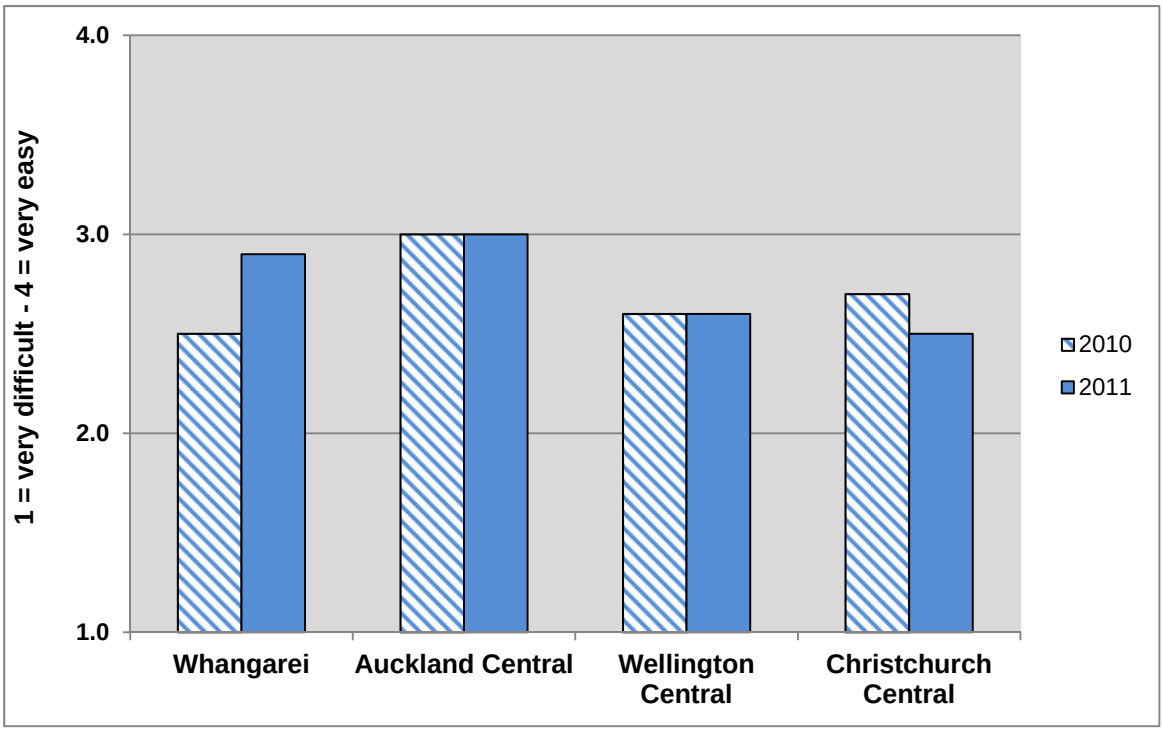
The detainees reported the current availability of ecstasy to be 'easy/difficult' in 2011. Thirty three percent reported the current availability of ecstasy to be 'easy', 31% said it was 'difficult' and 26% said it was 'very easy' (Table 6.3). There was no change in perceptions of the current availability of ecstasy in 2011 compared to 2010 (2.7 vs. 2.8, p=0.7837).

Table 6.3: Police detainees' perceptions of the current availability of ecstasy by location, 2010 & 2011

Current availability of ecstasy	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=10)	2011 (n=51)	2010 (n=49)	2011 (n=62)	2010 (n=39)	2011 (n=45)	2010 (n=65)	2011 (n=51)	2010 (n=163)	2011 (n=209)
Very easy [4]	20%	24%	35%	34%	28%	20%	22%	24%	27%	26%
Easy [3]	40%	45%	39%	39%	26%	31%	34%	20%	34%	33%
Difficult [2]	10%	25%	22%	23%	28%	36%	35%	39%	28%	31%
Very difficult [1]	30%	6%	4%	5%	18%	13%	9%	18%	11%	11%
Average availability score (1=very difficult – 4=very easy)	2.5	2.9	3.0	3.0	2.6	2.6	2.7	2.5	2.8	2.7
Overall current status	Easy/ very difficult	Easy/ difficult	Easy/ very easy	Every easy/ difficult	Very easy/ difficult	Difficult/ easy	Difficult/ easy	Difficult/ very easy	Easy/ difficult	Easy/ difficult

In 2011, detainees in Auckland Central considered ecstasy to be more easily available than those in Wellington Central (3.0 vs. 2.6, p=0.0168) and Christchurch Central (3.0 vs. 2.5, p=0.0047) (Figure 6.5). The availability of ecstasy was also reported to be easier in Whangarei than in Christchurch Central in 2011 (2.9 vs. 2.5, p=0.0496).

Figure 6.5: Mean score of the current availability of ecstasy by location, 2010 & 2011



Change in availability of ecstasy

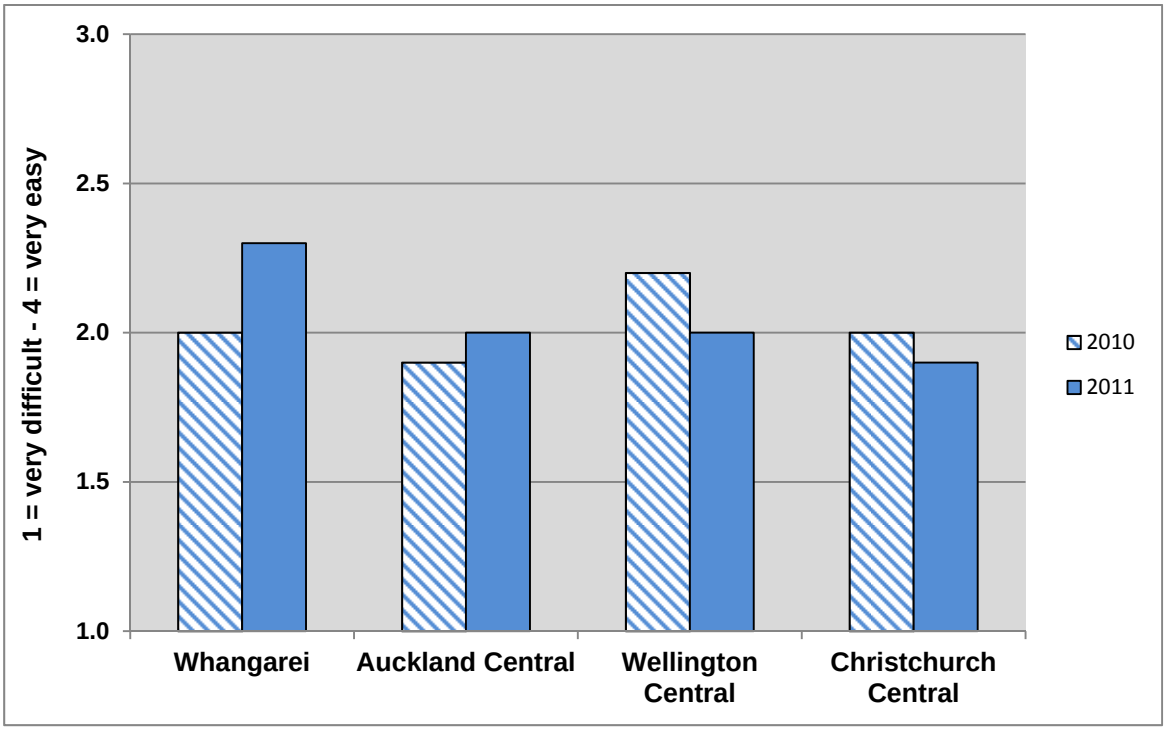
In 2011, 44% of the detainees reported the availability of ecstasy had been 'stable', 21% said it had become 'more difficult' and 24% said it had become 'easier' over the previous six months (Table 6.4). There was no change in the perception of the availability of ecstasy in 2011 compared to 2010 (2.0 in both years).

Table 6.4: Police detainees' perceptions of the change in availability of ecstasy by location, 2010 & 2011

Change in availability of ecstasy (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=12)	2011 (n=51)	2010 (n=45)	2011 (n=52)	2010 (n=31)	2011 (n=35)	2010 (n=60)	2011 (n=51)	2010 (n=148)	2011 (n=189)
Easier [3]	25%	41%	18%	21%	26%	20%	27%	16%	24%	24%
Stable [2]	33%	37%	40%	48%	45%	57%	40%	39%	41%	44%
Fluctuates [2]	17%	8%	11%	10%	16%	9%	7%	16%	11%	11%
More difficult [1]	25%	14%	31%	21%	13%	14%	27%	29%	25%	21%
Average change in availability score (1=more difficult – 3=easier)	2.0	2.3	1.9	2.0	2.2	2.0	2.0	1.9	2.0	2.0
Overall recent change	Stable/ more difficult	Easier/ stable	Stable/ more difficult	Stable/ easier/ more difficult	Stable/ easier	Stable/ easier	Stable/ more difficult	Stable/ more difficult	Stable/ more difficult	Stable/ easier

In 2011, detainees in Whangarei were more likely to report that obtaining ecstasy was becoming easier than detainees in Auckland Central (2.3 vs. 2.0, p=0.0410) and Christchurch Central (2.3 vs. 1.9, p=0.0026) (Figure 6.6).

Figure 6.6: Mean score of the change in the availability of ecstasy by location, 2010 & 2011



Current price of ecstasy

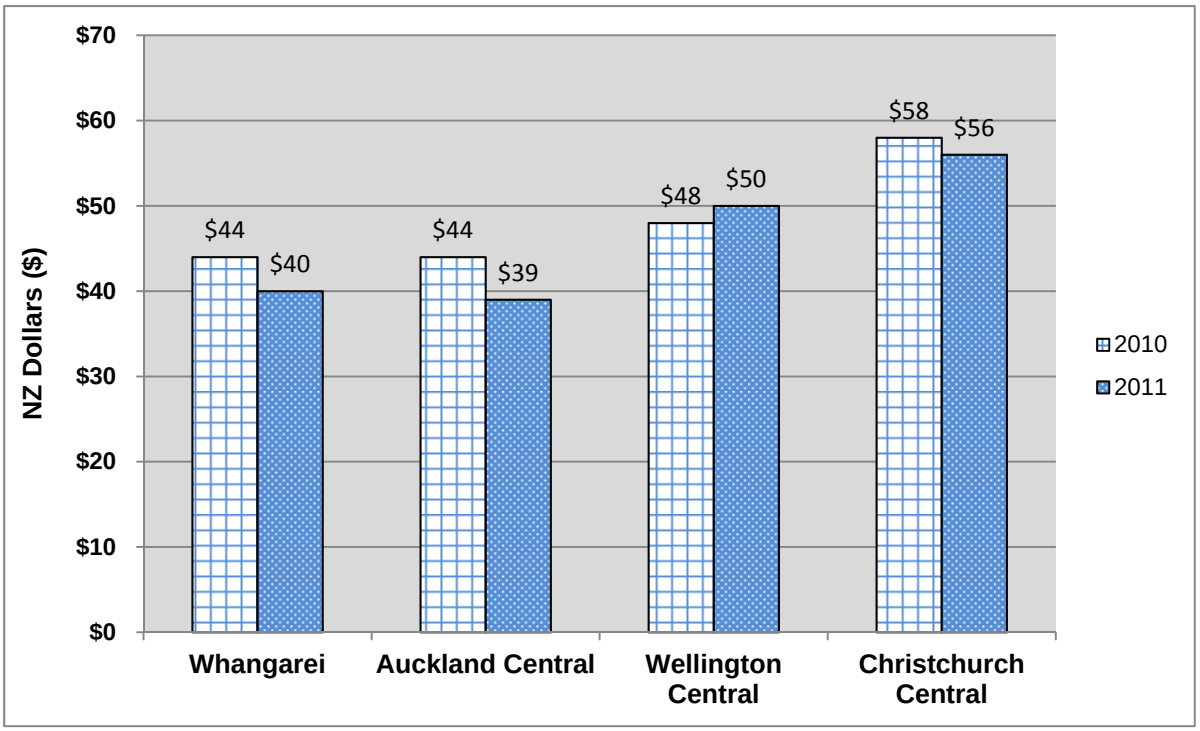
The detainees reported the median price of a pill of ecstasy was $40 in 2011 (Table 6.5). The price of a pill of ecstasy was lower in 2011 than in 2010 ($46 vs. $50, p=0.0179).

Table 6.5: Current median (mean) price paid by police detainees for a pill of ecstasy (NZD) by location, 2010 & 2011

Current price of ecstasy ($)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=7)	2011 (n=50)	2010 (n=43)	2011 (n=60)	2010 (n=38)	2011 (n=39)	2010 (n=65)	2011 (n=46)	2010 (n=153)	2011 (n=195)
Median (mean) price per pill	$50 ($44)	$40 ($40)	$40 ($44)	$40 ($39)	$50 ($48)	$50 ($50)	$60 ($58)	$60 ($56)	$50 ($50)	$40 ($46)

In 2011, the mean price of a pill of ecstasy was lower in Auckland Central than in Christchurch Central ($39 vs. $56, p<0.0001) and in Wellington Central ($39 vs. $56, p<0.0001) (Figure 6.7). The price of a pill of ecstasy was also lower in Whangarei than in Wellington Central ($40 vs. $50, p=0.0001) and in Christchurch Central ($40 vs. $56, p<0.0001). Finally, the price of a pill of ecstasy was lower in Wellington Central than in Christchurch Central ($50 vs. $56) and this difference was close to being statistically significant (p=0.0537).

Figure 6.7: Mean price paid for a pill of ecstasy by location, 2010 & 2011



Change in the price of ecstasy

The detainees reported the price of ecstasy had been 'stable/fluctuating' over the past six months in 2011 (Table 6.7). There was no overall change in the price of ecstasy in 2011 compared to 2010 (2.0 vs. 1.9, p=0.1927). However, the price of ecstasy was reported to be higher in Christchurch Central in 2011 compared to 2010 (2.2 vs. 2.0) and this difference was close to being statistically significant (p=0.0623).

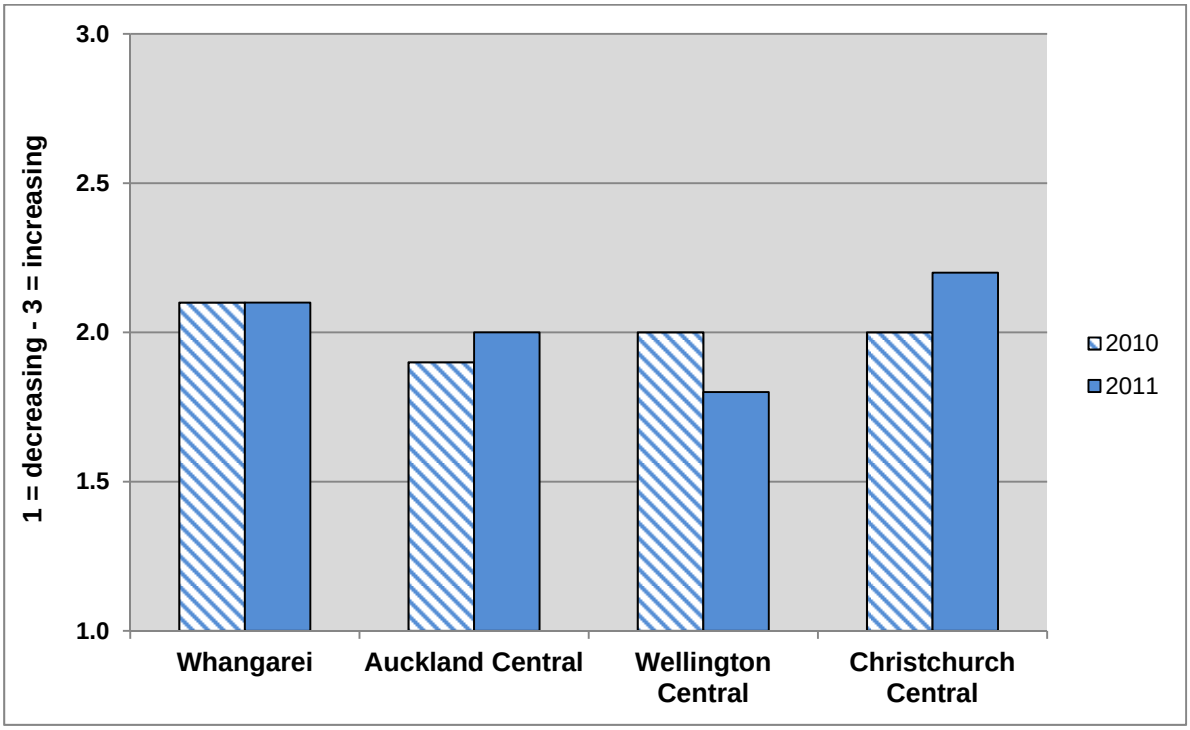
Table 6.6: Police detainees' perceptions of the change in the price of ecstasy in the past six months by location, 2010 & 2011

Change in price of ecstasy (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=9)	2011 (n=46)	2010 (n=43)	2011 (n=54)	2010 (n=32)	2011 (n=35)	2010 (n=63)	2011 (n=44)	2010 (n=147)	2011 (n=179)
Increasing [3]	22%	20%	14%	17%	19%	6%	14%	23%	16%	17%
Fluctuating [2]	22%	20%	14%	24%	9%	34%	22%	11%	17%	21%
Stable [2]	44%	48%	47%	46%	50%	31%	44%	59%	46%	48%
Decreasing [1]	11%	13%	26%	13%	22%	29%	19%	7%	21%	14%
Average change in price score (1=decreasi	2.1	2.1	1.9	2.0	2.0	1.8	2.0	2.2	1.9	2.0

ng – 3=increasing)										
Overall recent change	Stable/ fluctuating	Stable/ increasing/ fluctuating	Stable / increasing /fluctuating	Stable/ increasing /fluctuating	Stable/ decreasing	Fluctuating / stable	Stable / Fluctuating	Stable / Increasing	Stable / decreasing	Stable / Fluctuating

In 2011, detainees in Wellington Central were less likely to report that the price of ecstasy was increasing than detainees in Whangarei (1.8 vs. 2.1, p=0.0199), Auckland Central (1.8 vs. 2.0, p=0.0264) and Christchurch Central (1.8 vs. 2.2, p=0.0017) (Figure 6.8).

Figure 6.8: Mean score of the change in the price of ecstasy by location, 2010 & 2011



Time taken to purchase ecstasy

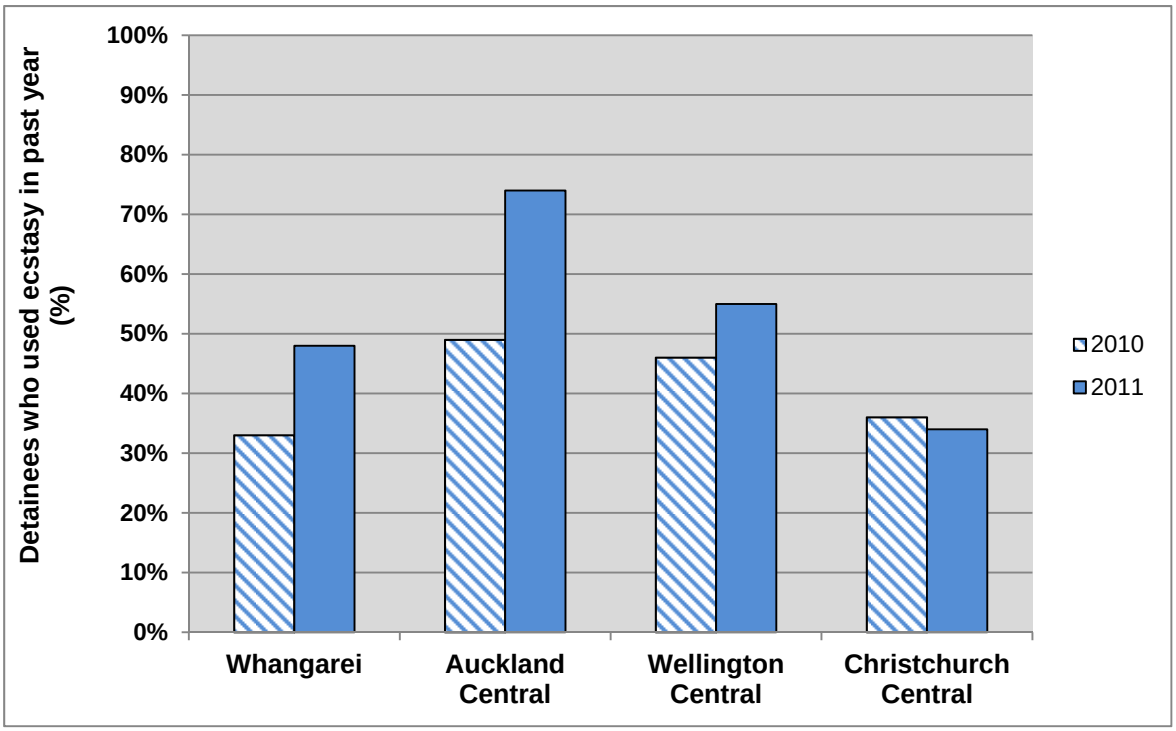
Fifty-two percent of the detainees who had used ecstasy in the previous year were able to purchase ecstasy in one hour or less in 2011. A higher proportion of detainees could purchase ecstasy in one hour or less in 2011 compared to 2010 (52% vs. 44%, p=0.0461). Detainees in Auckland Central were more likely to be able to purchase ecstasy in one hour or less in 2011 than in 2010 (74% vs. 49%, p=0.0086) (Figure 6.9).

Table 6.7: Time taken by police detainees to purchase ecstasy by location, 2010 & 2011

Time to purchase (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=9)	2011 (n=54)	2010 (n=45)	2011 9n=61)	2010 (n=37)	2011 (n=42)	2010 (n=66)	2011 (n=50)	2010 (n=157)	2011 (n=207)
Months	0	0	2	0	0	2	0	2	1	1
Weeks	11	2	0	0	8	5	5	4	4	3
Days	33	19	11	7	19	10	8	20	13	14
About one day	11	11	16	3	14	10	27	24	20	12
Hours	11	20	22	16	14	19	24	16	20	18
1 Hour	33	20	20	49	24	31	15	12	20	28
Less than 20 mins	0	28	29	25	22	24	21	22	22	24

In 2011, detainees in Auckland Central were more likely to be able to purchase ecstasy in one hour or less than detainees in Whangarei (74% vs. 48%, p=0.0059), Wellington Central (74% vs. 55%, p=0.0496) and Christchurch Central (74% vs. 34%, p=<0.0001). Detainees in Wellington Central were more likely to be able to purchase ecstasy in one hour or less than detainees in Christchurch Central (55% vs. 34%, p=0.0493).

Figure 6.9: Proportion of police detainees who could purchase ecstasy in one hour or less, 2010 & 20



Effect of ecstasy on the likelihood of becoming angry

Those detainees who reported using ecstasy in the past 12 months were asked what effect using ecstasy had on their likelihood to become angry. In 2011, 54% of the detainees reported that using ecstasy was 'less likely' or 'much less' likely to make them become angry. Only 7% said it was 'more likely' or 'much more likely' to make them feel angry.

Table 6.8: Effect of ecstasy on police detainees' likelihood of becoming angry, 2010 & 2011

Effect of ecstasy on likelihood of becoming angry	All sites	
	2010 (n=164)	2011 (n=213)
Much more likely [5]	2%	2%
More likely [4]	5%	5%
No effect [3]	34%	39%
Less likely [2]	24%	24%
Much less [1]	36%	30%
Mean impact on likelihood of becoming angry (1=much less - 5=much more)	2.1	2.3

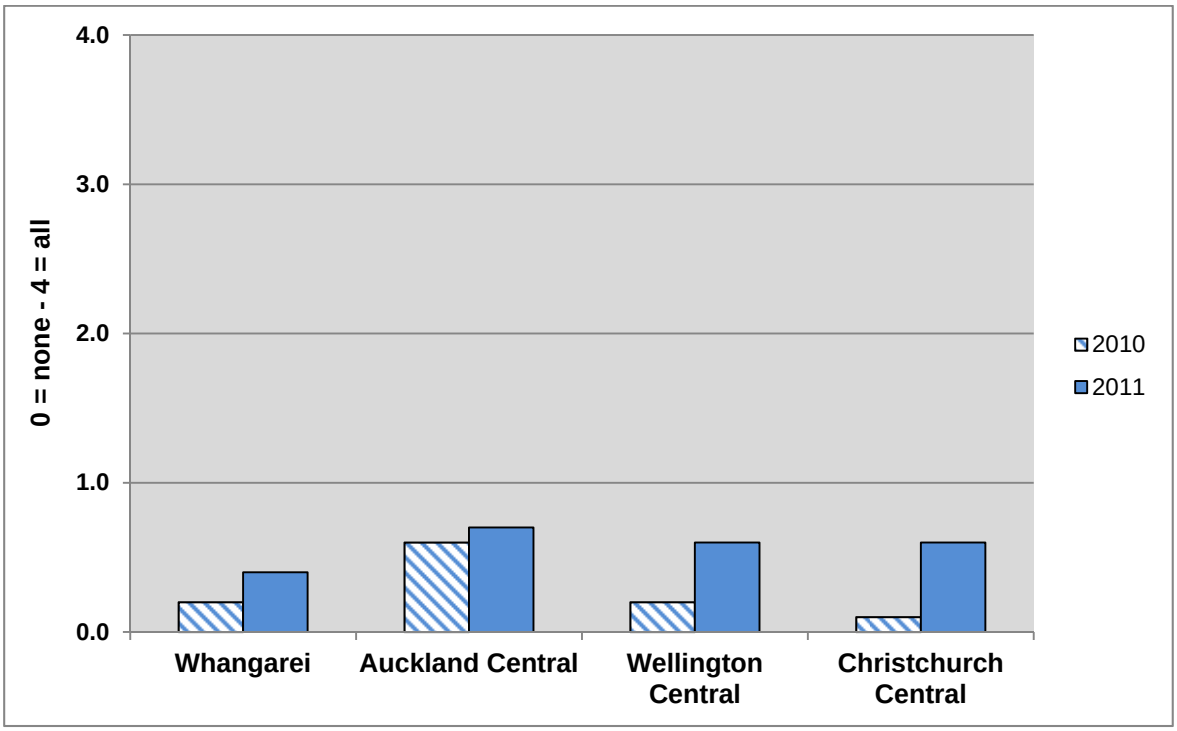
Driving under the influence of ecstasy

Those detainees who had used ecstasy in the past year were asked how often they drove under the influence of ecstasy. Twenty-three percent of the detainees said they did not drive and a further 6% said their driver license was suspended. In 2011, 17% of the ecstasy using detainees had completed at least some of their driving under the influence of ecstasy (Table 6.9). The detainees had completed more of their driving under the influence of ecstasy in 2011 than in 2010 (0.6 vs. 0.3, p=0.0030). Detainees in Christchurch Central completed more of their driving under the influence of ecstasy in 2011 compared to 2010 (0.6 vs. 0.1, p=0.0062) (Figure 6.10).

Table 6.9: Extent police detainees who drove and who used ecstasy in the past 12 months had driven under the influence of ecstasy by location, 2010 & 2011

Extent drove under the influence of ecstasy	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=10)	2011 (n=39)	2010 (n=36)	2011 (n=47)	2010 (n=28)	2011 (n=31)	2010 (n=47)	2011 (n=37)	2010 (n=121)	2011 (n=154)
All [4]	0%	5%	3%	0%	0%	6%	0%	3%	1%	3%
Most [3]	0%	3%	6%	2%	0%	3%	0%	3%	2%	3%
Some [2]	10%	3%	8%	19%	4%	3%	2%	16%	5%	11%
Hardly any [1]	0%	10%	14%	21%	11%	16%	6%	11%	9%	15%
None [0]	90%	79%	69%	57%	86%	71%	91%	68%	83%	68%
Mean score of extent drove under influence (1=none - 5=all)	0.2	0.4	0.6	0.7	0.2	0.6	0.1	0.6	0.3	0.6

Figure 6 10: Mean score of the extent to which police detainees who drove and who used ecstasy in the past 12 months had driven under the influence of ecstasy by location, 2010 & 2011



Summary

- A higher proportion of detainees had tried ecstasy in their lifetimes in 2011 compared to 2010 (51% vs. 42%)
- A higher proportion of detainees in Whangarei had tried ecstasy in their lifetimes in 2011 compared to 2010 (51% vs. 21%)
- The mean age of first use of ecstasy was lower in Auckland Central in 2011 compared to 2010 (20 vs. 21 years)
- The proportion of detainees who used ecstasy in the past 12 months increased in 2011 compared to 2010 (28% vs. 22%)
- The proportion of detainees in Whangarei who used ecstasy in the past 12 months increased in 2011 compared to 2010 (36% vs. 8%)
- The detainees used ecstasy on a greater number of days in the past 12 months in 2011 compared to 2010 (15 vs. 11 days)
- Increases in the number of days of ecstasy use in 2011 compared to 2010 occurred in Auckland Central (25 vs. 18 days) and Christchurch Central (8 vs. 5 days)
- Only one percent of the detainees had been using ecstasy at the time of their arrest in 2011
- The current availability of ecstasy was reported to be 'easy/difficult' in 2011
- In 2011, the current availability of ecstasy was higher in Auckland Central than in Wellington Central and Christchurch Central
- The current availability of ecstasy was also higher in Whangarei than in Christchurch Central in 2011

- In 2011, detainees in Whangarei were more likely to say the availability of ecstasy was becoming easier than those in Auckland Central and Christchurch Central

- The mean price of a pill of ecstasy was lower in 2011 than in 2010 ($46 vs. $50)

- In 2011, the mean price of a pill of ecstasy was lower in Auckland Central than in Christchurch Central and Wellington Central

- In 2011, the mean price of a pill of ecstasy was also lower in Whangarei than in Wellington Central and Christchurch Central

- A higher proportion of detainees could purchase ecstasy in one hour or less in 2011 compared to 2010 (52% vs. 44%)

- Detainees in Auckland Central were more likely to be able to purchase ecstasy in one hour or less in 2011 compared to 2010 (74% vs. 49%)

- The detainees had competed more of their driving under the influence of ecstasy in 2011 compared to 2010

Chapter 7 - Opioids

Introduction

The police detainees were asked about a general opioid category in NZ-ADUM which the interviewer explained included 'heroin, morphine, opiates/opioids, smack, skag, junk and misties'. This broad category reflects the diverse nature of opioid use in New Zealand which includes the use of strictly illegal drugs, such as heroin, and the extra-medical use of pharmaceutical opioids, such as morphine.

The current diversity in opioid use in New Zealand was brought about by the disruption of the international supply of heroin to New Zealand in the late 1970s after the arrest of the 'Mr Asia' international heroin trafficking gang (New Zealand Customs Service, 2002; Newbold, 2000). Three domestic sources of opioids emerged in the subsequent decades to largely replace internationally sourced heroin in New Zealand: (1) 'street morphine' - pharmaceutical morphine diverted from the medical system; (2) 'homebake heroin/ morphine' – illegally manufactured morphine made from codeine diverted from the medical system and produced in make-shift 'kitchen' laboratories; and (3) opium extracted on a seasonal basis from locally grown opium poppies (Adamson & Sellman, 1998; New Zealand Customs Service, 2002).

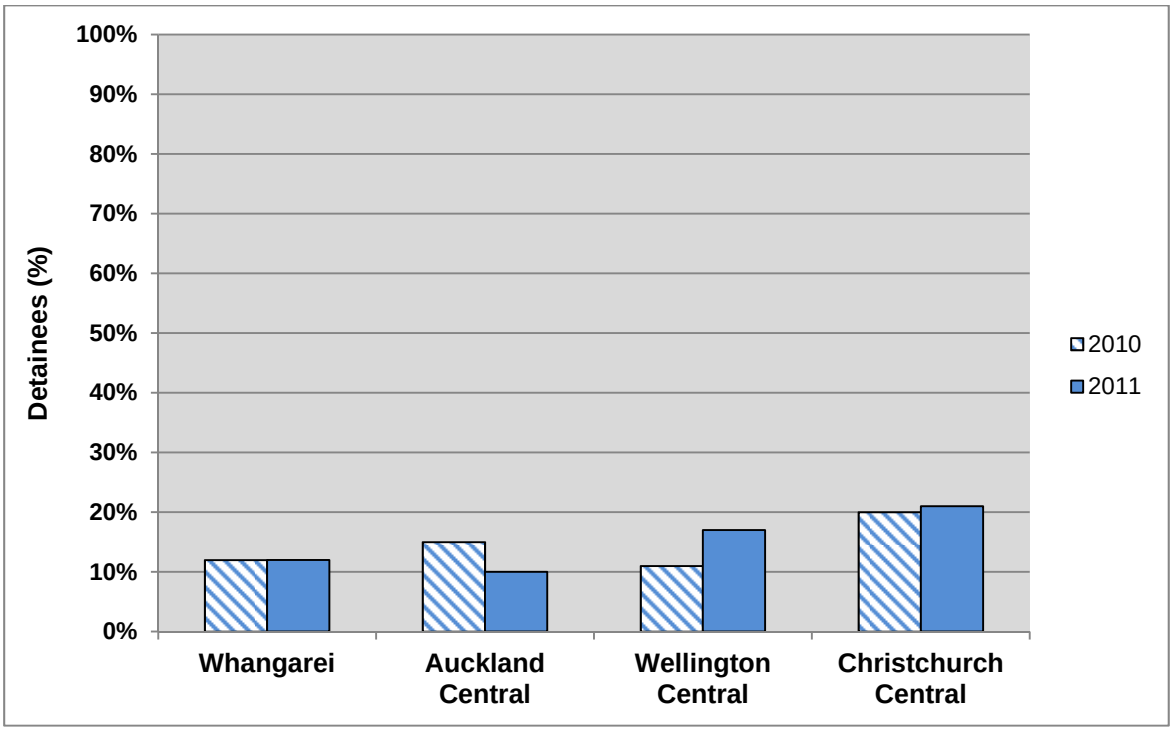
Pharmaceutical morphine is currently one of the principal opioids used by injecting drug users in New Zealand (Wilkins et al., 2011a). In the 2010 IDMS, 55% of the frequent injecting drug users had used morphine in the past six months, 38% had used methamphetamine, while only 19% had used heroin in the past six months in 2010 (Wilkins et al., 2011b). Among frequent injecting drug users in Australia, 62% had used heroin, 45% had used methamphetamine and 41% had used morphine in the previous six months in 2011 (Stafford & Burns, 2011). Pharmaceutical morphine is procured in a range of ways including the outright theft of supplies from pharmacies, forging or altering prescriptions, deception or manipulation of doctors, 'doctor shopping', 'pharmacy hopping' and accessing the legitimate prescriptions of family and friends (Royal Australasian College of Physicians, 2008; Sheridan & Butler,

2008; Wilkins et al., 2010a). The 2010 IDMS found a decline in the price of street morphine, down from $96 per 100 milligrams in 2009 to $84 per 100 milligrams in 2010 (Wilkins et al., 2011b). The 2010 IDMS also found street morphine to be more available in Christchurch than Auckland and Wellington (Wilkins et al., 2011b).

Use of opioids

In 2011, 15% of the police detainees had used an opioid in their lifetimes, 6% had used an opioid in the previous 12 months and 3% had used an opioid in the past 30 days (Table 7.1). There was no change in the proportion of detainees who had ever tried opioids in 2011 compared to 2010 (15% in both years). In 2011, detainees in Christchurch Central were more likely to have ever tried opioids than detainees in Whangarei (21% vs. 12%, p=0.0254) and Auckland Central (21% vs. 10%, p=0.0008) (Figure 7.1). Detainees in Wellington Central were also more likely to have ever tried opioids than detainees in Auckland Central (17% vs. 10%, p=0.0417). There was no change in the age at which the detainees had first tried opioids in 2011 compared to 2010 (21 years in both years).

Figure 7.1: Proportion of police detainees who had ever used opioids by location, 2010 & 2011



There was also no overall change in the proportion of detainees who used opioids in the previous 12 months in 2011 compared to 2010 (6% vs. 8%, p=0.1051). There was a decline in the proportion of detainees in Auckland Central who had used opioids in the past 12 months in 2011 compared to 2010 (2% vs. 5%, p=0.0469) (Figure 7.2). The low number of detainees reporting recent use of opioids means comparisons by location should be interpreted with caution. In 2011, detainees in Christchurch Central were more likely than detainees in Auckland Central to have used opioids in the previous 12 months (9% vs. 2%, p=0.0008). Detainees in Wellington Central were also more likely than detainees in Auckland Central to have used opioids in the previous 12 months (6% vs. 2%, p=0.0247).

Figure 7.2: Proportion of police detainees who had used opioids in the past 12 months by location, 2010 & 2011

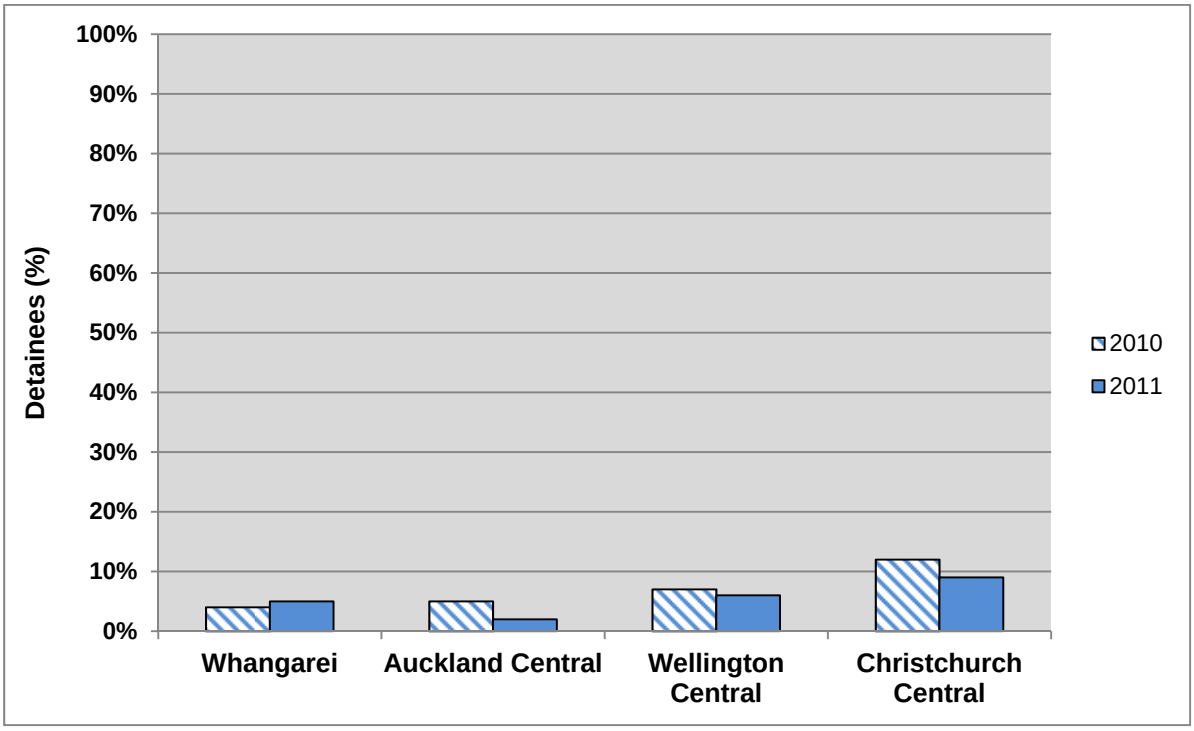


Table 7.1: Police detainees' patterns of opioid use by location, 2010 & 2011

Use of opioids	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=115)	2011 (n=149)	2010 (n=285)	2011 (n=316)	2010 (n=152)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=814)	2011 (n=827)
Ever used (%)	12	12	15	10	11	17	20	21	15	15
Mean age first used (years)*	25	21	21	21	25	21	19	20	21	21
Used in past 12 months (%)	4	5	5	2	7	6	12	9	8	6
Mean number of days used in past 12 months**	29	12	112	95	46	123	110	122	94	101
Injected in past 12 months**	20	50	60	57	56	73	53	82	53	71
Felt dependent in past 12 months (%)**	40	0	47	43	25	45	43	53	41	41
Used in past month (%)	3	2	3	2	5	5	6	6	4	3
Mean number of days used in past month***	18	3	15	11	6	14	19	20	15	15

* of those who had ever tried
** of those who had used in the past 12 months
*** of those who had used in the past month

A higher proportion of detainees reported injecting opioids in 2011 compared to 2010 and this difference was close to being statistically significant (71% vs. 53%, p=0.0552). More detainees in Christchurch Central reported injecting opioids in the past 12 months in 2011 than in 2010 (82% vs. 53%, p=0.0466).

Frequency of opioid use

The detainees had used opioids on a mean of 101 days in the past 12 months in 2011 (median 36, range 1-365 days). There was no change in the number of days opioids

were used in the past 12 months in 2011 compared to 2010 (101 vs. 94 days, p=0.5711).

Dependency on opioids

Forty-one percent of the detainees who had used an opioid in the previous year reported they felt dependent on them in 2011. There was no change in level of dependency on opioids in 2011 compared to 2010 (41% in both years).

Opioid use at the time of arrest

Only 1% of the detainees reported they were using opioids at the time of their arrest in 2011 and this did not change from 2010.

Current availability of opioids

The detainees reported the current availability of opioids to be 'difficult/very easy' in 2011 (Table 7.2). There was no statistically significant change in the current availability of opioids in 2011 compared to 2010 (2.8 vs. 3.0, p=0.3962).

Table 7.2: Police detainees' perceptions of the current availability of opioids, 2010 & 2011

Current availability of opioids	All sites	
	2010 (n=53)	2011 (n=41)
Very easy [4]	32%	30%
Easy [3]	42%	28%
Difficult [2]	17%	35%
Very difficult [1]	9%	8%
Average availability score (1=very difficult – 4=very easy)	3.0	2.8
Overall current status	Easy/ very easy	Difficult/ very easy

Change in availability of opioids

In 2011, 43% of the detainees reported the availability of opioids had been 'stable' and 27% said availability was 'more difficult' compared to the previous six months (Table 7.3).

Table 7.3: Police detainees' perceptions of the change in availability of opioids, 2010 & 2011

Change in availability of opioids	All sites	
	2010 (n=51)	2011 (n=37)
Easier [3]	24%	16%
Stable [2]	47%	43%
Fluctuates [2]	10%	14%
More difficult [1]	19%	27%
Average change in availability score (1=more difficult – 3=easier)	2.0	1.9
Overall recent change	Stable/ easier	Stable/ more difficult

Current price of opioids

Twenty-five of the detainees reported the price of opioids in 2011. The median price was $1 for a milligram of opioids or $100 per 100 milligrams (mean $1.03 per milligram). The mean price of a milligram of opioids was higher in 2011 than in 2010 ($1.03 vs. $0.85, p=0.0024).

Change in the price of opioids

Seventy-one percent of the detainees reported the price of opioids had been 'stable' over the previous six months in 2011 (Table 7.4). There was no statistically significant change in the perceptions of the change in the price of opioids in 2011 compared to 2010 (2.1 vs. 2.0, p=0.3809)

Table 7.4: Police detainees' perceptions of the change in the price of opioids in the past six months, 2010 & 2011

Change in price of opioids	All sites	
	2010 (n=42)	2011 (n=36)
Increasing [3]	12%	17%
Fluctuating [2]	12%	10%
Stable [2]	69%	71%
Decreasing [1]	7%	3%
Average change in price score (1=decreasing – 3=increasing)	2.0	2.1
Overall recent change	Stable/ fluctuating	Stable

Time taken to purchase opioids

In 2011, 48% of the detainees could purchase opioids in one hour or less (Table 7.5). There was no statistically significant change in the proportion of detainees who could purchase opioids in one hour or less in 2011 compared to 2010 (48% vs. 61%, p=0.1931).

Table 7.5: Time taken by police detainees to purchase opioids, 2010 & 2011

Time to purchase opioids (%)	All sites	
	2010 (n=53)	2011 (n=44)
Months	0	5
Weeks	2	4
Days	6	14
About one day	4	13
Hours	28	16
1 Hour	25	17
Less than 20 mins	36	31

Effect of opioids on the likelihood of becoming angry

Those detainees who reported using opioids in the past 12 months were asked what effect using opioids has on their likelihood to become angry. Fifty-seven percent of the detainees reported that using opioids was 'less likely' or 'much less likely' to make them become angry (Table 7.6).

Table 7.6: Effect of opioids on detainees' likelihood of becoming angry, 2010 & 2011

Effect of opioids on likelihood to become angry	All sites	
	2010 (n=56)	2011 (n=43)
Much more likely [5]	2%	5%
More likely [4]	9%	8%
No effect [3]	21%	30%
Less likely [2]	30%	26%
Much less [1]	38%	31%
Mean impact on likelihood to become angry (1=much less - 5=much more)	2.1	2.3
Overall	Much less/ Less likely	Much less/ No effect

Driving under the influence of opioids

Those detainees who had used opioids in the past year were asked how often they drove under the influence of opioids. In 2011, 38% of the opioid using detainees said

they did not drive and a further 7% said their license was suspended. Forty-nine percent of the detainees who used opioids and drove had completed at least some of their driving under the influence of opioids in 2011 (Table 7.7). There was no statistically significant change in the level of driving under the influence of opioids in 2011 compared to 2010 (1.6 vs. 1.3, p=0.4145).

Table 7.7: Extent to which police detainees who drove and who had used opioids in the past 12 months had driven under the influence of opioids, 2010 & 2011

Extent drove under the influence of opioids	All sites	
	2010 (n=35)	2011 (n=23)
All [4]	14%	17%
Most [3]	6%	22%
Some [2]	20%	10%
Hardly any [1]	12%	5%
None [0]	48%	46%
Mean score of extent drove under influence (0=none - 4=all)	1.3	1.6

Summary

- There was no change in the proportion of detainees who had ever tried opioids in their lifetimes in 2011 compared to 2010 (15% in both years)
- In 2011, detainees in Christchurch Central were more likely to have ever tried opioids in their lifetimes than those in Whangarei and Auckland Central
- There was no overall change in the proportion of detainees who used opioids in the past year in 2011 compared to 2010 (6% vs. 8%)
- There was a decline in the proportion of detainees in Auckland Central who had used opioids in the previous year in 2011 compared to 2010 (2% vs. 5%)
- In 2011, detainees in Christchurch Central were more likely to have used an opioid in the past year than those in Auckland Central
- The detainees who had used opioids in the past year had used them on a mean of 101 days in the past 12 months in 2011
- Forty-one percent of the detainees who had used opioids in the past year felt they were dependent on them in 2011
- Only 1% of the detainees had been using opioids at the time of their arrest in 2011
- The current availability of opioids was reported to be 'difficult/very easy'
- The availability of opioids was described as 'stable/more difficult'
- The mean price of 100 milligrams of opioids was higher in 2011 compared to 2010 ($103 vs. $85) but the low number of detainees reporting prices mean this finding should be treated with some caution
- The price of opioids was reported to be 'stable'
- Forty-nine percent of the detainees who used opioids and drove had completed at least some of their driving under the influence of opioids

Chapter 8 – Cocaine

Introduction

Cocaine is derived from the coca plant and is largely cultivated clandestinely in three South American countries: Columbia, Peru and Bolivia (National Drug Intelligence Bureau, 2005). Historically cocaine use has been rare in New Zealand (Field & Casswell, 1999; Wilkins & Sweetsur, 2008c). The factors that have contributed to this low prevalence of use include cocaine's high price; its short duration of action (i.e. around 20 minutes); New Zealand's geographical isolation from coca producing countries; and New Zealand's tight border controls (New Zealand Customs Service, 2002). International experience also suggests that cocaine and methamphetamine are close substitutes for each other (Weisheit & White, 2009). The high prevalence of methamphetamine use in New Zealand may therefore preclude the emergence of a large cocaine market.

Australia has a larger cocaine market and New Zealand has been used as a transit point for the smuggling of cocaine into Australia. There is concern this supply route could facilitate the development of a larger cocaine market in New Zealand (NDIB, personal communication, 2011). There have been increases in seizures of cocaine over the past few years and some intelligence reports of greater cocaine availability in New Zealand (NDIB personal correspondence, 2010). The 2010 IDMS found that less than 10% of the frequent drug users interviewed had used cocaine in the previous six months in 2010 (Wilkins et al., 2011b). However, the frequent drug users did report some increase in availability and decline in the price of cocaine in 2010 compared to 2009 (Wilkins et al., 2011b).

The proportion of the general population in Australia who used cocaine in the previous 12 months increased from 1.6% in 2007 to 2.1% in 2010 (Australian Institute of Health and Welfare (AIHW), 2011). The EDRS found 46% of Australian frequent ecstasy users had used cocaine in the past six months in 2011 and this was the highest rate since monitoring began in 2003 (Sindicich & Burns, 2011).

Use of cocaine

Eighteen percent of the police detainees had tried cocaine sometime in their lifetimes and 4% had used cocaine in the past year in 2011 (Table 8.1). There was no change in the lifetime prevalence of cocaine use among the detainees in 2011 compared to 2010 (18% vs. 17%, p=0.4525). In 2011, a higher proportion of detainees had ever tried cocaine in Wellington Central compared to Whangarei (22% vs. 15%) but this difference was not statistically significant (p=0.0909) (Figure 8.1).

Figure 8.1: Proportion of police detainees who had ever used cocaine by location, 2010 & 2011

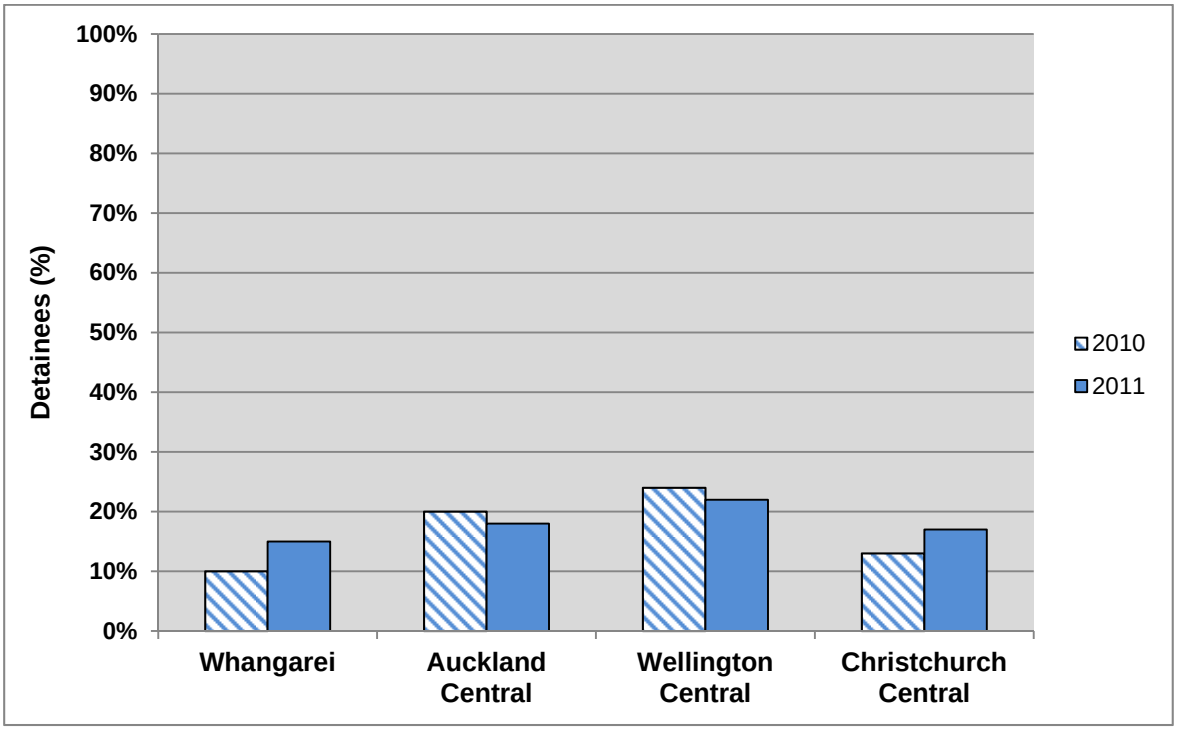


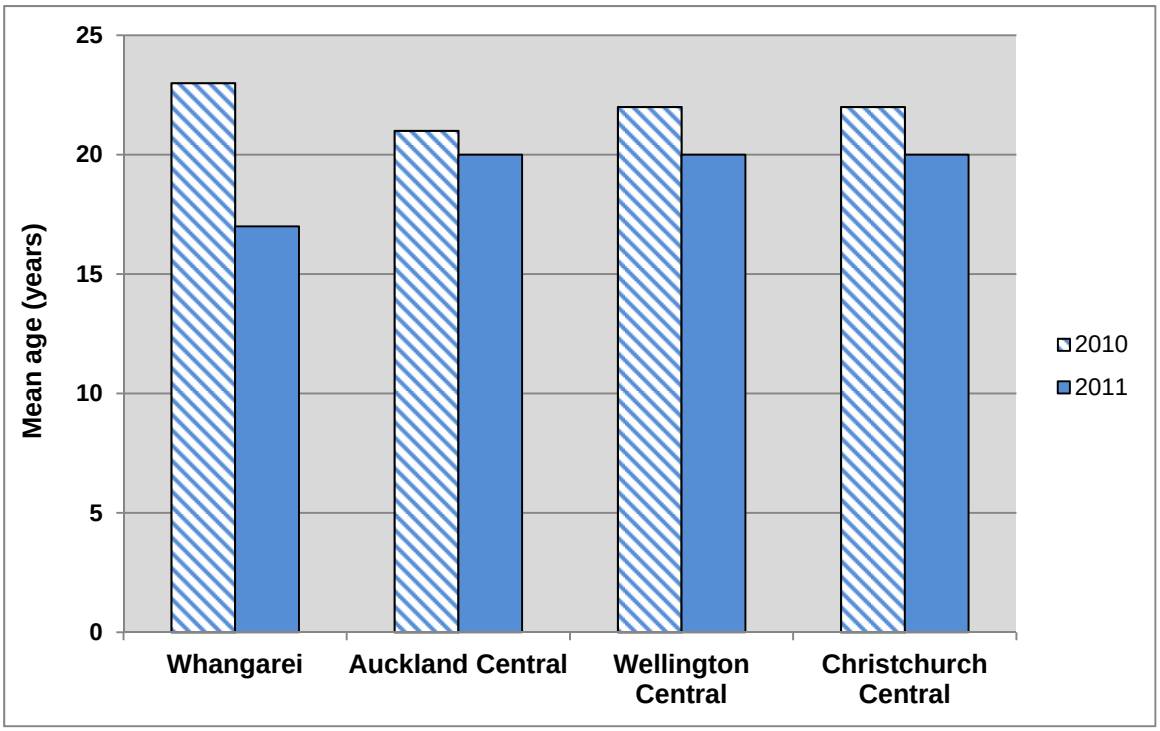
Table 8.1: Police detainees' patterns of cocaine use by location, 2010 & 2011

Use of cocaine	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=115)	2011 (n=149)	2010 (n=285)	2011 (n=316)	2010 (n=152)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=14)	2011 (n=827)
Ever used (%)	10	15	20	18	24	22	13	17	17	18
Mean age first used (years)*	23	17	21	20	22	20	22	20	22	20
Used in past 12 months (%)	0	4	5	4	7	5	3	3	4	4
Mean number of days used in past 12 months**	-	93	2	24	10	23	3	1	5	31

* of those who had ever tried
** of those who had used in the past 12 months

The detainees reported that they had first tried cocaine at a younger age in 2011 compared to 2010 (20 years vs. 22 years, p=0.0123) (Table 8.1). Whangarei detainees had first tried cocaine at a much younger age in 2011 than in 2010 (17 years vs. 23 years, p=0.0081) (Figure 8.2). Only 11 detainees in Whangarei reported an age of first use of cocaine in 2010 so comparisons with 2011 (n=22) should be treated with some caution.

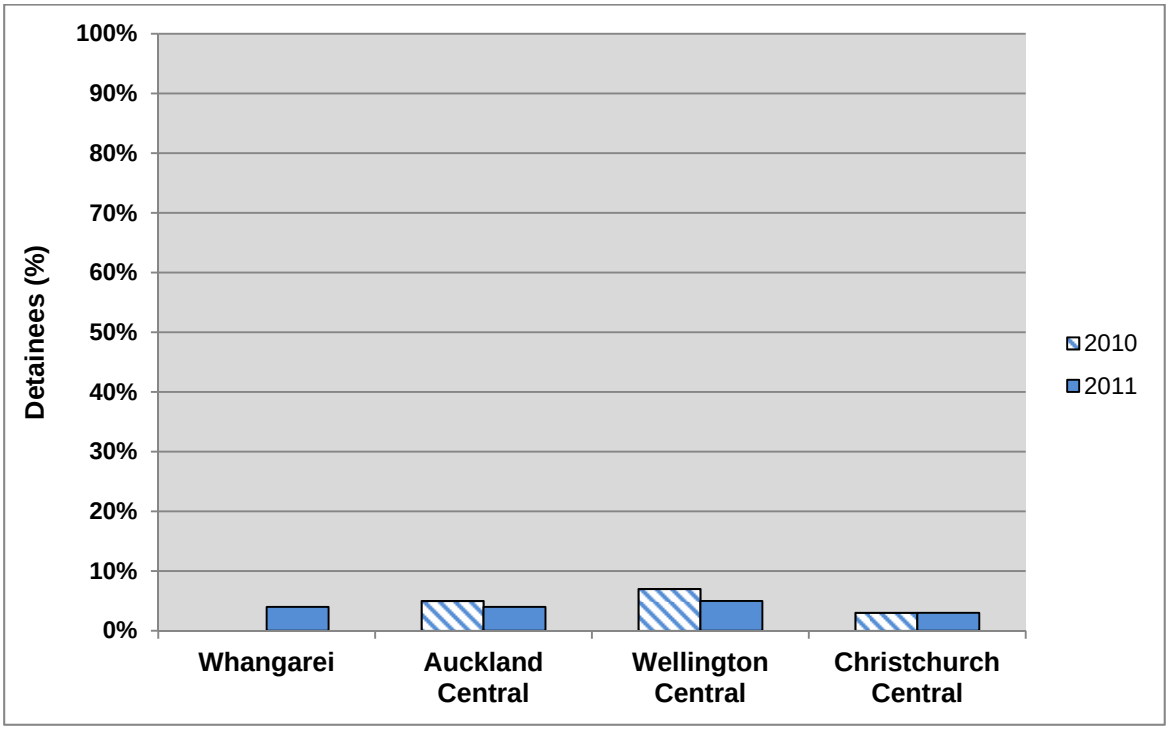
Figure 8.2: Mean age detainees had first used cocaine by location, 2010 & 2011



In 2011, detainees in Whangarei had first used cocaine at a younger age than detainees in Auckland Central (17 years vs. 20 years, p=0.0014), Wellington Central (17 years vs. 20 years, p=0.0072) and Christchurch Central (17 years vs. 20 years, p=0.0163).

There was no change in the proportion of detainees who had used cocaine in the previous year in 2011 compared 2010 (4% in both years). A higher proportion of detainees in Whangarei reported using cocaine in the past 12 months in 2011 compared to 2010, but the increase was from a very low level (4% vs. 0%, p=0.0308) (Figure 8.3). Only a small number of detainees in Whangarei reported using cocaine in the last year in 2011 (n=4) and so comparisons in this location should be interpreted with caution.

Figure 8.3: Proportion of police detainees who used cocaine in the past 12 months by location, 2010 & 2011



Frequency of cocaine use

The detainees who had used cocaine in the past year had used it on a mean of thirty-one days in the past 12 months in 2011 (median 2, 1-365 days). The detainees had used cocaine on a greater mean number of days in 2011 compared to 2010 (31 days vs. 5 days) but this difference was not statistically significant (p=0.1968). There were also increases in the days of cocaine use in Whangarei, Auckland Central and Wellington Central but these differences were not statistically significant. Again, the low number of detainees reporting recent use of cocaine indicates comparisons by location should be interpreted with caution.

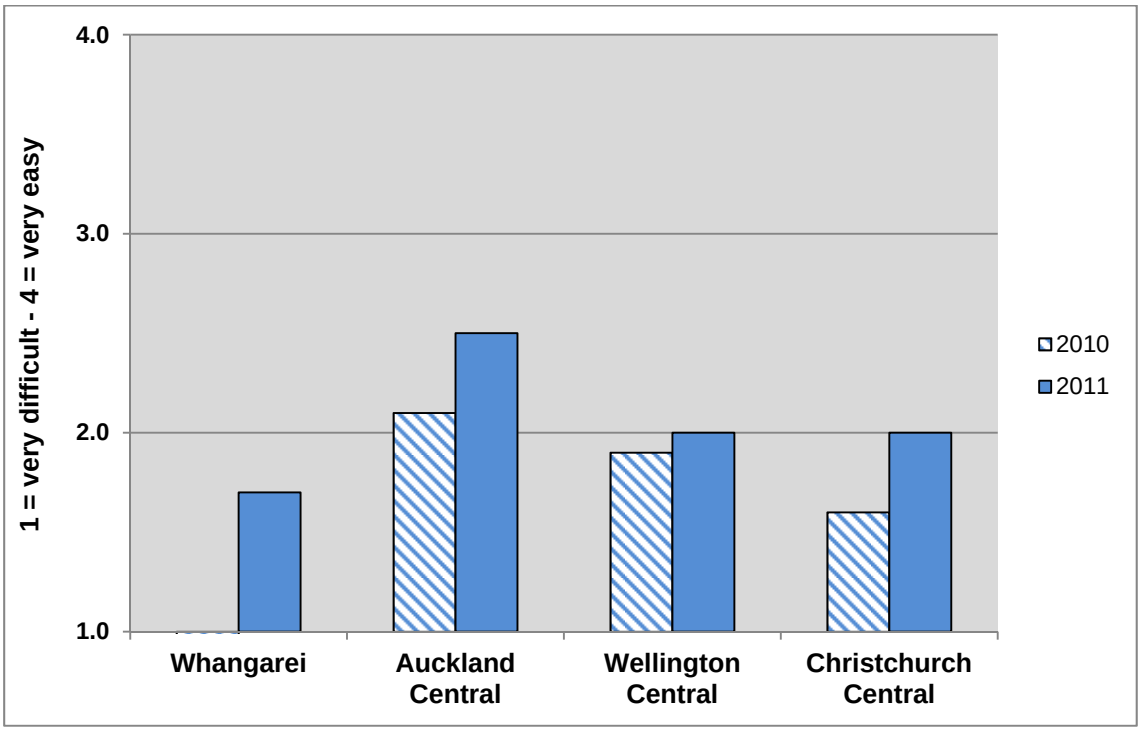
Current availability of cocaine

The detainees reported the current availability of cocaine was 'difficult/very difficult' in 2011 (Table 8.2). Seventy percent of the detainees described the current availability of cocaine as 'difficult' or 'very difficult' in 2011. There was no statistically significant change in the current availability of cocaine in 2011 compared to 2010.

Table 8.2: Police detainees' perceptions of the current availability of cocaine, 2010 & 2011

Current availability of cocaine	All sites	
	2010 (n=30)	2011 (n=31)
Very easy [4]	7%	16%
Easy [3]	13%	13%
Difficult [2]	47%	37%
Very difficult [1]	33%	33%
Mean score of availability (1 = very difficult – 4 = very easy)	1.9	2.1
Overall current status	Difficult/ very difficult	Difficult/ very difficult

Figure 8.4: Police detainees' perceptions of the current availability of cocaine, 2010 & 2011



Change in availability of cocaine

The detainees reported the availability of cocaine had become 'stable/more difficult' over the past six months in 2011 (Table 8.3). There was no change in the availability of cocaine in 2011 compared to 2010 (1.8 in both years).

Table 8.3: Police detainees' perceptions of the change in availability of cocaine, 2010 & 2011

Change in availability of cocaine	All sites	
	2010 (n=29)	2011 (n=26)
Easier [3]	17%	16%
Stable [2]	31%	39%
Fluctuates [2]	14%	7%
More difficult [1]	38%	39%
Mean score of availability (1 = more difficult – 3 = easier)	1.8	1.8
Overall current status	Stable/ more difficult	Stable/ more difficult

Current price of cocaine

Only eighteen of the detainees were able to provide a price for cocaine in 2011. They reported paying a median price of $300 for a gram of cocaine (mean $305). There was no statistically significant change in the mean price of a gram of cocaine in 2011 compared to 2010 ($305 vs. $295, p=0.8767).

Change in the price of cocaine

Seventy-four percent of the police detainees reported the price of cocaine had been 'stable' over the past six months in 2011 (Table 8.4). There was no change in perceptions of the change in the price of cocaine between in 2011 compared to 2010 (2.1 in both years).

Table 8.4: Police detainees' perceptions of the change in the price of cocaine in the past six months, 2010 & 2011

Change in price of cocaine	All sites	
	2010 (n=20)	2011 (n=18)
Increasing [3]	15%	10%
Fluctuating [2]	0%	16%
Stable [2]	75%	74%
Decreasing [1]	10%	0%
Mean change in price (1 = decreasing – 3 = increasing)	2.1	2.1
Overall change in availability	Stable	Stable

Summary

- There was no change in the proportion of detainees who had tried cocaine in their lifetimes in 2011 compared to 2010 (18% vs. 17%)
- There was also no change in the proportion of detainees who had used cocaine in the past year in 2011 compared to 2010 (4% in both years)
- A higher proportion of detainees in Whangarei had used cocaine in the past 12 months in 2011 than in 2010 but the increase was from a very low level (i.e. 4% vs. 0%)
- The detainees had first used cocaine at a younger age in 2011 than in 2010 (20 vs. 22 years)
- Whangarei detainees had first used cocaine at a younger age in 2011 than 2010 (17 vs. 23 years)
- In 2011, 70% of the detainees described the current availability of cocaine as 'difficult' or 'very difficult'
- The availability of cocaine was reported to have been 'stable/more difficult' in the past six months in 2011

- The median price of a gram of cocaine was $300 (mean $305)

- There was no change in the price of a gram of cocaine in 2011 compared to 2010 ($305 vs. $295)

- Seventy-four percent of the detainees reported that the price of cocaine had been ‘stable’ over the past six months in 2011

Chapter 9 - Tobacco

Introduction

Smoking tobacco is the main cause of lung cancer, and is a prominent risk factor for cardiovascular disease, mouth and throat cancer, and many other cancers and chronic diseases (Ministry of Health, 2009b). In New Zealand, smoking causes the deaths of 4,500-5,000 people each year (including deaths due to second-hand-smoke exposure) (Ministry of Health, 2009b). Around 1,500 of these smoking related deaths occur in middle age (Ministry of Health, 2009b). Surveys of the New Zealand population have found 21% of New Zealanders aged 15 to 64 years are current tobacco smokers (i.e. someone who has smoked more than 100 cigarettes in their lifetime and at the time of the survey was smoking at least once a month) (Ministry of Health, 2009b). Maori have a higher prevalence of smoking than the wider population (Ministry of Health, 2009b). Socio-economic status is also a risk factor in the prevalence of smoking in New Zealand with the most deprived sections of society having the highest rates of tobacco use (Ministry of Health, 2009b). Studies of drug addiction have found cigarettes to have a higher potential for dependency than heroin (MacCoun & Reuter, 2001). In the 2010 NZ-ADUM, 78% of the police detainees had smoked tobacco in the previous 30 days with 86% of these detainees daily smokers (Wilkins et al., 2010b).

Use of tobacco

In 2011, 92% of police detainees had smoked tobacco at some point in their lives and 82% had smoked in the previous 12 months. There was no statistically significant change in the lifetime prevalence of tobacco use among the detainees in 2011 compared to 2010 (92% vs. 90%, p=0.1939) (Table 9.1). However, the lifetime prevalence of smoking was higher in Whangarei in 2011 compared to 2010 (96% vs. 90%) and this difference was close to being statistically significant (p=0.0691). There was also no overall change in the prevalence of cigarette smoking in the past year in 2011 compared to 2010 (82% vs. 80%, p=0.2406). Smoking in the last year was

higher in Christchurch Central in 2011 compared to 2010 (88% vs. 82%) but this change was not statistically significant (p=0.0996).

Table 9.1: Police detainees' patterns of tobacco use by location, 2010 & 2011

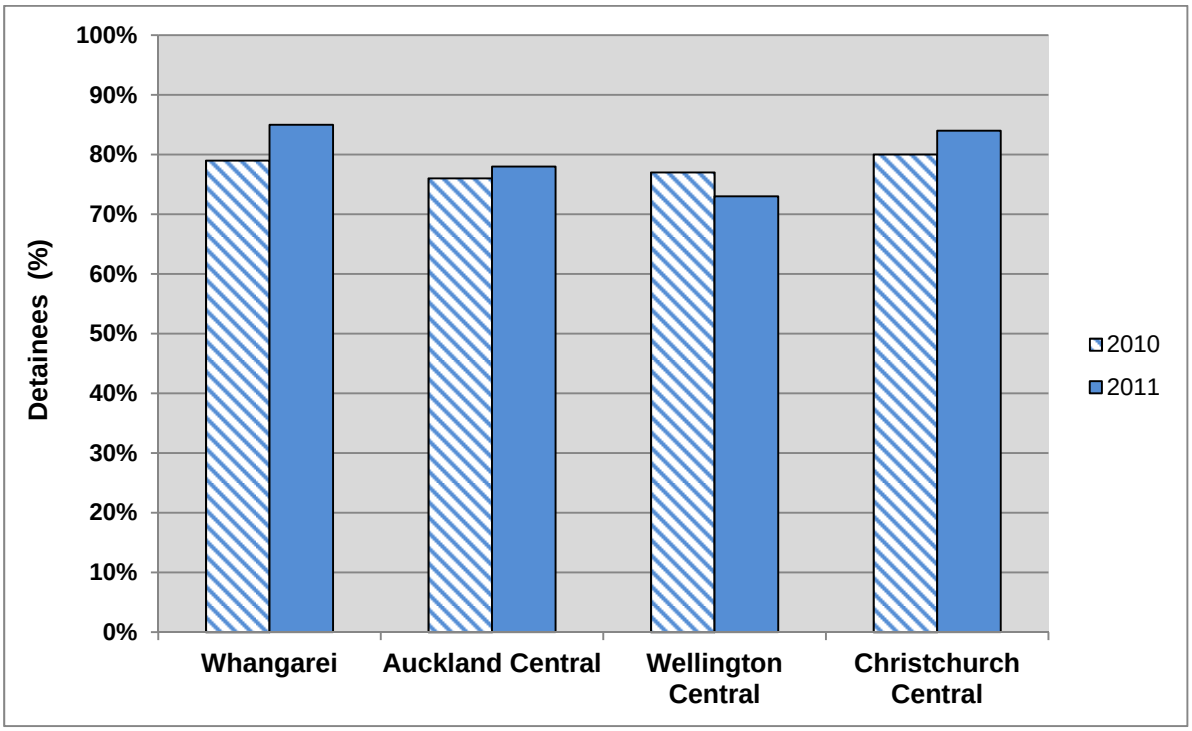
Use of tobacco	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All Sites	
	2010 (n=115)	2011 (n=149)	2010 (n=285)	2011 (n=316)	2010 (n=152)	2011 (n=171)	2010 (n=262)	2011 (n=191)	2010 (n=814)	2011 (n=827)
Ever used (%)	90	96	86	89	91	89	93	95	90	92
Mean age first used (years)*	14	12	14	14	14	12	13	13	13	13
Used in past 12 months (%)	81	87	77	81	83	75	82	88	80	82
Daily use in past 12 months (%)**	85	85	83	83	77	85	86	88	83	85
Felt dependent in past 12 months (%)**	56	75	70	69	74	74	70	75	69	73
Used in past month***	79	85	76	78	77	73	80	84	78	80
Daily use in past month (%)***	84	88	85	89	82	87	91	88	86	88
Mean number of cigarettes used each day **	15	14	14	14	15	15	15	17	15	15

* of those who had ever tried
** of those who had used in the past 12 months
*** of those who had used in the past month

In 2011, detainees in Whangarei were more likely to have ever smoked tobacco than detainees in Auckland Central (96% vs. 89%, p=0.0136) and Wellington Central (96% vs. 89%, p=0.0342). Detainees in Christchurch Central were also more likely to have ever smoked tobacco than in those in Auckland Central in 2011 (95% vs. 89%, p=0.0228).

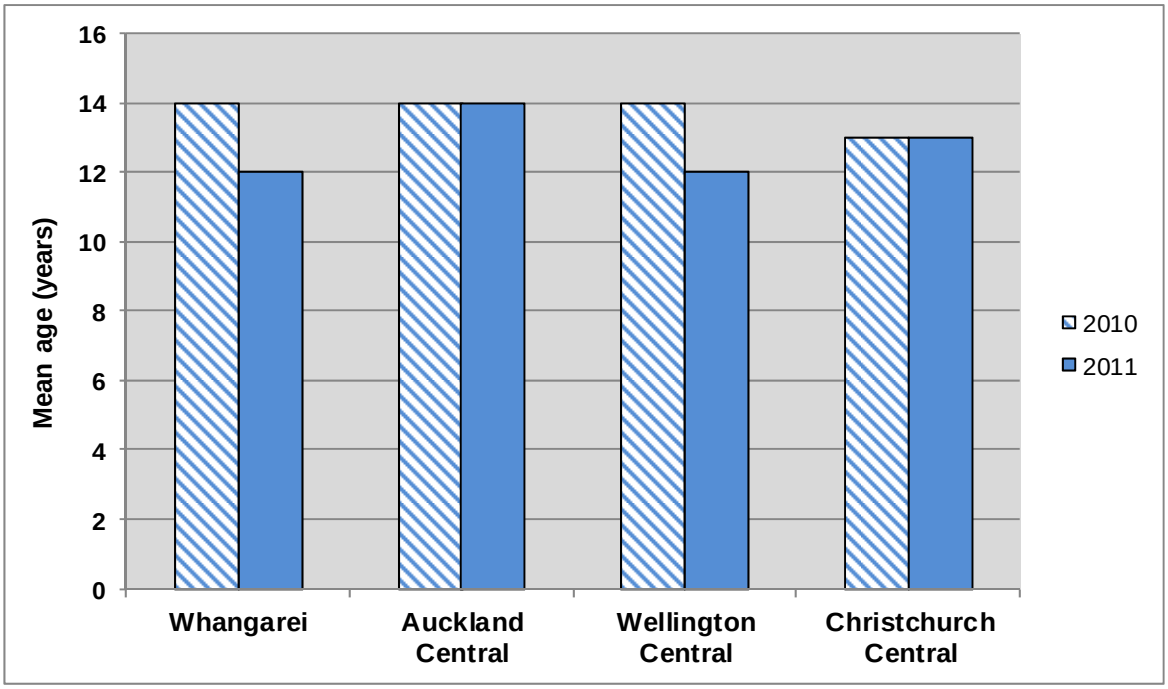
In 2011, detainees in Whangarei were more likely to have smoked tobacco in the previous month than those in Auckland Central (85% vs. 78%, p=0.0683) and Wellington Central (85% vs. 73%, p=0.0077) (Figure 9.1). Detainees in Christchurch Central were also more likely to have smoked tobacco in the previous month compared to detainees in Wellington Central in 2011 (84% vs. 73%, p=0.0112).

Figure 9 1: Proportion of police detainees who had used tobacco in the past month by location 2010 & 2011



The mean age at which the detainees had first tried tobacco was 13 years in 2011. Detainees in Whangarei had used tobacco for the first time at a younger age in 2011 than in 2010 (12 years vs. 14 years, p=0.0002) (Figure 9.2). Detainees in Wellington Central had also first used tobacco at a younger age in 2011 compared to 2010 (12 years vs. 14 years, p=0.0016).

Figure 9.2: Mean age at which police detainees first tried tobacco by location, 2010 & 2011



Frequency of daily smoking

Eighty-eight percent of the detainees who smoked tobacco in the past month were daily smokers in 2011. There was no statistically significant change in the proportion of detainees who were daily smokers in 2011 compared to 2010 (88% vs. 86%, p=0.2853). The detainees who had smoked in the past month had smoked a mean of 15 cigarettes on a typical day (median 14, range 0.25-100 cigarettes). The number of cigarettes smoked on a typical day did not change in 2011 compared to 2010 (15 cigarettes each year).

Dependency on tobacco

Seventy-three percent of the detainees who had smoked tobacco in the past 12 months felt they were dependent on it in 2011. A higher proportion of detainees felt they were dependent on tobacco in 2011 compared to 2010 (73% vs. 69%) but this difference was not statistically significant (p=0.1289). A higher proportion of detainees felt dependent on tobacco in Whangarei in 2011 compared to 2010 (75% vs. 56%, p=0.0026).

Summary

- Eighty percent of the detainees had used tobacco in the past month in 2011
- Eighty-eight percent of the detainees who had smoked in the past month smoked on a daily basis in 2011
- In 2011, detainees in Whangarei and Christchurch Central were more likely to have smoked in the past month than detainees in the other two sites
- Seventy-three percent of detainees who had smoked tobacco in the previous twelve months felt dependent on cigarettes in 2011
- A higher proportion of detainees felt dependent on tobacco in Whangarei in 2011 compared to 2010 (75% vs. 56%, p=0.0026)
- Detainees in Whangarei and Wellington Central used tobacco for the first time at a younger age in 2011 than 2010

Chapter 10 – Urine test results for drug use

Introduction

The Arrestee Drug Abuse Monitoring (ADAM) research methodology seeks to verify self-reported data on drug use behavior with biological testing for the presence of drug use from urine samples. The comparison of the self-reported data and urine test results for drug use has indicated a high level of congruence between the two measures (see Office of National Drug Control Policy, 2009). The congruence rate tends to be dominated by respondents who self-reported that they had not use drugs and who subsequently did not test positive for drug use. The more relevant measure of truthfulness is the proportion of respondents who test positive for the use of a drug and also self-report its use. This type of comparison indicates that the level of truthfulness in the self-reporting of drug use varies according to the drug type in question. For example, in the United States ADAM programme, 82% of those testing positive for cannabis use had also self-reported use, 55% of those testing positive for methamphetamine use had self-reported use and 48% of those testing positive for heroin use had self-reported use (Office of National Drug Control Policy, 2009). The validity of the comparison between drug test results and self-reported measures of drug use is affected by the capacity of the test in question to detect different drug types and the ability of users to correctly identify the drug types they have used. Some drug types, such as cannabis, can stay in a user's system for many weeks, while other drugs, such as methamphetamine, may only be detectable up to a few days after use. A drug user may honestly believe they have consumed one drug type, for example ecstasy, but may have actually consumed a range of other substances which are subsequently detected in their system, such as methamphetamine, cathinones and ketamine. The redesigned NZ-ADUM study tests the urine samples of 200 detainees from the four study sites.

Urine test results for drug use

In 2011, 53% of the detainees who provided a urine sample tested positive for cannabis use, 7% tested positive for methamphetamine, 7% tested positive for amphetamine and 5% tested positive for morphine (Table 10.1). None of the detainees tested positive for cocaine. A lower proportion of the detainees tested positive for cannabis use in 2011 compared to 2010 (53% vs. 65%, p=0.0104). The detainees in Auckland Central were much less likely to test positive for cannabis use in 2011 compared to 2010 (39% vs. 64%, p=0.0034). A lower proportion of detainees tested positive for methamphetamine use in 2011 compared to 2010 (7% vs. 11%) but this difference was not statistically significant (p=0.1336).

Table 10.1: Proportion of police detainees who tested positive for drug use at the time of interview (of the 200 detainees tested), 2010 & 2011

Positive urine test for drug use (% detainees)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=20)	2011 (n=25)	2010 (n=72)	2011 (n=71)	2010 (n=53)	2011 (n=54)	2010 (n=56)	2011 (n=50)	2010 (n=201)	2011 (n=200)
Cannabis	70	64	64	39	60	52	70	64	65	53
Amphetamine	10	8	13	13	8	4	2	2	8	7
Methamphetamine	15	8	18	13	9	4	2	2	11	7
Morphine	0	8	3	3	7	2	4	10	3	5
Benzodiazepines	0	0	1	1	0	2	5	8	2	3
Codeine	0	8	4	1	0	2	0	4	1	3
Benzylpiperazine	0	0	0	3	0	0	2	4	1	2
Methadone	0	0	3	0	4	2	2	2	2	1

Corroboration of self-reported drug use with urinalysis

Cannabis use

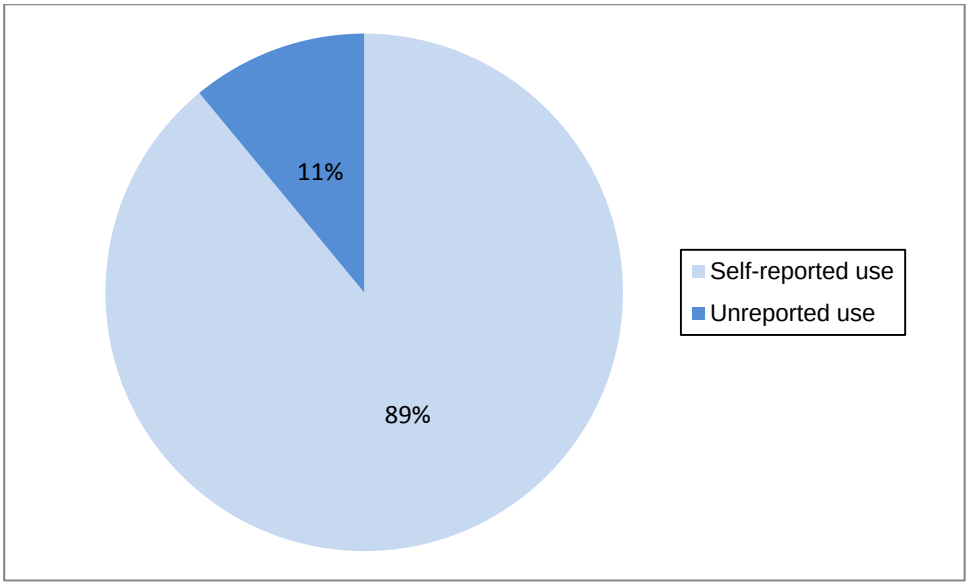
Table 10.2 compares the police detainees' urine test results for the presence of cannabis with their self-reporting of cannabis use in the past month from the questionnaire interview. In 2011, 89% of those detainees who tested positive for cannabis (n=104) had also self-reported using cannabis in the past month (Figure

10.1). Interestingly, 29% of the detainees who did not test positive for cannabis actually self-reported that they had used cannabis in the previous month in 2011.

Table 10.2: Comparison of test results for the presence of cannabis use with self-reported cannabis use in the past month, 2010 & 2011

	Self-reported cannabis use in past month (%)			
	2010		2011	
Tested positive for cannabis (%)	No	Yes	No	Yes
No	89	11	71	29
Yes	6	94	11	89

Figure 10.1: Proportion of police detainees who tested positive for cannabis use who also self-reported cannabis use in the past month, 2011



Methamphetamine use

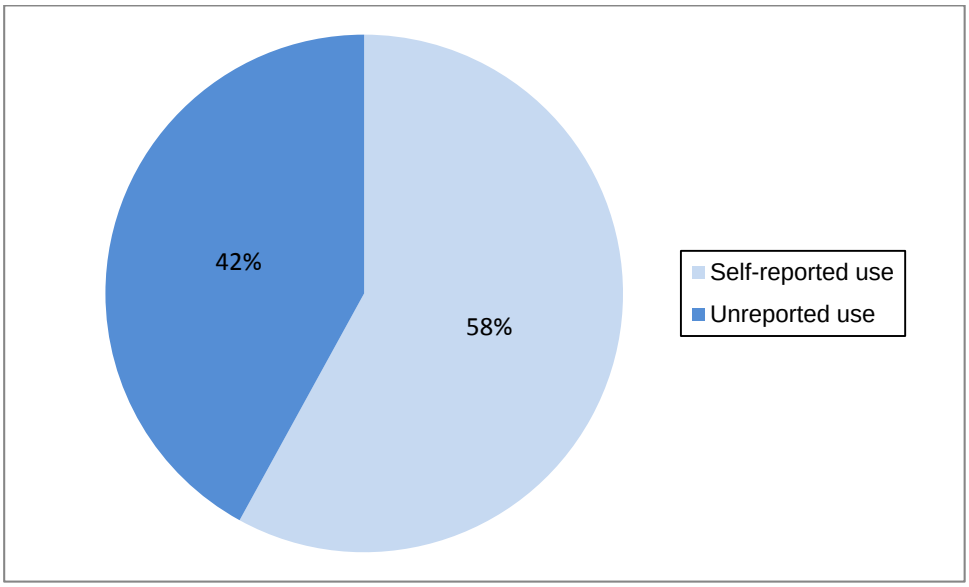
Table 10.3 compares the police detainees' urine test results for the presence of methamphetamine with levels of self-reporting of methamphetamine use in the previous month. In 2011, 58% percent of those detainees who tested positive for methamphetamine (n=14) had also self-reported using methamphetamine in the

previous month (Figure 10.2). As only 14 of the 200 detainees who provided a urine sample tested positive for the presence of methamphetamine in 2011 the comparison with self-reported results should be treated with caution. Eighty-two percent of those who tested positive for methamphetamine in 2010 (n=22) also self-reported use.

Table 10.3: Comparison of test results for the presence of methamphetamine use with self-reported methamphetamine use in the past month, 2010 & 2011

	Self-reported methamphetamine use in past month (%)			
	2010		2011	
Tested positive for methamphetamine (%)	No	Yes	No	Yes
No	89	11	89	11
Yes	18	82	42	58

Figure 10.2: Proportion of police detainees who tested positive for methamphetamine use who also self-reported methamphetamine use in the past month, 2011



Opioid use

Table 10.4 compares the police detainees' test results for the presence of opioids with levels of self-reporting of opioid use in the past month. The self-reported opioid

category includes the self-reporting of morphine and methadone in the previous 30 days. Only 12 of the detainees who provided a urine sample tested positive for the presence of opioids in 2011. Forty-five percent of those detainees had also self-reported using opioids in the past month in 2011. This is the same level as found in 2010.

Table 10.4: Comparison of test results for the presence of opioid use with self-reported opioid use in the past month, 2010 & 2011

	Self-reported opioid use in past month (%)			
	2010		2011	
Tested positive for opioid use (%)	No	Yes	No	Yes
No	97	3	98	2
Yes	55	45	55	45

Summary

- Fifty-three percent of the police detainees tested positive for cannabis, 7% tested positive for methamphetamine, 7% tested positive for amphetamine and 5% tested positive for morphine in 2011
- A lower proportion of detainees tested positive for cannabis use in 2011 compared to 2010 (53% vs. 65%)
- A lower proportion of Auckland Central detainees tested positive for cannabis in 2011 compared to 2010 (39% vs. 64%)
- Fifty-eight percent of the detainees who tested positive for methamphetamine use had also self-reported use of methamphetamine in the previous month in 2011
- The level of truthful self-reporting of methamphetamine use was lower in 2011 compared to 2010 (58% vs. 82%) but the number of respondents testing positive for methamphetamine in both years was low (i.e. n=14 and n=22)
- Forty-five percent of the detainees who tested positive for opioids had also self-reported using opioids in the past month in 2011

Chapter 11 – Offending behavior

Introduction

Criminally active individuals are often found to have high levels of alcohol and drug use but there remains considerable debate about the extent to which substance abuse and crime are causally connected (see Bennett & Holloway, 2005; Hammersley et al., 1989; Seddon, 2000). Offenders often come from dysfunctional family environments and have long histories of delinquent behavior that pre-date their use of drugs. What is clearer from the existing research is that among already criminally active individuals, the frequent use of expensive drugs tends to accelerate levels of property offending and drug dealing (see Bennett & Holloway, 2005). In New Zealand, a strong association has been found between the level of spending on methamphetamine and level of earnings from property crime and drug dealing (Wilkins & Sweetsur, 2008a, 2010b). Those police detainees spending $1,000 or more on methamphetamine in the past month earned $2,735 from property crime in the past month compared to those detainees who spent no money on methamphetamine who earned only $368 from property crime in the past month (Wilkins & Sweetsur, 2010a). Criminal justice programmes have been developed to create strong incentives for criminally active drug users to complete drug treatment programmes and remain drug abstinent through regular drug testing and the immediate imposition of penalties for non-compliance (Bull, 2005; Hough, 1996; Payne et al., 2008). This chapter presents findings on the recent offending of the detainees and compares the findings to the previous wave of interviewing.

Shoplifting in the previous month

Eighteen percent of the police detainees reported shoplifting in the previous month in 2011 (Table 11.1). Eight percent of the detainees had shoplifted weekly or more often in the past month. There was no statistically significant change in the

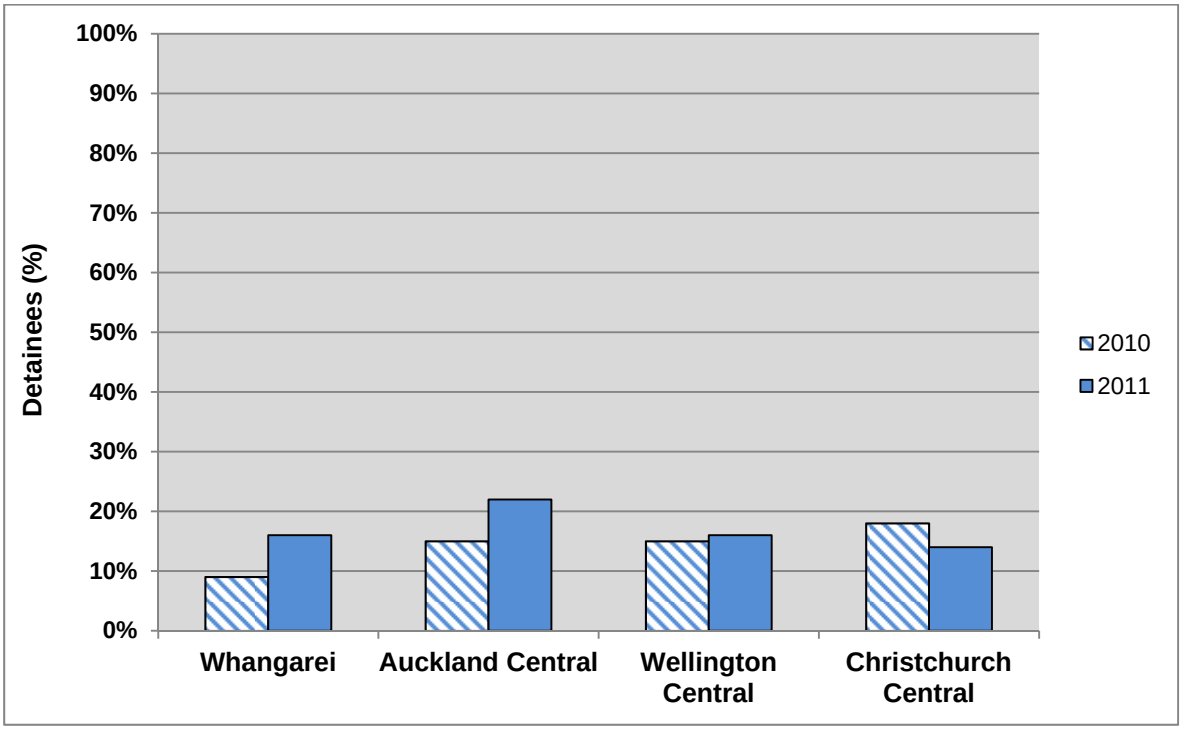
proportion of detainees who had shoplifted in the past month in 2011 compared to 2010 (18% vs. 15%, p=0.2328). However, the proportion of detainees in Auckland Central who had recently shoplifted increased in 2011 compared to 2010 (22% vs. 15%, p=0.0447) (Figure 11.1). The proportion of detainees in Whangarei who had shoplifted was also higher in 2011 compared to 2010 (16% vs. 9%), but this increase was not statistically significant (p=0.1060).

Table 11.1: Frequency police detainees had shoplifted in the previous month by location, 2010 & 2011

Frequency shoplifted in past month (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=110)	2011 (n=144)	2010 (n=267)	2011 (n=302)	2010 (n=149)	2011 (n=164)	2010 (n=259)	2011 (n=188)	2010 (n=785)	2011 (n=798)
Never	91	84	85	78	85	84	82	86	85	82
1-2 times	5	10	6	13	9	5	11	8	8	9
Once a week	1	3	4	3	3	2	2	3	3	3
More than once per week (but not daily)	3	2	3	3	1	6	3	2	3	3
Daily	1	1	2	3	2	2	3	2	2	2

In 2011, detainees in Auckland Central were more likely to have shoplifted in the previous month than those in Christchurch Central (22% vs. 15%), and this difference was very close to being statistically significant (p=0.0503).

Figure 11 1: Proportion of police detainees who had shoplifted in the previous month by location, 2010 & 2011



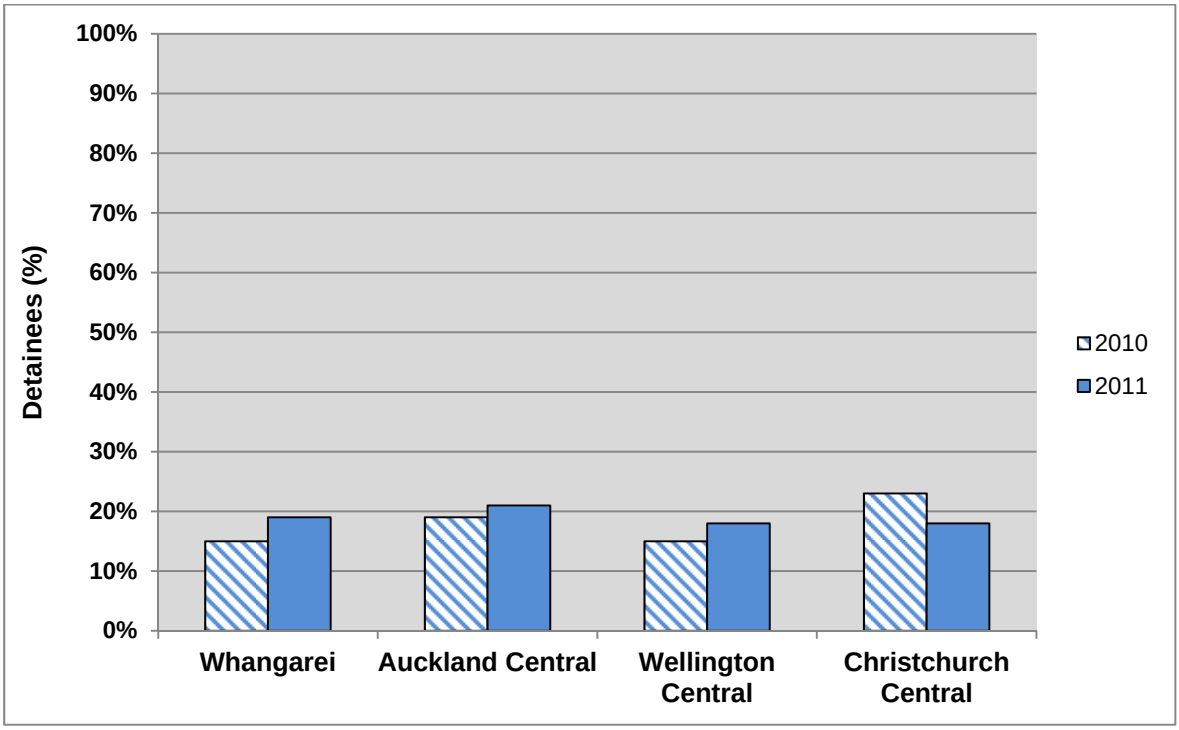
Property crime in the previous month

Nineteen percent of the detainees reported that they had committed a property crime in the previous month in 2011 (Table 11.2). Five percent had committed a property crime weekly or more often over the past month. There was no statistically significant change in the level of property crime in 2011 compared to 2010 (19% both years) or between any of the sites (Figure 18.2).

Table 11.2: Frequency police detainees had committed a property crime in the previous month by location, 2010 & 2011

Frequency committed property crime in past month (%)	Whangarei		Auckland Central		Wellington Central		Christ-church Central		All sites	
	2010 (n=110)	2011 (n=145)	2010 (n=267)	2011 (n=297)	2010 (n=149)	2011 (n=164)	2010 (n=259)	2011 (n=188)	2010 (n=785)	2011 (n=794)
Never	85	81	81	79	85	82	77	82	81	81
1-2 times	13	17	12	15	7	13	17	13	13	14
Once a week	2	2	3	2	3	2	3	3	3	2
More than once per week (but not daily)	0	1	3	1	2	2	2	3	2	2
Daily	1	0	2	2	3	1	1	0	2	1

Figure 11 2: Proportion of police detainees who had committed a property crime in the previous month by location, 2010 & 2011



Drug dealing in the previous month

Twenty percent of the detainees reported selling drugs in the previous month in 2011 (Table 11.3). Fourteen percent had sold drugs weekly or more often in the past

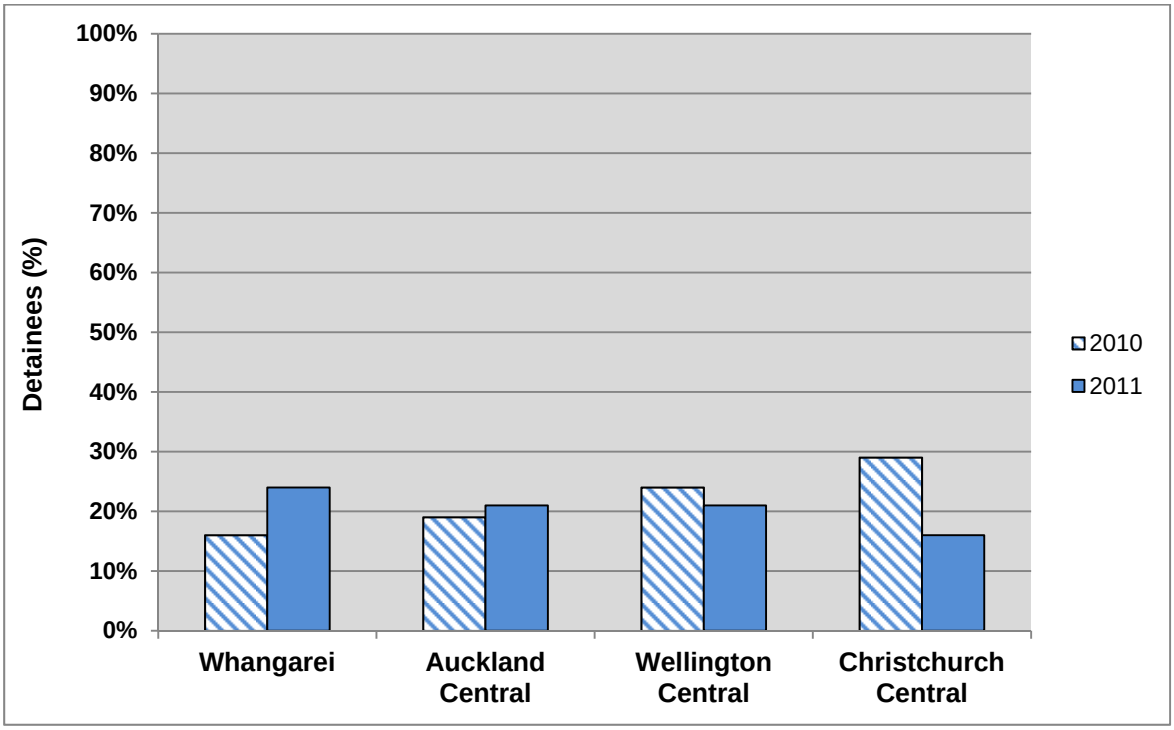
month. Overall there was no change in the proportion of detainees who had sold drugs in the past month in 2011 compared to 2010 (20% vs. 23%, p=0.1690). However, a lower proportion of detainees in Christchurch Central had sold drugs in the previous month in 2011 compared to 2010 (16% vs. 29%, p=0.0022) (Figure 11.3).

Table 11.3: Frequency police detainees had sold drugs in the previous month by location, 2010 & 2011

Frequency sold drugs in past month (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=109)	2011 (n=145)	2010 (n=267)	2011 (n=301)	2010 (n=149)	2011 (n=162)	2010 (n=259)	2011 (n=188)	2010 (n=784)	2011 (n=796)
Never	84	76	81	79	76	79	71	84	77	80
1-2 times	4	8	4	6	3	7	8	6	5	6
Once a week	2	2	2	5	2	2	4	1	2	3
More than once per week (but not daily)	1	6	5	4	4	5	7	5	5	5
Daily	9	9	8	6	15	6	10	4	10	6

There was no significant difference in the proportion of police detainees who had sold drugs in the past month between the four sites in 2011.

Figure 11.3: Proportion of the police detainees who had sold drugs in the previous month by location, 2010 & 2011



Violent crime in the previous month

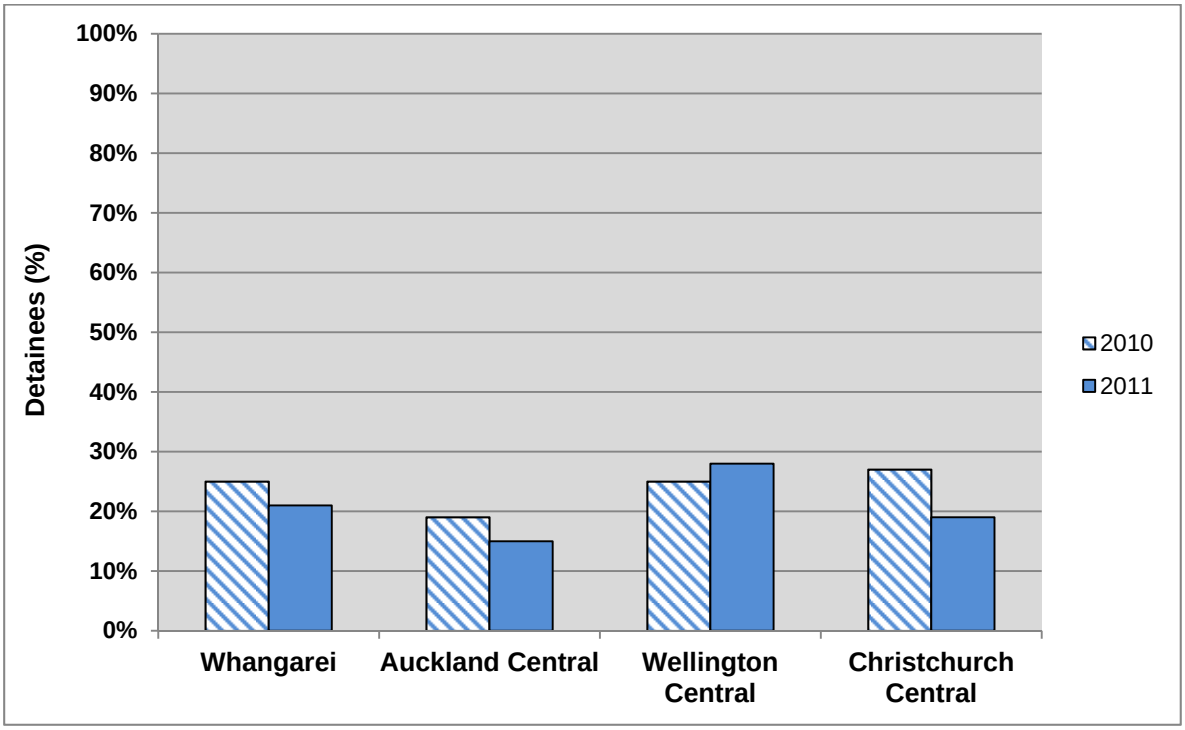
Nineteen percent of the detainees reported they had committed a violent crime in the previous month in 2011 (Table 11.4). Just over 2% had done so weekly or more often. A lower proportion of detainees had committed a violent crime in the previous month in 2011 compared to 2010 (19% vs. 23%) and this difference was very close to being statistically significant (p=0.0512). The decline in violent crime was most notable in Christchurch Central in 2011 compared to 2010 (19% vs. 27%) and this difference was also close to being statistically significant (p=0.0651) (Figure 11.4).

Table 11.4: Frequency police detainees had committed violent crime in the previous month by location, 2010 & 2011

Frequency committed violent crime in past month (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=109)	2011 (n=145)	2010 (n=266)	2011 (n=299)	2010 (n=149)	2011 (n=162)	2010 (n=259)	2011 (n=188)	2010 (n=783)	2011 (n=794)
Never	75	79	81	85	75	72	73	81	77	81
1-2 times	22	19	17	14	18	23	24	16	20	17
Once a week	3	1	2	0	5	3	2	2	2	1
More than once per week (but not daily)	0	1	<1	<1	2	1	1	1	1	1
Daily	0	0	0	<1	1	1	<1	0	<1	<1

In 2011, detainees in Wellington Central were more likely to have committed a violent crime in the previous month than those in Auckland Central (28% vs. 15%, p=0.0014). Detainees in Wellington Central were also more likely to have committed a violent crime that those in Christchurch Central (28% vs. 19%) and this was close to being statistically significant (p=0.0770). Finally detainees in Whangarei were more likely to have committed a violent crime than those in Auckland Central (21% vs. 15%) and this difference was also close to being statistically significant (p=0.0770).

Figure 11.4: Proportion of police detainees who had committed violent crime in the previous month by location, 2010 & 2011



Statistical associations between demographic characteristics and self-reported crime

This section provides an initial picture of the statistical associations between various demographic characteristics and the self-reported criminal activity of the detainees (Table 11.5). The analysis was completed using bivariate analysis. More sophisticated multivariate models will be forthcoming. Detainees who were under 25 years of age, currently receiving an unemployment or sickness benefit, of single marital status and who had been in prison in the previous 12 months were more likely to have committed a property crime in the past month (Figure 11.5). Detainees who were under 25 years of age, currently receiving an unemployment or sickness benefit, living in temporary accommodation and had been in prison in the previous 12 months were more likely to have sold drugs in the past month (Figure 11.6). Detainees who were under 25 years old were more likely to have committed a violent crime in the past month.

Figure 11.5: Proportion of police detainees who committed a property crime in the previous month by key demographic characteristics, 2011

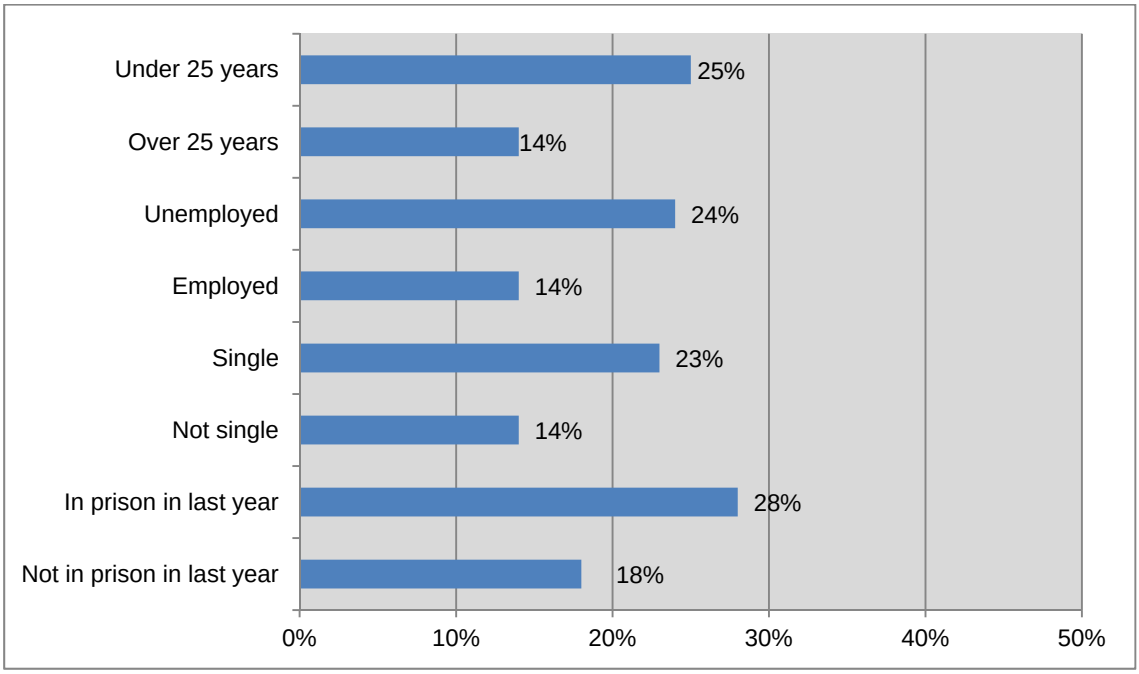
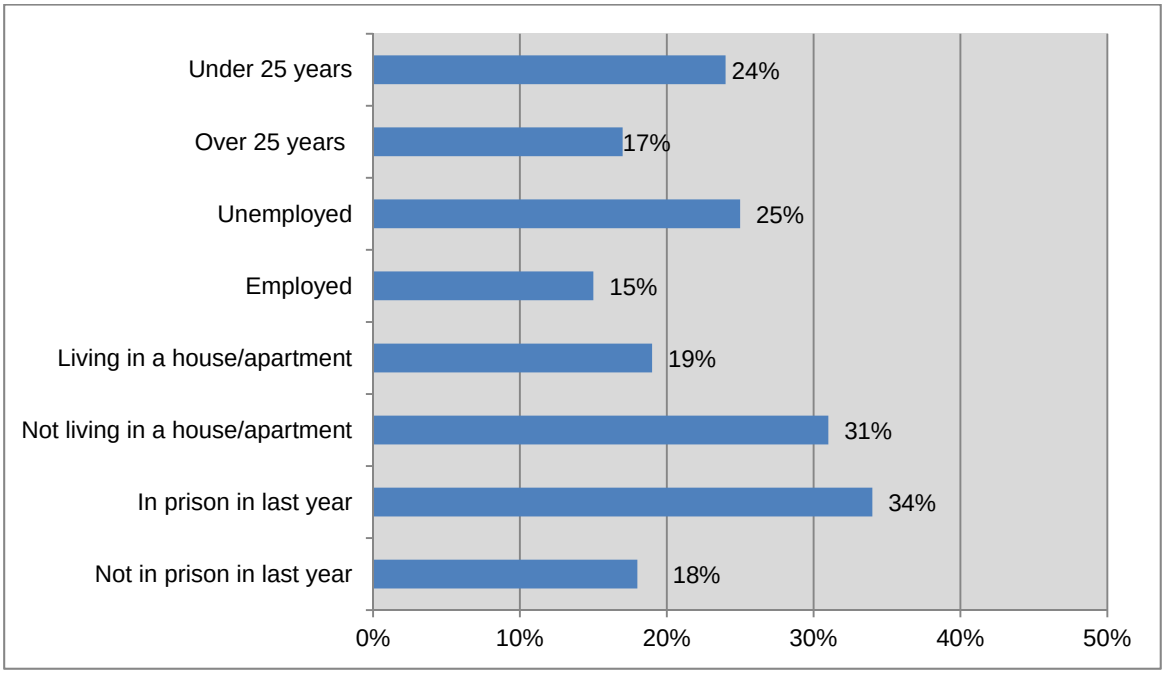


Table 11.5: The association between various demographic variables and self-reported criminal behaviour in the previous month, 2011

	Committed a property crime in past 30 days		Sold drugs in past 30 days		Committed a violent crime in past 30 days	
(n=793)	%	p-value	%	p-value	%	p-value
Male	20	0.2564	21	0.3025	19	0.7753
Female	15		16		21	
Under 25 years old	25	<0.0001	24	0.0067	23	0.0112
25 years +	14		17		16	
Maori primary ethnicity	20	0.5700	23	0.0936	21	0.4059
Non-Maori primary ethnicity	19		18		19	
Unemployed/sickness benefit	24	0.0005	25	0.0002	19	0.9595
Not unemployed/ sickness benefit	14		15		20	
Did not complete compulsory years of high school	22	0.0882	22	0.2850	22	0.2033
Completed compulsory years of high school	17		19		18	
Not living in a house or apartment	22	0.5400	31	0.0084	21	0.8055
Living in a house or apartment	19		19		19	
Single marital status	23	0.0022	20	0.8063	20	0.8647
Non single marital status	14		20		19	
Prison in past 12 months	28	0.0073	34	<0.0001	17	0.5151
No prison in past 12 months	18		18		20	

Figure 11 6: Proportion of police detainees who sold drugs in the previous month by key demographic characteristics, 2011



Statistical associations between drug use and self-reported crime

We also completed an initial investigation of the associations between heavier alcohol and drug use and the criminal behavior of the detainees (Table 11.6). Detainees who had consumed heavier quantities of alcohol (i.e. 5 or more drinks in a single occasion at least twice per week), frequently used cannabis (i.e. smoked cannabis at least three times per week) and often used methamphetamine (i.e. used methamphetamine at least weekly) were more likely to have committed a property crime in the past month (Figure 11.7). Detainees who had consumed heavier quantities of alcohol, frequently used cannabis and often used methamphetamine were also more likely to have sold drugs in the past month (Figure 11.8). Finally, detainees who consumed higher quantities of alcohol were more likely to have committed a violent crime in the past month.

Table 11.6: The association between heavier use of alcohol and drug use and self-reported criminal behaviour in the previous month, 2011

	Committed a property crime in past 30 days		Sold drugs in past 30 days		Committed a violent crime in past 30 days	
(n=792)	%	p-value	%	p-value	%	p-value
High consumption of alcohol* at least twice a week in the past 30 days	26	0.0017	28	0.0003	25	0.0147
Did not consume high amounts of alcohol* at least twice a week in the past 30 days	16		16		17	
Used cannabis at least three times a week in the past 30 days	28	<0.0001	35	<0.0001	21	0.3804
Did not use cannabis at least three times a week in the past 30 days	14		12		19	
Used methamphetamine at least once a week in the past 30 days	34	0.0003	52	<0.0001	18	0.7724
Did not use methamphetamine at least once a week in the past 30 days	17		17		20	

*Five or more drinks on a single occasion for males or three or more drinks on a single occasion for females

Figure 11 7: Proportion of police detainees who committed a property crime in the previous month by level of alcohol and drug use, 2011

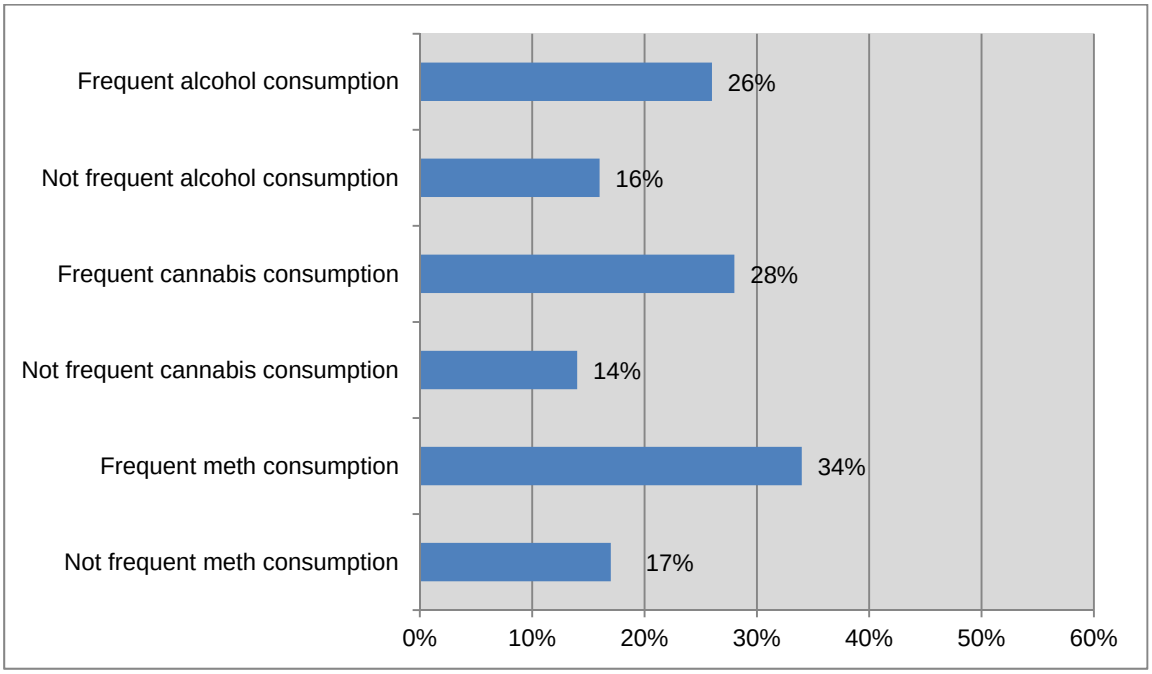
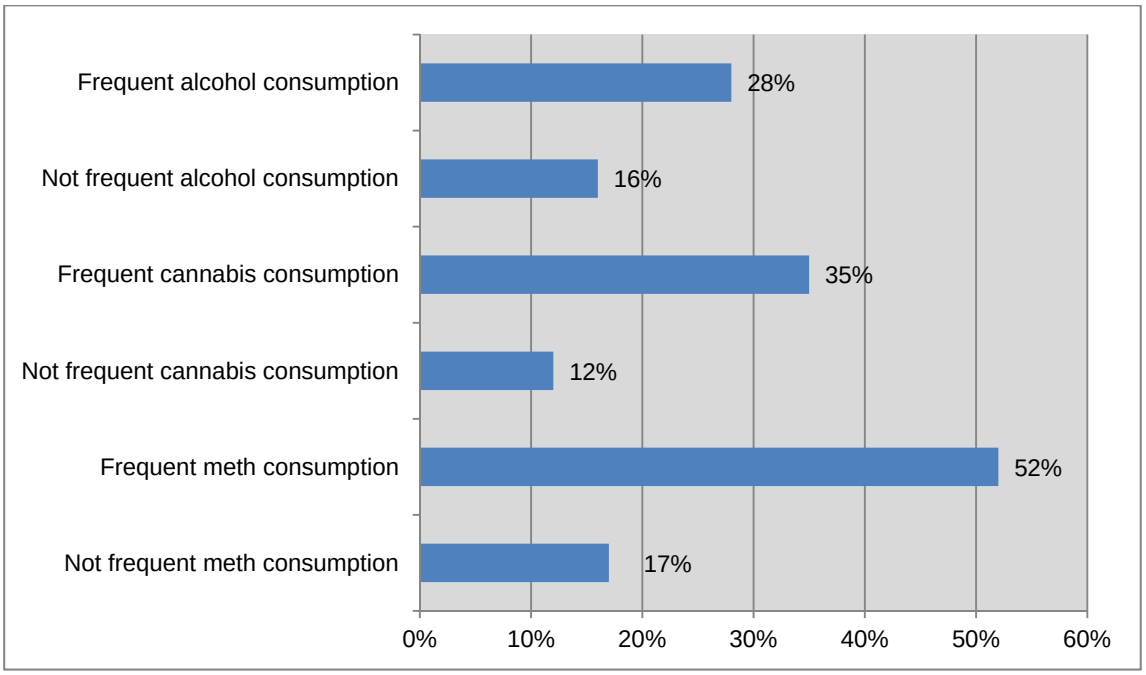


Figure 11 8: Proportion of police detainees who sold drugs in the previous month by level of alcohol and drug use, 2011



Summary

- Eighteen percent of the detainees had shoplifted in the previous month in 2011
- Detainees in Auckland Central more likely to have shoplifted in the past month in 2011 compared to 2010 (22% vs. 15%)
- Nineteen percent of the detainees had committed a property crime in the previous month in 2011
- Twenty percent of the detainees had sold drugs in the previous month in 2011
- A lower proportion of detainees in Christchurch Central had sold drugs in the past month in 2011 compared to 2010 (16% vs. 29%)
- Nineteen percent of the detainees had committed a violent crime in the previous month in 2011
- A lower proportion of the detainees had committed a violent crime in the previous month in 2011 compared to 2010 (19% vs. 23%)
- The decline in violent crime was most notable in Christchurch Central in 2011 compared to 2010 (19% vs. 27%)
- Detainees who were under 25 years of age, currently receiving an unemployment or sickness benefit and who had been in prison in the previous 12 months were more likely to have committed a property crime and sold drugs in the past month
- Detainees who had consumed heavier quantities of alcohol, frequently used cannabis and often used methamphetamine were more likely to have committed a property crime and sold drugs in the past month

Chapter 12 - History of contact with criminal justice system

Introduction

Alcohol and drug dependent individuals often have long histories of contact with police and the criminal justice system. This contact is increasingly viewed as an opportunity to find a 'circuit breaker' which will end the cycle of substance abuse and arrest (Caulkins & Reuter, 2009). Contact with the criminal justice system potentially allows an opportunity to assess a detainee's alcohol and drug use and the role it plays in their offending, and include alcohol and drug treatment as part of their sentencing and parole conditions (Strang et al., 2012). Courts can also require offenders to undergo random alcohol and drug testing with immediate sanctions imposed for non-compliance to support rehabilitation and good behavior. This chapter presents findings on the detainees' histories of arrest, conviction and imprisonment.

Age of first arrest

The police detainees had been arrested for the first time at a mean age of 17 years old (median 16 years, range 6-61 years). There was no statistically significant change in the mean age at which the detainees were first arrested in 2011 compared to 2010 (17 vs. 18 years, p=0.5353).

Recent arrest history

The detainees reported they had been arrested a mean of three times (median 2 times, range 1-100 times) in the previous 12 months in 2011. There was no statistically significant change in the mean number of times the detainees had been arrested in the previous year in 2011 compared to 2010 (3 vs. 4 times, p=0.2955). Less than 1% of the detainees (n=5) had not been arrested at the time of interview.

The detainees were asked what offence types they had been arrested for over the previous 12 months (including the offence they were currently being held for). The answers are presented in Table 12.1. Note, Table 12.1 presents offence categories the detainees were arrested for over the previous 12 months, not the number of times they were arrested for each offence type. The offence types the detainees had been most commonly been arrested for in 2011 were 'Against Justice' (unspecified) (41%), (any) assault (29%) [i.e. minor assault, serious assault, grievous assault and assault (unspecified)], 'driving offences' (18%), 'public disorder' (15%), 'burglary' (12%), 'theft' (11%), 'destruction of property' (9%) and (any) drug offence (9%) [i.e. cannabis offence, non-cannabis drug offence and drug offence (unspecified)]. The offence category 'Against Justice' refers to situations where a detainee has failed to comply with a court order in relation to a previous offence and includes charges such as breach of bail, breach of a non-association order, failure to appear in court, breach of a protection order, breach of parole and breach of periodic detention. The interviewers encouraged the detainees to name the original offence when Against Justice offences were reported to obtain a clearer picture of a detainee's offending history. In instances where this additional information was divulged the Against Justice offence was coded by the original offence. The 'serious assault' category includes arrests for partner violence (e.g. 'male assaults female').

Table 12.1: Proportion of police detainees who were arrested for different offences in the previous 12 months by location, 2010 & 2011

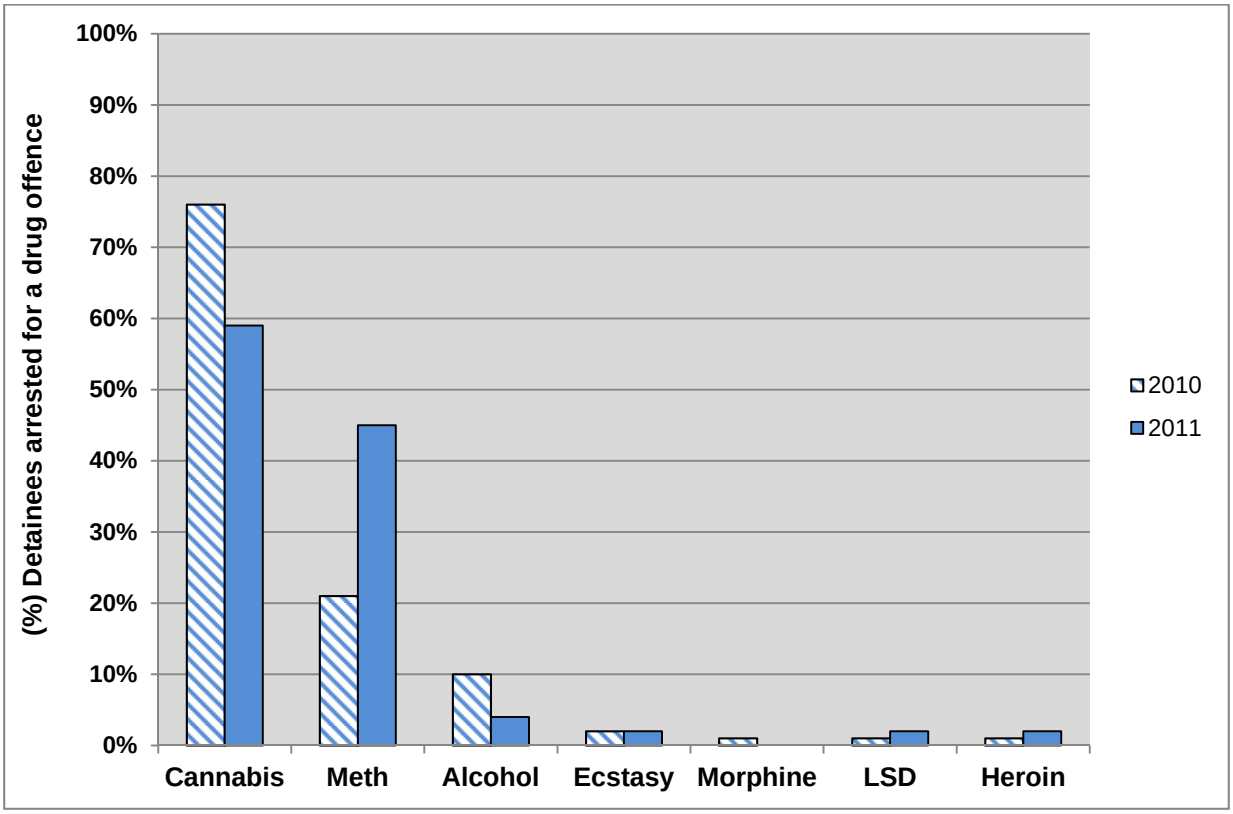
Self-reported offence arrested for in past 12 months (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=104)	2011 (n=122)	2010 (n=253)	2011 (n=273)	2010 (n=143)	2011 (n=149)	2010 (n=239)	2011 (n=212)	2010 (n=739)	2011 (n=756)
Against Justice (unspecified)	25	37	42	39	35	40	45	45	39	41
Driving offence (including alcohol impaired driving)	22	23	14	15	17	15	15	20	16	18
Public disorder	12	18	10	15	15	13	14	15	13	15
Assault (unspecified)	20	16	10	17	13	12	13	11	13	14
Burglary	13	11	9	10	10	9	15	16	12	12
Serious assault	13	16	11	10	15	12	15	8	13	11
Theft	6	10	7	8	8	13	12	15	9	11
Destruction of property	2	10	4	6	2	8	2	12	3	9
Warrant to arrest (unspecified)	3	5	10	5	10	8	9	7	9	6
Shoplifting	10	4	4	7	6	9	7	3	6	6
Receiving stolen property	2	4	4	7	1	3	4	6	3	6
Car conversion etc.	6	1	7	11	5	2	10	3	7	5
By-laws breach	5	5	1	5	8	6	8	2	5	4
Intimidation/ threats	8	4	2	3	4	5	5	4	4	4
Minor assault	5	2	3	4	1	6	2	3	2	4
Drugs (cannabis only)	9	6	10	2	9	3	8	3	8	3
Trespass	1	2	3	3	2	2	8	3	4	3
Drugs (not cannabis)	4	4	3	5	6	3	<1	1	3	3
Fines	4	2	3	5	2	1	2	1	3	3
Robbery	1	4	5	5	1	3	2	1	3	3
Drugs (unspecified)	9	4	6	5	2	3	3	2	6	3
Family offence	1	1	4	2	5	3	1	1	3	2
Fraud	4	1	3	2	4	3	1	3	3	2
Grievous assault	1	4	2	2	3	2	2	0	2	2
Arms act offence	2	2	2	2	1	0	<1	2	1	1
Kidnapping and abduction	0	<1	0	1	0	0	1	0	<1	1
Sexual attack	1	0	1	0	2	2	0		1	<1
Detox	0	0	0		0	0	<1	1	<1	<1

Immigration offences	0	0	0	2	1	0	<1	1	<1	<1
Endangering	0	0	0	<1	0	0	0	0	0	<1
Cruelty to animals	0	0	0	<1	0	0	0	0	0	<1
Willful damage	5	0	3	0	3	0	8	0	5	0
Group assembly	1	0	1	0	0	0	1	0	1	0
Dishonesty miscellaneous	0	0	<1	0	0	0	0	0	<1	0
No charge (detained)	0	0	0	0	1	0	0	0	<1	0
Postal/ rail/ fire service abuse	0	0	<1	0	1	0	<1	0	<1	0
Vagrancy offences	1	0	<1	0	0	0	<1	0	<1	0

There was no change in the proportion of detainees who had been arrested for (any) assault in 2011 compared to 2010 (i.e. 29% in both years). However, a lower proportion of detainees in Christchurch Central had been arrested for assault in 2011 compared to 2010 (30% vs. 20%, p=0.0206).

A lower proportion of the detainees had been arrested for (any) drug offence in 2011 compared to 2010 (9% vs. 15%, p<0.0001). The decline in the proportion of detainees arrested for drug offences was found in all of the study sites. A higher proportion of the detainees who had been arrested for a drug offence had been arrested for a methamphetamine offence in 2011 compared to 2010 (45% vs. 21%, p=0.0025) and a lower proportion had been arrested for a cannabis offence in 2011 compared to 2010 (59% vs. 76%, p=0.0327) (Figure 12.1).

Figure 12.1: Drug type(s) involved in arrest for a drug offence in the past 12 months (of those who had been arrested for a drug offence in the past year), 2010 & 2011



Conviction history

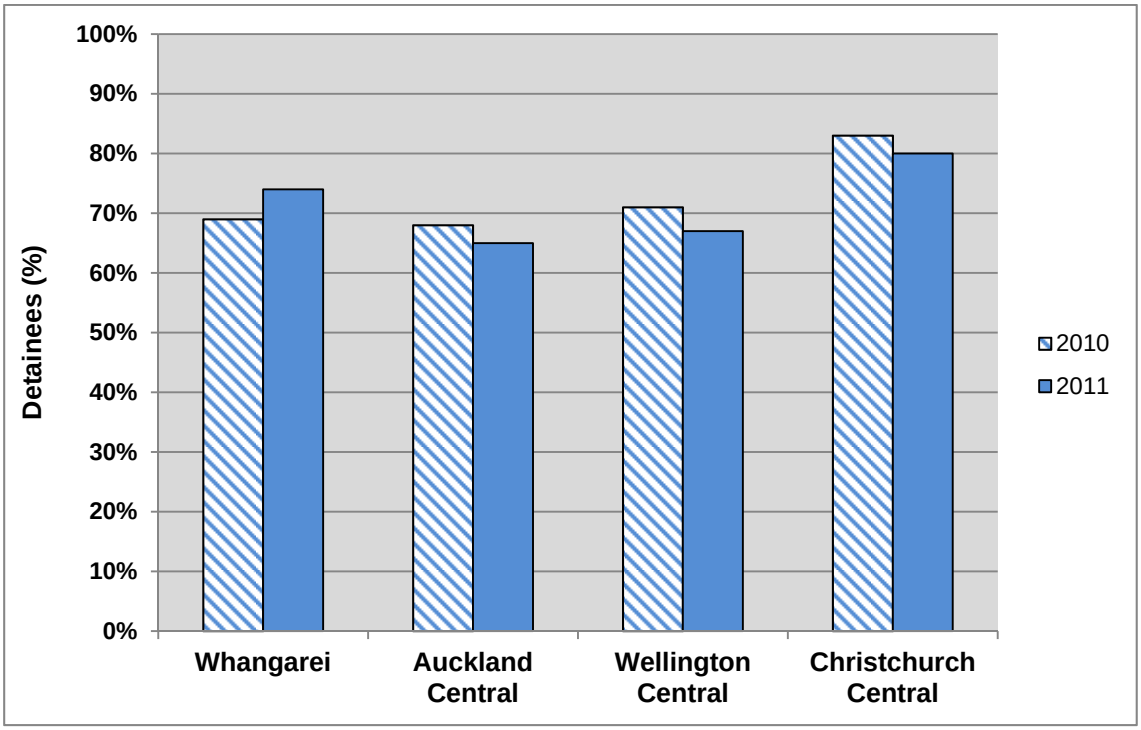
Seventy-one percent of the detainees had been convicted of a criminal offence in their lifetimes in 2011 (Table 12.2). There was no statistically significant change in the proportion of the detainees who had been convicted of a crime in 2011 compared to 2010 (71% vs. 73%, p=0.3294).

Table 12.2: Police detainees' history of conviction and imprisonment by location, 2010 & 2011

Arrest history	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites (n=778)	
	2010 (n=106)	2011 (n=145)	2010 (n=266)	2011 (n=298)	2010 (n=147)	2011 (n=163)	2010 (n=259)	2011 (n=189)	2010 (n=777)	2011 (n=795)
Ever convicted of a criminal offence	69	74	68	65	71	67	83	80	73	71
Ever been in prison	37	44	36	34	37	35	43	43	39	38
Imprisonment in past 12 months	9	14	11	15	14	16	16	17	13	16

In 2011, detainees in Christchurch Central were more likely to have ever been convicted of a criminal offence than detainees in Auckland Central (80% vs. 65%, p=0.0006) and Wellington Central (80% vs. 67%, p=0.0087). Similarly, detainees in Whangarei were more likely to have been convicted of a criminal offence than detainees in Auckland Central (74% vs. 65%, p=0.0481) (Figure 12.2).

Figure 12.2: Proportion of police detainees who had been convicted of a crime by location, 2010 & 2011



Those detainees who had been convicted of a crime were asked what criminal offences they had been convicted of. The crimes the detainees had most often been

convicted of were (any) assault (34%) [i.e. minor assault, serious assault, grievous assault and assault (unspecified)], a 'driving offence' (31%), 'theft' (28%), 'burglary' (27%), a drug offence (18%) [i.e. cannabis offence, non-cannabis drug offence and drug offence (unspecified)], 'public disorder' (13%) and 'robbery' (11%) (Table 12.3). A higher proportion of the convicted detainees were convicted of (any) assault in 2011 compared to 2010 (34% vs. 28%, p=0.0371). A higher proportion of convicted detainees in Auckland Central had been convicted of assault in 2011 compared to 2010 (31% vs. 20%, p=0.0229). There was no change in the proportion of convicted detainees who had been convicted for a drug offence in 2011 compared to 2010 (18% vs. 17%). However, a higher proportion of convicted detainees in Christchurch Central had been convicted of a drug offence in 2011 compared to 2010 (21% vs. 13%, p=0.0256).

Table 12.3 Proportion of police detainees who had been convicted of different offence types by location (of those who had ever been convicted of a crime), 2010 & 2011

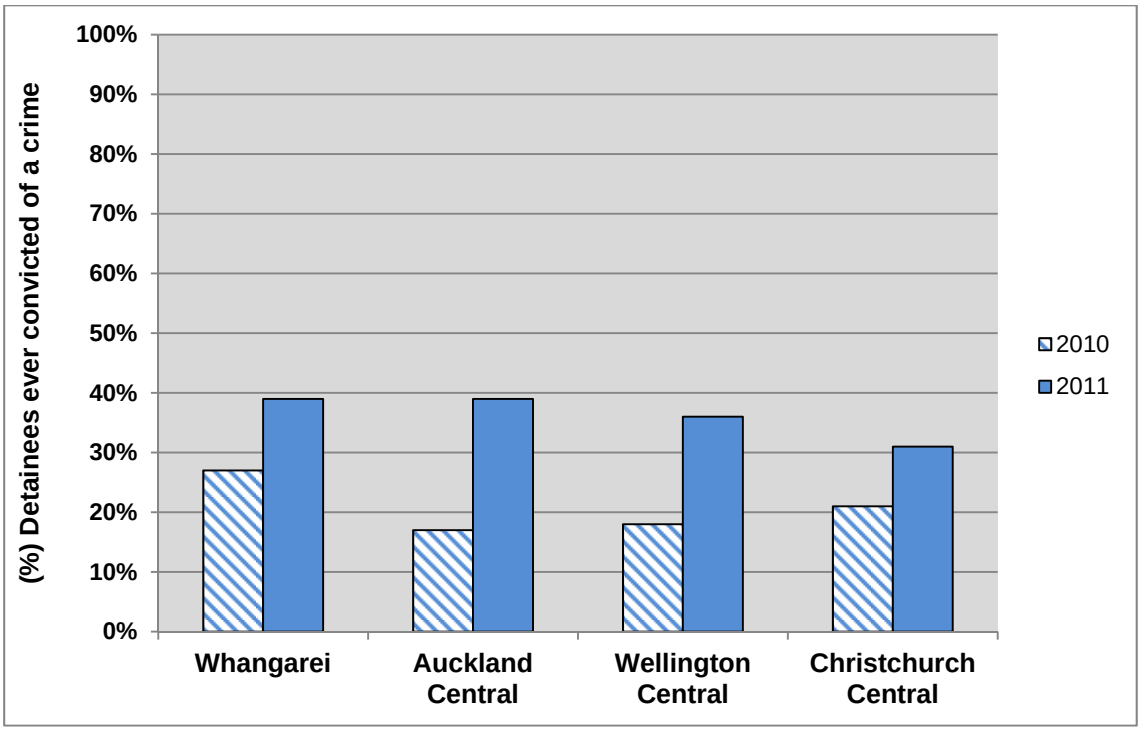
Criminal convictions (%)	Whangarei		Auckland Central		Wellington Central		Christ-church Central		All sites	
	2010 (n=70)	2011 (n=104)	2010 (n=161)	2011 (n=183)	2010 (n=89)	2011 (n=105)	2010 (n=215)	2011 (n=145)	2010 (n=535)	2011 (n=537)
Driving offence (including alcohol impaired driving)	19	36	24	17	40	38	32	37	29	31
Theft	10	17	11	30	17	24	17	33	14	28
Burglary	27	24	21	28	28	25	26	28	25	27
Assault (unspecified)	20	23	10	22	18	21	16	19	15	21
Public disorder	6	8	6	9	19	19	9	17	9	13
Robbery	6	13	7	15	10	10	6	5	7	11
Serious assault (incl. male assaults female)	13	15	6	8	10	11	8	7	8	9
Drugs (cannabis only)	13	8	9	3	18	12	7	11	10	8
Drugs (unspecified)	10	8	9	9	4	2	4	11	6	8
Car conversion etc.	10	5	14	11	9	9	15	4	13	7

Fraud	4	6	2	7	11	6	4	7	5	7
Shoplifting	13	8	4	4	13	10	6	4	8	6
Intimidation/ threat	1	8	4	5	6	6	7	7	5	6
Willful damage	4	4	3	4	4	7	7	6	5	5
Against justice (unspecified)	6	5	3	5	1	4	5	5	4	5
Destruction of property	3	3	2	5	7	5	1	5	3	5
Grievous assault	4	5	3	3	3	7	6	2	4	4
Minor assault	3	2	2	2	4	12	3	3	3	4
Drugs (not cannabis)	0	4	2	4	6	7	2	1	2	4
Receiving stolen goods	1	1	4	3	8	4	4	4	4	3
Arms act offence	4	2	2	1	2	4	1	4	2	3
Trespass	1	5	7	2	7	3	4	1	5	2
By-laws breach	4	0	0	1	3	1	4	3	3	2
Family offence	1	3	0	0	0	4	1	0	1	1
Sexual attack	0	0	1	2	1	2	<1	1	1	1
Kidnapping and abduction	0	1	0	0	0	3	2	1	1	1
Homicide	1	3	1	1	1	0	0	1	1	1
Fines	0	0	1	0	1	1	0	0	<1	<1
Sale of liquor act (1989)	0	0	0	0	0	0	0	1	0	<1
Group assembly	1	0	2	0	1	0	1	0	1	0
Warrant to arrest (unspecified)	1	0	0	0	0	0	0	0	<1	0
Dishonesty miscellaneous	0	0	1	0	0	0	0	0	<1	0
Postal/ rail/ fire services abuse	0	0	0	0	1	0	0	0	<1	0
Sexual affront	0	0	1	0	1	0	0	0	<1	0
Endangering	0	0	0	0	0	0	<1	0	<1	0
Littering	0	0	1	0	0	0	0	0	<1	0
Cruelty to animals	0	0	0	0	0	0	<1	0	<1	0

Drug treatment as part of sentencing

The detainees who had ever been convicted of a criminal offence were asked if they had ever received any treatment for drug and alcohol issues as part of their sentence. The convicted detainees were more likely to have received treatment for drug and alcohol problems in 2011 compared to 2010 (36% vs. 20%, p<0.0001). Detainees in Auckland Central were more likely to have received treatment as part of their sentence in 2011 compared to 2010 (39% vs. 17%, p=<0.0001) as were detainees in Wellington Central (36% vs. 18%, p=0.0031) and Christchurch Central (31% vs. 21%, p=0.0243) (Figure 12.3). A higher proportion of convicted detainees in Whangarei had also received treatment as part of their sentence in 2011 compared to 2010 (39% vs. 27%), and this difference was close to being statistically significant (p=0.0972).

Figure 12.3: Proportion of police detainees who had ever received treatment for drug and alcohol issues as part of their sentence (of those who had ever been convicted of a crime) by location, 2010 & 2011



Prison history

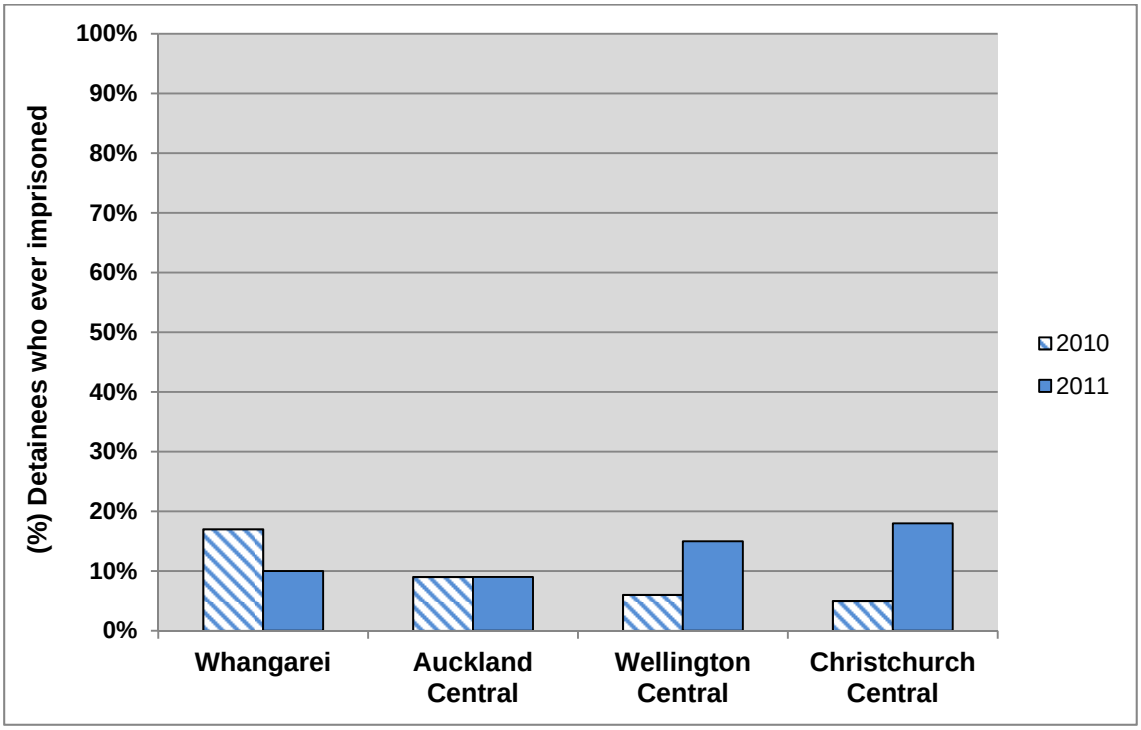
Ever been to prison

Thirty-eight percent of the detainees had been in prison at some point in their lifetimes. There was no change in the proportion of detainees who had ever been to prison in 2011 compared to 2010 (38% vs. 39%, p=0.8746). Those detainees who had ever been to prison were asked what crime they had been sent to prison for. In 2011, 30% had been imprisoned for burglary, 28% for (any) assault [i.e. minor assault, serious assault, grievous assault and assault (unspecified)], 19% for theft, 18% for driving offences, 15% for robbery, 13% for (any) drug offence [i.e. cannabis offence, non-cannabis drug offence and drug offence (unspecified)], 11% for 'Against Justice' (unspecified) and 9% for fraud (Table 12.4). There was no change in the proportion of detainees who had been imprisoned for assault in 2011 compared to 2010 (28% vs. 25%, p=0.3836). There was an increase in the proportion of detainees who had been imprisoned for a drug offence in 2011 compared to 2010 (13% vs. 8%, p=0.0334). There was also an increase in the proportion of detainees imprisoned for a drug offence in Christchurch Central (18% vs. 5%, p=0.0022) (Figure 12.4).

Table 12.4: Proportion of police detainees who had been imprisoned for different offence types by location (of those who had ever been imprisoned), 2010 & 2011

Prison history (%)	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=36)	2011 (n=63)	2010 (n=89)	2011 (n=97)	2010 (n=49)	2011 (n=53)	2010 (n=111)	2011 (n=77)	2010 (n=285)	2011 (n=290)
Burglary	19	22	20	31	37	21	23	38	24	30
Theft	6	14	8	19	12	15	15	26	11	19
Driving offence (including alcohol impaired driving)	0	25	10	9	14	28	12	16	10	18
Assault (unspecified)	22	24	9	18	14	8	11	18	12	17
Robbery	6	16	17	23	12	13	5	8	10	15
Against justice (unspecified)	3	11	15	8	6	8	17	16	13	11
Fraud	6	3	4	11	8	4	5	12	5	9
Serious assault (incl. male assaults female)	11	14	7	6	2	11	5	4	6	8
Drugs (unspecified)	3	2	6	4	2	2	3	14	4	6
Car conversion etc.	11	3	11	6	10	4	14	3	12	4
Grievous assault	6	6	6	1	8	8	6	3	6	4
Arms act offence	6	2	3	4	0	4	5	4	4	4
Drugs (cannabis only)	14	3	1	1	0	11	1	4	2	4
Drugs (not cannabis)	3	6	2	5	4	2	1	1	2	4
Intimidation/ threat	0	2	1	1	2	8	6	3	3	3
Public disorder	6	0	2	3	0	2	3	4	2	3
Shoplifting	3	3	1	1	6	9	0	3	2	3
Receiving stolen goods	0	2	3	4	4	0	2	4	2	3
Minor assault	0	3	3	2	0	2	2	0	2	2
Sexual attack	0	0	2	3	2	4	3	3	2	2
Kidnapping and abduction	0	3	1	1	0	6	3	1	1	2
Trespass	0	2	3	0	0	2	3	0	2	1
Destruction of property	6	0	1	2	2	4	1	0	2	1
Fines	0	2	4	0	0	7	1	0	2	1
Willful damage	0	0	0	2	0	0	2	0	1	1
Homicide	3	3	1	1	0	0	2	1	1	1
Family offence	0	0	0	1	2	4	0	0	<1	1
Vagrancy offences	0	0	0	1	0	0	0	0	0	<1
Endangering	0	0	0	0	0	0	2	0	1	0
Group assembly	0	0	2	0	4	0	0	0	1	0

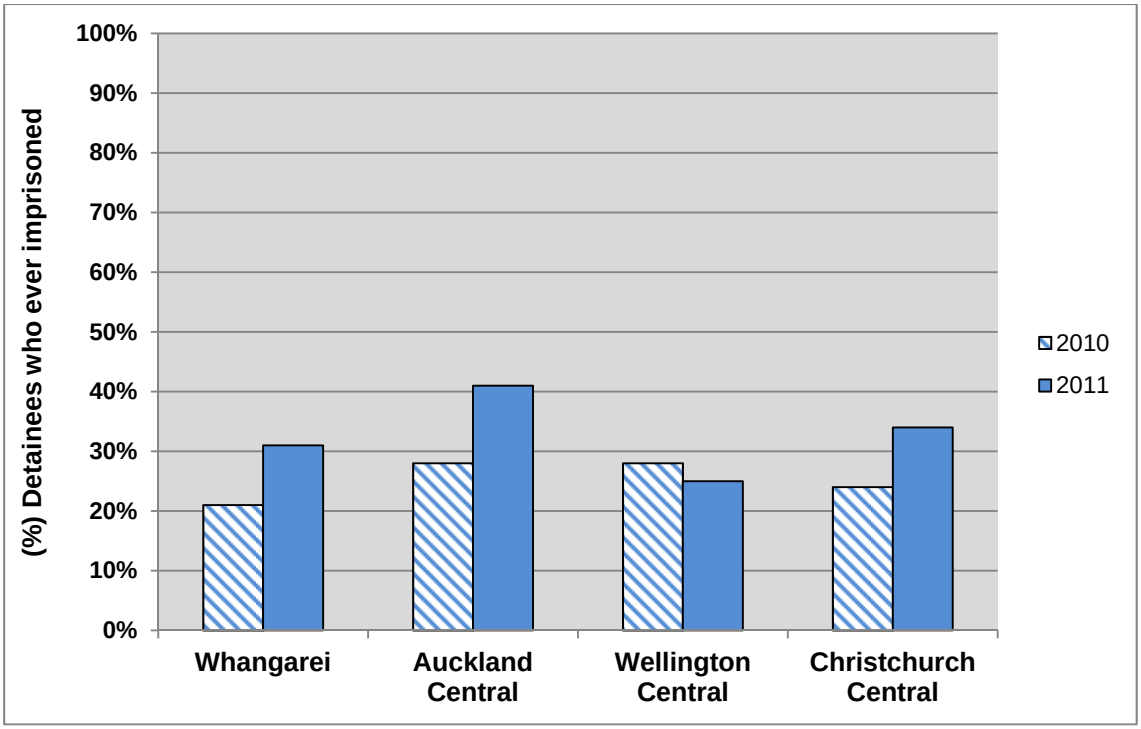
Figure 12.4: Proportion of police detainees who had been imprisoned for a drug offence by location (of those who had ever been imprisoned), 2010 & 2011



Alcohol and drug treatment while in prison

In 2011, 34% of these detainees who had ever been to prison had received treatment for alcohol and drug issues as part of their prison sentence. A higher proportion of the imprisoned detainees had received alcohol and drug treatment as part of their prison sentence in 2011 compared to 2010 (34% vs. 26%, p=0.0264). The increase in alcohol and drug treatment was reported in most of the sites (Figure 12.5).

Figure 12.5: Proportion of police detainees who had ever received treatment for drug and alcohol issues as part of their prison sentence by location (of those who had ever been to prison), 2010 & 2011



Prison in the previous 12 months

Sixteen percent of the detainees had been in prison in the previous 12 months in 2011. There was no statistically significant change in the proportion of detainees who had been in prison in the previous year in 2011 compared to 2010 (16% vs. 13%, p=0.1252). Those detainees who had been imprisoned in the previous 12 months were asked what crime they had been sent to prison for. Twenty-eight percent had been imprisoned for (any) assault [i.e. minor assault, serious assault, grievous assault and assault (unspecified)], 27% for burglary, 22% for Against Justice (unspecified), 16% for theft, 13% for a driving offence and 12% for (any) drug offence [i.e. cannabis offence, non-cannabis drug offence and drug offence (unspecified)] (Table 12.6). There was no change in the proportion of detainees who had been imprisoned for assault in the previous 12 months in 2011 compared to 2010 (28% vs. 25%, p=0.3836). A higher proportion of the detainees had been imprisoned for a drug offence in the previous 12 months in 2011 compared to 2010 (12% vs. 3%, p=0.0191) (Figure 12.6). The 12 detainees who had been imprisoned for a drug offence in the

past 12 months in 2011 were imprisoned for methamphetamine offences (n=9), cannabis offences (n=4) and alcohol offences (n=1). Only two detainees had been imprisoned for a drug offence in the past 12 months in 2010 (i.e. one for methamphetamine offences and one for cannabis offences).

Figure 12.6: Proportion of police detainees who had been imprisoned for a drug offence in the past 12 months (of those who had been imprisoned in past 12 months), 2010 & 2011

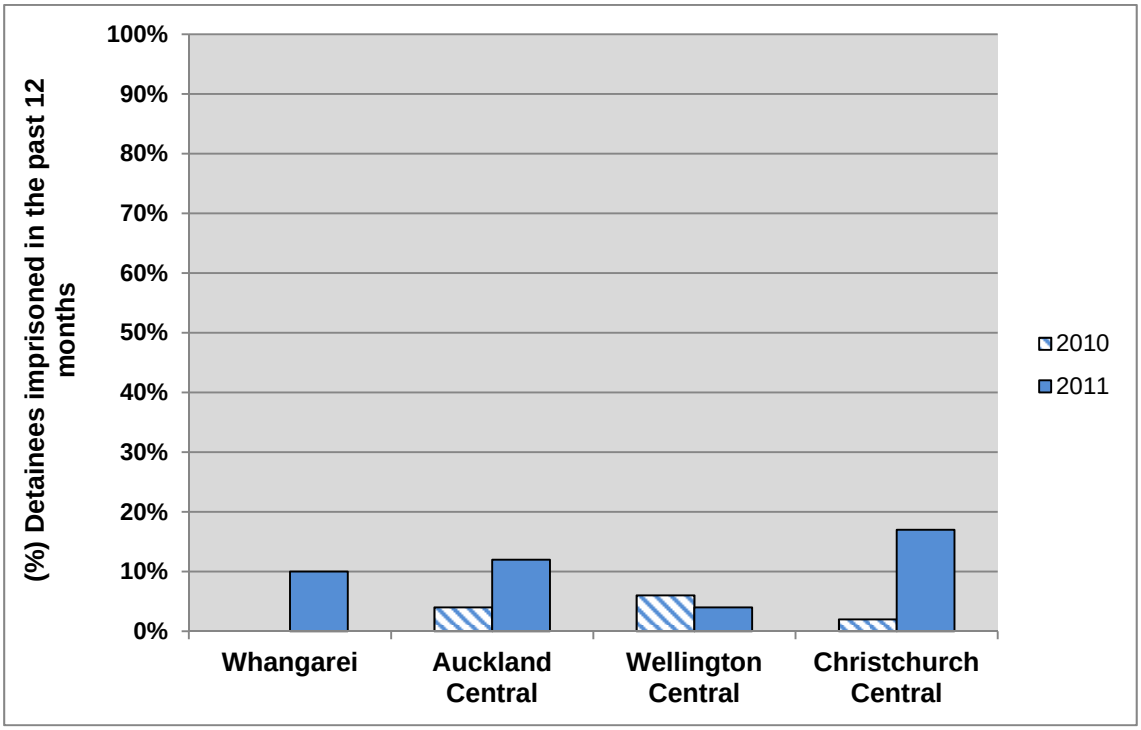


Table 12.5: Proportion of police detainees who had been imprisoned for different offence types in the past 12 months (of those who had been imprisoned in past 12 months), 2010 & 2011

Imprisonment in previous 12 months (%)	All sites	
	2010 (n=97)	2011 (n=114)
Burglary	20	27
Against justice (unspecified)	23	22
Theft	7	16
Assault (unspecified)	15	14
Driving offence(including alcohol impaired driving)	11	13
Serious assault (incl. male assaults female)	4	8
Drugs (not cannabis)	1	8
Car conversion	6	7
Robbery	11	6
Grievous assault	8	6
Fraud	2	6
Arms act offences	0	5
Drugs (cannabis only)	1	4
Intimidation/ threat	4	3
Minor assault	1	3
Shoplifting	7	2
Receiving stolen goods	4	2
Drugs (unspecified)	3	2
Public disorder	3	2
Sexual attack	2	2
Willful damage	2	2
Kidnapping and abduction	1	2
Family offences	0	1
Fines	0	1
Trespass	3	0

Drug use in prison in the previous 12 months

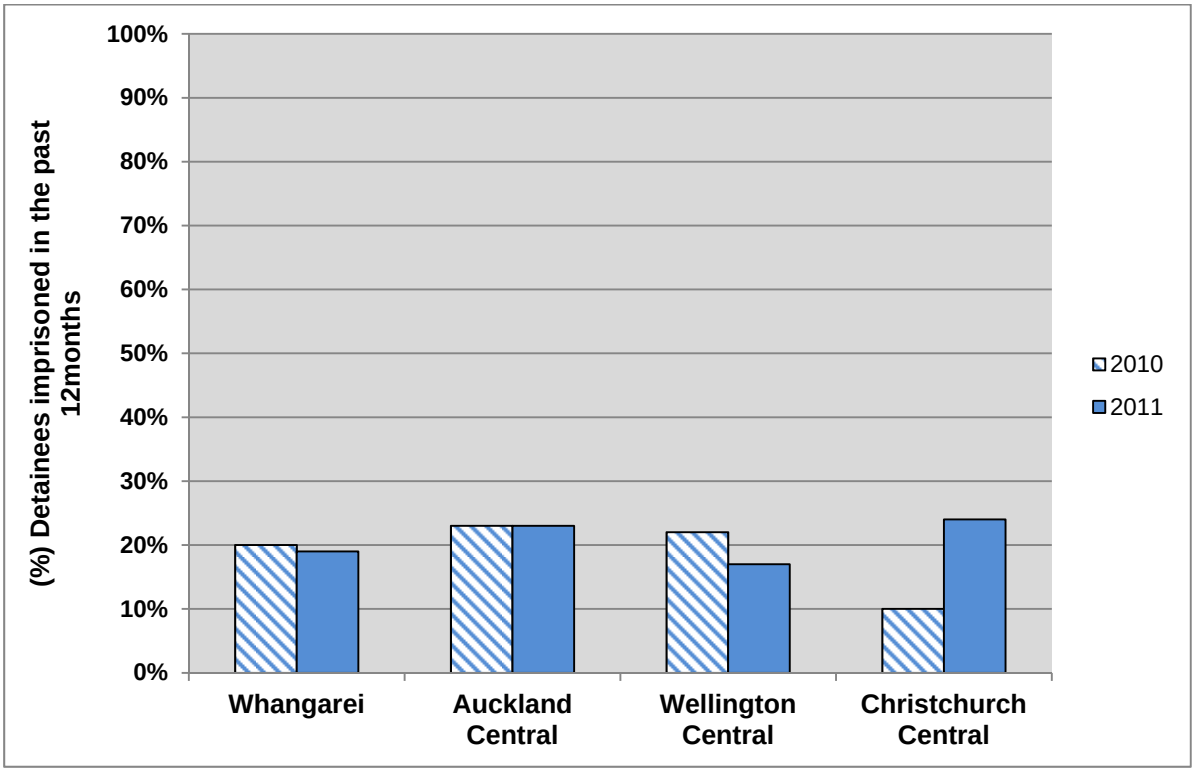
Forty-three percent of the detainees who had been to prison in the past 12 months reported they had used drugs while in prison in the past 12 months in 2011. There

was no change in the proportion of detainees who had been in prison in the past year who had used drugs while in prison in 2011 compared to 2010 (43% in both years).

Alcohol and drug treatment while in prison in previous 12 months

Twenty-two percent of the detainees who had been in prison in the past 12 months had received treatment for drug and alcohol issues as part of their prison sentence in the previous 12 months. A higher proportion of detainees who had been imprisoned in the past 12 months had received alcohol and drug treatment in 2011 compared to 2010 (22% vs. 17%) but this difference was not statistically significant (p=0.4284) (Figure 12.7).

Figure 12.7: Proportion of police detainees who had received treatment for drug and alcohol issues as part of their prison sentence by location (of those who had been to prison in the previous 12 months), 2010 & 2011



Summary

- The police detainees had been arrested a mean of three times in the previous 12 months in 2011 (median 2 times, range 1-100 times)

- There was no statistically significant change in the number of times the detainees had been arrested in the previous year in 2011 compared to 2010 (3 vs. 4 times)

- The detainees had been arrested for a range of offences in 2011, including 'Against Justice' (41%), 'assault' (29%), 'driving offences' (18%), 'public disorder' (15%), 'burglary' (12%), 'theft' (11%), 'destruction of property' (9%) and drug offences (9%)

- A lower proportion of the detainees had been arrested for any drug offence in 2011 compared to 2010 (9% vs. 15%)

- A higher proportion of the detainees arrested for a drug offence had been arrested for methamphetamine offence in 2011 compared to 2010 (45% vs. 21%)

- A lower proportion of the detainees arrested for a drug offence had been arrested for a cannabis offence in 2011 compared to 2010 (59% vs. 76%)

- There was no change in the proportion of the detainees who had ever been convicted of a crime in 2011 compared to 2010 (71% vs. 73%)

- The crimes the detainees had most often been convicted of in 2011 were assault (34%), a 'driving offence' (31%), 'theft' (28%), 'burglary' (27%), a drug offence (18%), 'public disorder' (13%) and 'robbery' (11%)

- The detainees who had been convicted of a crime were more likely to have received treatment for drug and alcohol problems in 2011 compared to 2010 (36% vs. 20%)

- The proportion of convicted detainees receiving alcohol and drug treatment was higher in all the sites in 2011 compared to 2010

- There was no statistically significant change in the proportion of the detainees who had been in prison in 2011 compared 2010 (38% vs. 39%)

- In 2011, 30% of the detainees who had been to prison had been imprisoned for burglary, 28% for assault, 19% for theft, 18% for driving offences, 15% for robbery, 13% for a drug offence, 11% for 'Against Justice' and 9% for fraud

- A higher proportion of detainees who had been ever been imprisoned had been imprisoned for a drug offence in 2011 compared to 2010 (13% vs. 8%)

- A higher proportion of the detainees who had been in prison had received alcohol and drug treatment as part of their prison sentence in 2011 compared to 2010 (34% vs. 26%)

- There was no statistically significant change in the proportion of detainees who had been in prison in the previous year in 2011 compared to 2010 (16% vs. 13%)

- A higher proportion of the detainees had been imprisoned for a drug offence in the previous 12 months in 2011 compared to 2010 (12% vs. 3%)

Chapter 13 - New Drugs

Introduction

The detainees are asked about the drug types they used for the first time in the previous year. This question provides an indication of the ongoing level of use of known drug types and importantly the emergence of new substances. The extent to which the detainees have used an established drug for the first time provides an indication of whether the prevalence of the drug continues to be replenished by new users or alternatively that its popularity is on the wane. Police detainees can be considered a sentinel population in regard to identifying emerging new drugs due to their high levels of drug use, involvement in drug dealing and contact with the criminal fraternity.

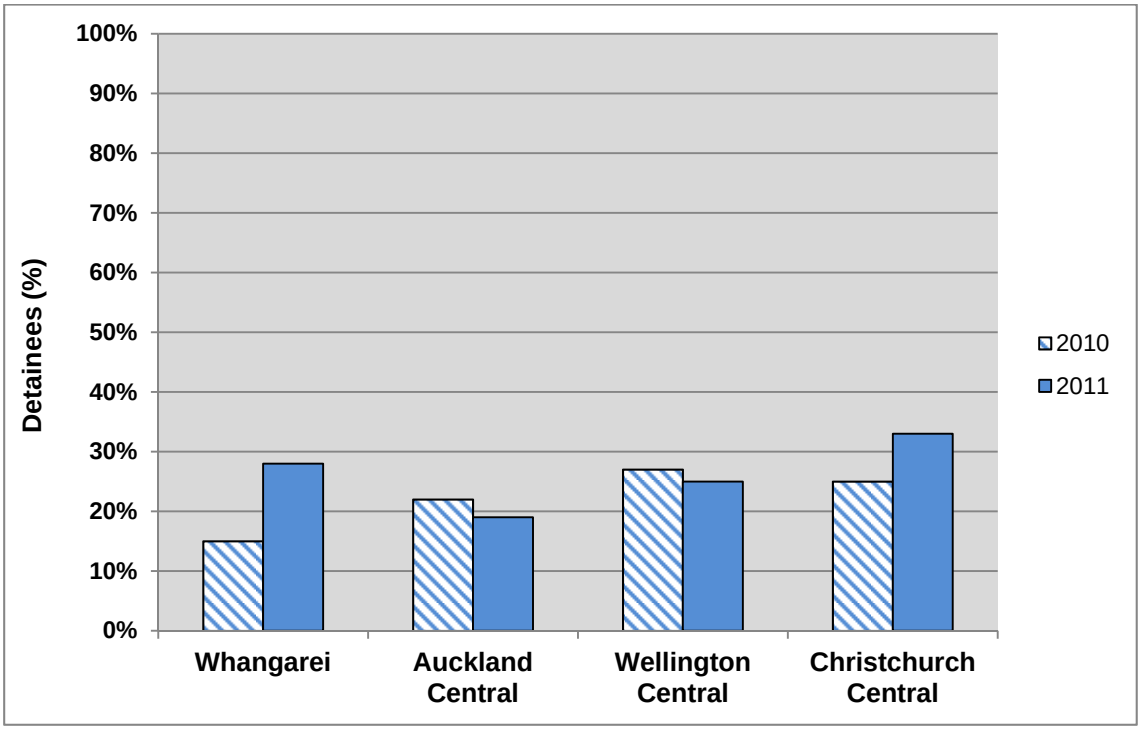
Many countries around the world have reported the emergence of a growing number of new synthetic psychoactive substances over the past five years or so (European Monitoring Centre for Drugs and Drug Addiction, 2011; United Nations Office on Drugs and Crime, 2011). The number of new recreational psychoactive substances identified in Europe has increased from 13 in 2008, to 24 in 2009, to 41 in 2010 (European Monitoring Centre for Drugs and Drug Addiction, 2011). Forty-nine new psychoactive substances were detected in Europe in 2011; the largest number of new notifications ever reported (European Monitoring Centre for Drugs and Drug Addiction, 2012). Often these new substances are not covered by existing domestic drug control legislation or United Nations drug control conventions and so can initially be sold as unregulated legal highs (United Nations Office on Drugs and Crime, 2011). Recent examples of new groups of psychoactive compounds include piperazines, such as BZP (benzylpiperazine); cathinones, such as mephedrone (methylmethcathinone); and synthetic cannabinoids such as Kronic and Spice (European Monitoring Centre for Drugs and Drug Addiction, 2011; United Nations Office on Drugs and Crime, 2011).

The drug types which the frequent drug users interviewed for the 2010 IDMS had most commonly used for the first time in 2010 were synthetic cannabinoids (e.g. Kronic, Spice), methylphenidate (Ritalin), oxycodone and tramadol (Wilkins et al., 2011b). Among the frequent ecstasy users interviewed for the 2010 IDMS, 24% had used non-BZP party pills (DMAA or dimethylamylamine), 21% had used synthetic cannabinoids and 3% had used salvia divinorum in the previous six months (Wilkins et al., 2011b).

Drug types used for the first time in 2011

Twenty-five percent of the detainees had tried a drug for the first time in the previous 12 months in 2011. There was no overall change in the proportion of detainees who had tried a drug for the first time in 2011 compared to 2010 (25% vs. 23%, p=0.2768). Detainees in Whangarei were more likely to have tried a drug for the first time in 2011 compared to 2010 (28% vs. 15%, p=0.0142) (Figure 13.1). Detainees in Christchurch Central were also more likely to have tried a drug for the first time in 2011 compared to 2010 (33% vs. 25%) and this difference was close to being statistically significant (p=0.0588). In 2011, detainees in Whangarei were more likely to have tried a drug for the first time than those in Auckland Central (28% vs. 19%, p=0.0255). Similarly, detainees in Christchurch Central were more likely to have tried a drug for the first time than those in Auckland Central (33% vs. 19%, p=0.0005).

Figure 13.1: Proportion of police detainees who had tried a drug for the first time in the past 12 months by location, 2010 & 2011



The drug types which the detainees had most commonly used for the first time in 2011 were synthetic cannabinoids (e.g. Kronic, Spice) (26% of those detainees who had tried a drug for the first time in the past year), ecstasy (22%), 'magic' mushrooms (psilocybin) (12%), methamphetamine (9%), LSD (7%) and 'street' BZP (7%) (Table 13.1). A small proportion of detainees reported using emerging drugs such as non-BZP party pills (2%), DMT (dimethyltryptamine) (1%), 2C drugs (e.g. 2CB, 2CE) (1%), mephedrone (1%) and salvia divinorum (1%) for the first time in 2011.

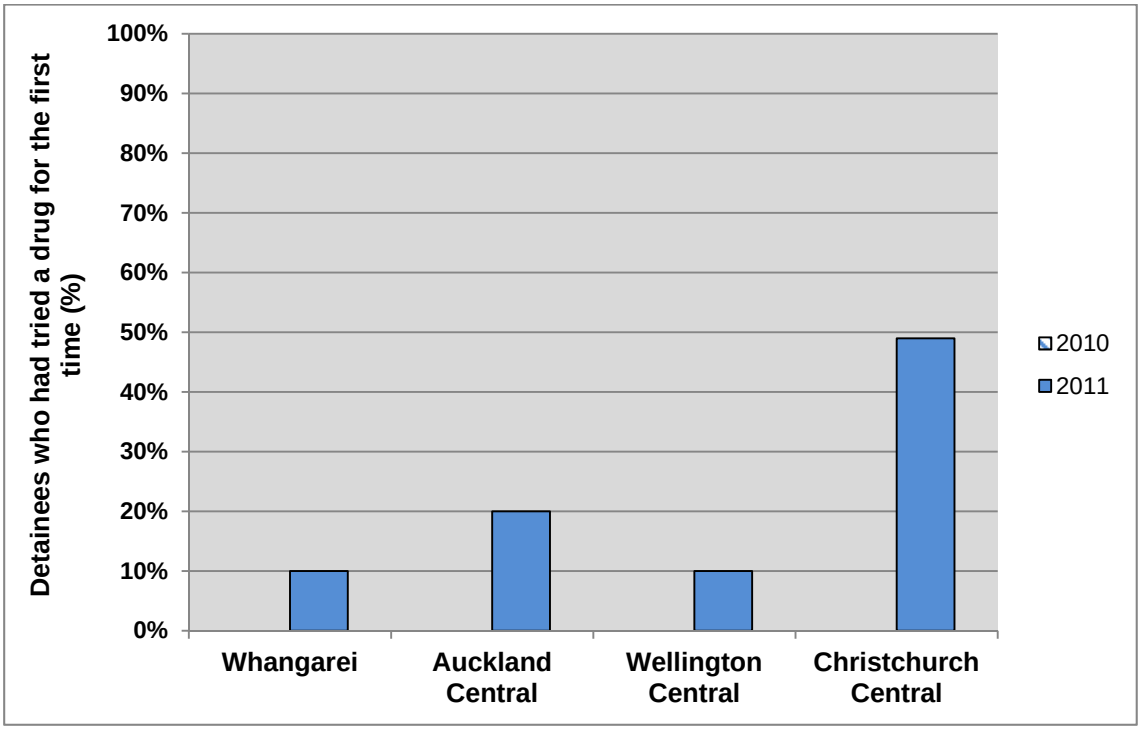
Table 13 1: Drug types tried for the first time in the previous 12 months by location (of those detainees who had tried a drug for the first time), 2010 & 2011

	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=17)	2011 (n=42)	2010 (n=63)	2011 (n=59)	2010 (n=41)	2011 (n=42)	2010 (n=65)	2011 (n=61)	2010 (n=186)	2011 (n=204)
Synthetic cannabinoids (%)	0	10	0	20	0	10	0	49	0	26
Ecstasy (%)	12	26	19	20	27	36	28	13	23	22
Magic Mushrooms (psilocybin) (%)	12	19	8	8	7	7	11	15	9	12
Methamphetamine (%)	35	12	17	17	20	5	18	5	20	9
LSD (%)	0	5	2	3	10	7	8	10	5	7
Street BZP (%)	0	0	5	0	0	2	14	18	6	7
Amphetamine (%)	6	5	3	5	0	7	3	3	3	5
Cannabis (%)	0	2	5	12	7	2	11	3	7	5
Benzodiazepines (%)	0	2	10	0	0	5	6	7	5	4
Cocaine (%)	0	5	3	8	7	5	5	0	4	4
Morphine (%)	6	7	2	0	0	2	3	3	2	3
Ketamine (%)	0	2	13	2	0	5	2	0	4	2
Alcohol (%)	0	0	2	3	0	0	2	2	1	2
Tobacco (%)	12	0	2	2	5	2	0	2	3	2
GHB/ GBL (%)	0	0	3	3	0	0	0	2	1	2
Methylphenidate (Ritalin) (%)	6	0	3	0	0	2	0	5	2	2
Non-BZP party pills (dimethylamylamine) (%)	0	2	1	3	1	2	1	2	2	2
Methadone (%)	0	2	0	2	2	0	0	0	1	1
Crystal Methamphetamine (%)	0	2	0	0	0	0	0	2	0	1
Antidepressants (%)	0	2	0	0	0	2	0	0	0	1
Codeine (%)	0	5	0	0	0	0	0	0	0	1

DMT (dimethyltryptamine) (%)	1	5	1	0	1	0	0	0	2	1
2C drugs (e.g. 2CE, 2CB) (%)	1	0	1	0	1	7	0	0	2	1
Mephedrone (%)	0	0	0	2	1	2	0	0	1	1
Salvia Divinorum (%)	1	5	0	0	1	2	0	2	2	1
Amyl nitrate (%)	0	0	0	0	0	2	0	0	0	<1
Heroin (%)	0	2	3	0	12	0	3	0	5	<1
Oxycodone (%)	0	0	0	0	0	2	2	0	1	<1
Tramadol (%)	0	0	0	0	0	2	2	0	1	<1
Zopiclone (%)	0	0	0	0	0	2	0	0	0	<1
Dexamphetamine (%)	0	0	0	0	0	2	0	0	0	<1
Rinse (%)	0	0	0	0	0	2	0	0	0	<1
Homebake morphine/heroin (%)	0	0	0	0	0	0	2	0	1	0

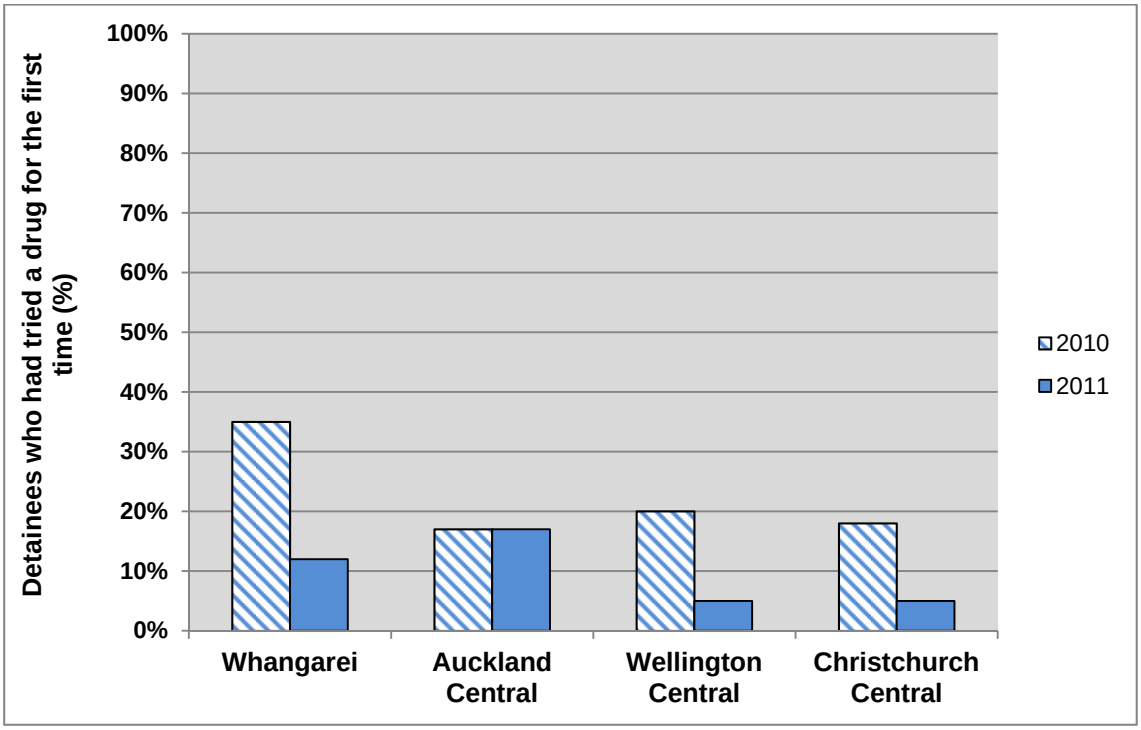
Synthetic cannabinoids were the drug type with the largest increase in new users from 2010 to 2011 (0% to 26%). The increase in the proportion of detainees trying synthetic cannabinoids for the first time in 2011 compared to 2010 was highest in Christchurch Central (0% to 49%) and in Auckland Central (0% to 20%) (Figure 13.2). In 2011, detainees in Christchurch Central were more likely to have tried synthetic cannabinoids for the first time in the past 12 months than those in Whangarei (49% vs. 10% p=0.0002), Auckland Central (49% vs. 20%, p=0.0014), and Wellington Central (49% vs. 10%, p=0.0002).

Figure 13.2: Proportion of police detainees who had tried synthetic cannabinoids for the first time in the past 12 months by location (of those who had tried a drug for the first time), 2010 & 2011



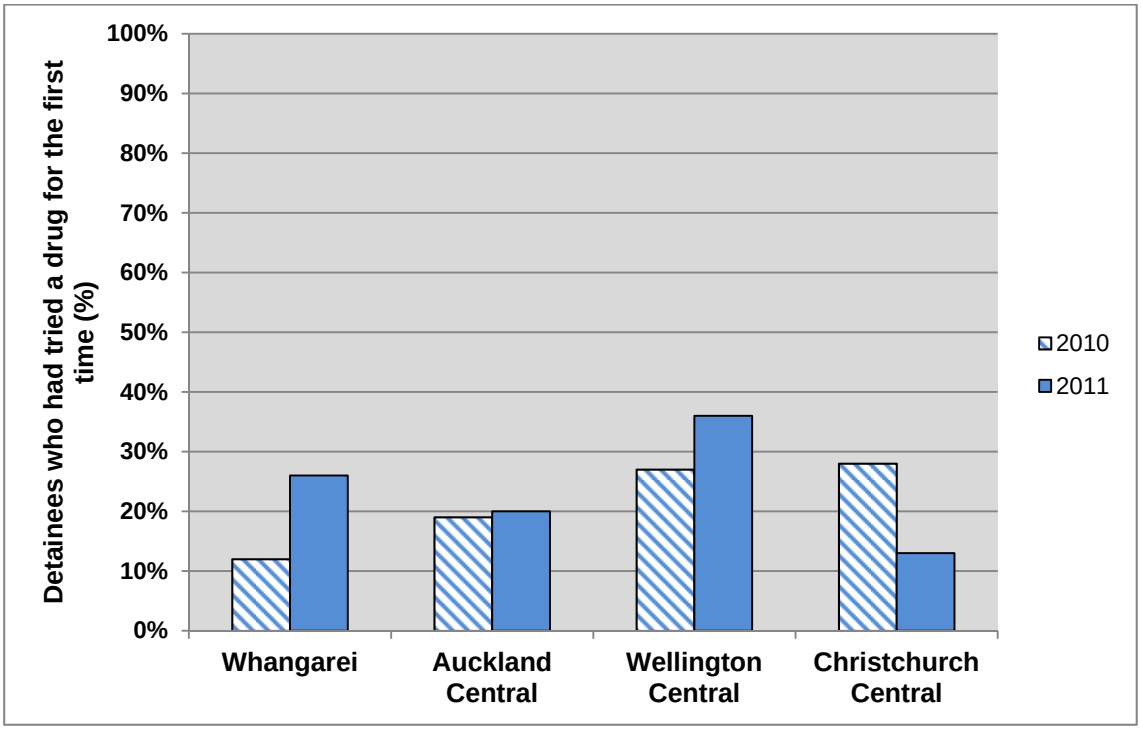
The proportion of detainees who had tried methamphetamine for the first time decreased in 2011 compared to 2010 (9% vs. 20%, p=0.0032). A decrease in the proportion of detainees trying methamphetamine for the first time in 2011 compared with 2010 was found in Whangarei (12% vs. 35%, p=0.0367), Wellington Central (5% vs. 20%, p=0.0390) and Christchurch Central (5% vs. 18%, p=0.0195) (Figure 13.3). There was no change in the proportion of detainees in Auckland Central reporting having tried methamphetamine for the first time in 2011 compared to 2010 (17% in both years).

Figure 13.3: Proportion of police detainees who had tried methamphetamine for the first time in the past 12 months by location (of those who had tried a drug for the first time), 2010 & 2011



There was no change in the proportion of detainees who had tried ecstasy for the first time in 2011 compared to 2010 (22% vs. 23%, p=0.7589). The proportion of detainees in Christchurch Central who had tried ecstasy for the first time decreased in 2011 compared with 2010 (13% vs. 28%, p=0.0433) (Figure 13.4). In 2011, detainees in Wellington Central were more likely to have tried ecstasy for the first time in the past 12 months than those in Christchurch Central (36% vs. 13%, p=0.0095).

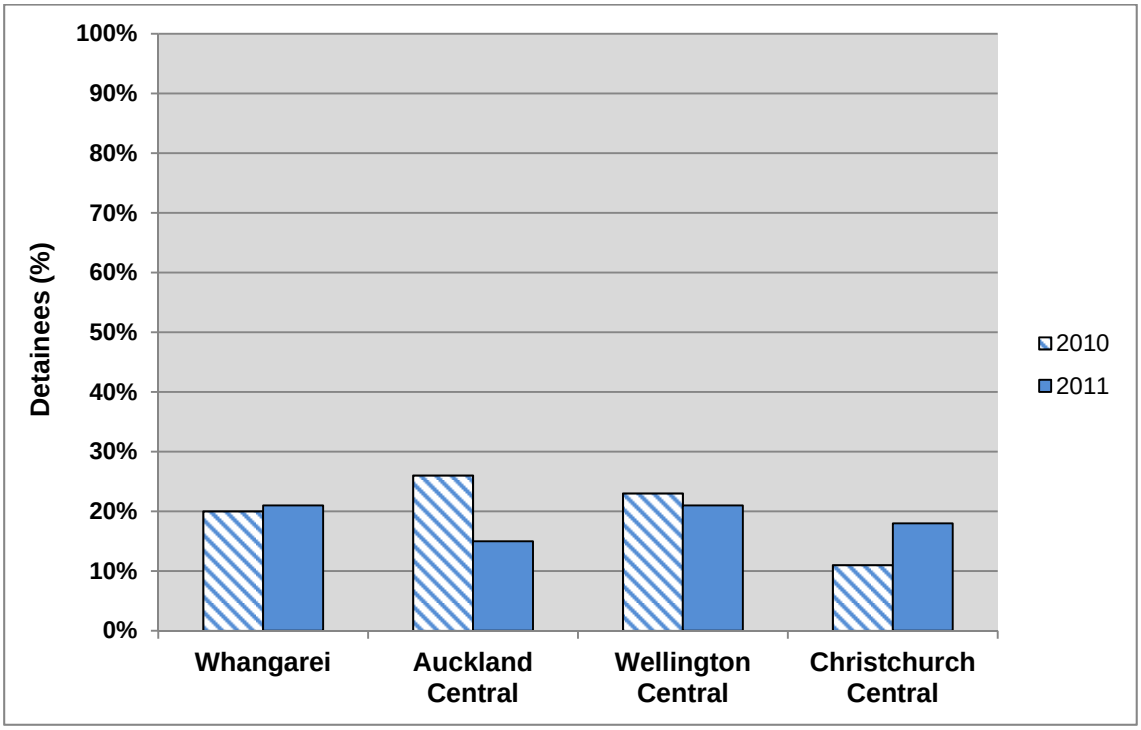
Figure 13.4: Proportion of police detainees who had tried ecstasy for the first time in the past 12 months by location (of those who had tried a drug for the first time), 2010 & 2011



New drugs noticed

The detainees were also asked whether they had heard of any new drugs 'on the street' being used. Eighteen percent of the detainees reported they had heard of new drugs in 2011. There was no change in the proportion of detainees who had heard of new drugs in 2011 compared to 2010 (20% vs. 18%, p=0.3227). Detainees in Christchurch Central were more likely to have heard of new drugs in 2011 compared to 2010 (18% vs. 11%, p=0.0289) (Figure 13.5). Detainees in Auckland Central were less likely to have heard of a new drug in 2011 compared to 2010 (15%, vs. 26%, p=0.0004).

Figure 13.5: Proportion of police detainees who had heard of a new drug being used by location, 2010 & 2011



The new drug types which the detainees had most commonly heard of being used in 2011 were synthetic cannabinoids (16%), methamphetamine (9%), GHB (7%), ecstasy (6%) and LSD (6%) (Table 13.2). Some of the detainees had heard of cocaine (5%), mephedrone (4%) and 2C drugs (4%) being used. A higher proportion of detainees had heard of synthetic cannabinoids being used in 2011 compared to 2010 (16% vs. 1%). The detainees were less likely to have heard of methamphetamine being used as a new drug in 2011 compared to 2010 (9% vs. 20%, p=0.0060). The detainees in Whangarei were less likely to identify methamphetamine as a new drug in 2011 compared to 2010 (17% vs. 59%, p=0.0015). The detainees were also less likely to identify ketamine as a new drug in 2011 compared to 2010 (2% vs. 8%, p=0.0248).

Table 13 2: New drug types which the detainees had heard were being used by location 2010 & 2011

	Whangarei		Auckland Central		Wellington Central		Christchurch Central		All sites	
	2010 (n=22)	2011 (n=30)	2010 (n=73)	2011 (n=45)	2010 (n=31)	2011 (n=31)	2010 (n=28)	2011 (n=33)	2010 (n=154)	2011 (n=139)
Synthetic cannabinoids (%)	0	23	0	16	0	16	4	9	1	16
Methamphetamine (%)	59	17	12	7	16	0	14	12	20	9
GHB (%)	5	13	11	16	13	0	0	0	8	7
Ecstasy (%)	5	0	5	7	10	10	0	6	5	6
LSD (%)	5	3	4	7	3	10	4	6	4	6
Cannabis (%)	0	0	4	4	3	10	0	0	3	5
Cocaine (%)	0	10	1	4	3	3	7	3	3	5
2C drugs (e.g. 2CB, 2CE) (%)	0	0	4	2	0	13	7	3	3	4
Mephedrone (%)	0	3	15	9	10	3	0	0	9	4
Ketamine (%)	0	0	14	2	6	0	4	6	8	2
Amphetamine (%)	0	0	1	0	0	3	4	3	1	2
Morphine (%)	0	3	0	0	0	0	0	3	0	2
DMT (dimethyltryptamine) (%)	0	3	0	2	0	3	0	0	0	2
Benzodiazepines (%)	0	0	0	2	0	0	0	0	0	1
Heroin (%)	0	7	3	0	3	0	4	0	3	1
Homebake morphine/heroin (%)	0	0	0	0	0	0	4	3	1	1
Methadone (%)	0	0	1	2	0	0	0	0	1	1
Nitrous oxide (%)	0	0	0	2	0	0	0	0	0	1
Street BZP (%)	5	0	1	0	0	0	7	3	3	1
Methylphenidate (Ritalin) (%)	0	0	0	0	3	3	4	0	1	1
Magic mushrooms (psilocybin) (%)	5	0	0	0	3	0	0	3	1	1
Oxycodone (%)	0	0	0	0	0	0	0	3	0	1

Codeine (%)	0	0	1	2	3	0	0	0	1	1
Salvia Divinorum (%)	0	0	3	2	6	0	0	0	3	1
PCP (%)	0	0	0	4	3	0	0	0	1	1
Rinse (%)	0	0	0	0	0	6	0	0	0	1
Amyl nitrate (%)	0	0	0	0	0	0	11	0	2	0
Opium poppies (%)	0	0	1	0	0	0	0	0	1	0
Non-BZP party pills (dimethylamylamine) (%)	0	0	0	0	3	0	7	0	2	0

Summary

- Twenty-five percent of the detainees had tried a drug for the first time in the previous 12 months in 2011
- Detainees in Whangarei were more likely to have tried a drug for the first time in 2011 compared to 2010 (28% vs. 15%)
- Detainees in Christchurch Central were also more likely to have tried a drug for the first time in 2011 compared to 2010 (33% vs. 15%)
- The drug types which the detainees had most commonly used for the first time in 2011 were synthetic cannabinoids (26%), ecstasy (22%), 'magic' mushrooms (psilocybin) (12%), methamphetamine (9%), LSD (7%) and 'street' BZP (7%)
- A small proportion of detainees reported using emerging drugs such as non-BZP party pills (2%), DMT (dimethyltryptamine) (1%), 2C drugs (e.g. 2CB, 2CE) (1%), mephedrone (1%) and salvia divinorum (1%) for the first time in 2011
- A higher proportion of detainees had tried synthetic cannabinoids for the first time in 2011 compared to 2010 (26% to 0%)
- A lower proportion of detainees had tried methamphetamine for the first time in 2011 compared to 2010 (9% vs. 20%)
- There was no change in the proportion of detainees who had tried ecstasy for the first time in 2011 compared to 2010 (22% vs. 23%)
- The new drug types which the detainees had most commonly noticed being used in 2011 were synthetic cannabinoids (16%), methamphetamine (9%), GHB (7%), ecstasy (6%) and LSD (6%)
- Some of the detainees had heard of cocaine (5%), mephedrone (4%) and 2C drugs (4%) being used in 2011
- A higher proportion of detainees had noticed synthetic cannabinoids being used in 2011 compared to 2010 (16% vs. 1%)
- The detainees were less likely to have noticed methamphetamine as a new drug in 2011 compared to 2010 (9% vs. 20%)

Chapter 14 – Parenting and adolescence

Introduction

Drug use and criminal offending is often more common among 'at risk' groups such as those with mental health issues, those from dysfunctional family backgrounds, and victims of physical and sexual abuse (Hough, 1996; Shiner, 2009). Drug use and criminal offending is also often more common among marginalised social groups, such as the long term unemployed, urban poor and other disadvantaged groups (Hough, 1996; Shiner, 2009). In New Zealand, Maori have been disadvantaged as a result of colonisation by Europeans and by their subsequent low socio-economic status. Maori are more likely to live in poverty, to be unemployed, have low educational achievement, to be imprisoned, to commit suicide, to suffer health problems, to be heavier alcohol and drug users and to experience domestic violence (Ajwani et al., 2003; Department of Corrections, 2007; Ferguson et al., 2004; Ministry of Health, 2009a; Robson & Harris, 2007; Robson et al., 2010). The 2010 NZ-ADUM identified many disparities between Maori and other detainees with respect to family background, adolescent peer group and their own adolescent risk behavior (Wilkins et al., 2010b).

This chapter investigates the family and adolescent experiences of the police detainees. The findings are presented by site location and by primary ethnic group. In the final part of the chapter we examine the statistical associations between risky parenting and adolescent behavior and heavier alcohol and drug use and criminal offending.

Family structure

The police detainees were asked whether they had lived in any of six key living arrangements (i.e. 'for more than just holidays or visits') when they were growing up (i.e. 'before you were 17 years old'). These questions were asked to obtain an

understanding of a detainee's early family structure. Fifteen percent of the detainees had lived with 'foster parents', 14% had been in 'Child, Youth and Family (CYF) care', and 11% had been in 'youth detention' (Table 14.1).

Table 14 1: Proportion of the police detainees who lived in any of six key living arrangements when they were growing up by location, 2011

Living arrangements (i.e. before 17 years old) (%)	Whangarei (n=144)	Auckland Central (n=306)	Wellington Central (n=168)	Christchurch Central (n=189)	All (n=807)
Two parents	62	59	71	60	63
One parent from the start	29	28	21	33	28
One parent after separation or death	30	20	45	25	28
Foster parent(s)	15	12	21	14	15
CYF's care	14	11	18	14	14
Youth detention	8	10	13	13	11

Maori detainees were more likely than European/Asian/Other[2] detainees to have lived in CYF care (18% vs. 11%, p=0.0240) and to have lived with foster parents (19% vs. 11%, p=0.0028) (Figure 14.1 & Figure 14.2).

[2] There were not sufficient numbers of Asian and other ethnicity detainees to conduct separate analysis for these ethnic categories

Figure 14 1: Proportion of police detainees who lived in Child Youth and Family (CYF) care when they were growing up by ethnicity, 2011

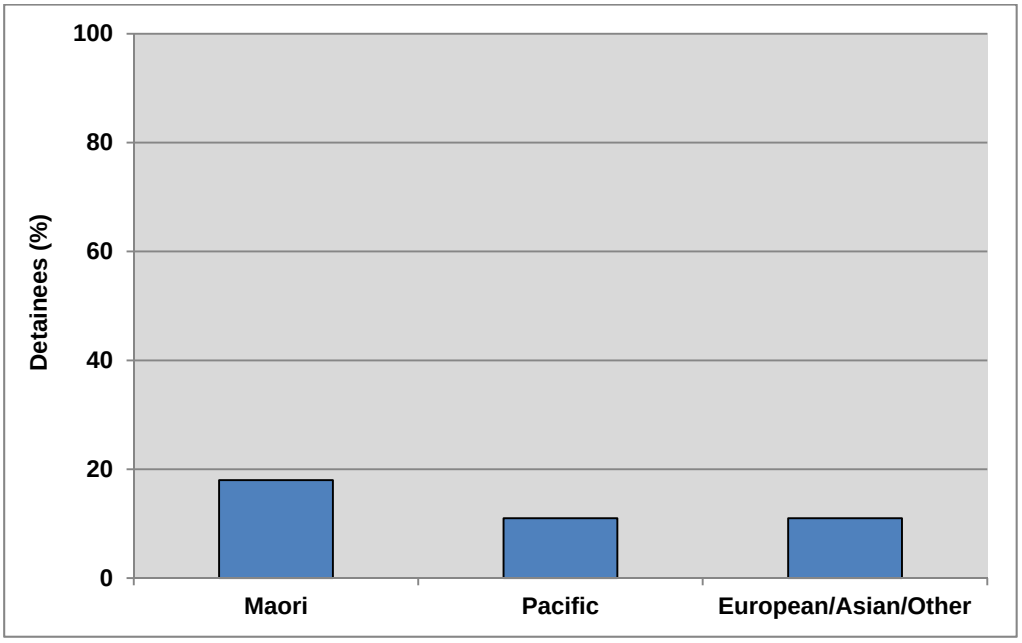
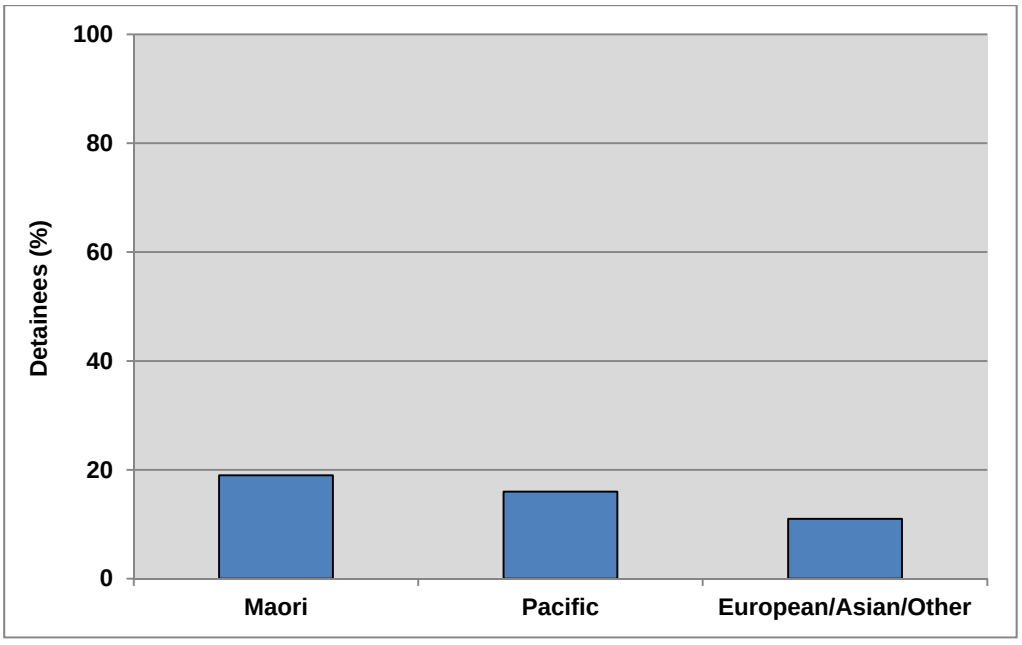


Figure 14.2: Proportion of police detainees who lived with foster parents when they were growing up by ethnicity, 2011



Number of houses lived in during childhood

The detainees were asked how many different houses had they lived in before they were 17 years old. The detainees reported they had lived in a mean of seven different houses (median 4) before they were 17 years old. Maori detainees had lived in a greater number of houses than European/Asian/Other detainees (9 vs. 6, $p=0.0031$) and Pacific detainees (9 vs. 4, $p<0.0001$).

Family life

The detainees were asked a series of questions about their family life at the time they were growing up (i.e. 'before you were 17 years old'). The detainees were asked how often they experienced different family environments and were read a scale from 'never' to 'all the time'. Thirty-one percent of the detainees said at least one of their parents was drunk 'often' or 'all the time' when they were growing up (Table 14.2). Twenty-four percent of the detainees said the main income earner in their family was unemployed or in temporary employment 'often' or 'all the time'. Nineteen percent said at least one of their parents was physically aggressive 'often' or 'all the time'. Sixteen percent said at least one of their parents was under the influence of drugs 'often' or 'all the time'.

Table 14 2: Extent to which police detainees experienced different family situations when they were growing up, 2011

Family life when growing up (i.e. before 17 years old)	Never = 0	Hardly ever = 1	Sometimes = 2	Often = 3	All the time = 4	Mean score (0=never – 4=all the time) (n=795)
Parent knew where you were	7%	4%	12%	18%	59%	3.2
Parent gave praise/ support	9%	8%	21%	20%	43%	2.8
Parent drunk	31%	16%	22%	19%	12%	1.6
Parent physically aggressive	43%	14%	24%	12%	7%	1.3
Main earner unemployed/ temporary employment	53%	9%	13%	8%	16%	1.2
Parent under influence of drugs	71%	5%	9%	8%	8%	0.8
Parent in trouble with police	66%	15%	10%	5%	3%	0.6

Detainees in Whangarei were more likely to see at least one of their parents drunk when they were growing up than those in Auckland (2.1 vs. 1.5, p<0.0001), Wellington (2.1 vs. 1.6, =0.0010) and Christchurch (2.1 vs. 1.6, p=0.0007) (Figure 14.3). Detainees in Whangarei were also more likely to see at least one of their parents under the influence of drugs when they were growing up than those in Auckland (1.1 vs. 0.6, p=0.0035) and Wellington (1.1 vs. 0.7, p=0.0137) (Figure 14.4). Detainees in Whangarei were more likely to have at least one of their parents in trouble with the police than those in Auckland (0.9 vs. 0.6, p=0.0100), Wellington (0.9 vs. 0.5, p=0.0041) and Christchurch (0.9 vs. 0.6, p=0.0100).

Figure 14.3: Mean score of how often the police detainees saw their parents drunk when they were growing up by location, 2011

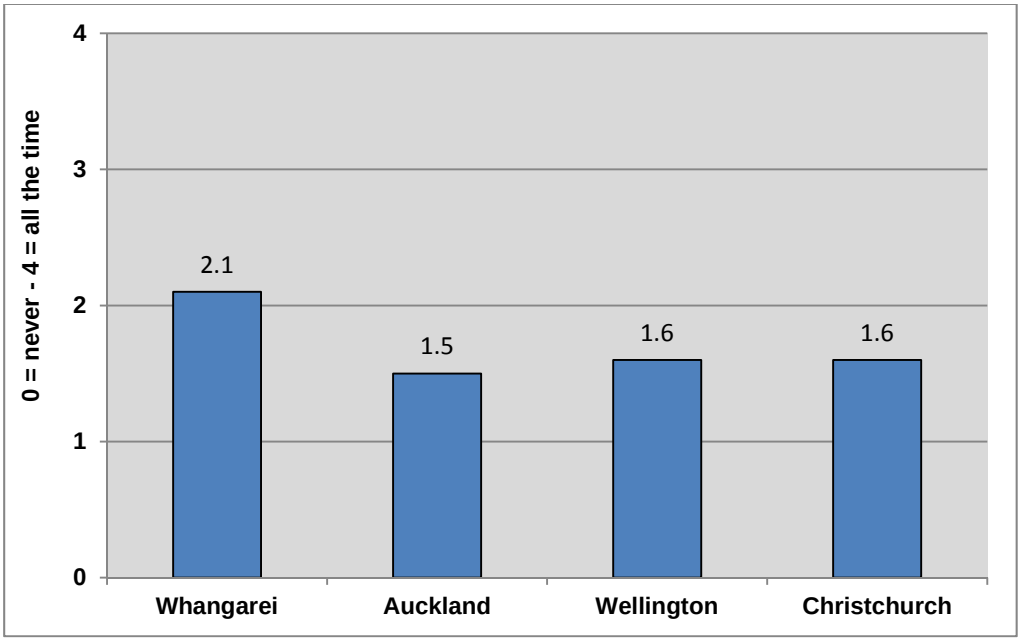
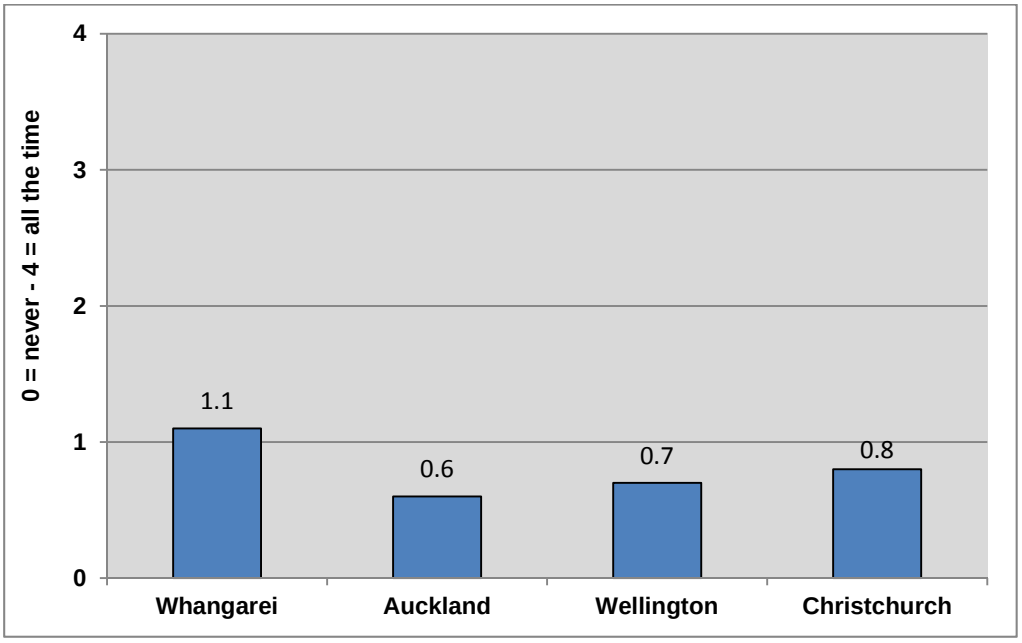


Figure 14.4: Mean score of how often the police detainees saw their parents under the influence of drugs when they were growing up by location, 2011



Pacific detainees were more likely to have a parent who knew where they were than the European/Asian/Other detainees (3.4 vs. 3.2, p=0.0056) and Maori detainees (3.4 vs. 3.1, p=0.0024). Pacific detainees were also more likely to have a parent who gave them praise than the European/Asian/Other detainees (3.2 vs. 2.7, p=0.0003) and Maori detainees (3.2 vs. 2.8, p=0.0024). Maori detainees were more likely to see at least one parent drunk when they were growing up than European/Asian/Other detainees (1.9 vs. 1.5, p<0.0001) and Pacific detainees (1.9 vs. 1.4, p=0.0001) (Figure 14.5). Maori were more likely to have at least one parent who was physically aggressive than European/Asian/Other detainees (1.5 vs. 1.1, p<0.0001) (Figure 14.6). Maori detainees were more likely to have a main income earner who was often unemployed or in temporary employment than Pacific detainees (1.5 vs. 1.0, p=0.0010) and European/Asian/Other detainees (1.5 vs. 1.1, p=0.0003). Maori were more likely to have seen at least one of their parents under the influence of drugs than European/Asian/Other detainees (0.9 vs. 0.7), although this differences was only just statistically significant (p=0.0470). Maori were more likely to have seen at least one of their parents under the influence of drugs than Pacific detainees (0.9 vs. 0.4, p<0.0001). European/Asian/Other detainees were also more likely to have seen

at least one of their parents under the influence of drugs than Pacific detainees (0.7 vs. 0.4, p=0.0187). Maori detainees were more likely to have at least one parent in trouble with police than Pacific detainees (0.8 vs. 0.5, p=0.0002) and European/Asian/Other detainees (0.8 vs. 0.5, p=0.0008).

Figure 14.5: Mean score of how often the police detainees saw their parents drunk when they were growing up by primary ethnic group, 2011

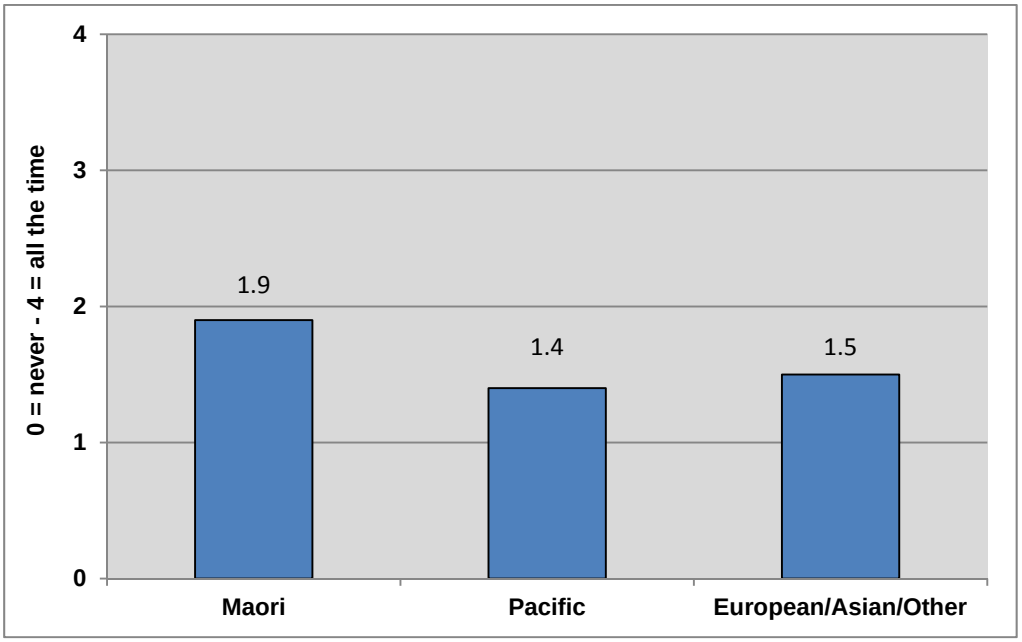
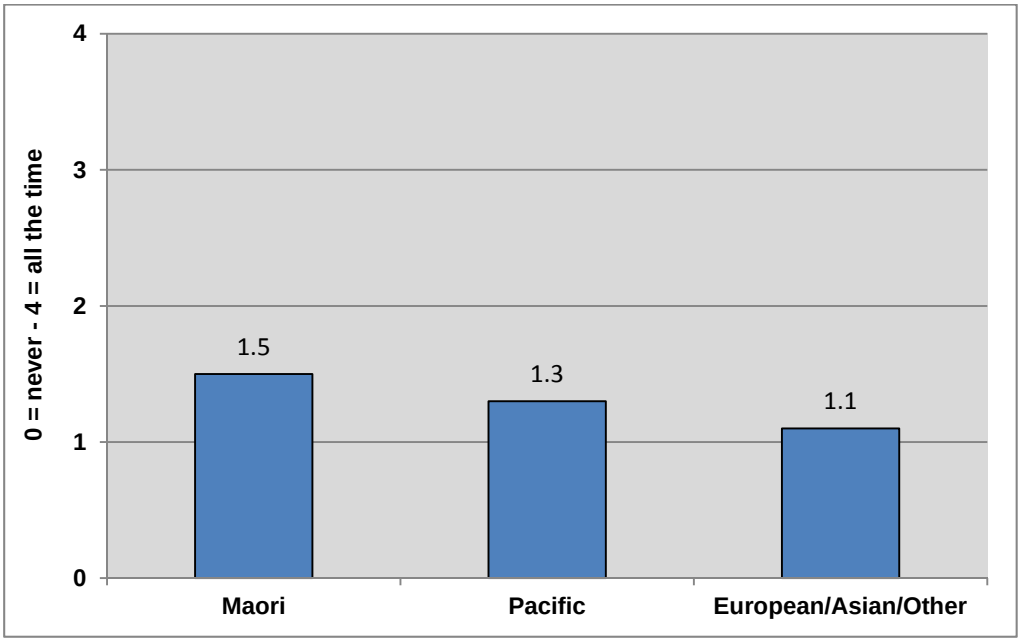


Figure 14.6: Mean score of how often the police detainees' parents were physically aggressive when they were growing up by primary ethnic group, 2011



Peer group during adolescence

The police detainees were asked a series of questions about how many of their friends during their adolescence ('before you were 17 years old') were involved in alcohol and drug use, truancy, serious disciplinary incidents and criminal offending. The interviewer read out a scale from 'none' to 'all'. Fifty-one percent of the detainees said 'most' or 'all' of their friends during adolescence got drunk more than once a week (Table 14.3). Fifty percent of the detainees said that 'most' or 'all' their friends during adolescence smoked cannabis. Forty-one percent of the detainees said that 'most' or 'all' of their adolescent friends were often truant from school.

Table 14.3: Extent to which police detainees' peer group during adolescence were involved in risky behaviours, 2011

Peer group during adolescence (i.e. before 17 years old)	None = 0	Hardly any = 1	Some = 2	Most = 3	All = 4	Mean score (0=none – 4=all) (n=790)
Friends drunk more than once a week	14%	11%	24%	32%	19%	2.3
Friends smoked cannabis	16%	7%	26%	28%	22%	2.3
Friends often skipped school	13%	10%	37%	26%	15%	2.2
Friends often got into fights	16%	16%	35%	20%	12%	1.8
Friends got expelled/ suspended	26%	17%	37%	14%	7%	1.6
Friends took things from shops/ broke into cars or houses	29%	14%	33%	16%	8%	1.6

Detainees in Whangarei were more likely to have friends during their adolescence who were truant from school than those in Auckland (2.5 vs. 2.1, p=0.0018), Wellington (2.5 vs. 2.2, p=0.0418) and Christchurch (2.5 vs. 2.2, p=0.0183) (Figure 14.7). Detainees in Whangarei were also more likely to have friends during adolescence who got suspended or expelled from school than those in Auckland (1.9 vs. 1.6, p=0.0115), Wellington (1.9 vs. 1.6, =0.0171) and Christchurch (1.9 vs. 1.5, p=0.0040) (Figure 14.8).

Figure 14.7: Mean score of how many of the police detainees' friends during adolescence were truant from school by location, 2011

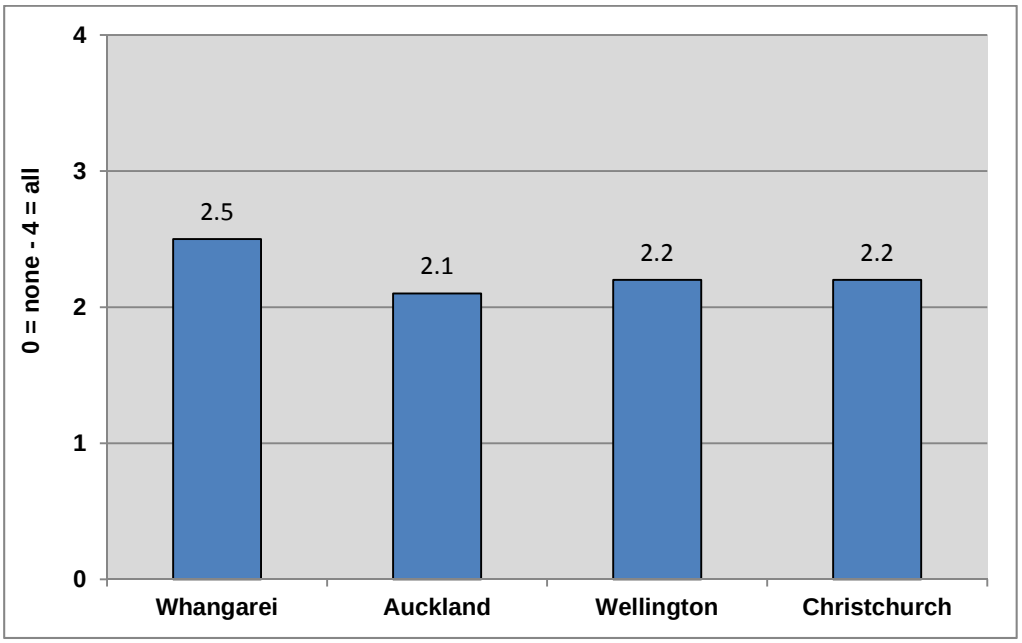
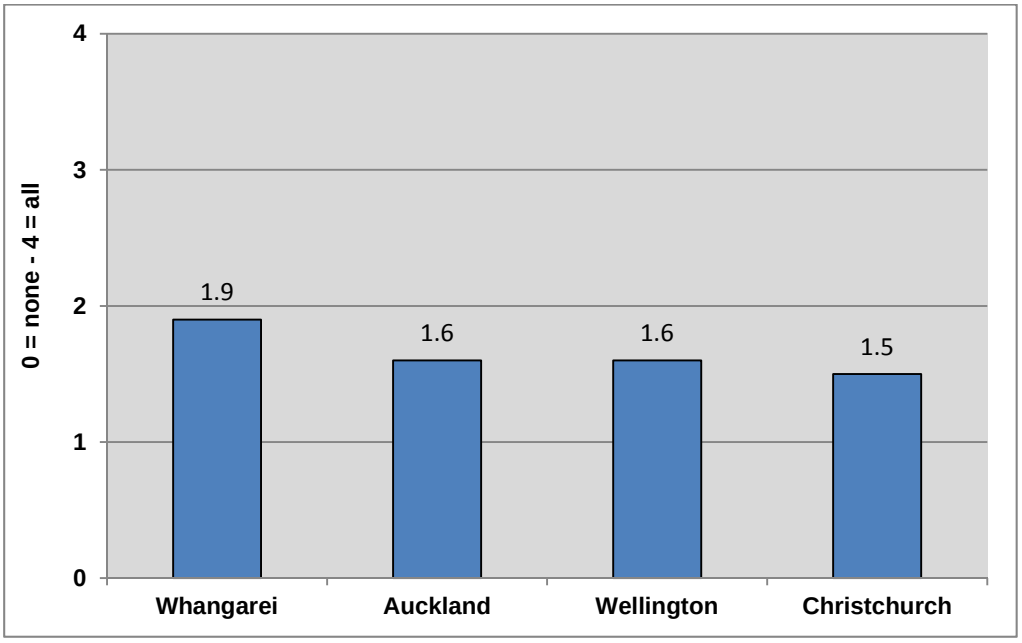


Figure 14.8: Mean score of how many of the police detainees' friends during adolescence were suspended or expelled from school by location, 2011



Maori detainees were more likely to have friends during their adolescence who smoked cannabis than Pacific detainees (2.6 vs. 2.2, p=0.0058) and European/Asian/Other detainees (2.6 vs. 2.1, p<0.0001) (Figure 14.9). Maori detainees were more likely to have friends during their adolescence who got drunk at least once a week than Pacific detainees (2.4 vs. 2.2, p=0.0409) and European/Asian/Other detainees (2.4 vs. 2.2, p=0.0100) (Figure 14.10). Maori detainees were more likely to have friends during their adolescence who skipped school than European/Asian/Other detainees (2.4 vs. 2.0, p=0.0003). Maori detainees were more likely to have adolescent friends who 'took things from shops or broke into cars and houses' than Pacific detainees (2.0 vs. 1.5, p=0.0002) and European/Asian/Other detainees (2.0 vs. 1.3, p<0.0001). Maori detainees were more likely to have adolescent friends who were suspended or expelled from school than Pacific detainees (1.9 vs. 1.6, p=0.0259) and European/Asian/Other detainees (1.9 vs. 1.4, p<0.0001). Pacific detainees were also more likely to have adolescent friends who were suspended or expelled from school than European/Asian/Other detainees (1.6 vs. 1.4) and this difference was close to being statistically significant (p=0.0612). European/Asian/Other detainees were less likely to have adolescent friends who got

into fights than Pacific detainees (1.7 vs. 2.1, p=0.0021) and Maori detainees (1.7 vs. 2.2, p<0.0001).

Figure 14.9: Mean score of how many of the police detainees' friends during adolescence had smoked cannabis by primary ethnic group, 2011

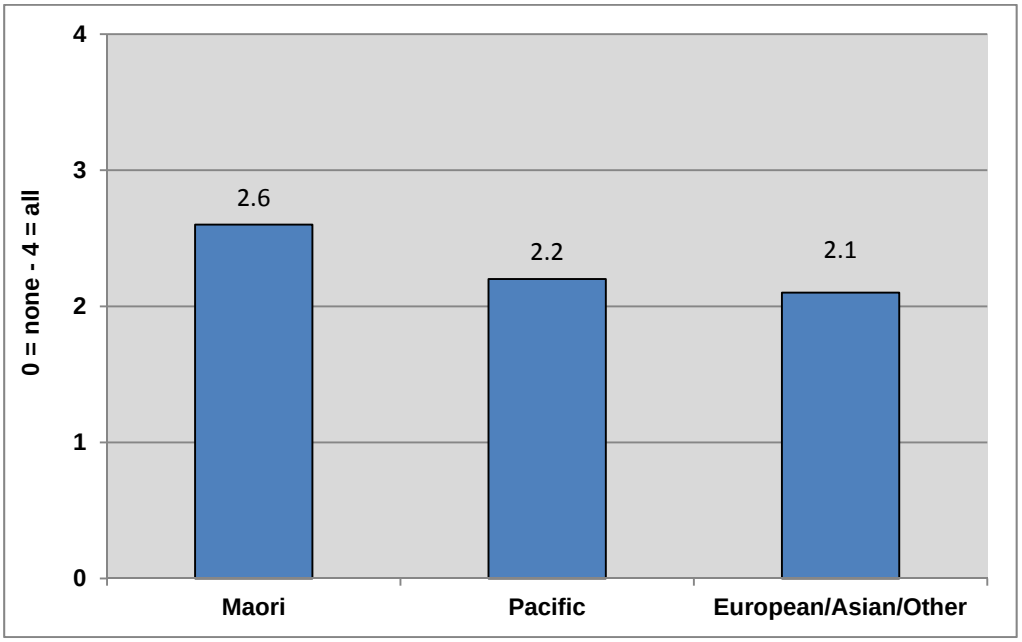
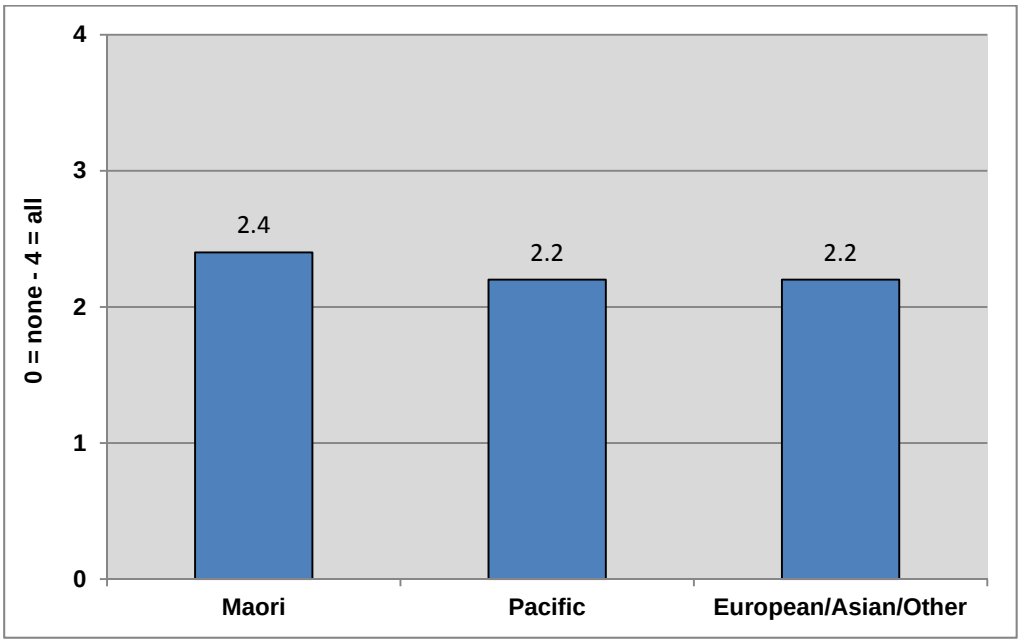


Figure 14.10: Mean score of how many of the police detainees' friends during adolescence got drunk more than once a week by primary ethnic group, 2011



Behaviour during adolescence

Finally, the police detainees were asked how often *they* had been involved in a range of risky behaviors during their adolescence (i.e. before they were 17 years old). The interviewer read a scale from 'never' to 'all the time'. Forty percent of the detainees had skipped school 'often' or 'all the time' during their adolescence (Table 14.4). Thirty-one percent had gotten drunk 'often' or 'all the time' during their adolescence. Sixty-three percent of the detainees had been suspended or expelled from school at some point during their adolescence. Fifty-seven percent had shoplifted or broken into a car or house during their adolescence.

Table 14.4: Extent to which police detainees were involved in risky behaviour during their adolescence, 2011

Behaviour during adolescence (i.e. before 17 years old)	Never = 0	Hardly ever = 1	Sometimes = 2	Often = 3	All the time = 4	Mean score (0=never – 4=all the time) (n=797)
Skipped school	20%	13%	26%	24%	16%	2.0
Got drunk	16%	17%	36%	21%	10%	1.9
Smoked cannabis	23%	16%	23%	20%	19%	1.9
Got into fights	29%	20%	29%	13%	9%	1.5
Suspended/ expelled from school	37%	22%	22%	14%	5%	1.3
Took things from shops/ broke into cars or houses	43%	15%	25%	11%	6%	1.2
Were bullied, threatened/ intimidated	51%	17%	20%	7%	5%	1.0

Detainees in Whangarei were more likely to have been truant from school during their adolescence than those in Auckland (2.3 vs. 1.9, p=0.0036) (Figure 14.11). Detainees in Whangarei were also more likely to have got drunk during their adolescence than those in Auckland (2.2 vs. 1.7, p=0.0001) and Wellington (2.2 vs. 1.9, p=0.0477) (Figure 14.12). Detainees in Christchurch were also more likely to have got drunk than those in Auckland (2.1 vs. 1.7, p=0.0009). Detainees in Auckland were less likely to have smoked cannabis during their adolescence than those in Whangarei (1.7 vs. 2.2, p=0.0003) and Christchurch (1.7 vs. 2.1, p=0.0004). Detainees in Whangarei were more likely to have been suspended or expelled from school than those in Auckland (1.6 vs. 1.3, p=0.0030), Wellington (1.6 vs. 1.1, p=0.0007) and Christchurch (1.6 vs. 1.2, p=0.0022).

Figure 14.11: Mean score of how often police detainees were truant from school during their adolescence by location, 2011

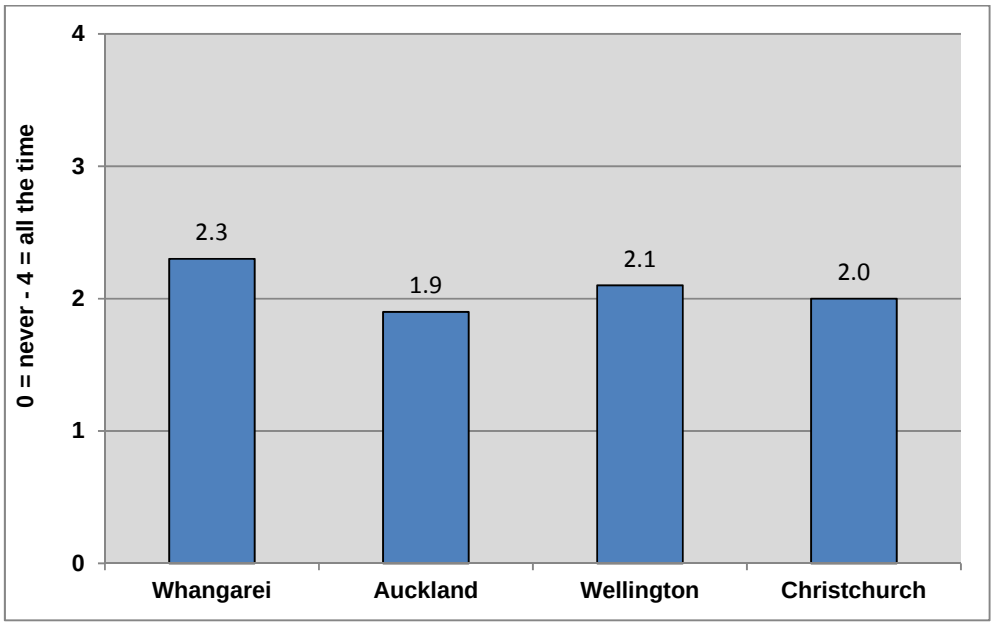
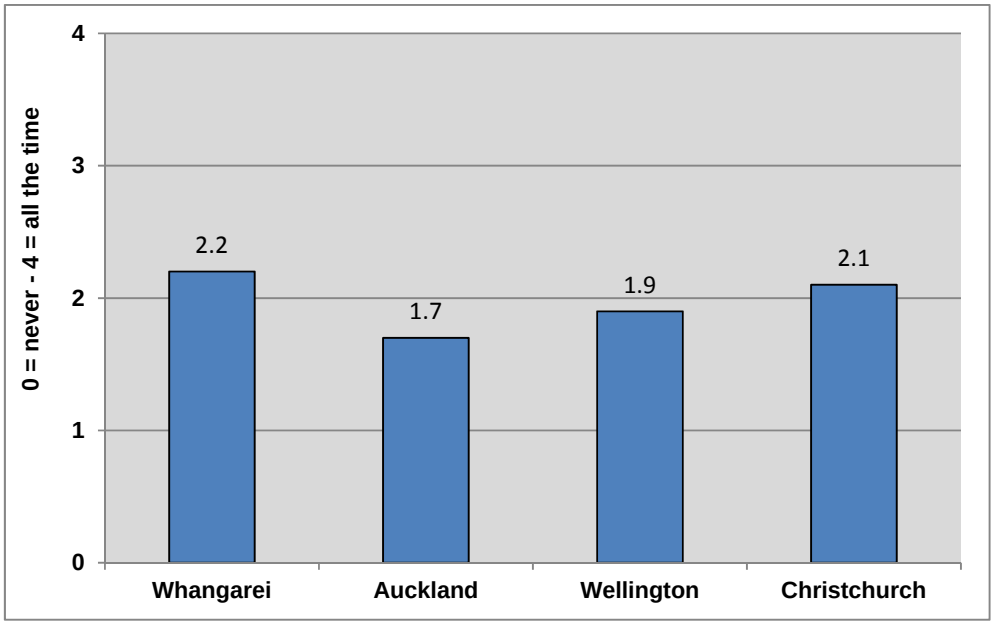


Figure 14.12: Mean score of how often police detainees got drunk during adolescence by location, 2011



Maori detainees were more likely to have smoked cannabis during their adolescence than Pacific detainees (2.3 vs. 1.6, p<0.0001) and European/Asian/Other detainees (2.3 vs. 1.8, p<0.0001) (Figure 14.13). Maori detainees were also more likely to have got drunk during their adolescence than Pacific detainees (2.2 vs. 1.7, p=0.0003) and European/Asian/Other detainees (2.2 vs. 1.8, p=0.0001). Maori detainees were more likely to have been truant from school than Pacific detainees (2.2 vs. 1.9, p=0.0122) and European/Asian/Other detainees (2.2 vs. 2.0, p=0.0255). Maori detainees were more likely to have been suspended or expelled from school than Pacific detainees (1.6 vs. 1.2, p=0.0026) and European/Asian/Other detainees (1.6 vs. 1.0, p<0.0001). Maori detainees were more likely to have taken things from shops or broken into cars or houses during their adolescence than Pacific detainees (1.6 vs. 1.2, p=0.0007) and European/Asian/Other detainees (1.6 vs. 0.9, p<0.0001) (Figure 14.14). Pacific detainees were also more likely than European/Asian/Other detainees to have taken things from shops or broken into cars or houses (1.2 vs. 0.9, p=0.0500). European/Asian/Other detainees were less likely to have got into fights during their adolescence than Pacific detainees (1.3 vs. 1.6, p=0.0116) and Maori detainees (1.3 vs. 1.7, p<0.0001).

Figure 14.13: Mean score of how often police detainees smoked cannabis during adolescence by primary ethnic group, 2011

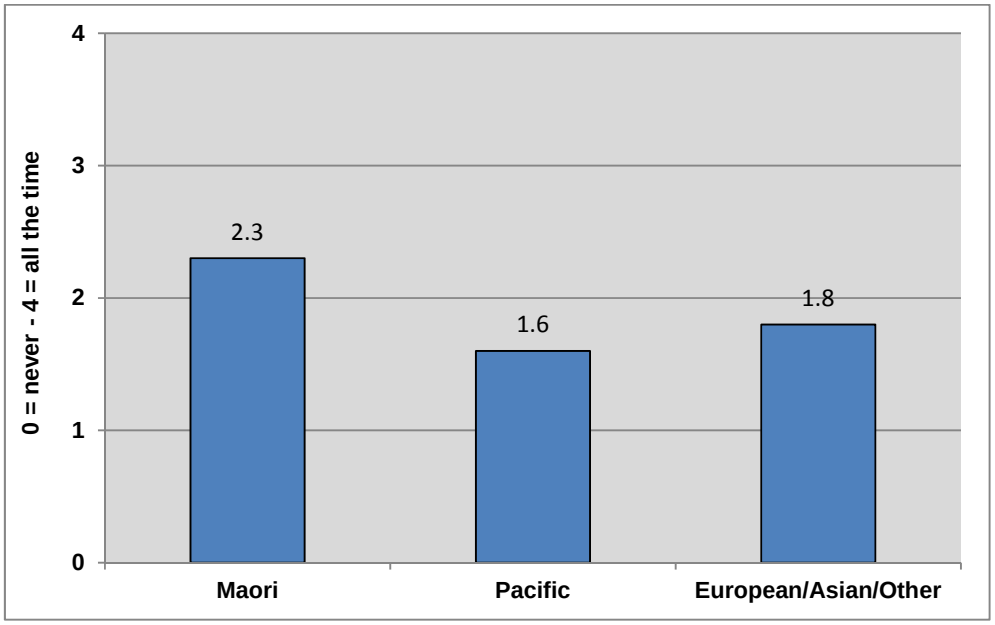
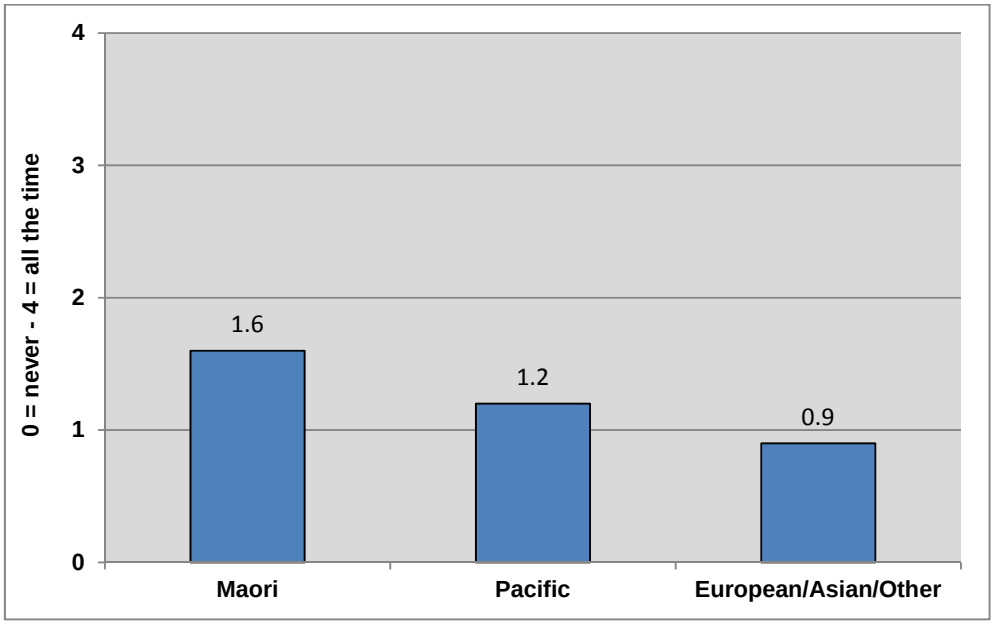


Figure 14.14: Mean score of how often police detainees took things from shops or broke into cars and houses during adolescence by primary ethnic group, 2010



Statistical associations between risky parenting, adolescent behaviour, adolescent peer group and heavier alcohol and drug use

We conducted some initial investigation of the statistical associations between risky parenting, adolescent peer group and own adolescent behaviour of the detainees and their incidence of heavier alcohol and drug use. The analysis was completed using bivariate analysis. More sophisticated multivariate models are planned for the future. A variable for high risk parenting was created by enumerating the scale used for the parenting questions (i.e. 0 = 'never', 4 = 'all the time') and then calculating a mean score for all seven questions of the parenting section. Those detainees with a total mean score of 14 or higher for all seven questions of the parenting section were classified as experiencing high risk parenting. This is the equivalent of a detainee saying they experienced on average seven aspects of risky parenting at least 'sometimes' when they were growing up. A similar approach was used to create a variable for a detainee having a high risk peer group. The scale for the peer group questions was enumerated (i.e. 0 = 'none', 4 = 'all') and those scoring 12 or more for all the six peer behaviour questions were designated as having a high risk peer group. This is the equivalent of a detainee saying at least 'some' of their peer group was involved in six different types of risky behaviour. Finally, the detainees' own adolescent risk behaviour scale was enumerated (i.e. 0 = 'never', 4 = 'all the time') and those scoring 14 or more for all the seven adolescent behaviour questions were categorised as having risky adolescent behaviour. This is the equivalent of a detainee saying that during their adolescence they were involved in seven different types of risky behaviour at least 'some' of the time. The heavier use of alcohol, cannabis and methamphetamine were defined in the same way as previous chapters.

Detainees who experienced high risk parenting were more likely than those who experienced low risk parenting to be heavier alcohol users (43% vs. 29%, p=0.0016), heavier cannabis users (44% vs. 33%, p=0.0157) and to be methamphetamine users (24% vs. 8%, p<0.0001) (Table 14.5, Figure 14.15, Figure 14.16 and 14.17). Detainees who had a high risk peer group during adolescence were more likely than those who had a low risk peer group during adolescence to be heavier alcohol drinkers (39% vs. 21%, p<0.0001), to be heavier cannabis users (46% vs. 33%,

p<0.0001) and to be methamphetamine users (14% vs. 6%, p<0.0001). Detainees who were involved in high risk behavior as adolescents were more likely than those who were not involved in risky behavior as adolescents to be heavier alcohol drinkers (43% vs. 25%, p<0.0001), to be heavier cannabis users (55% vs. 26%, p<0.0001) and to be methamphetamine users (17% vs. 7%, p<0.0001).

Table 14.5: The association between risky parenting, adolescent peer group, own adolescent behaviour, and heavier alcohol, cannabis and methamphetamine use, 2011

	High consumption of alcohol* at least twice a week in the past 30 days		**Used cannabis at least three times a week in the past 30 days**		**Used methamphetamine at least once a week in the past 30 days**	
(n=750)	**%**	**p-value**	**%**	**p-value**	**%**	**p-value**
High risk parenting during adolescence	43	0.0016	44	0.0157	24	<0.0001
Low risk parenting during adolescence	29		33		8	
High risk peer group during adolescence	39	<0.0001	46	<0.0001	14	<0.0001
Low risk peer group during adolescence	21		21		6	
High risk behavior during adolescence	43	<0.0001	55	<0.0001	17	<0.0001
Low risk behavior during adolescence	25		26		7	

*Five or more drinks on a single occasion for males or three or more drinks on a single occasion for females

Figure 14.15: Proportion of police detainees who drank heavier amounts of alcohol at least twice per week by riskiness of parenting, adolescent behaviour and adolescent peer group, 2011

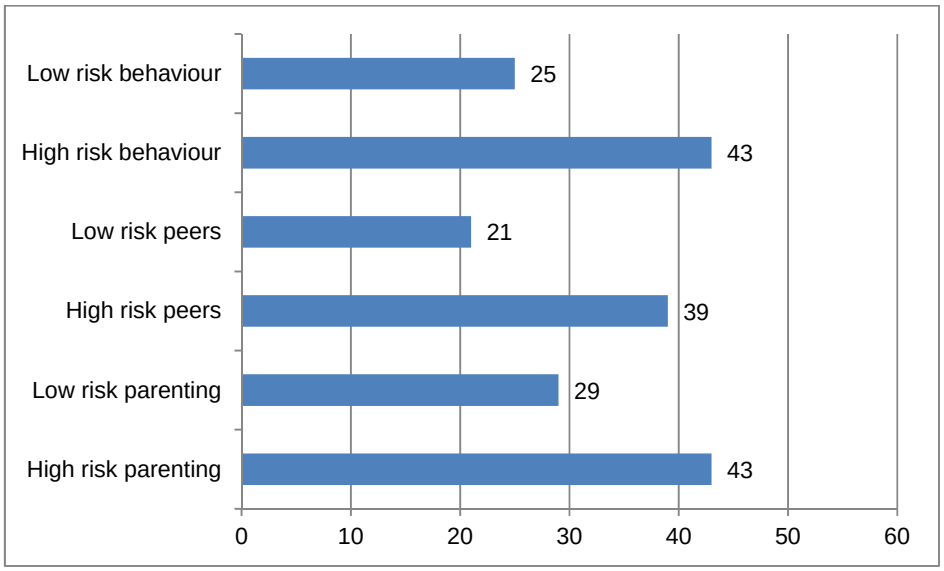


Figure 14.16: Proportion of police detainees who used cannabis at least three times per week by riskiness of parenting, adolescent behaviour and adolescent peer group, 2011

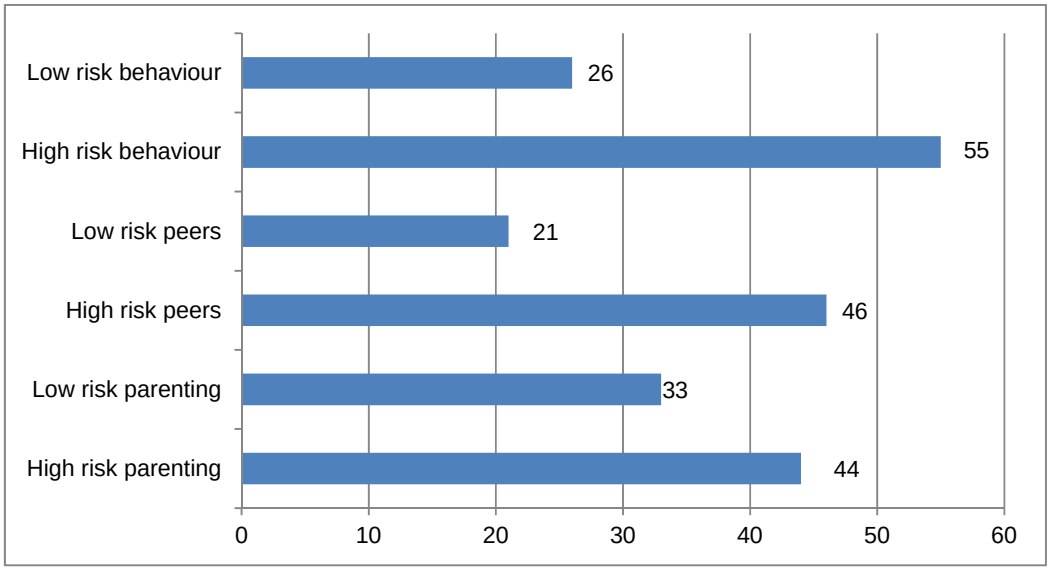
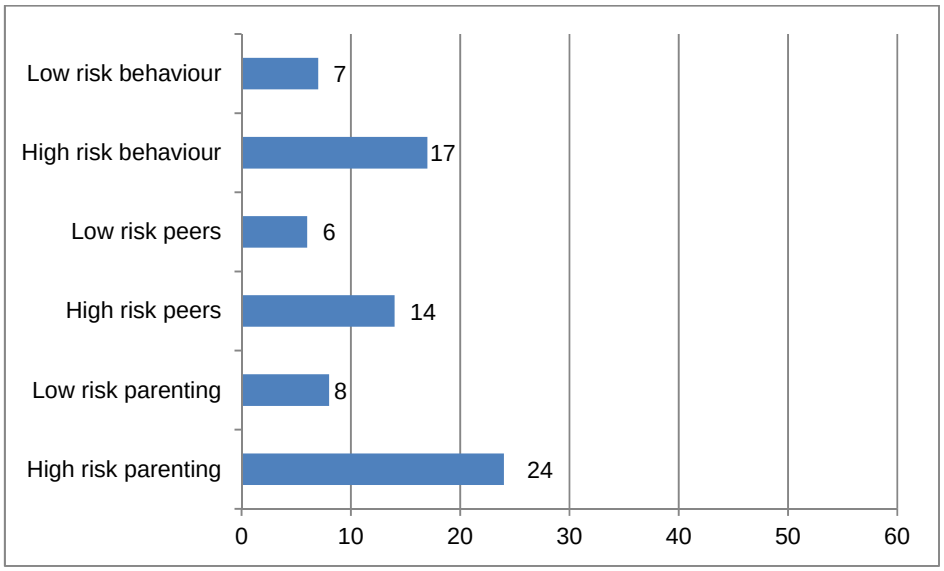


Figure 14.17: Proportion of police detainees who used methamphetamine at least weekly by riskiness of parenting, adolescent behaviour and adolescent peer group, 2011



Statistical associations between risky parenting, adolescent behaviour, adolescent peer group and criminal offending

We also conducted some initial investigation of the statistical associations between the riskiness of parenting, adolescent peer group and adolescent behaviour of the detainees and their incidence of recent criminal offending. The riskiness of parenting, adolescent peer group and adolescent behavior was defined as in the previous section.

Detainees who experienced high risk parenting were more likely than those who experienced low risk parenting to have committed a property crime in the past month (33% vs. 16%, $p<0.0001$) and sold drugs in the past month (39% vs. 17%, $p<0.0001$) (Table 14.6, Figure 14.18, 14.19 and Figure 14.20). Detainees who had a high risk peer group during adolescence were more likely than those who had a low risk peer group during adolescence to have committed a property crime in the past month (26% vs. 11%, $p<0.0001$) and sold drugs in the past month (29% vs. 12%, $p<0.0001$). Detainees who were involved in risky behavior as adolescents were more likely than those who were not involved in risky behavior as adolescents to have

committed a property crime in the past month (32% vs. 12%, p<0.0001), sold drugs in the past month (35% vs. 12%, p<0.0001) and committed a violent crime (28% vs. 15%, p<0.0001).

Table 14.6: The association between risky parenting, adolescent peer group and own adolescent behaviour, and recent property crime, drug dealing and violent crime, 2011

	Property crime in the past 30 days		**Drug dealing in the past 30 days**		**Violent crime in the past 30 days**	
(n=740)	**%**	**p-value**	**%**	**p-value**	**%**	**p-value**
High risk parenting during adolescence	33	<0.0001	39	<0.0001	25	0.0687
Low risk parenting during adolescence	16		17		18	
High risk peer group during adolescence	26	<0.0001	29	<0.0001	21	0.1027
Low risk peer group during adolescence	11		12		17	
High risk behavior during adolescence	32	<0.0001	35	<0.0001	28	<0.0001
Low risk behavior during adolescence	12		12		15	

Figure 14.18: Proportion of police detainees who had committed property crime in the past month by riskiness of parenting, adolescent behaviour and adolescent peer group, 2011

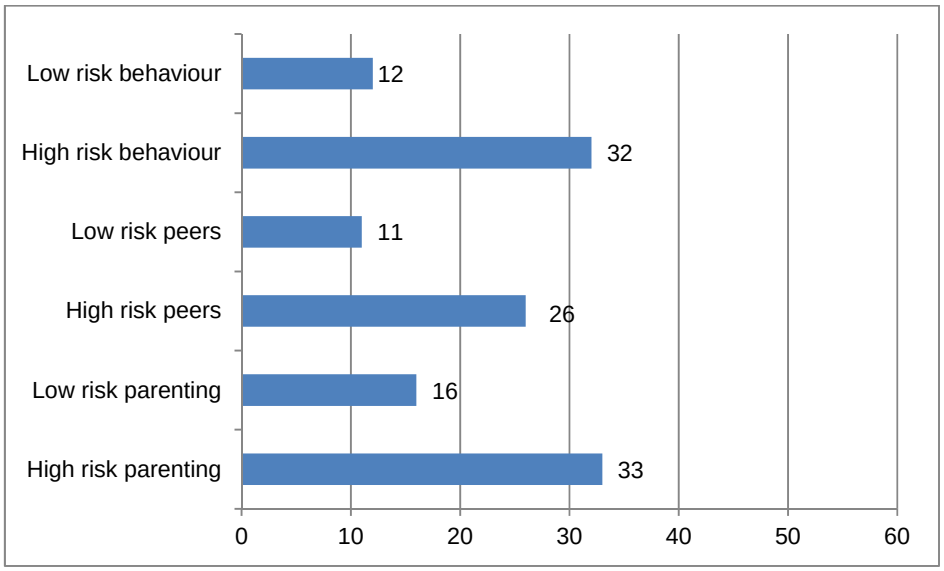


Figure 14.19: Proportion of police detainees who had sold drugs in the past month by riskiness of parenting, adolescent behaviour and adolescent peer group, 2011

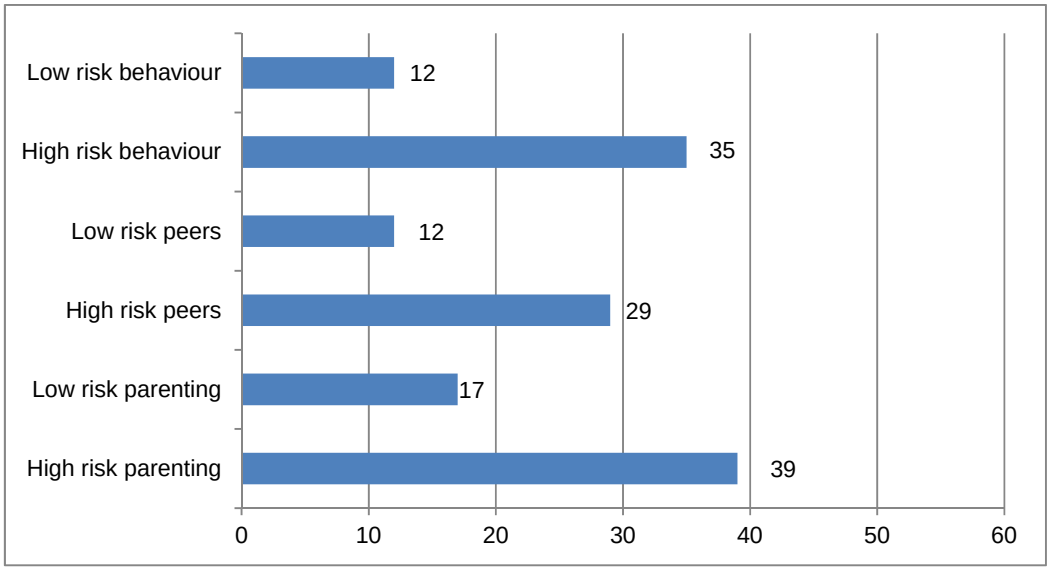
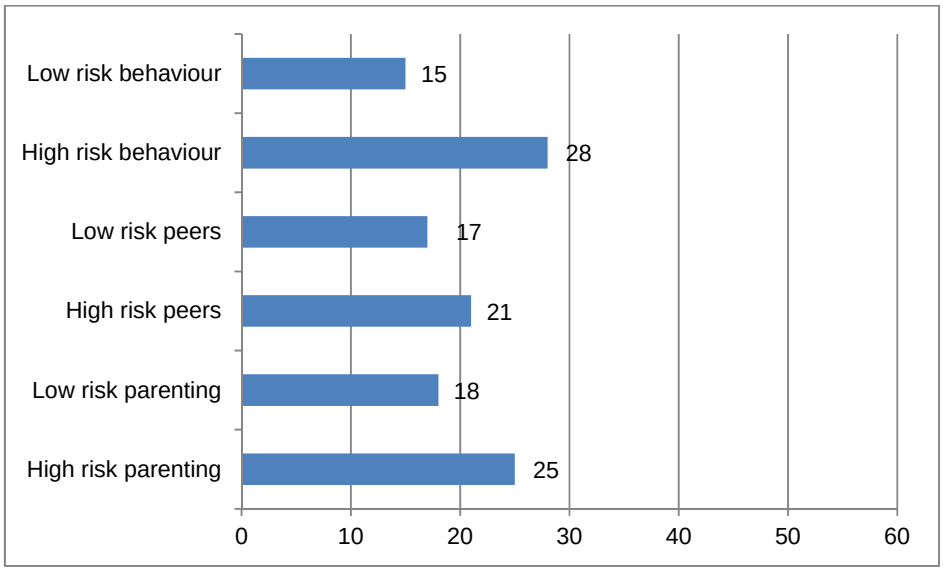


Figure 14.20: Proportion of police detainees who had committed a violent crime in the past month by riskiness of parenting, adolescent behaviour and adolescent peer group, 2011



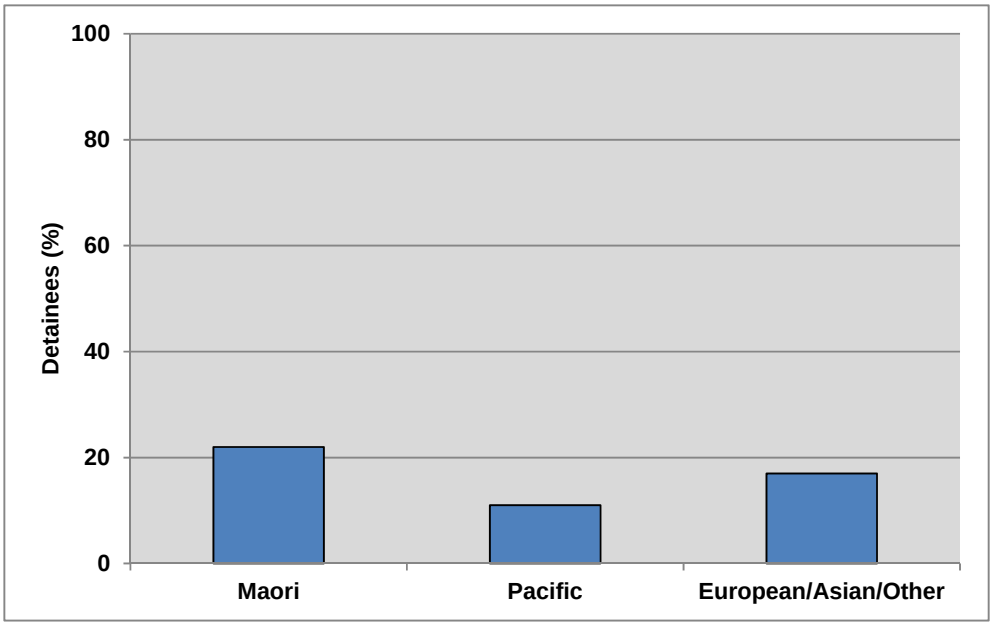
Sexual abuse

The detainees were asked if they had ever been sexually abused and whether they had been sexually abused on a number of occasions (i.e. 'repeatedly by the same or different people'). Eighteen percent of the detainees reported being sexually abused, and 13% had been sexually abused on a number of occasions (Table 14.7). Pacific detainees were less likely to have ever been sexually abused than the European/Asian/Other detainees (10% vs. 18%, p=0.0450) and the Maori detainees (10% vs. 22%, p=0.0044) (Figure 14.21). Maori detainees were more likely than Pacific detainees to have been repeatedly sexually abused (16% vs. 6%, p=0.0064).

Table 14.7: Sexual abuse of police detainees by primary ethnicity, 2011

	Maori (n=317)	**Pacific Island (n=128)**	**European/ Asian/ Other (n=342)**	**All (n=787)**
Ever sexually abused (%)	22	10	18	18
Sexually abused on a number of occasions (%)	16	6	12	13

Figure 14.21: Proportion of police detainees who had ever been sexually abused by primary ethnicity, 2010



Summary

- Fourteen percent of the police detainees had been in Child, Youth and Family (CYF) care when they were growing up
- Eleven percent of the detainees had been in youth detention when they were growing up
- Maori detainees were more likely to have been in CYF care when they were growing up
- Thirty-one percent of the detainees said at least one of their parents was drunk 'often' or 'all the time' when they were growing up
- Twenty-four percent of detainees said the main income earner in their family was unemployed or in temporary employment 'often' or 'all the time' when they were growing up
- Detainees in Whangarei were more likely to have seen a parent drunk and under the influence of drugs than those in the other sites

- Maori detainees were more likely to have had a main income earner who was unemployed or in temporary work, to have seen a parent drunk and to had have a parent who was physically aggressive

- Fifty percent of the detainees said 'most' or 'all' of their school friends had smoked cannabis

- Fifty-one percent of the detainees said 'most' or 'all' of their school friends had got drunk more than once a week

- Detainees in Whangarei were more likely to have had school friends who were often truant from school and school friends who had been suspended or expelled from school

- Maori detainees were more likely to have had school friends who smoked cannabis, got drunk, were truant from school, and took things from shops or broke into cars and houses

- Sixty-three percent of the detainees had been suspended or expelled from school before they were 17 years old

- Fifty-seven percent of detainees had taken things from shops or broken into cars and houses when they were growing up

- Detainees from Whanagrei were likely to have got drunk, smoked cannabis, been truant from school and been suspended or expelled from school when growing up

- Detainees from Christchurch were more likely to have got drunk and smoked cannabis when they were growing up

- Maori detainees were more likely to have smoked cannabis, got drunk , been truant from school and been suspended or expelled from school when they were growing up

- Detainees who had experienced poor parenting were more likely to be heavier alcohol users, heavier cannabis users and methamphetamine users

- Detainees who had badly behaved school friends were more likely to heavier alcohol users, heavier cannabis users and methamphetamine users

- Detainees who were badly behaved as adolescences were more likely to heavier alcohol users, heavier cannabis users and methamphetamine users

- Detainees who had experienced poor parenting were more likely to have committed a property crime in the past month and sold drugs in the past month
- Detainees who had badly behaved school friends were more likely to have committed a property crime in the past month and sold drugs in the past month
- Detainees who were badly behaved as adolescences were more likely to have committed a property crime in the past month, sold drugs in the past month and committed a violent crime in the past month
- Eighteen percent of the detainees had been sexually abused
- Thirteen percent of the detainees had been sexually abused on a number of occasions

References

Adamson, S., & Sellman, D. (1998). The pattern of intravenous drug use and associated criminal activity in patients on a methadone waiting list. *Drug and Alcohol Review,* 17, 159-166.

Ajwani, S., Blakely, T., Robson, B., Tobias, M., & Bonne, M. (2003). *Decades of Disparity: Ethnic Mortality Trends in New Zealand 1980-1999.* (Public Health Intelligence Occasional Bulletin Number 16). Wellington: Ministry of Health and University of Otago.

Australian Institute of Health and Welfare (AIHW). (2011). *2010 National Drug Strategy Household Survey Report.* (Number 25). Canberra: AIHW.

Babor, T., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., et al. (2010). *Alcohol: No Ordinary Commodity Research and Public Policy* (2nd ed). Oxford: Oxford University Press.

Bennett, T., & Holloway, K. (2005). *Understanding Drugs, Alcohol and Crime* (Ed. Mike Maguire). Berkshire: Open University Press.

Boreham, R., Cronberg, A., Dollin, L., & Pudney, S. (2007). *The Arrestee Survey 2003 – 2006.* (Home Office Statistical Bulletin 12/07). London: Home Office

Bull, M. (2005). A comparative review of best practice guidelines for the diversion of drug related offenders. *International Journal of Drug Policy,* 16, 223-234.

Caulkins, J., & Reuter, P. (2009). Towards a harm-reduction approach to enforcement. *Safer Communities,* 8(1), 9-23.

Department of Corrections. (2007). *Over-representation of Maori in the Criminal Justice System: An Exploratory Report.* Wellington: Police, Strategy and Research Group, Department of Corrections.

Department of the Prime Minister and Cabinet. (2009). *Tackling Methamphetamine: an Action Plan.* Wellington: New Zealand Government.

Department of the Prime Minister and Cabinet. (2010a). *Tackling Methamphetamine: Indicators and Progress Report April 2010.* Wellington: New Zealand Government.

Department of the Prime Minister and Cabinet. (2010b). *Tackling Methamphetamine: Indicators and Progress Report Octover 2010.* Wellington: New Zealand Government.

European Monitoring Centre for Drugs and Drug Addiction. (2011). New drugs and emerging trends *Annual report 2011: The state of the drugs problem in Europe* (pp. 93-100). Luxembourg: Publications Office of the European Union.

European Monitoring Centre for Drugs and Drug Addiction. (2012). *EMCDDA–Europol 2011 Annual Report on the implementation of Council Decision 2005/387/JHA: In accordance with Article 10 of Council Decision 2005/387/JHA on the information exchange, risk assessment and control of new psychoactive substances.* Lisbon. http://www.emcdda.europa.eu/attachements.cfm/att_155113_EN_EMCDDA-Europol%20Annual%20Report%202011_2012_final.pdf.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). (2009). *Drug Offences: Sentencing and Other Outcomes.* Lisbon: EMCDDA.

Ferguson, S., Blakely, T., Allan, B., & Collings, S. (2004). *Suicide Rates in New Zealand: Exploring Associations with Social and Economic Factors.* (Public Health Monograph Series No. 10). Wellington: Public Health Consultancy, Department of Public Health, Wellington School of Medicine and Health Sciences, University of Otago.

Field, A., & Casswell, S. (1999). *Drug Use in New Zealand: Comparison Surveys 1990 & 1998.* University of Auckland: Alcohol and Public Health Research Unit.

Gaffney, A., Jones, W., Sweeney, J., & Payne, J. (2010). *Drug use Monitoring in Australia: 2008 Annual Report on Drug Use Among Police Detainees.* (Monitoring Report No. 9). Australian Institute of Criminology.

Gawin, F., & Ellinwood, E. (1988). Cocaine and other stimulants: actions, abuse and treatment. *New England Journal of Medicine,* 318, 1173-1182.

Gowing, L., Henry-Edwards, S., Irvine, R., & Ali, R. (2002). The health effects of ecstacy: a literature review. *Drug and Alcohol Review,* 21, 53-63.

Gowing, L., Henry-Hedwards, S., Irvine, R., & Ali, R. (2001). *Ecstacy: MDMA and Other Ring-Substituted Amphetamines.* Geneva: World Health Organization.

Hall, W., & Hando, J. (1994). Route of administration and adverse effects of amphetamine use among young adults in Sydney, Australia. *Drug and Alcohol Review,* 13, 277-284.

Hammersley, R., Forsyth, A., Morrison, V., & Davies, J. (1989). The relationship between crime and opioid use. *British Journal of Addiction,* 84, 1029-1043.

Hart, S. (2003). 2000 Arrestee Drug Abuse Monitoring: Annual Report. [National Institute of Justice]. Retrieved 11 November 2010, from http://www.adam-nij.net/files/ar2000/193013.pdf

Hough, M. (1996). *Drugs Misuse and the Criminal Justice System: A Review of the Literature.* (Drugs Prevention Initiative Paper 15). London: Home Office.

Hunt, D., & Rhodes, W. (2001). Arrestee Drug Abuse Monitoring (ADAM) Program: Methodology Guide for ADAM. [National Institute of Justice]. Retrieved 11 November 2010, from http://www.adam-nij.net/files/Admguid.pdf

Kleiman, M. (1992). *Against Excess: Drug Policy for Results*. New York: Basic Books.

Kuhn, C., Swartzwelder, S., & Wilson, W. (1998). *Buzzed: The Straight Facts About the Most Used and Abused Drugs from Alcohol to Ecstacy*. New York: W.W.Norton & Co.

MacCoun, R., & Reuter, P. (2001). *Drug War Heresies: Learning from Other Vices, Times, and Places*. New York: Cambridge University Press.

MacGregor, S., & Payne, S. (2011). *Increase in use of methamphetamine.* (Research in Practice No.22 DUMA). Canberra: Australian Institute of Criminology.

Ministry of Health. (2009a). *A Focus on the Health of Maori and Pacific Children: Key Findings of the 2006/07 New Zealand Health Survey.* Wellington.

Ministry of Health. (2009b). *Tobacco Trends 2008 - A Brief Update of Tobacco Use in New Zealand.* Wellington.

National Drug Intelligence Bureau. (2005). *New Zealand Illicit Drug Report 2004.* Wellington: NDIB.

National Institute of Justice. (2003). *2000 Arrestee Drug Abuse Monitoring: Annual Report.* Washington, DC: Office of Justice, Programs, US Department of Justice.

New Zealand Customs Service. (2002). *Review of Customs Drug Enforcement Strategies 2002. Project Horizon Outcome Report.* Wellington: New Zealand Customs Service.

Newbold, G. (2000). *Crime in New Zealand*. Palmerston North: Dunmore Press.

Office of National Drug Control Policy. (2009). *Adam II 2008 Annual Report Arrestee Drug Abuse Monitoring Program II.* Washington, DC.

Office of National Drug Control Policy. (2011). *ADAM II - 2010 Annual Report: Arrestee Drug Abuse Monitoring Program II.* Washington, DC.

Payne, J., Kwiatkowski, M., & Wundersitz, J. (2008). *Police Drug Diversion: A Study of Criminal Offending Outcomes.* (AIC Reports Research and Public Policy Series 97). Canberra: Australian Institute of Criminology.

Robson, B., & Harris, R. (Eds.). (2007). *Hauora: Māori Standards of Health IV. A study of the years 2000-2005*. Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare.

Robson, B., Purdie, G., & Cormack, D. (2010). *Unequal Impact II: Māori and Non-Māori Cancer Statistics by Deprivation and Rural–Urban Status, 2002–2006.* Wellington: Ministry of Health.

Royal Australasian College of Physicians. (2008). *Chronic Non-malignant Pain: Improving Management and Prevention of Problematic Opioid Use.* Sydney.

Seddon, T. (2000). Explaining the drug-crime link: theoretical, policy and research issues. *Journal of Social Policy,* 29(1), 95-107.

Shearer, J., Sherman, J., Wodak, A., & van Beek, I. (2002). Substitution theory for amphetamine users. *Drug and Alcohol Review,* 21, 179-185.

Sheridan, J., & Butler, R. (2008). *Prescription Drug Misuse: Issues for Primary Care - Final Report of Findings.* Auckland: School of Pharmacy, University of Auckland.

Shiner, M. (2009). *Drug Use and Social Change: The Distortion of History*. London: Palgrave Macmillan.

Sindicich, N., & Burns, L. (2010). *An overview of the 2010 EDRS: what is happening to ecstacy and related drugs in Australia?* Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Sindicich, N., & Burns, L. (2011). *An overview of the 2011 EDRS: what is happening to ecstacy and related drugs in Australia?* (Ecstacy and Related Drug Trends Bulletin, October). Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Stafford, J., & Burns, L. (2011). *Key findings from the 2011 IDRS: a survey of people who inject drugs.* (Drug Trends Bulletin, October). Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Strang, J., Babor , T., Caulkins, J., Fischer, B., Foxcroft, D., & Humphreys, K. (2012). Drug policy and the public good: evidence for effective interventions. *Lancet,* 379, 71-83.

Taylor, B. (Ed.). (2002). *I-ADAM in Eight Countries: Approaches and Challenges*: Office of Justice Programs & National Institute of Justice, US Department of Justice.

Topp, L., Hando, J., Degenhardt, L., Dillon, P., Roche, A., & Solowij, N. (1998). *Ecstacy Use in Australia.* (NDARC Technical Report No.39). Sydney: National Drug and Alcohol Research Centre & Queensland Alcohol and Drug Research Education Centre.

United Nations Office on Drugs and Crime. (2008). *2008 World Drug Report.* Vienna: UNODC.

United Nations Office on Drugs and Crime. (2011). Overview of global and regional drug trends and patterns *World Drug Report 2011*. Vienna: UNODC.

Weisheit, R., & White, W. (2009). *Methamphetamine: Its History, Physiology, and Treatment*. Center City, MN: Hazelden.

Wilkins, C., Bhatta, K., & Casswell, S. (2002a). The emergence of amphetamine use in New Zealand: findings from the 1998 and 2001 national drug surveys. *New Zealand Medical Journal,* 115(1166), 256-263.

Wilkins, C., & Casswell, S. (2002). The cannabis black market and the case for the legalisation of cannabis in New Zealand. *Social Policy Journal of New Zealand,* 18, 31-43.

Wilkins, C., Casswell, S., Bhatta, K., & Pledger, M. (2002b). *Drug Use in New Zealand: National Surveys Comparison 1998 & 2001.* Auckland: Alcohol & Public Health Research Unit.

Wilkins, C., Griffiths, R., & Sweetsur, P. (2010a). *Recent Trends in Illegal Drug Use in New Zealand, 2006-2009: Findings from the 2006, 2007, 2008 and 2009 Illicit Drug Monitoring System (IDMS)* Auckland: Social and Health Outcomes Research and Evaluation, School of Public Health, Massey University.

Wilkins, C., Pledger, M., Lee, A., Adams, R., & Rose, E. (2004). *A Local Pilot of the New Zealand Arrestee Drug Abuse Monitoring (NZ-ADAM) System.* Auckland: Centre for Social and Health Outcomes Research and Evaluation (SHORE) and Te Ropu Whariki, Massey University.

Wilkins, C., Reilly, J., & Casswell, S. (2005a). Cannabis 'tinny' houses in New Zealand; implications for the use of cannabis and other drugs in New Zealand. *Addiction,* 100, 971-980.

Wilkins, C., Reilly, J., Pledger, M., & Casswell, S. (2005b). Estimating the dollar value of the illicit market for cannabis in New Zealand. *Drug and Alcohol Review,* 24(3), 227-234.

Wilkins, C., & Rose, E. (2003). *A Scoping Report on NZ-ADAM.* Auckland: Centre for Social and Health Outcomes Research and Evaluation (SHORE), Massey University.

Wilkins, C., & Sweetsur, P. (2006). Exploring the structure of the illegal market for cannabis in New Zealand. *De Economist,* 154(4), DOI 10.1007/s10645-10006-19029-10647.

Wilkins, C., & Sweetsur, P. (2008a). *The economic relationship between high spending on methamphetamine and cannabis use and the dollar earnings from acquisative crime among police detainees.* Auckland: Centre for Social and Health Outcomes Research and Evaluation (SHORE), Massey University.

Wilkins, C., & Sweetsur, P. (2008b). Tracking the Availability of Drugs in New Zealand: Implications for Policy Response. *Social Policy Journal of New Zealand,* 34, 163-171.

Wilkins, C., & Sweetsur, P. (2008c). Trends in population drug use in New Zealand: Findings from national household surveying of drug use in 1998, 2001, 2003 and 2006. *New Zealand Medical Journal,* 121, 61-71.

Wilkins, C., & Sweetsur, P. (2010a). The association between spending on methamphetamine and cannabis for personal use and earnings from acquisitive crime among police detainees in New Zealand. *Addiction,* Accepted manuscript online: 21 OCT 2010, doi: 10.1111/j.1360-0443.2010.03241.x.

Wilkins, C., & Sweetsur, P. (2010b). The association between the number of days of methamphetamine use and the level of earnings from acquisitive crime among police detainees in New Zealand. *Bulletin on Narcotics,* in press.

Wilkins, C., Sweetsur, P., & Griffiths, R. (2011a). Recent trends in pharmaceutical drug use among frequent injecting drug users, frequent methamphetamine users and frequent ecstasy users in New Zealand, 2006–2009. *Drug and Alcohol Review,* 30, 255-263.

Wilkins, C., Sweetsur, P., Moewaka Barnes, H., Griffiths, R., Asiasiga, L., & Smart, B. (2010b). *New Zealand Arrestee Drug Use Monitoring (NZ-ADUM) 2010 Report.* Auckland: Social and Health Outcomes Research and Evaluation & Te Ropu Whariki, SHORE and Whariki Research Centre, Massey University.

Wilkins, C., Sweetsur, P., Smart, B., & Griffiths, R. (2011b). *Recent Trends in Illegal Drug Use in New Zealand, 2006-2010: Findings from the 2006, 2007, 2008, 2009 and 2010 Illicit Drug Monitoring System (IDMS).* Social and Health Outcomes Research and Evaluation (SHORE), Massey University.