G. Campbell, S. Darke & G. Popple

Characteristics of clients admitted to WHOS Therapeutic Community AOD treatment services, 2002-2009

CHARACTERISTICS OF CLIENTS ADMITTED TO WHOS THERAPEUTIC COMMUNITY AOD TREATMENT SERVICES, 2002-2009

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EXECUTIVE SUMMARY

WHOS (We Help Ourselves), a registered charity, was established in 1972 by a group of committed ex-users of alcohol and other drugs, who had identified an innovative and cost effective way to help AOD dependant members within the general community in finding a productive way of living. This humble beginning of a self-help initiative has evolved into a recognised professional organisation today known as 'WHOS'. The organisation has demonstrated the ability to survive the early days of its evolution, the ever-changing trends in the AOD field and to stay abreast of current cutting-edge initiatives.

From 2002 WHOS have routinely been collecting data on all admissions, including demographics, drug use history, and risks and harms associated with drug use. Since WHOS data collection covers the period when there was a marked change in the drug market, it provides an excellent opportunity to see what effect, if any, such changes in drug markets have on admissions and treatment cessation data.

There were three major findings in the present study. Firstly, average age of clients at admission has been increasing from 2002 to 2009. Secondly, the proportion of female clients has been increasing over the same time period. Finally, both length of stay and the proportion of clients that have completed treatment have been increasing from 2002 to 2009.

Demographics

The average age of clients has been increasing over the years, and is especially evident when compared to data collected on WHOS clients from late 1980 to the early 1990s. There was an increase in the proportion of females over the years; this increase is most likely attributable to the increase in women entering New Beginnings due to an increase in funding and the availability of more beds as a result of this.

Changes in drug use

From 2002 there was an overall decrease in reports for heroin as principal drug of concern and an increase in meth/amphetamine across the services, with the exception of MTAR where no principal drug of concern was reported. In 2009, meth/amphetamine, as principal drug of concern, decreased markedly. Conversely, as meth/amphetamine as principal drug of concern increased across the years, heroin as principal drug of concern decreased. With the recent decrease in meth/amphetamine as principal drug of concern, there has been an increase in heroin.

There has been an increase in alcohol as principal drug of concern in recent years. In all services, whilst alcohol is generally the most common recently used drug, reports of it being the principal drug of concern have increased, with the exception of MTAR (due to the drug-specific target group i.e. opioid maintenance treatment). Reports of cannabis as principal drug of concern have also been increasing, specifically in the last couple of years.

Risks and harms associated with drug use

Most of the clients reported operating heavy machinery (i.e. driving a vehicle) whilst under the influence of drugs. Men were also significantly more likely to operate heavy machinery whilst under the influence than women. As WHOS is a Therapeutic Community organisation that advocates harm reduction, it may be useful to include topics covering the risks and harms associated with drugs/alcohol and driving.

There was a decrease, across the years, in the proportion of clients for all WHOS services reporting that they had shared needles or shared injecting equipment, with the exception of the Sunshine Coast, though this may be related to an increase in recent injection in the Sunshine Coast, whilst in the other services it has been decreasing. Approximately one-quarter of all clients reported that they had shared needles in the preceding 12 months and approximately 50% admitted to sharing injecting equipment – women were significantly more likely to share needles than males.

A significant minority reported engaging in unsafe sexual practices. Females were significantly more likely to report engaging in unsafe sexual practices than males in the three months prior to admission. With the risk of STIs and HIV, WHOS harm reduction groups should continue to focus on the importance of practicing safe sex. Research suggest that involvement in treatment is likely to reduce these risky behaviours after treatment cessation (Gossop, Marsden et al. 2002).

Psychological wellbeing

There has been an increase in clients suffering from high psychological distress in the Gunyah and New Beginning services in 2009. There was a decrease in the proportions with high distress scores in the Hunter and these proportions remained stable for the Sunshine Coast and MTAR services. In 2009 an onsite doctor and multiple complex-needs nurses were introduced to WHOS services at Rozelle (Gunyah, New Beginnings and MTAR) as well as a part-time nurse at Hunter. WHOS Sunshine Coast has had the services of a nurse for four years. The introduction of these nursing services was in response to the need to better treat clients with comorbid problems.

Treatment cessation and retention

Despite the changes in demographics and drug use, overall from 2002 to 2009 there has been an increase in mean and median length of stay and the proportion of clients completing treatment across all WHOS services. The exception has been a recent decrease in the proportion completing treatment in both the New Beginnings and Hunter services in 2009. MTAR clients were significantly more likely to complete treatment than clients from drug-free services, though there was no difference in terms of males and females. Future monitoring of these patterns is necessary in order to determine what factors may influence length of stay and treatment completion, though it appears that despite changes in the types of clients that present to WHOS treatment services, treatment completion is not adversely affected. WHOS treatment services appear to be able to offer quality treatment to a wide variety of clients suffering from drug and alcohol dependence and related problems.

1.0 INTRODUCTION

WHOS (We Help Ourselves), a registered charity, was established in 1972 by a group of committed ex-users of alcohol and other drugs, who had identified an innovative and cost effective way to help AOD dependant members within the general community in finding a productive way of living. This humble beginning of a self-help initiative has evolved into a recognised professional organisation today known as 'WHOS'. The organisation has demonstrated the ability to survive the early days of its evolution, the ever-changing trends in the AOD field and to stay abreast of current cutting edge initiatives.

WHOS services comprise of nine New South Wales and one Queensland major project(s). They are:

1. Women's residential therapeutic community (TC): WHOS New Beginnings (includes Justice Health beds)***#**
2. Men's residential therapeutic community: WHOS Gunyah (incl. Justice Health beds) ***#**
3. HIV/Infectious disease education service across the WHOS organisation*****
4. Methadone to Abstinence Residential therapeutic community: WHOS MTAR (incl. Justice Health beds)***#**
5. Rural based mixed-gender residential therapeutic community: WHOS Hunter (incl. Justice Health beds) ***#**
6. Residential Treatment of Opioid Dependence (WHOS RTOD) stabilisation modified therapeutic community#
7. Residential Aftercare Program across all WHOS TCs re-entry support post-treatment programs#.
8. Residential program servicing Western Sydney Region (WHOS WEST) *****
9. Queensland regional residential therapeutic community (mixed gender): WHOS Sunshine Coast (incl. Justice Health beds) #
10. TC Enhancement Programs, consisting of comorbidity funded project#, multiple complex needs#, Nursing and Medical staff#, Family Drug Support#, Skills and Aftercare /Outreach staff teams/services#. [1]

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[1] * denotes NSW Health funding or part NSW Health funding contribution

# denotes Department of Health and Aging (Commonwealth) funding or part funding contribution

WHOS has a demonstrated history working with comorbid clients and justice referred clients. WHOS works with Corrective Services, Probation and Parole, Drug Court and MERIT teams. WHOS is a founding member-organisation of the Australasian Therapeutic Communities Association (ATCA). WHOS is committed to better practice and played an integral part in the Commonwealth funded project 'Towards Better Practice for Therapeutic Communities', 'NSW Health NGO Residential Treatment Guidelines' and the recent (2009) ATCA Standards project.

Between 2000 and 2001 Australia's illicit drug markets changed dramatically (Topp, Day et al. 2003). The use, purity and availability of heroin dramatically decreased, whilst it also become much more expensive to obtain. Many researchers (Topp, Day et al. 2003; Roxburgh, Degenhardt et al. 2004; Degenhardt, Day et al. 2005; Maher, Li et al. 2007) reported that during this time there was a shift from heroin as the drug of choice to other drugs such as stimulants (i.e. cocaine and meth/amphetamine) among the injecting drug using population.

From 2002 WHOS have routinely been collecting data on all admissions, including demographics, drug use history, and risks and harms associated with drug use. Since WHOS data collection covers the period when there was a marked change in the drug market, it provides an excellent opportunity to see what effect, if any, such changes in drug markets have on admissions and treatment cessation data.

Study aims

The aims of the study were:

1. to describe overall trends in admissions, including demographics, drug use, risks and harms and treatment cessation from WHOS treatment services from 2002 to 2009
2. to describe trends in admissions, including demographics, drug use, risks and harms and treatment cessation for each of the WHOS services, i.e. WHOS Gunyah (men), WHOS New Beginnings (women), WHOS Hunter (NSW Rural TC), WHOS Sunshine Coast (Qld regional TC) and WHOS MTAR (Opioid Reduction TC) from 2002 to 2009

3. to examine any differences in admissions, including demographics, drug use, risks and harms and treatment cessation between gender and type of treatment provided (medicated vs. non-medicated).

2.0 METHOD

The data in this report were based on data that is collected by WHOS and routinely sent electronically to the Network of Alcohol and other Drug Agencies (NADA) – the NSW peak AOD agency for the purpose of data bank backup and storage. From 2002, WHOS has collected data at client admission using the Brief Treatment Outcome Measure (BTOM) (Lawrinson, Copeland et al. 2003). The BTOM is a brief, multidimensional instrument that incorporates the New South Wales Minimum Data Set for Alcohol and other Drug Treatment Services (NSW MDS AODTS) for the standardised assessment of treatment outcomes. The BTOM was originally developed for clients receiving methadone/buprenorphine maintenance; however, it is now used for clients in any drug/alcohol treatment program. The BTOM was originally created to be administered every three months to document changes during the treatment process.

The BTOM consists of seven sections, including demographics, drug use and drug use related behaviour, health and psychological functioning, social functioning, treatment-specific information, commencement of treatment information and cessation of treatment information. There are six scales, including the Severity of Dependence Scale, blood-borne viral exposure risk, occasions of drug use, number of drug categories used by client, health, psychological wellbeing and social functioning. These scales create a score in which change can be measured. The current study reports items on these scales singularly, with the exception of the SDS and psychological wellbeing, since the purpose of the report is not to measure change, but rather to describe the characteristics of admissions into WHOS treatment services and changes in those characteristics over time.

2.1 Sample

Data is based on calendar years. Data on demographics, drug use, health and psychological functioning, social functioning, and treatment-specific information have been analysed using admission date. Details of admissions are presented in Table 1.

Table 1: Admissions data from WHOS, 2002-2009

Year	No. admissions	No. repeat admissions
2002	176	17
2003	400	49
2004	486	92
2005	633	130
2006	716	158
2007	770	186
2008	777	189
2009	785	187

Cessation of treatment, including length of stay, have been analysed using discharge date. This is because although many clients would have been admitted and discharged in the same year, some would have been discharged the following year; therefore, so there is a complete picture for the last year, 2009, discharge data was used for treatment cessation information. Details for discharges are presented in Table 2. Repeat admissions were kept in the data for the rest of the report unless otherwise specified.

Table 2: Discharge data from WHOS, 2002-2009

Year	No. discharges	No. repeat discharges
2002	127	11
2003	404	46
2004	462	82
2005	618	131
2006	699	146
2007	775	198
2008	763	180
2009	745	180

2.2 Statistical analyses

Descriptive statistics were generated for each variable of interest. For categorical variables, percentages have been presented. Missing data was minimal (less than 1%), though, in cases where there was missing data, reported percentages exclude missing data. Although length of stay was not normally distributed, both mean and median have been reported to remain consistent with WHOS formal reporting. Categorical variables were analysed using chi-square tests; duplicate admissions were removed from these analyses. All data were analysed using PASW for Windows, version 18 (SPSS Inc. 2009).

3.0 RESULTS

3.1 Overview

3.1.1 Demographics

Demographic characteristics of the total sample (all services from 2002-2009) are presented in Table 3. There were 4,743 admissions into WHOS treatment services from 2002 to 2009. The mean age of the overall sample was 31.3 years (SD 8.2, range 18-68). Approximately two-thirds of the sample were male, 8% identified as Aboriginal and/or Torres Strait Islander, and approximately nine-in-ten were born in Australia. Seven percent of the sample reported working in the month prior to admission (i.e. full-time, part-time or casual work), and less than one-in-ten reported that they were currently homeless at the time of admission. Note: homeless definition does not include those clients reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission.

Table 3: Demographics of all WHOS clients, 2002-2009

Characteristic	All services (N= 4,743)
Age (years)	31.3
Male (%)	67
ATSI (%)	8
Born in Australia (%)	89
Worked in previous month (%)	7
Homeless (%)	7

3.1.2 Drug use

Overall, similar proportions reported heroin or meth/amphetamine as their principal drug of concern over the period 2002 to 2009 (Table 4). Alcohol and cannabis were the next most common drugs reported as principal drug of concern at admission, followed by much smaller proportions that reported either cocaine or benzodiazepines. Methadone was the principal drug of concern for approximately one-in-ten clients, who were most likely to be admissions to WHOS MTAR.

The two most common drugs recently used by clients were alcohol (66%) followed by cannabis (57%, Table 4). Approximately two-fifths of the sample reported recent use of heroin and/or meth/amphetamine and one-in-ten reported recent use of cocaine. Approximately one-third of the sample reported recent use of benzodiazepines; this may be related to the assistance of benzodiazepines through detoxification. Approximately three-fifths reported injecting in the three months prior to admission.

Table 4: Principal drug of concern and drug use history for all services, 2002-2009

Characteristic	All services (N= 4,743)
Principal drug of concern (%)	
Heroin	23
Meth/amphetamine	21
Alcohol	16
Cannabis	14
Cocaine	1
Benzodiazepines	2
Methadone	13
Recent use (%)*	
Heroin	37
Meth/amphetamine	40
Alcohol	66
Cannabis	57
Cocaine	12
Benzodiazepines	34
Injected in past 3 months (%)	61

* Recent use refers to the month prior to admission

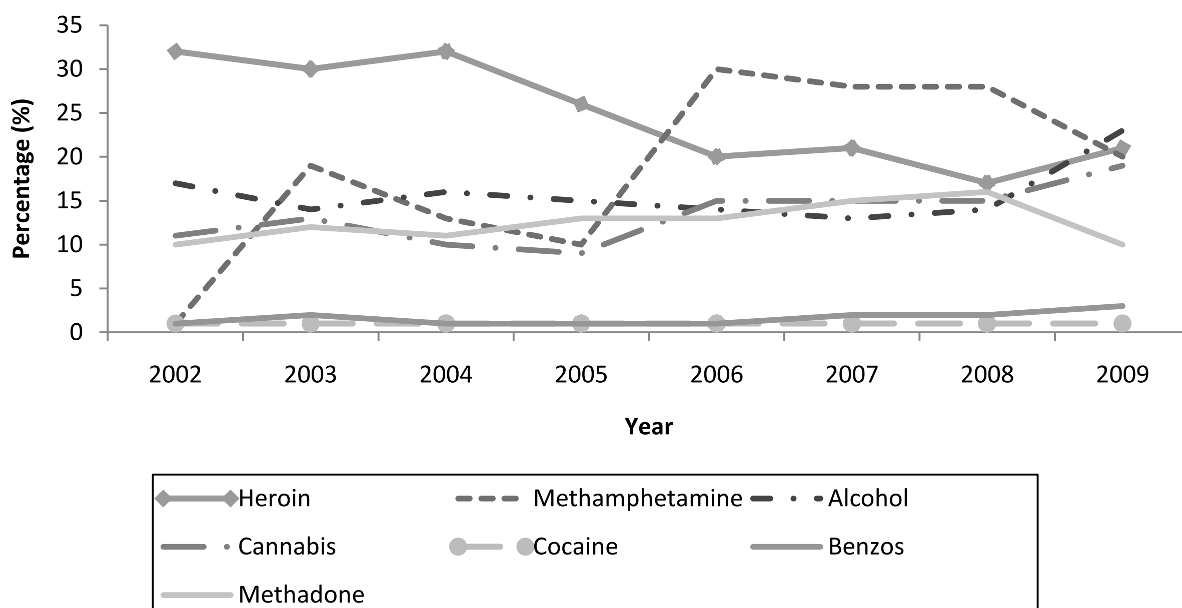
Figure 1 presents changes in principal drug of concern from 2002-2009. Heroin, as principal drug of concern, decreased from 32% in 2002 to 17% in 2008. Conversely, the reporting of meth/amphetamine as principal drug of concern increased markedly from 1% in 2002 to 19% in 2003; it peaked at 30% in 2006, before decreasing to 20% in 2009. In 2006, meth/amphetamine became the most likely reported principal drug of concern until 2009 when approximately equal proportions (one-fifth) reported heroin, meth/amphetamine, alcohol or cannabis as principal drug of concern.

The reporting of alcohol as principal drug of concern remained relatively stable until 2008 when it increased markedly from 14% to 23%. Similarly, the reporting of cannabis as principal drug of concern began to increase from 2005, when it increased from 9% to 15% in 2006, increasing slightly more to 19% in 2009. The

reporting of cocaine or benzodiazepines as principal drug of concern has remained relatively low and stable across the years.

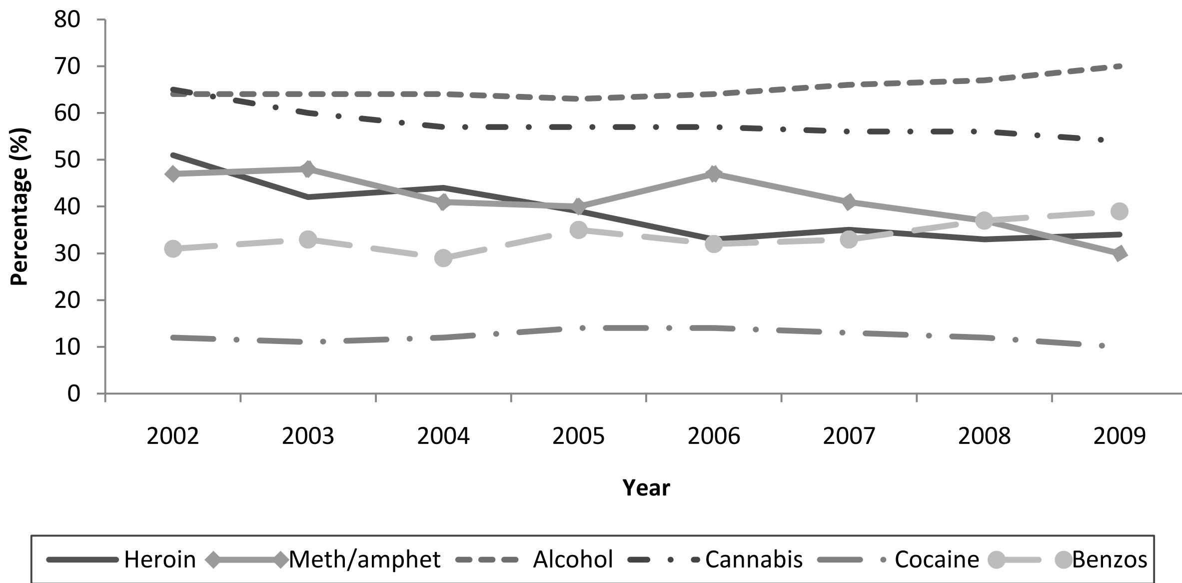
Methadone, as principal drug of concern, had been slightly increasing annually from 10% in 2002 to 16% in 2008, before decreasing to 10% in 2009. As mentioned, it is mostly due to these clients being admitted to WHOS MTAR.

Figure 1: Principal drug of concern of all services, 2002-2009



Reported recent use of heroin, meth/amphetamine and cannabis decreased from 2002 (51% heroin, 47% meth/amphetamine and 65% cannabis) to 2009 (34% heroin, 30% meth/amphetamine, 54% cannabis, Figure 2). The recent use of alcohol increased gradually from 64% in 2006 to 70% in 2009. Similarly, recent use of benzodiazepines has increased slightly from 32% in 2006, to 39% in 2009. The reported recent use of cocaine remained relatively low and stable from 2002 to 2009.

Figure 2: Recent use of drugs for all services, 2002-2009



NB: Recent use refers to the 30 days prior to admission

3.1.3 Harms and risks associated with drug use

Just over half the sample reported that they had operated heavy machinery (e.g. driven a vehicle), whilst under the influence, at least once in the 12 months prior to admission. Twenty percent reported that this occurred on a daily basis (Table 5). Males were also significantly more likely to operate heavy machinery whilst under the influence than women (χ^2=9.58, p< 0.000). MTAR clients were significantly less likely operate heavy machinery whilst under the influence compared to other services (χ^2=36.443, p<0.000).

Approximately two-fifths of clients reported that they had engaged in unsafe sexual practices at least once in the 12 months preceding admission, and 8% reported that this had occurred on a daily basis. Females were significantly more likely to report in engaging in unsafe sexual practices than males (χ^2=19.891, p<0.000) in the three months prior to admission, as were clients from drug-free services when compared to WHOS MTAR (χ^2=9.150 p<0.005).

Half the sample reported that they had shared injecting equipment (i.e. spoons, water, tourniquets, filters) in the three months preceding admission and 26% reported that they had shared needles in the past 12 months; 21% reported that it had occurred less than monthly or once. Similarly, 26% reported that they had used a needle after someone else in the preceding three months; one-in-six reported that this had occurred twice or more in the previous three months. Although females were significantly less likely to report injecting in the three months prior to admission (χ^2=9.585, p<0.005), they were significantly more likely to share needles (χ^2=8.696, p<0.005) with other people in the three months prior to admission. There was no difference between the drug-free services and WHOS MTAR.

Table 5: Harms and risks associated with drug use for all services, 2002-2009

	Total (N=4,743)
Operate machinery (%)	
Never	45
Once	5
Less than monthly	11
Monthly	7
Weekly	13
Daily	21
Practice unsafe sex (%)	
Never	42
Once	8
Less than monthly	16
Monthly	11
Weekly	16
Daily	8
Shared needles (%)* (past 12 months)	
Never	74
Once	10
Less than monthly	11
Monthly	3
Weekly	2
Daily	1
Share injecting equip. (%)* (past 3 months)	49
Used someone else's needle (%)* (past 3 months)	
More than 10 times	4
6-10 times	3
3-5 times	6
Twice	5
Once	9
Never	74

* Of those that had recently injected
NB: due to rounding, numbers may not add to exactly 100%

3.1.4 Psychological and social wellbeing

Approximately two-thirds of the sample scored high for psychological distress. Clients from the WHOS MTAR opioid reduction service recorded the lowest proportions of clients reporting high levels of psychological distress when compared to other WHOS services ($\chi^2=50.445$, $p<0.000$). Approximately one-in-ten reported a recent suicide attempt.

Around 50% of clients reported that they 'always' or 'often' experienced financial problems in the three months prior to interview. Over one-quarter of clients reported that they 'never' experienced a conflict with their partner, though one-fifth reported that they 'always' experienced a conflict with their partner. The vast majority of clients reported that they either 'never' or 'sometimes' experienced conflicts with their relative(s) prior to admission. Additionally the vast majority reported that they 'never' experienced a conflict with their employer in the three months prior to admission (Table 6). Fifty percent of clients reported that they 'never' lived with a drug user in the months prior to interview and seventy percent reported that they 'often' or 'always' spent time with non-drug-using friends.

Table 6: Psychological and social wellbeing, 2002-2009

	Total (N=4,743)
High psych. distress score#	41
Recent suicide attempts	11
Finance problem**	
Never	27
Sometimes	25
Often	22
Always	26
Conflict with partner**	
Never	27
Sometimes	32
Often	23
Always	18
Conflict with relatives**	
Never	31
Sometimes	37
Often	19
Always	13
Conflict with employer**	
Never	68
Sometimes	21
Often	7
Always	4
Lived with a drug user	
Never	50
Sometimes	19
Often	10
Always	22
Spent time with non-drug-using friends	
Never	13
Sometimes	16
Often	41
Always	30

#calculated as a score of 6 or more out of 8
** Of those with a partner/relative(s)/employer
NB: due to rounding, numbers may not add to exactly 100%

3.1.5 Treatment retention and cessation

Median length of stay increased gradually over the years from 20 days in 2002 to 32 days in 2009. Mean length of stay also increased gradually from 37.3 days in 2002 to 58 days in 2009 (Figure 3).

Figure 3: Mean and median length of stay for all services, 2002-2009

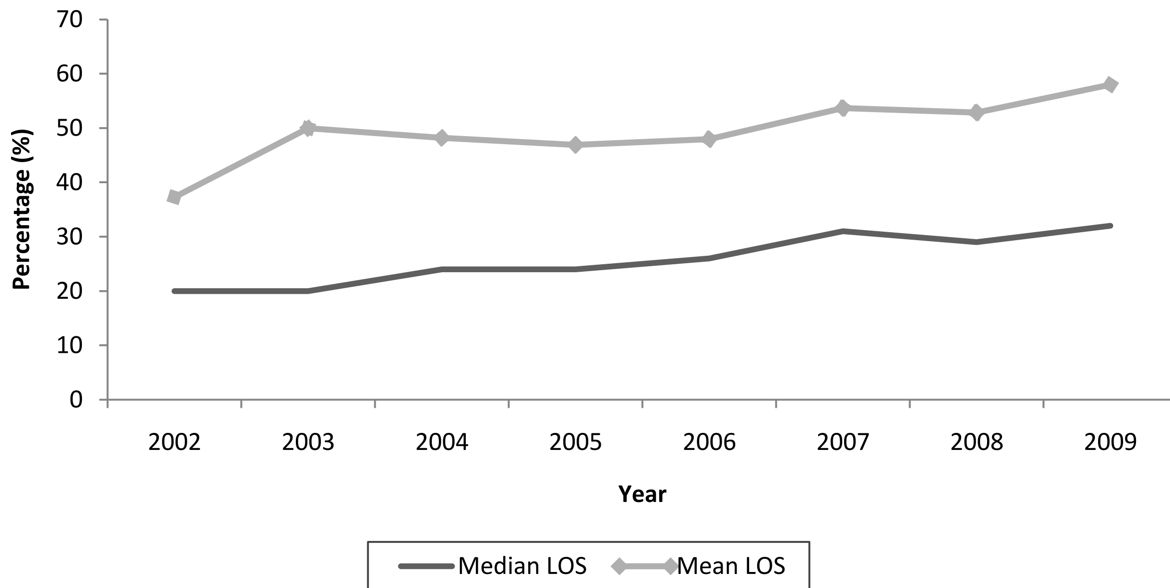
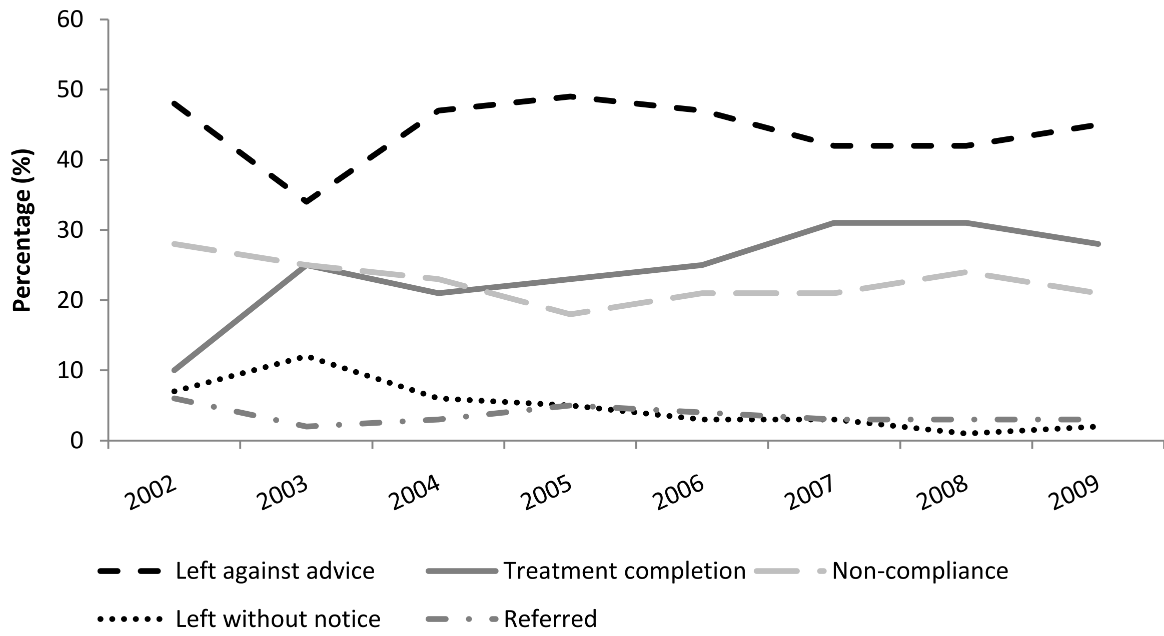


Figure 4 presents the reasons for treatment cessation from 2002 to 2009. 'Left against advice' was the most common reason for treatment cessation. Although there was a marked decrease in the proportion leaving against advice in 2003, by 2004 the proportion returned to previous levels of approximately 40-50%. Treatment completion was the next most common reason for treatment cessation; with the exception of 2002 (which was when data collection began and was not a full year), treatment completion rates have increased from 21% in 2004 to 31% in 2007 and 2008, remaining stable at 28% in 2009. Clients from WHOS MTAR were significantly more likely to complete treatment than clients from the drug-free services (χ^2=147.590, $p<0.000$). There was no difference between male and female clients.

Non-compliance was the next most common reason for treatment cessation. Non-compliance decreased from 28% in 2002 to 25% in 2003, remaining relatively stable at approximately one-quarter to 2009.

Much smaller proportions (less than 10%) were either referred to another service, or left without notice.

Figure 4: Reason for treatment cessation, all services, 2002-2009



All WHOS services – key points

- There were 4,743 admissions to WHOS treatment services from 2002 to 2009
- The mean age was 31.3 years and two-thirds were male
- Small proportions (8%) identified as Aboriginal and/or Torres Strait Islander and the vast majority were born in Australia
- Heroin and meth/amphetamine were the most common principal drugs of concern, followed by alcohol and cannabis
- Heroin, as principal drug of concern, decreased from 2002 to 2008; it slightly increased in 2009. Meth/amphetamine, as principal drug of concern peaked in 2006, but has decreased since then
- Reports of alcohol as principal drug of concern increased in 2009
- Alcohol and cannabis were the most common drugs used in the month prior to admission
- 20% reported that they had operated heavy machinery (e.g. driven a vehicle) under the influence, on a daily basis and one-third reported engaging in unsafe sexual practices on a monthly or more frequent basis
- 26% reported sharing a needle in the past 12 months and 49% reported sharing equipment in the past three months
- Mean and median length of stay increased from 2002 to 2009, as did the proportion that completed treatment

3.2 WHOS Gunyah

WHOS Gunyah men's therapeutic community aims to provide a safe and secure environment where men who suffer from drug abuse and related problems can concentrate on their recovery. This service is funded by the NSW Health Department, We Help Ourselves, donations and client contributions and more recently (2008) a grant contribution by the Department of Health and Ageing for enhancement initiatives such as aftercare, family care and nursing staff. It is a three to six month program offering group work, counseling, support and education, stress management and skills development. Group-work covers topics such as social and communication skills, assertiveness skills and self-esteem building, living skills, self and group evaluation awareness, exiting client groups, relapse prevention and ex-residents groups. WHOS also provides HIV and other infections disease education and adopts a harm minimisation approach should a drug-free outcome not be chosen. WHOS Gunyah is situated at Rozelle, close to the Sydney city and handy to all the professional facilities that a city has to offer.

3.2.1 Demographics

Demographic characteristics of the Gunyah service, 2002 to 2009, are presented in Table 7. From 2002 to 2009 there were 1,297 admissions. The mean average age remained relatively stable from 2002 (approximately 30 years), until 2007-08 where it increased to 32 years (approximately) and a mean of 33.6 years in 2009. A small proportion (less than 10%) identified as Aboriginal and/or Torres Strait Islander across the years. The vast majority of clients reported being born in Australia.

Small proportions (less than 10%) reported working in the month prior to treatment entry, though in 2009 this increased to 12%, from 7% in the previous year. Small proportions (less than 10%) reported that they were homeless in the month prior to admission. Note: homeless definition does not include those clients who reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission.

Table 7: Demographics of admissions to WHOS Gunyah service, 2002-2009

Characteristic	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Age (years)	31.5	30.3	30.2	30.7	30.8	30.9	32.1	32.1	33.6
Male (%)	100	100	100	100	100	100	100	100	100
ATSI (%)	5	0	4	3	7	7	5	4	6
Born in Aus (%)	86	91	88	87	91	82	86	87	83
Any work (%)*	7	7	3	2	6	11	8	7	12
Homeless (%)	7	3	5	8	10	8	6	3	8

* Worked (full-time, part-time or casual) in the previous month

3.2.2 Drug use

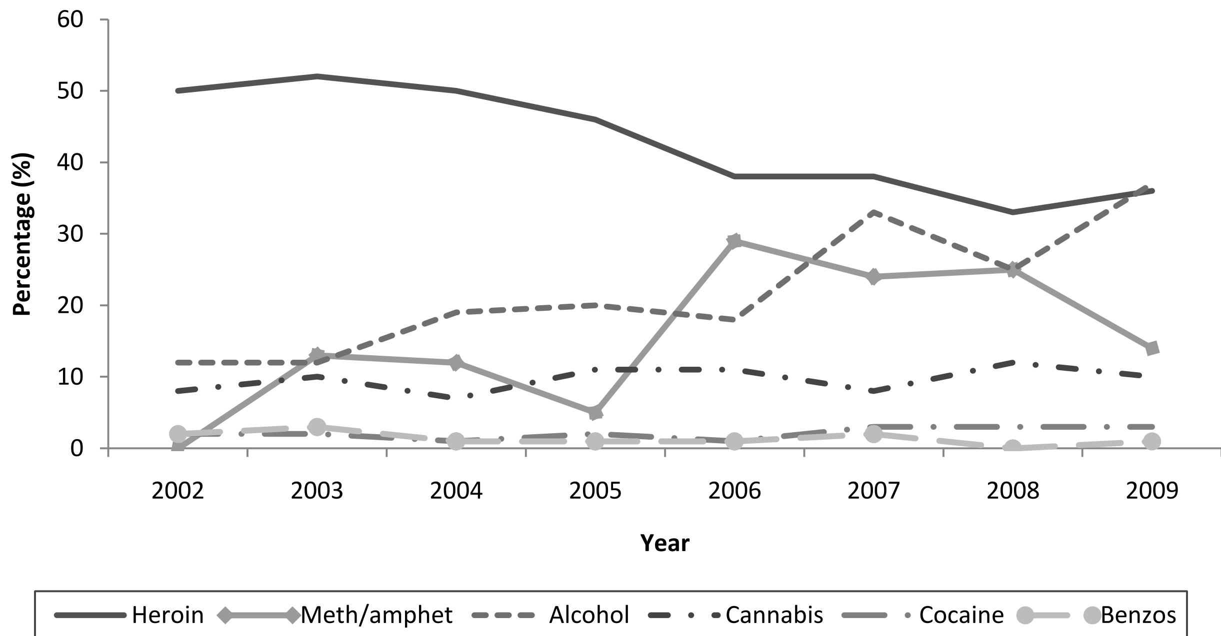
Principal drug of concern and recent drug use

Heroin was the most common principal drug of concern until 2009 when equal proportions reported heroin or alcohol as their main drug of concern. Heroin, as principal drug of concern, decreased markedly from 50% in 2002 to 36% in 2009 (Figure 5). Conversely, the reporting of alcohol as principal drug of concern increased over this same time period, from 12% in 2002 to 37% in 2009.

In 2002 no clients reported meth/amphetamine as their principal drug of concern; however, by 2006, approximately one-third of all Gunyah clients reported methamphetamine as their principal drug of concern. From 2006 this began to decrease, with a marked decrease from 25% in 2008 to 14% in 2009.

The proportion of clients reporting cannabis as their principal drug of concern has remained relatively stable across the years, at around 10%. The reporting of benzodiazepines or cocaine as principal drug of concern has remained low and stable from 2002 to 2009

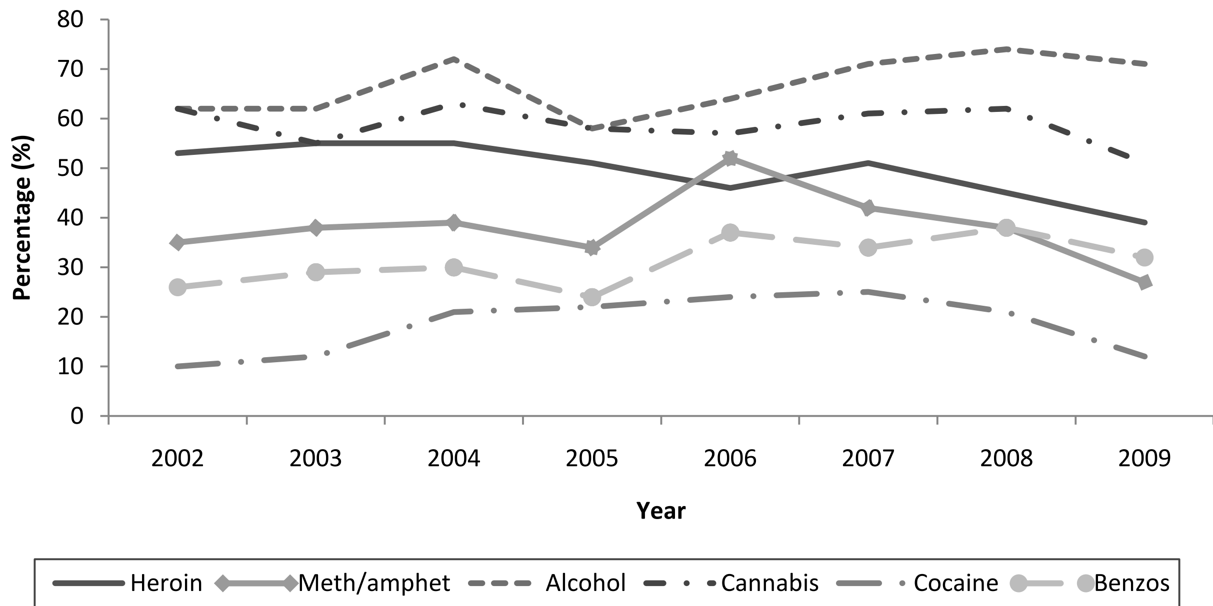
Figure 5: Changes in principal drug of concern for WHOS Gunyah, 2002-2009



Recent drug use (in the month prior to admission) is presented in Figure 6. The most common recently used drug was alcohol. From 2005 there has been an increase in the proportion reporting recent use of alcohol (from 58% in 2005, to 71% in 2009). The next most commonly reported drug was cannabis which was reported to be recently used by three-fifths of the sample, from 2002 to 2008, though this decreased to 50% in 2009.

The reported recent use of heroin has decreased from 53% in 2002 to 39% in 2009. Recent use of meth/amphetamine increased from 34% in 2005 to 52% in 2006. Since 2006, though, recent use has decreased, to 27% in 2009. Approximately one-third reported recent use of benzodiazepines from 2002 to 2009. There was a marked increase from 24% in 2005 to 37% in 2006. Recent use of cocaine increased from 12% in 2003, to 21% in 2006. From 2007 recent use of cocaine began to decrease, from 25% in 2007 to 12% in 2009.

Figure 6: Recent use of drugs for WHOS Gunyah, 2002-2009



NB: recent use refers to the 30 days prior to admission

Severity of dependence and recent injection

Dependence, as measured by the Severity of Dependence scale (score of 4 or more), was almost universal amongst clients from 2002 to 2009. There was a marked decrease in the proportion of clients reporting injection in the three months prior to admission, from 74% in 2002 to 51% in 2009 (Table 8).

Table 8: SDS score 4 or more and injection in past 3 months for WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
SDS score 4 or more (%)	98	95	95	98	98	99	97	98	99
Injected in past 3 months (%)	64	74	71	71	69	63	66	61	51

Heroin

Recent use of heroin has decreased from 53% reporting recent use in 2002 to 39% in 2009. Median days of use in the month prior to admission remained relatively stable, at approximately 12 days, with the exception

of 2003 when median days of use was reported to be 18.5 days out of a possible 30 days (Table 9). Median number of shots per day of use remained stable at two from 2002 to 2009.

Table 9: Use of heroin, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Recent use (%)	48	53	55	55	51	46	51	45	39
Median days used*	12	11	18.5	12	14	10	10	12	12
Median no. shots **	2	2	2	2	2	2	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Meth/amphetamine

Recent use of meth/amphetamine peaked in 2006 at 52%, decreasing to 27% of clients reporting recent use in 2009 (Table 10). Median days of use remained relatively low at around five days out of a possible 30 days, with the exception of a median of seven days in 2005 and 10 days in 2008. Median number of shots remained stable at two per day of use.

Table 10: Use of meth/amphetamine, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Recent use (%)	39	35	38	39	34	52	42	38	27
Median days used*	5	5	4	3	7	5	4	10	2.5
Median no. shots*	2	2	3	2	2.5	2	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Alcohol

Reported recent use of alcohol increased from 62% of clients in 2002 to 71% in 2009. Median days of alcohol use was approximately one week out of a month (seven days), though reported recent use occurred on a median of ten days in 2009, increasing from five days in 2006 (Table 11). Median number of drinks consumed

was eight drinks, though, again, there was an increase in 2009 to a reported median number of 10 drinks being consumed in a day of use.

Table 11: Use of alcohol, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Recent use (%)	67	62	62	72	58	64	71	74	71
Median days used*	7	5	5	6	7	5	8	7	10
Median drinks consumed**	8	8	8	6.5	7	7	8	8	10

* In the month prior to admission (maximum 30 days)
** per day of use

Cannabis

Reported recent use of cannabis was the lowest in 2009, with 51% of clients reporting recent use, compared to 62% in the year prior. Median days of use occurred on 10 days out of a possible 30 days. In 2005, use occurred on a median of 14.5 days, over half the number of days (Table 12). Median number of cones smoked per day of use was six.

Table 12: Use of cannabis, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Recent use (%)	58	62	55	63	58	57	61	62	51
Median days used*	10	7	7	10	14.5	10	6	10	8
Median cones consumed**	6	6	5	6	7	7	5	8	5

* In the month prior to admission (maximum 30 days)
** per day of use

Cocaine

Recent use of cocaine increased from 12% in 2003 to 21% in 2004, before decreasing from 2008 (21%) to 2009 (12%). Median days of use was low at two days out of a possible 30 days. Median number of shots per day of use, of those who had injected, remained stable at two from 2002 to 2009 (Table 13).

Table 13: Use of cocaine, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Recent use (%)	19	10	12	21	22	24	25	21	12
Median days used*	2	1.5	1	2	4	3	2	2	3
Median shots**	2	1.5	2	3	2	2	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Benzodiazepines

The use of benzodiazepines in the month prior to admission increased gradually from 26% in 2002 to 38% in 2008, with the exception of a slight decrease in 2006 (Table 14). Recent use decreased to 32% in 2009. Median number of days of use was low at a median of five days. Reported median number of pills taken per day of use was four.

Table 14: Use of benzodiazepines, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Recent use (%)	32	26	29	30	34	27	34	38	32
Median days used*	5	5	5	5	5	5	5	5.5	4
Median no. pills*	4	7	4	5	5	4	5	3	3

* In the month prior to admission (maximum 30 days)
** per day of use

3.2.3 Risk and harms associated with drug use

Risks and harms associated with drug are presented in Table 15. Whilst a high proportion of clients reported that they had 'never' operated heavy machinery (e.g. driven a vehicle) whilst under the influence, there is a significant minority that have reported that they do so on a daily basis. Similarly, whilst the majority of clients report that they did not engage in unsafe sex practices in the preceding 12 months, there were significant proportions that reported engaging in unsafe sexual practices at least monthly or more. From 2005 there was an increase in the proportion of clients reporting that they 'never' practiced unsafe sexual practices.

The vast majority of clients reported never sharing a needle in the preceding 12 months. This has been increasing since 2002 (67% in 2002 to 82% in 2009). Approximately one-in-ten clients reported sharing a needle once in the preceding 12 months. Of the clients that reported they had injected in the three months prior to interview, approximately three-fifths reported sharing equipment; this includes spoons, filters, tourniquets, water or mixing containers, from 2002 to 2007. This proportion dropped to approximately half in 2009. It must be noted that this includes sharing of any equipment, regardless of whether it had been cleaned before use. Approximately three-quarters of the clients who had injected in the 3 months prior to admission had not used a needle after someone else in those three months. One-quarter of clients that had injected in the prior three months reported using a needle after another person at least once.

Table 15: Harms and risks associated with drug use, WHOS Gunyah, 2002-2009

	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
Operate heavy machinery (%)#									
Never	41	44	22	21	26	57	53	44	47
Once	5	4	3	6	2	4	5	8	5
Less than monthly	10	9	14	8	11	11	7	11	8
Monthly	7	0	8	8	12	6	6	5	7
Weekly	14	13	12	25	13	11	14	11	13
Daily	24	31	41	33	35	11	15	22	19
Practice unsafe sex (%)#									
Never	45	24	34	46	42	50	53	48	44
Once	7	4	7	6	4	6	11	9	8
Less than monthly	14	22	21	15	17	14	8	14	10
Monthly	12	20	10	16	12	13	8	11	11
Weekly	16	15	16	12	18	13	15	15	20
Daily	6	16	13	5	7	4	5	3	7
Shared needles (%)#									
Never	74	67	66	66	67	73	77	81	82
Once	9	11	12	13	9	8	7	8	8
Less than monthly	12	16	15	17	17	12	7	7	8
Monthly	3	4	3	1	3	4	3	3	2
Weekly	2	0	3	2	2	1	5	1	1
Daily	1	2	3	1	2	1	1	1	0
Share injecting equip. (%)*##	56	63	61	57	63	56	55	46	52
Used someone else's needle (%)*##									
More than 10 times	3	2	4	2	1	3	6	5	0
6-10 times	2	0	0	2	4	2	3	2	4
3-5 times	7	7	5	4	6	11	9	5	7
Twice	5	5	0	5	9	5	2	2	6
Once	9	2	7	10	11	11	7	11	9
Never	74	84	79	78	69	68	72	75	74

* Of those that had recently injected
# Past 12 months
Past three months
NB: due to rounding, numbers in table may not add exactly to 100%

3.2.4 Social and psychological wellbeing

Approximately two-fifths of the sample scored high on the psychological wellbeing scale, suggesting that they had been suffering from significant psychological problems in the three months prior to admission (Table 16). There was a decrease in the proportions reporting a recent suicide attempt from approximately one-in-ten in 2002 and 2003 to 5% or less from 2004 onwards.

Equal proportions (approx 25%) of clients reported 'never', 'sometimes', 'often' and 'always' had financial problems in the three months prior to admission. This remained fairly consistent across the years, from 2002 to 2009. Of those clients that had a partner, it was most commonly reported that they had 'sometimes' fought with their partner in the three months prior to admission (35%); just over one-quarter reported that they had 'often' fought with their partner (these varied somewhat across the years). Approximately one-in-five reported that they 'always' fought with their partner in the three months prior to admission (Table 16).

Of those that had relatives, just under one-in-five reported that they had 'often' had conflicts with their relatives; two-fifths reported that they had 'sometimes' fought with them in the three months prior to admission. Approximately one-in-seven reported that they had 'always' fought with their partner in the three months prior to admission. Of those that were employed in the three months prior, the majority (approximately two-thirds) reported that they had not had a conflict with their employer; approximately one-quarter reported that they had "sometimes' had a conflict with their employer in the three months prior to admission.

Just under 50% reported that they had not lived with a drug user in the three months prior to admission; just over one-fifth reported that they 'always' lived with a drug user in those three months. Ten percent of clients reported that they 'never' spent time with non-drug-using friends; over two-fifths reported that they 'often' spent time with non-drug-using friends (this remained relatively consistent across the years).

Table 16: Psychological and social wellbeing, WHOS Gunyah, 2002-2009

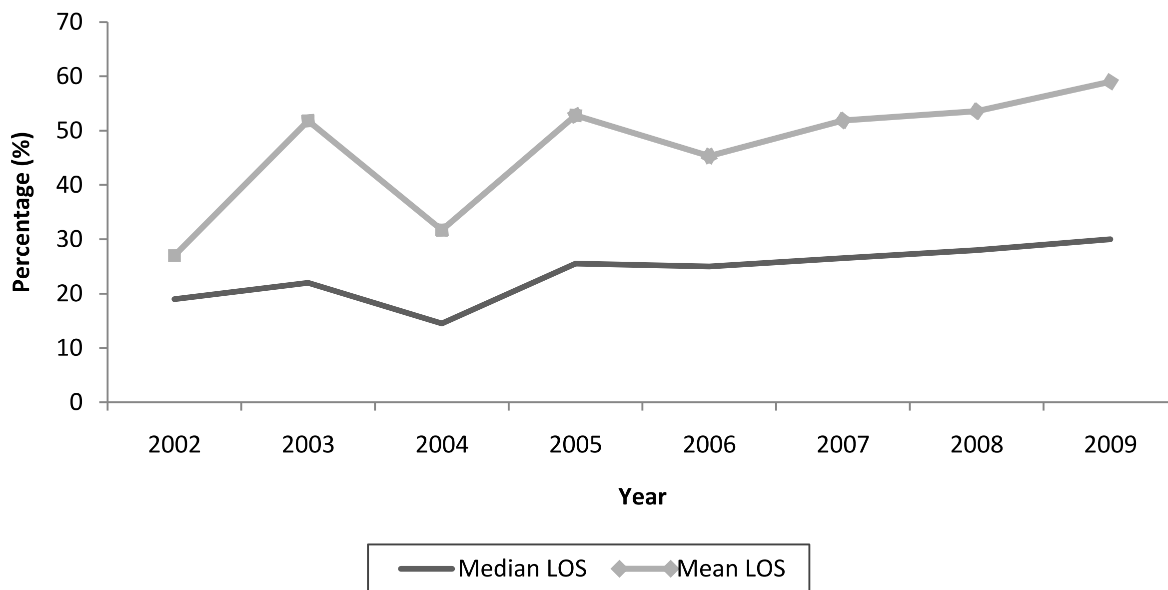
	Total (N=1,297)	2002 (n=58)	2003 (n=121)	2004 (n=156)	2005 (n=179)	2006 (n=211)	2007 (n=193)	2008 (n=185)	2009 (n=194)
High psych distress score#	39	40	41	43	39	37	36	32	44
Recent suicide attempts	5	12	14	5	5	1	3	5	4
Finance prob.									
Never	24	21	21	28	23	24	24	21	26
Sometimes	27	22	37	21	18	30	25	30	28
Often	24	31	17	22	32	20	24	25	25
Always	25	26	26	28	27	26	27	23	21
Conflict with partner*									
Never	21	14	21	19	15	18	22	30	22
Sometimes	35	41	28	35	38	41	43	32	28
Often	26	31	38	31	24	17	24	23	29
Always	18	14	14	15	23	24	12	15	21
Conflict with relatives*									
Never	32	32	28	26	30	32	33	35	34
Sometimes	37	41	40	39	33	35	25	36	39
Often	18	9	17	14	22	17	21	19	16
Always	14	19	15	20	15	16	11	10	11
Conflict with employer*									
Never	61	38	64	45	54	56	70	71	62
Sometimes	25	38	23	31	26	30	17	24	22
Often	9	13	9	8	14	7	10	5	14
Always	5	13	4	16	5	7	3	1	3
Lived with a drug user									
Never	49	45	45	47	48	50	45	49	58
Sometimes	20	17	21	18	20	19	24	23	16
Often	9	10	7	12	11	8	8	9	11
Always	22	28	27	24	22	23	23	20	16
Spent time with non-drug-using friends									
Never	10	16	11	12	10	10	8	10	9
Sometimes	18	19	17	16	16	19	19	16	20
Often	44	33	43	42	43	44	51	46	41
Always	28	33	30	31	32	28	21	28	29

#calculated as a score of 6 or more out of 8
* Of those that had a partner/relative(s)/employer
NB: due to rounding, numbers may not add to exactly 100%

3.2.5 Treatment retention and cessation

Mean and median length of stay are presented in Figure 7. It can be seen that, whilst from 2002 to 2005 mean and median length of stay were less stable, from 2004 for median and 2006 for mean there has been a gradual increase in length of stay, from a median of 14.5 days in 2004 to a median of 30 days in 2009, and from a mean of 45.3 days in 2006 to a mean of 59 days in 2009. These have both increased markedly from 2002 (median=19 and mean=27).

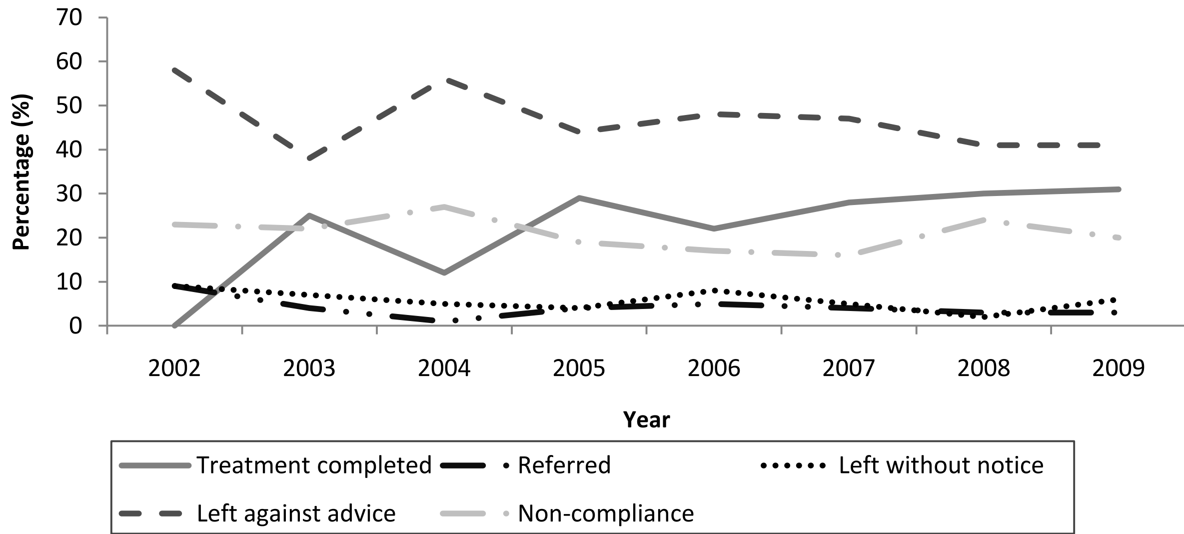
Figure 7: Mean and median length of stay, WHOS Gunyah, 2002-2009



The most common reason for treatment cessation was 'left against advice', though the proportion leaving against advice has decreased from 56% in 2004 to 41% in 2009 (Figure 8). The proportion of clients completing treatment has increased from 0% in 2002 to 31% in 2009, though it must be noted that the data collected in 2002 was not a complete year and this must be kept in mind when interpreting the results. From 2005, treatment completion was the second most common reason for treatment cessation.

Approximately 20% of the clients admitted into the Gunyah service ceased treatment due to non-compliance (left involuntary). Much smaller proportions left without notice or were referred to another service.

Figure 8: Reason for treatment cessation, WHOS Gunyah, 2002-2009



WHOS Gunyah – key points

- Mean age at admission increased from 30.3 years in 2002 to 33.6 years in 2009
- Heroin, as principal drug of concern, decreased from 50% in 2002 to 36% in 2009. Conversely, alcohol increased from 12% in 2002 to 37% in 2009
- Meth/amphetamine, as principal drug of concern, peaked in 2006
- Alcohol was the most common recently used drug and recent use increased in 2005. Cannabis was the second most recently used drug
- There was an increase in the recent use of benzodiazepines in recent years
- There was a decrease in reports of recent injection from 74 % in 2002 to 51% in 2009
- Significant minority reported operating heavy machinery (e.g. driving a vehicle) under the influence on a daily basis. Significant minority also reported engaging in unsafe sexual practices on a monthly or more basis
- Majority reporting 'not sharing' needles increased (67% 2002 to 82% 2009)
- Three-fifths reported sharing injecting equipment, though this has decreased in recent years
- One-quarter reported sharing needles in the three months prior to admission
- Two-fifths scored high for psychological distress. There was a decrease in recent suicide attempts from 2004
- There was a gradual increase in mean and median length of stay. The proportion completing treatment also increased from 2002 to 2009

3.3 WHOS New Beginnings

WHOS New Beginnings is a residential therapeutic community for women only that has evolved from a traditional mixed-sex residential service in recognition of the special needs of women seeking treatment. It is a service for women and run exclusively by women. This service is funded by the NSW Health Department, We Help Ourselves, donations and client contributions and more recently a grant contribution by Department of Health and Ageing for enhancement initiatives such as aftercare, family and nursing staff. New Beginnings is a three to six month program offering group work, counseling, women's health support and education, stress management and skills development. Group-work covers topics such as relationship issues, parenting, social and communication skills, assertiveness skills and boundary setting. There is also HIV and other infectious disease education and the service adopts a harm minimisation approach should a drug-free outcome not be chosen. New Beginnings is located in Rozelle, close to the Sydney city and handy to all the professional facilities that a city has to offer..

3.3.1 Demographics

There were 600 admissions into the New Beginnings service from 2002 to 2009. Demographic characteristics of the New Beginnings service, 2002 to 2009, are presented in Table 17. The average age was approximately 32 years (SD 9.4, range 18-65); this has remained relatively stable from 2002 to 2009. The proportion of clients that identified as Aboriginal and/or Torres Strait Islander ranged from under 10% to over 20%. Approximately nine-in-ten reported that they were born in Australia. In 2007, eighteen percent reported that they were born outside of Australia. Less than 10% reported working in the month prior to admission and this proportion appears to be lower in recent years. Just over 10% reported being homeless in the month prior to interview, and this proportion appears to have increased in recent years. Note: homeless definition does not include those clients who reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission.

Table 17: Demographics of admissions to WHOS New Beginnings service, 2002-2009

Characteristic	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Age (years)	32.0	34.9	31.0	29.8	33.1	30.1	32.3	33.1	32.2
Male (%)	0	0	0	0	0	0	0	0	0
ATSI (%)	13	13	22	13	19	11	19	7	9
Born in Aus (%)	89	100	87	92	84	87	82	95	90
Worked in previous month (%)	7	13	4	10	10	4	6	6	5
Homeless (%)	11	13	9	8	9	6	9	16	13

3.3.2 Drug use

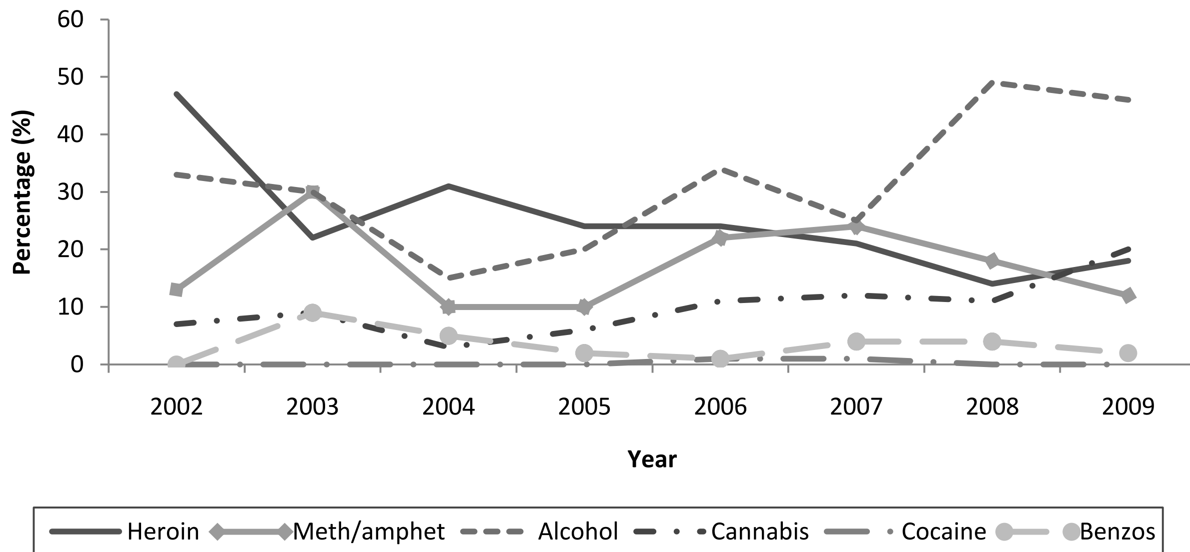
Principal drug of concern and recent drug use

In 2002 heroin was the most common principal drug of concern. From 2004 there has been a steady decrease in heroin as principal drug of concern, though there was a slight increase from 14% in 2008 in 18% in 2009. From 2004 there has been a marked increase in alcohol as principal drug of concern (from 15% in 2004 to 46% in 2009), and from 2005 alcohol become the most commonly reported principal drug of concern for New Beginnings (Figure 9).

The reporting of meth/amphetamine as principal drug of concern was much more variable. In 2003 the reporting of meth/amphetamine as principal drug of concern more than doubled from 13% in 2002 to 30% in 2003. Although there was a decrease in 2004, there was again an increase in 2006 and 2007, before another decrease in 2008 and 2009.

The reporting of cannabis as principal drug of concern increased across the years from 7% in 2002 to 20% in 2009. The reporting of benzodiazepines or cocaine as principal drug of concern has remained low and relatively stable.

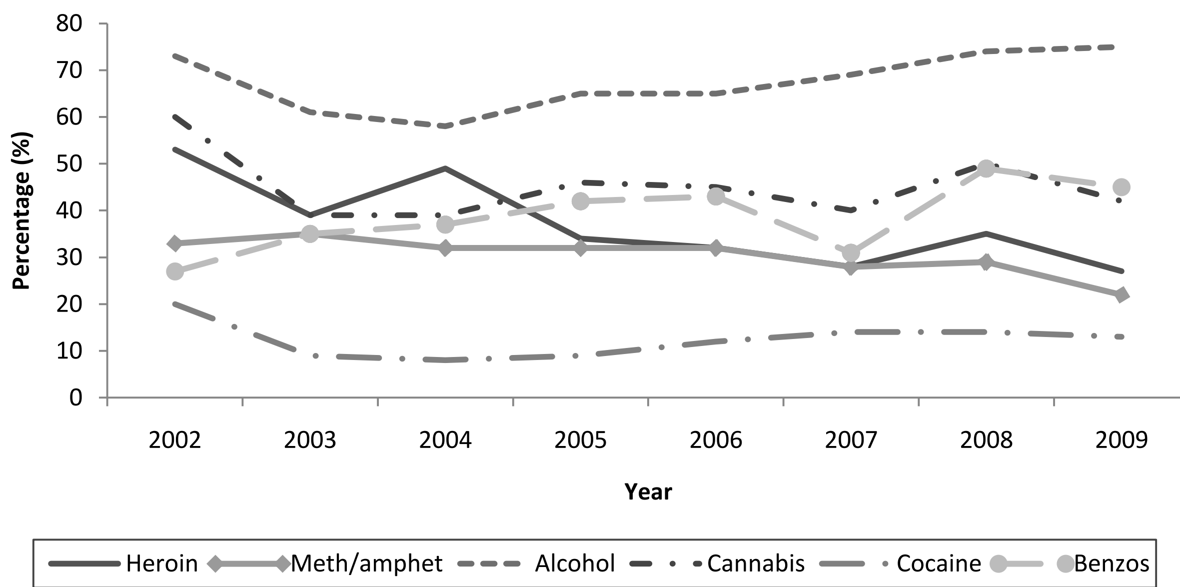
Figure 9: Changes in principal drug of concern, WHOS New Beginnings, 2002-2009



As can be seen in Figure 10, the most commonly reported recent drug used was alcohol; this has been slightly increasing over the years from 58% in 2004 to 75% in 2009. The next two most commonly reported recent drugs used were cannabis and benzodiazepines. Whilst the recent use of cannabis has remained relatively stable from 2003, the recent use of benzodiazepines has been increasing over the years from 27% in 2002 to 45% in 2009, with the exception of 2007 when there was a slight decrease.

The reported recent use of heroin decreased from 53% in 2002 to 27% in 2009. Recent use of meth/amphetamine remained relatively stable at around one-third reporting recent use from 2002 to 2006. From 2006 there was a decrease in recent meth/amphetamine use, down to 22% in 2009. Recent use of cocaine was highest in 2002, when 20% reported recent use, and this decreased markedly to 9% in 2003. There has been a slight increase in recent cocaine use to 13% in 2009.

Figure 10: Recent use of drugs, WHOS New Beginnings, 2002-2009



NB: Recent use refers to the 30 days prior to admission

Severity of dependence and recent injection

Dependence, as measured by a score of 4 or more on the SDS, was almost universal amongst the New Beginnings clients from 2002 to 2009. Recent injection decreased from approximately two-thirds of the clients in 2002, to one-third in 2009 (Table 18).

Table 18: Recent drug use and median days of use, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
SDS score 4 or more (%)	96	100	100	98	95	97	95	95	96
Injected in past 3 months (%)	47	67	48	66	46	47	52	44	33

Heroin

Recent use of heroin decreased from 2002 to 2009. Of those who reported recent use of heroin, median days of use was 8.5 days. Median days of heroin use decreased from 10 days in 2006 to three days in 2007, before increasing to 14 days in 2009 (Table 19). Median number of shots per day of use was two shots and this remained relatively stable over the years.

Table 19: Use of heroin, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Recent use (%)	33	53	39	49	34	32	28	35	27
Median days used*	8.5	11.5	14	7.5	15	10	3	3.5	14
Median no. shots**	2	2	3	2	3	3	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Meth/amphetamine

From 2002 to 2006, approximately one-third of clients reported recent use of meth/amphetamine. Reported recent use began to decrease in 2006 to a low of 22% in 2009. Similarly, median days of use were higher for the 2002-2006 period, with the exception of 2004 (Table 20). From 2007, median days of use decreased to a low of two days in 2009. Median number of shots per day of use decreased over the years from three in 2002 to two in 2009.

Table 20: Use of meth/amphetamine, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Recent use (%)	29	33	35	32	32	32	28	29	22
Median days used*	5	10	8.5	2	7	7	5	3.5	2
Median no. shots**	3	3	3.5	3	3	3	3	2.5	2

* In the month prior to admission (maximum 30 days)
** per day of use

Alcohol

Reported recent use of alcohol increased from 61% in 2003 to 75% in 2009. Median days of use also increased, from eight days in 2003 to 14 days in 2009, or almost half the total number of days. Median number of drinks consumed remained relatively stable at around 10 per session (Table 21).

Table 21: Use of alcohol, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Recent use (%)	69	73	61	58	65	65	69	74	75
Median days used*	10	18	8	5	14	10	7.5	9	14
Median drinks consumed**	10	10	8	6	9	8	8	10	12

* In the month prior to admission (maximum 30 days)
** per day of use

Cannabis

Recent use of cannabis remained stable in 2003 and 2004; from 2004, reported recent use of cannabis fluctuated between 40% and 50%. Median days of use also fluctuated from a low of 4.5 days in 2008 to a high of 15 days in 2005 (Table 22). Median number of cones smoked per day remained relatively stable at around six cones.

Table 22: Use of cannabis, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Recent use (%)	44	60	39	39	46	45	40	50	42
Median days used*	7.5	6	14	8	15	8	8.5	4.5	7
Median cones consumed**	6	6	10	3	7	6	4	6	6

* In the month prior to admission (maximum 30 days)
** per day of use

Cocaine

Reported recent cocaine use increased over the years from 9% in 2003 to 13% in 2009. Median number of days used cocaine was low, at two days, with the exception of a reported 10 days in 2005 and seven days in 2006 (Table 23). Median number of shots used per day of use was two shots, with the exception of four shots in 2006 and six in 2007.

Table 23: Use of cocaine, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Recent use (%)	12	20	9	8	9	12	14	14	13
Median days used*	2	1	2	1	10	7	2	1	1
Median shots**	2	2	2.5	1	2	4	6	1	2

* In the month prior to admission (maximum 30 days)
** per day of use

Benzodiazepines

There was an increase in reported recent use of benzodiazepines, from 27% in 2002 to 45% in 2009. Median days of use remained relatively stable at around a median of six days. Median number of pills used per day was four, with the exception of 2.5 pills per use in 2003 and two in 2009 (Table 24).

Table 24: Use of benzodiazepines, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Recent use (%)	41	27	35	37	42	43	31	49	45
Median days used*	6	8	6	5	7	6	5	6	5
Median no. pills**	4	4.5	2.5	4	4	4	4	4	2

* In the month prior to admission (maximum 30 days)
** per day of use

3.3.3 Risk and harms associated with drug use

Harms and risk behaviours associated with drug use are presented in Table 25. Approximately one-in-six of New Beginnings clients reported operating heavy machinery (i.e. driving) whilst under the influence, on a daily basis. This peaked to 21% in 2004 and was lowest in 2002 (7%). One-third of the sample reported 'never' engaging in unsafe sex in the three months prior to admission; however, there has been a slight increase over the past two years in proportion reporting that they 'never' practiced unsafe sex. Conversely, one-third reported that they had engaged in unsafe sex on a monthly or more frequent basis in the three months prior to interview.

Approximately three-quarters of the sample reported that had never shared needles in the three months prior to admission from 2002 to 2009. Approximately one-in-ten reported that they had shared needles on a less

than monthly basis in the three months prior to admission, and much smaller proportions reported sharing needles on a monthly or weekly basis; there was virtually no reported sharing of needles on a daily basis in recent years.

From 2002 to 2006 there was an increase in the proportion of clients reporting that they had recently shared injecting equipment, from 50% in 2002 to 72% in 2006. From 2007 the proportion reporting recent sharing of equipment decreased to 60% in 2007, 37% in 2008 and 41% in 2009. Approximately one-third of the sample reported using a needle after someone else in the month prior to admission at least once. The use of a needle after someone else was highest in 2006 and lowest in 2003.

Table 25: Harms and risks associated with drug use, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
Operate heavy machinery (%)#									
Never	60	60	39	50	58	73	53	69	60
Once	6	13	22	3	4	3	5	2	11
Less than monthly	10	13	13	15	8	6	15	7	10
Monthly	3	7	4	5	7	1	4	1	4
Weekly	2	0	13	7	3	8	7	6	7
Daily	14	7	9	21	19	10	16	14	8
Practice unsafe sex (%)#									
Never	36	40	30	21	28	44	35	45	40
Once	11	7	13	13	12	11	16	7	8
Less than monthly	19	13	30	31	17	14	21	18	16
Monthly	11	20	0	13	13	13	11	10	10
Weekly	13	20	9	11	11	9	15	13	18
Daily	10	0	17	11	20	9	3	7	8
Shared needles (%)#									
Never	74	53	87	52	78	70	74	75	85
Once	10	20	1	18	5	12	10	12	5
Less than monthly	11	13	0	24	10	12	12	9	5
Monthly	3	7	0	3	5	4	4	2	2
Weekly	2	0	4	3	1	0	0	1	3
Daily	1	7	0	0	1	1	0	0	0
Share injecting equip. (%)*##	55	50	55	54	69	72	60	37	41
Used someone else's needle (%)*##									
More than 10 times	3	0	0	5	0	5	0	5	5
6-10 times	3	0	0	2	2	5	2	0	5
3-5 times	9	20	0	5	13	12	10	7	5
Twice	8	0	0	7	4	16	7	7	9
Once	12	10	18	12	7	16	19	16	2
Never	66	70	82	68	73	47	62	65	75

* Of those that had recently injected
# Past 12 months
Past three months
NB: due to rounding numbers in table may not add exactly to 100%

3.3.4 Social and psychological wellbeing

Approximately 50% of clients entering New Beginnings scored high on the psychological wellbeing scale indicating that they were experiencing significant psychological distress before their admission.

Approximately one-in-ten reported a recent suicide attempt. This was highest in 2008 (14%) and lowest in 2002 (0%) (Table 26).

There was great variability across the years in the proportion of clients reporting that they either 'never', "sometimes:", 'often' or 'always' had financial problems in the three months prior to admission (Table 26); (with the exception of 44% in 2003). Of those that had a partner, approximately equal proportions (28%) reported that they had either 'never' fought, or had fought 'sometimes' in the three months prior to admission, this remained fairly consistent across the years. Of those clients that had relatives, approximately one-in-seven reported that they had 'always' had a conflict with them in the three months prior to admission; just over one-third reported 'sometimes' having a conflict with relatives. Of those that were employed, the vast majority reported 'never' having a conflict with their employer, though this varied greatly from 62% in 2004 to 100% in 2002. Very small proportion reported that they had 'always' had a conflict with their employers in the three months before admission.

The majority of clients reported that they had not lived with a drug user in the three months prior to admission, and approximately one-in-five reported that they had always lived with a drug user, though this varied across the years (Table 26). Approximately one-fifth reported that they 'never' spent time with non-drug using friends; just under two-fifths reported that they 'often' spent time with non-drug-using friends.

Table 26: Psychological and social wellbeing, WHOS New Beginnings, 2002-2009

	Total (N=600)	2002 (n=15)	2003 (n=23)	2004 (n=62)	2005 (n=97)	2006 (n=91)	2007 (n=81)	2008 (n=97)	2009 (n=134)
High psych. distress score#	47	40	48	47	50	50	40	38	53
Recent suicide attempts	9	0	4	7	9	13	6	14	8
Finance probs									
Never	30	47	9	37	32	26	37	24	30
Sometimes	23	13	30	8	21	22	24	32	27
Often	20	20	17	21	24	23	15	18	18
Always	27	20	44	34	25	29	25	27	25
Conflict with partner*									
Never	28	18	14	38	19	35	30	31	27
Sometimes	28	18	21	24	25	27	28	35	32
Often	24	55	36	22	19	22	30	17	23
Always	20	9	29	16	38	16	13	17	18
Conflict with relatives*									
Never	27	40	10	20	22	24	30	33	32
Sometimes	38	27	57	36	34	48	34	36	35
Often	21	33	29	22	26	17	18	19	31
Always	14	0	5	22	18	12	19	12	12
Conflict with employer*									
Never	76	100	75	62	69	69	67	88	90
Sometimes	17	0	25	38	16	21	22	4	10
Often	4	0	0	0	9	3	7	8	0
Always	3	0	0	0	4	7	4	0	0
Lived with a drug user									
Never	53	60	52	58	51	51	51	46	60
Sometimes	17	7	35	19	14	17	20	21	13
Often	10	0	9	7	10	7	10	12	11
Always	20	33	4	16	25	26	20	21	16
Spent time with non-drug-using friends									
Never	19	7	30	16	18	17	31	22	14
Sometimes	15	13	4	21	16	13	7	14	18
Often	39	53	22	37	29	47	44	40	38
Always	28	27	44	26	38	23	17	24	30

calculated as a score of 6 or more out of 8

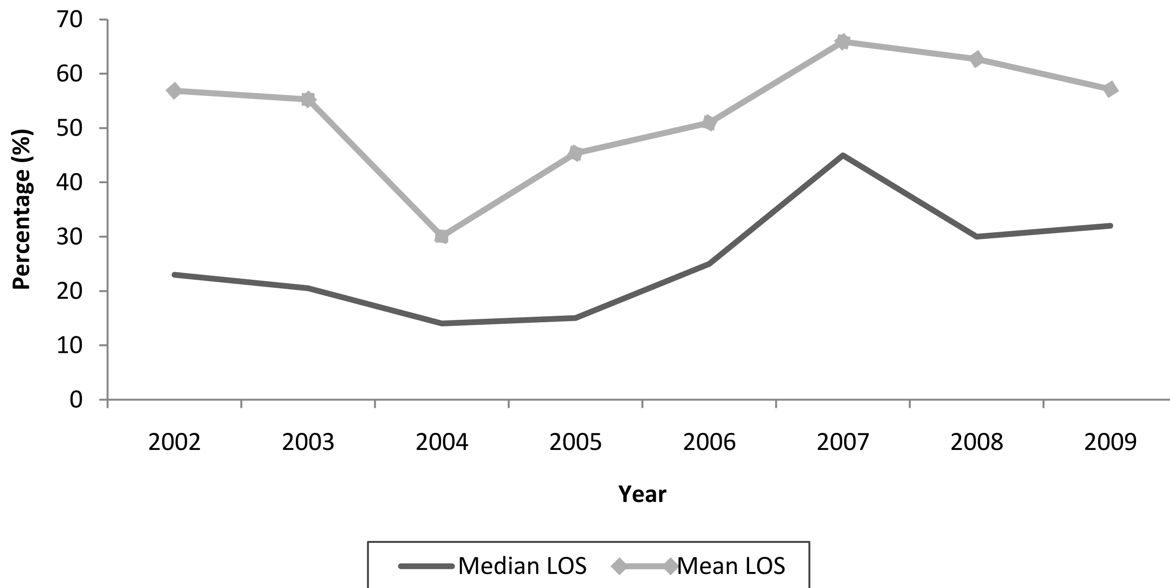
* Of those that had a partner/relative(s)/employer

NB: due to rounding, numbers may not add to exactly 100%

3.3.5 Treatment retention and cessation

Median length of stay decreased from 23 days in 2002 to 14 days in 2004 (Figure 11). From 2005 median length of stay began to increase to a high of 45 days in 2007. There has been a decrease in median length of stay in 2008 (30 days) and 2009 (32 days). Mean length of stay followed the same pattern as median days, with a slight increase in variability.

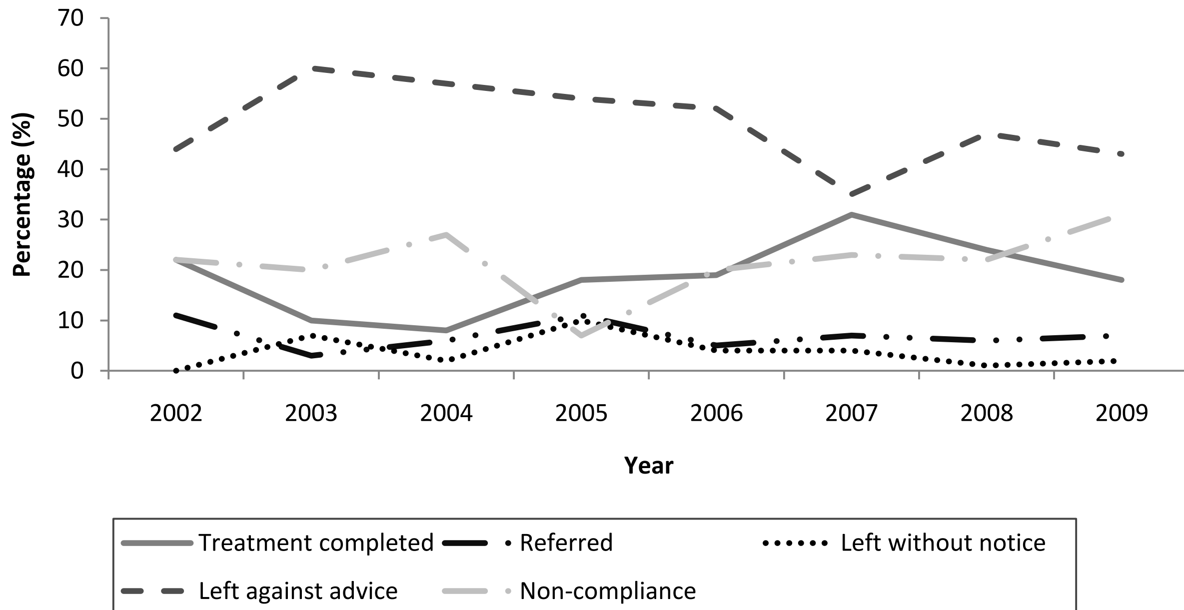
Figure 11: Mean and median length of stay, WHOS New Beginnings, 2002-2009



Reason for treatment cessation is presented in Figure 12. 'Left against advice' was the most common reason for cessation from 2002 to 2009. From 2003 there has been a general decrease in clients leaving against advice, from 60% in 2003 to 35% in 2007; there was a huge decrease in 2007 (dropping from 52% in 2006 to 35% in 2007), and this figure has slightly recovered in 2008 and 2009. From 2004 there was an increase in proportion of clients completing treatment (from 8% in 2004 to 31% in 2007). From 2007 the proportion completing treatment has began to decrease, to 24% in 2008 and 18% in 2009.

From 2003 there has been an increase in the proportion of clients leaving treatment due to non-compliance (from 7% in 2005 to 31% in 2009), returning to similar levels in 2002 to 2004. The proportion of clients that 'left without notice' or 'were referred' has remained relatively low and stable from 2002 to 2009.

Figure 12: Reason for treatment cessation, WHOS New Beginnings, 2002-2009



WHOS New Beginnings – key points

- ❖ There was a decrease in the proportion of clients that reported working in the month prior to admission and an increase in the proportion reporting to be homeless
- ❖ There was a decrease in heroin as principal drug of concern, though a slight increase in 2009
- ❖ There was a marked increase in alcohol as principal drug of concern from 2004 (15%) to 46% in 2009. From 2005 alcohol was the most common principal drug of concern
- ❖ Cannabis, as principal drug of concern, also increased
- ❖ Alcohol was the most common recently used drug and has been increasing across the years. Recent use of benzodiazepines and cannabis has also been increasing
- ❖ Reported recent use of heroin has decreased
- ❖ Reports of recent injection decreased. From 2006 there was a decrease in the proportion reporting sharing of injecting equipment
- ❖ High psychological distress scores were reported in 2009
- ❖ From 2004 there was an increase in mean and median length of stay, though both decreased in 2007. The proportion of clients completing the treatment program also decreased from 2007, though still not below pre-2006 levels

3.4. WHOS Hunter Valley

The WHOS Hunter Therapeutic Community (TC) is a rural, mixed gender, three to six month residential program offering group-work, counseling support and education, stress management and skills development. It is funded by the Department of Health and Ageing and has a justice referral component (funded beds) via the Magistrate Early Referral into Treatment (MERIT) program funded by NSW Health. The TC program covers social and communication skills, assertiveness skills and self-esteem building, living skills, self and group evaluation awareness, exiting client groups, relapse prevention, drug overdose and ex-resident groups. WHOS also provides HIV and other infectious disease education and adopts a harm minimisation approach should a drug-free outcome not be chosen. The service is located at Cessnock in the Hunter Valley, NSW.

3.4.1 Demographics

There were 1,594 admissions to the Hunter service from 2002 to 2009. The mean age of clients was 30 years, which has been increasing from 28.1 years in 2002 to 32.2 in 2009 (Table 27). Approximately two-thirds of the clients were male; this has remained relatively consistent over the years. Just over one-in-ten identified as Aboriginal and/or Torres Strait Islander. Over 90% of the sample reported that they were born in Australia. Approximately 10% of clients reported that they had worked in the month prior to admission; there has been a decrease in this proportion from 12% in 2002 to 5% in 2009. Fewer than 10% reported that they were homeless in the month prior to admission. Note: homeless definition does not include those clients who reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission.

Table 27: Demographics of admissions to WHOS Hunter, 2002-2009

Characteristic	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Age	30.0	28.1	28.6	28.4	29.0	30.2	31.2	31.2	32.2
Male (%)	66	71	66	70	67	67	62	64	65
ATSI (%)	11	12	14	10	12	11	9	8	11
Born in Aus (%)	95	95	94	99	97	97	91	93	95
Worked in previous month (%)	7	12	9	12	4	6	7	7	5
Homeless (%)	8	7	10	6	10	7	8	6	9

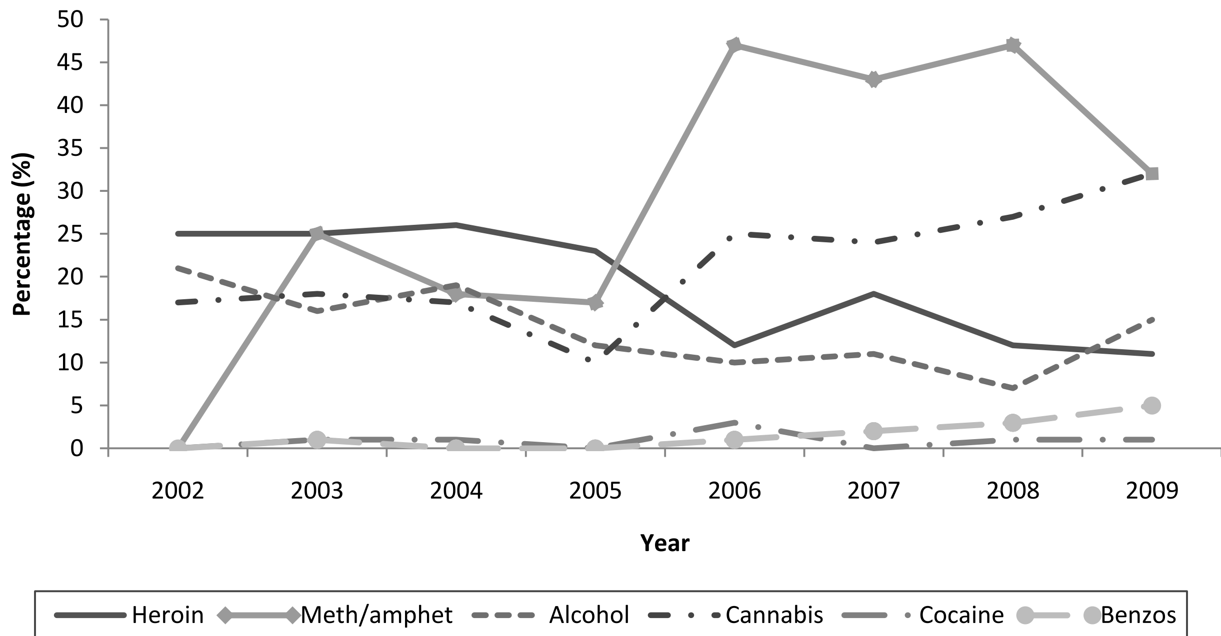
3.4.2 Drug use

Principal drug of concern and recent drug use

Meth/amphetamine as principal drug of concern increased markedly from 0% in 2002 to 47% in 2006, though it is important to note that 2002 was not a complete year in which data was collected. From 2007 meth/amphetamine as principal drug of concern has decreased, to 32% in 2009. From 2006 to 2009 meth/amphetamine was the most common principal drug of concern. In 2009, equal proportions (32%) reported cannabis or meth/amphetamine as their principal drug of concern. Cannabis, as principal drug of concern, appeared to decrease from 2003 to 2005. From 2006 the reporting of cannabis as principal drug of concern began to increase, from 10% in 2005 to 32% in 2009.

From 2002 there has been a decrease in the proportion of clients reporting heroin as their principal drug of concern, from 25% in 2002 to 11% in 2009 (Figure 13). In 2009 heroin was the 4th most common drug as principal drug of concern after meth/amphetamine, cannabis and alcohol. Similarly there has also been a decrease in the proportion of clients reporting alcohol as their principal drug of concern, from 21% in 2002 to 7% in 2008. This proportion, however, increased to 15% in 2009. The reporting of cocaine or benzodiazepines as principal drug of concern remained low and consistent across the years.

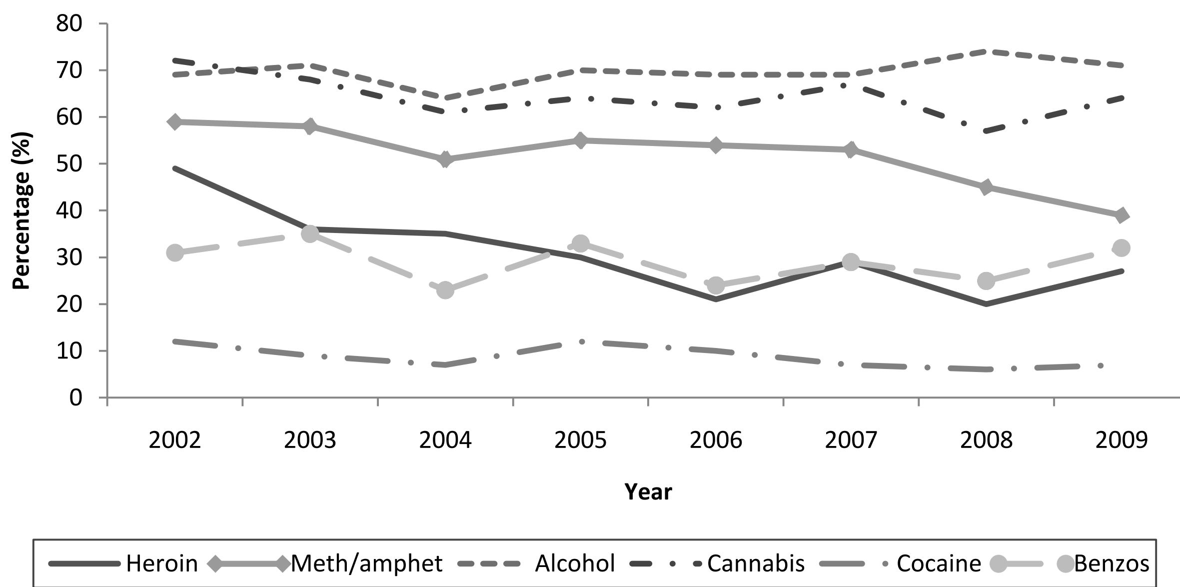
Figure 13: Changes in principal drug of concern, WHOS Hunter, 2002-2009



From 2003, alcohol was the most commonly reported drug recently used in the month prior to admission; this has remained relatively stable with over two-thirds of clients reporting recent use of alcohol. From 2003 cannabis became the second most recently used drug. This remained relatively stable until 2007 when reported recent use began to fluctuate.

Reported recent use (i.e. what drugs have you used in the last 30 days prior to admission) of heroin has been decreasing since 2002, from 49% to 27% in 2009 (Figure 14). Recent use of meth/amphetamine has also decreased considerably from 59% reporting recent use in 2002 to 39% reporting recent use in 2009. Use began to drop noticeably from 2007. Recent use of benzodiazepines has fluctuated from 2002 to 2009, though has remained around less than one-third. Recent use increased to 32% in 2009. Recent use of cocaine has remained relatively stable and low (less than 13%) from 2002 to 2009.

Figure 14: Recent use of drugs, WHOS Hunter, 2002-2009



NB: Recent use refers to the 30 days prior to admission

Severity of dependence and recent injection

Dependence, as measured by an SDS score of 4 or more, was almost universal across the years. Reported recent injection has decreased markedly from 73% in 2002 to 44% in 2009 (Table 28).

Table 28: SDS score 4 or more and recent injection, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
SDS score 4 or more (%)	96	97	94	96	97	97	98	98	95
Injected in past 3 months (%)	60	73	67	70	66	59	60	49	44

Heroin

Recent use of heroin decreased considerably from 49% in 2002 to 27% in 2009 (Table 29). Median days of use was 10 days, with a peak in 2003 and 2004 (14 and 14.5 days respectively) and a low of 5% in 2008. Median number of shots was two per day of use and this remained stable across the years.

Table 29: Use of heroin, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Recent use (%)	30	49	36	35	30	21	29	20	27
Median days used*	10	4.5	14	14.5	13	6	7	5	9.5
Median no. shots**	2	2	3	2	3	2	2	2	3

* In the month prior to admission (maximum 30 days)
** per day of use

Meth/amphetamine

Recent use of meth/amphetamine decreased greatly from 59% in 2002 to 39% in 2009. Median days of use decreased from 10 days in 2002 to 6.5 days in 2004. From 2004 median days has remained relatively stable (Table 30). Reported median number of shots per day of use has remained stable at around two per day of use.

Table 30: Use of meth/amphetamine, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Recent use (%)	51	59	58	51	55	54	53	45	39
Median days used*	6	10	9	6.5	5	6	5	4	6
Median no. shots**	2	3	3	2	3	2	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Alcohol

Over two-thirds of clients reported recent use of alcohol. This has remained relatively stable from 2002 to 2009. Median days of use was less than 10 days out of a possible 30 days, with the exception of a median of 12 days in 2002 (Table 31). Median number of drinks consumed was 10 and this remained relatively stable from 2002 to 2009.

Table 31: Use of alcohol, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Recent use (%)	70	69	71	64	70	69	74	69	71
Median days used*	7	12	6	7	6	6	7	7	8
Median drinks consumed**	10	12	10	10	10	9	10	10	11

* In the month prior to admission (maximum 30 days)
** per day of use

Cannabis

Less than two-thirds reported recent use of cannabis and this remained relatively stable from 2002 to 2009. Use occurred on approximately half the days in the required time period (a possible 30 days). There was a peak of a median of 20 days in 2003 and 2006 (Table 32). Median number of cones consumed during a session was 10; this remained relatively stable, with the exception of 15.5 in 2002.

Table 32: Use of cannabis, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Recent use (%)	64	72	68	61	64	62	67	57	64
Median days used*	15	15	20	14	15	20	15	15	14
Median cones consumed**	10	15.5	10	10	10	10	10	10	8

* In the month prior to admission (maximum 30 days)
** per day of use

Cocaine

Recent use of cocaine was low, with less than 10% reporting use in the month prior to admission. Similarly, median days of use was low (two days). Median number of shots in a day was three and this remained relatively stable (Table 33)

Table 33: Use of cocaine, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Recent use (%)	8	12	9	7	12	10	7	6	7
Median days used*	2	2	2	2	2	4	3.5	2	2.5
Median shots**	3	2	2	2	3	3	4	3	3

* In the month prior to admission (maximum 30 days)
** per day of use

Benzodiazepines

Recent use of benzodiazepines has fluctuated over the years but has remained less than one-third. Median days of use was low, approximately five days out of a possible 30 days (Table 34). Clients reported using a median of approximately four pills in a day of use.

Table 34: Use of benzodiazepines, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Recent use (%)	29	31	35	23	33	24	29	25	32
Median days used*	5	5	5	6	5	6	5	4	4
Median no. pills**	4	5	4	4	4	4.5	3	4	3

* In the month prior to admission (maximum 30 days)
** per day of use

3.4.3 Risk and harms associated with drug use

From 2002 to 2009 there has been a decrease in the proportion of clients reporting daily use of heavy machinery (e.g. driving a vehicle) whilst under the influence, from 22% to 12%. Conversely, the proportion reporting they have only operated heavy machinery once or never in the preceding 12 months has increased (Table 35). The proportion of clients reporting operating heavy machinery (whilst under the influence) weekly, monthly or less than monthly has remained relatively stable.

There has also been a decrease in the proportion of clients reporting practicing unsafe sex on a daily basis from 16% in 2002 to 7% in 2009. Conversely, there has been an increase in the proportion of clients reporting that they never practiced unsafe sex from one-third in 2002 to just under a half in 2009. The

proportion of clients that reported engaging in unsafe sexual practices on a weekly basis also decreased from 2002 to 2009 (Table 34).

There was a marked increase in the proportion of clients that reported that they never used a needle after someone else in the 12 months prior to admission – this increased from 54% in 2002 to 89% in 2009. In 2009, approximately 10% reported using a needle after someone else in the 12 months prior to admission.

Similarly, there was a decrease in the proportion of clients that reported sharing injecting equipment with someone else, from 62% in 2002, to 38% in 2009. There has been a decrease in the proportion of clients reporting sharing needles in the three months prior to admission, though in 2009 at least 20% reported that they had shared a needle at least once in the three months prior to admission. Approximately 5% reported sharing needles at least 10 times in the three months prior to admission (Table 36).

Table 35: Harms and risks associated with drug use, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
Operate heavy machinery (%)#									
Never	42	37	40	36	36	36	45	53	52
Once	6	11	4	4	6	6	7	5	7
Less than monthly	12	12	14	8	20	10	15	11	10
Monthly	8	6	8	8	13	11	8	6	5
Weekly	13	13	8	12	12	20	11	15	14
Daily	18	22	27	32	14	18	13	10	12
Practice unsafe sex (%)#									
Never	38	36	33	28	27	40	42	47	49
Once	7	4	6	10	8	10	5	6	5
Less than monthly	17	16	19	22	25	11	17	14	12
Monthly	10	7	12	8	12	9	10	13	10
Weekly	17	23	15	19	17	20	18	13	16
Daily	11	16	16	14	11	10	8	7	7
Shared needles (%)#									
Never	73	54	59	57	67	84	81	83	89
Once	9	17	14	18	9	6	6	7	2
Less than monthly	11	18	14	17	17	6	9	8	4
Monthly	3	6	5	2	5	3	1	2	2
Weekly	3	2	6	4	2	1	3	1	1
Daily	1	4	2	1	1	0	0	0	1
Share injecting equip. (%)*##	48	61	62	59	47	43	34	41	38
Used someone else's needle (%)*##									
More than 10 times	5	5	6	6	7	2	6	1	5
6-10 times	3	2	2	5	3	4	2	3	1
3-5 times	6	9	9	5	8	2	6	2	4
Twice	5	11	4	5	7	4	2	2	4
Once	8	2	9	12	6	9	9	14	3
Never	74	71	70	67	70	79	76	78	82

* Of those that had recently injected
# Past 12 months
Past three months
NB: due to rounding, numbers may not add to exactly 100%

Psychological and social wellbeing items are presented in Table 36. There has been a decrease in the proportion of clients scoring high for psychological distress from 57% in 2002 to 38% in 2009. Similarly, there has also been a marked decrease in the proportion of clients reporting a recent suicide attempt, from 40% in 2002 to 17% in 2009, though this was a slight increase from 11% in 2008.

Approximately one-third of the clients admitted to the WHOS Hunter service reported 'always' suffering from financial problems in the three months prior to admission (with the exception of 48% in 2002); approximately one-in-five reported that they had 'often' experienced financial problems. Of those clients that had a partner, under one-third reported that they had 'often' had a conflict with them in the months prior to admission; just over one-quarter reported that they had 'never' had a conflict with their partner in the three months prior to admission. Of those who had relatives, approximately one-third reported that they had 'sometimes' had a conflict with them in the months leading up to admission; one-in-seven reported that they had 'always' had a conflict with their relatives. Of those who were employed, the majority (over two-thirds) reported that they had 'never' had a conflict with their employer in the three months prior to admission; less than one-quarter reported that they 'sometimes' had a conflict with their employer.

Just fewer than 50% of clients reported that had not lived with a drug user in the months prior to admission; approximately one-quarter reported that they 'always' had, though this had decreased in recent years (Table 36). One-in-ten reported 'never' spending time with non-drug-using friends; the majority reported that they either 'often' or always" spent time with non-drug-using friends.

Table 36: Psychological and social wellbeing, WHOS Hunter, 2002-2009

	Total (N=1,594)	2002 (n=85)	2003 (n=212)	2004 (n=214)	2005 (n=230)	2006 (n=230)	2007 (n=215)	2008 (n=197)	2009 (n=212)
High psych. distress score#	44	57	50	44	49	33	45	42	38
Recent suicide attempts	18	40	30	17	17	11	14	11	17
Finance probs									
Never	26	11	26	24	21	34	26	29	32
Sometimes	23	25	21	24	27	19	25	20	21
Often	21	17	21	23	22	20	21	22	21
Always	30	48	32	29	31	27	28	28	26
Conflict with partner									
Never	26	19	26	29	16	33	21	33	29
Sometimes	30	33	28	30	40	22	24	28	33
Often	24	19	28	24	19	23	28	26	24
Always	20	29	19	17	25	23	26	14	15
Conflict with relatives									
Never	30	19	31	23	26	36	28	31	40
Sometimes	35	32	38	38	37	31	40	33	32
Often	21	24	20	25	22	20	20	22	18
Always	14	24	11	14	15	12	14	13	11
Conflict with employer									
Never	72	76	72	65	62	73	77	66	81
Sometimes	18	5	20	27	19	18	16	24	12
Often	7	14	4	7	10	6	4	10	4
Always	3	5	3	1	10	2	3	0	4
Lived with a drug user									
Never	48	46	47	47	41	49	51	54	50
Sometimes	19	22	18	17	15	17	18	19	25
Often	11	9	9	14	15	12	7	12	9
Always	23	22	27	22	29	22	24	16	17
Spent time with non-drug-using friends									
Never	11	14	16	12	9	12	9	13	8
Sometimes	15	12	13	12	12	17	13	18	22
Often	39	44	36	41	44	35	41	37	40
Always	35	31	35	36	36	35	38	32	31

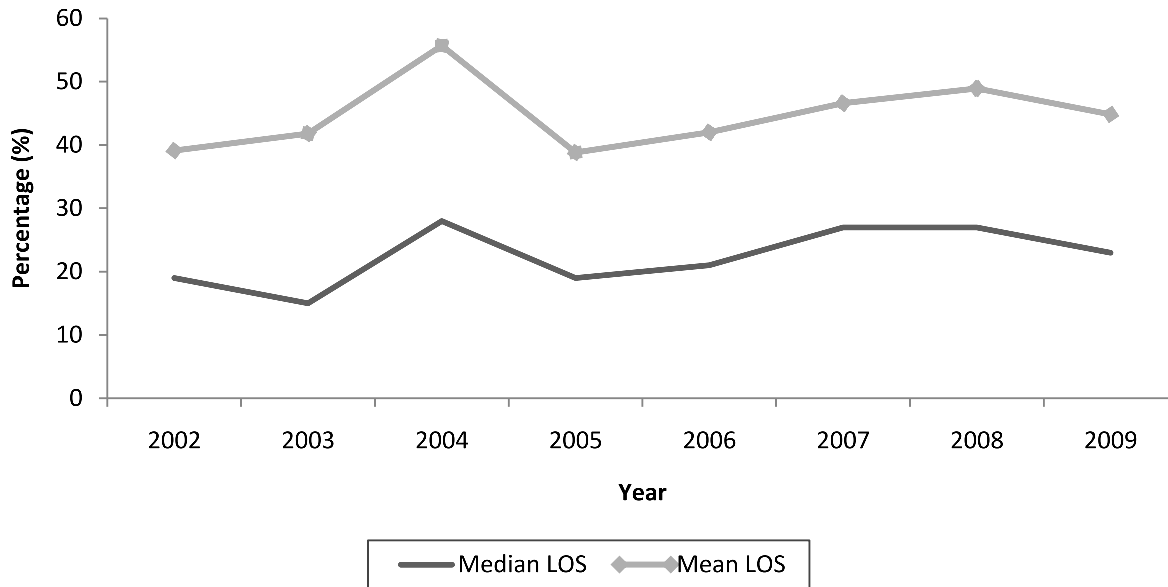
calculated as a score of 6 or more out of 8

NB: due to rounding numbers, may not add to exactly 100%

3.4.4 Treatment retention and cessation

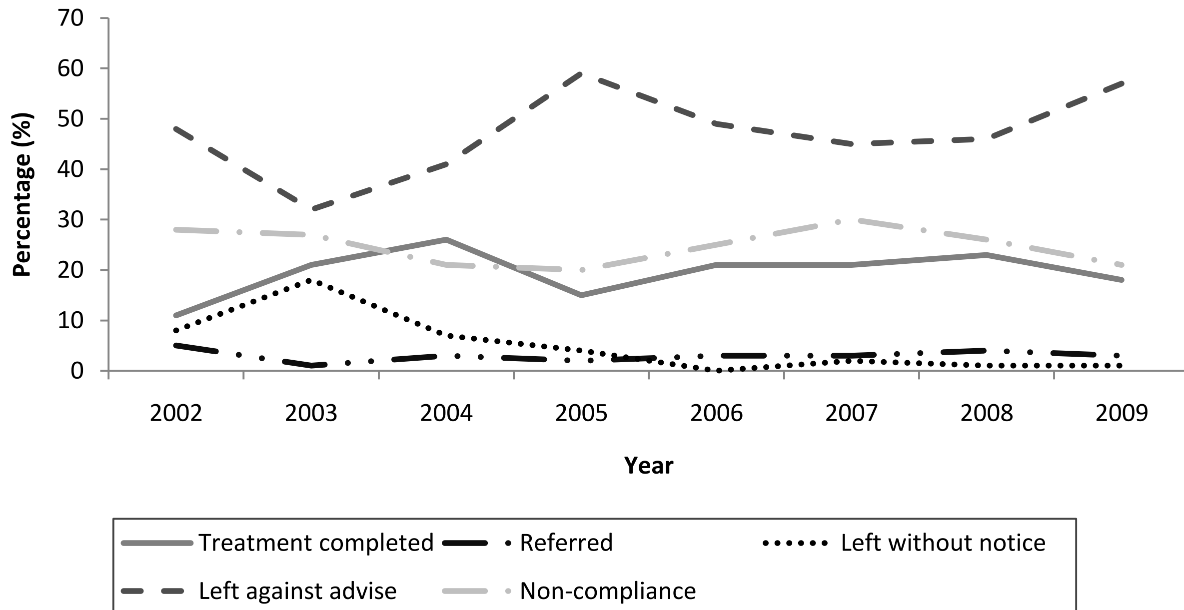
With the exception of 2004, median days of use has been slightly increasing from a median of 19 days and a mean of 39.1 days in 2002 to a median of 27 days in 2009 and a mean of 48.9 days in 2008 (Figure 15). There was a slight decrease in both mean and median days in 2009 (23 and 44.8 respectively).

Figure 15: Mean and median length of stay, WHOS Hunter, 2002-2009



The most common reason for treatment cessation was 'left against advice'. With the exception of 2002 and 2005, this has been increasing from 2003 (32%) to 2009 (57%). The second most common reason for treatment cessation was non-compliance. This has fluctuated slightly across the years (Figure 16). The proportion of clients completing treatment increased from 2002 to 2004, before decreasing in 2005. The proportion completing treatment increased again from 2005 to 2008, until a slight decrease in 2009. The proportion of clients that were either referred or left without notice has remained relatively low and consistent across the years.

Figure 16: Reason for treatment cessation, WHOS Hunter, 2002-2009



WHOS Hunter – key points

- Mean age increased from 28.1 years in 2002 to 32.2 years in 2009
- There was a decrease in the proportion of clients working in the month prior to admission
- Methamphetamine was the most common principal drug of concern from 2006, though has been decreasing in recent years
- Increase in cannabis as principal drug of concern, and equal proportion reporting meth/amphetamine or cannabis as principal drug of concern in 2009
- Decrease in heroin as principal drug of concern across the years. There was a slight increase in alcohol as principal drug of concern in 2009
- Alcohol and cannabis were the most commonly reported drug recently used by clients
- Recent use of heroin and meth/amphetamine decreased across the years
- Recent injection decreased from 2002 to 2009. There was also a decrease in reports of sharing needles and equipment
- Decrease in high psychological distress scores and recent suicide attempts
- Mean and median length of stay slightly increased from 2005, though decreased in 2009. There was a slight decrease in the proportion that completed treatment in 2009

3.5 WHOS Sunshine Coast (Najara)

WHOS Najara, Sunshine Coast, established July 2005, is a regional, mixed gender, three to six month residential program. It is funded by the Department of Health and Ageing and has a justice referral component (funded beds) via the Queensland Magistrate Early Referral into Treatment (QMERIT) program funded by QLD Department of Health.

Its aim is to provide a safe and secure therapeutic environment where men and women who suffer from drug dependence and its related problems can concentrate on their recovery. Group work and individual counseling are provided by experienced drug and alcohol workers who deal with the needs of clients. WHOS Najara is located 5 km outside Nambour, the center of the Sunshine Coast. WHOS Najara facilitates residential aftercare and outreach service support for clients during their transition back into the wider community

3.5.1 Demographics

Demographic characteristics for the admissions to the Sunshine Coast service are presented in Table 37. The mean age of clients was 30.8 years (SD=7.5, range 18-60). Mean age fluctuated over the years from a low of 29.2 years in 2008, to a high of 32.6 years in 2009. Approximately two-thirds of the clients were males, and less than 10% identified as Aboriginal and/or Torres Strait Islander, with the exception of 14% identifying as Aboriginal and/or Torres Strait Islander in 2005. Over four-fifths of clients reported that they were born in Australia. The proportion that reported that they had worked in the month prior to admission has increased from 4% in 2007 to 17% in 2008 and 2009. Less than 10% of clients reported that they were currently homeless; this has been increasing in the past three years. Note: homeless definition does not include those clients who reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission.

Table 37: Demographics of admissions to WHOS Sunshine Coast, 2005-2009

Characteristic	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Age	30.8	32.1	30.5	30.3	29.2	32.6
Male (%)	63	66	69	60	60	66
ATSI (%)	7	14	5	5	7	6
Born in Aus (%)	87	82	85	86	89	87
Worked in previous month (%)	13	14	10	4	17	17
Homeless (%)	6	2	6	4	6	9

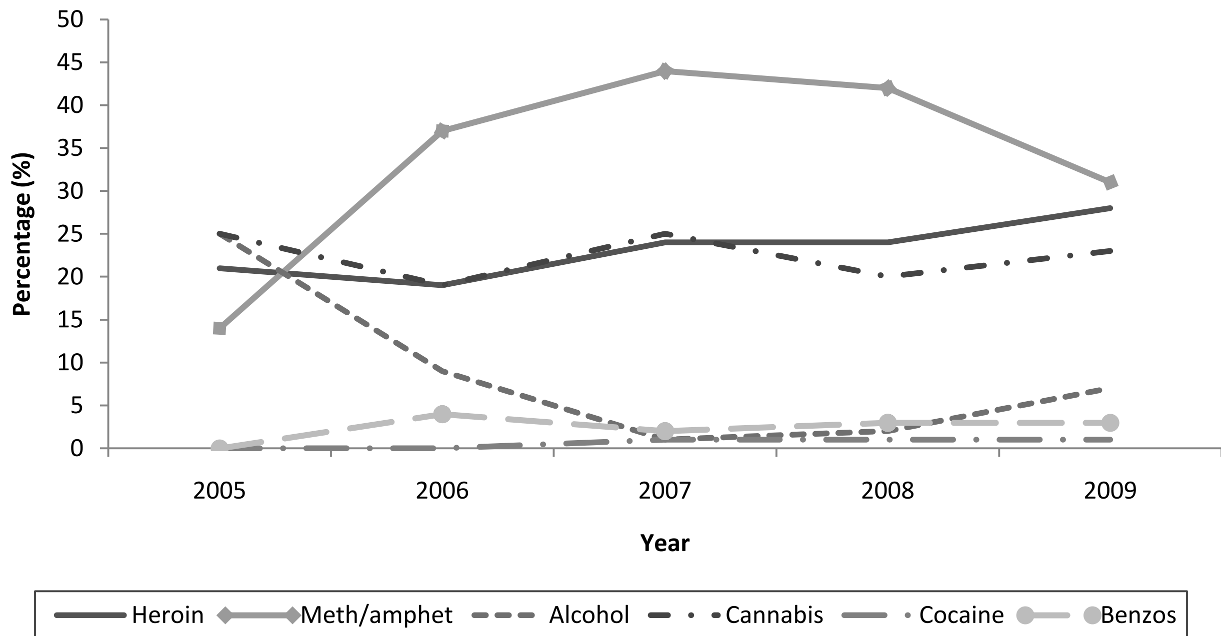
3.5.2 Drug use

Principal drug of concern and recent drug use

Changes in principal drug of concern over the years 2005 to 2009 are presented in Figure 17. Meth/amphetamine was the most common principal drug of concern from 2006 to 2009. Reports of meth/amphetamine as principal drug of concern increased from 2005 (14%) to 2007 (44%); however, this decreased from 2007 to 2009 (31%). It is important to note that the service began midyear so 2005 is not a complete year. It appears as though reports of heroin as principal drug of concern have been increasing gradually from 2005 (21%) to 2009 (28%). In 2008 and 2009 heroin was the second most commonly reported principal drug of concern.

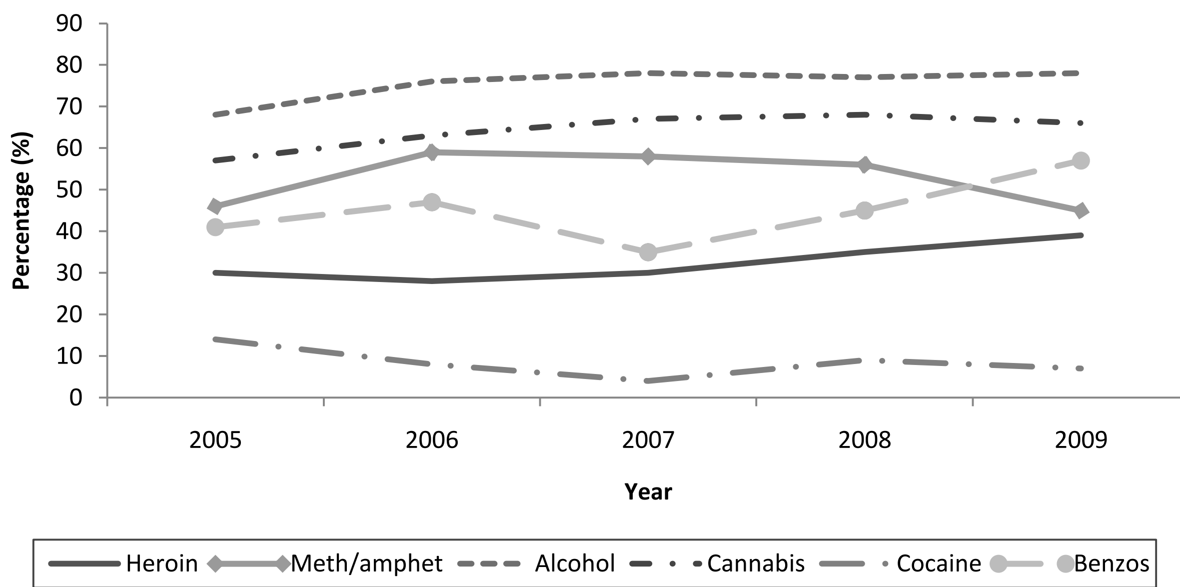
Reports of cannabis as principal drug of concern have fluctuated slightly over the years, from a low of 19% in 2006, to a high of 25% in 2005 and 2007. Alcohol, as principal drug of concern, decreased markedly from 25% in 2005 to 1% in 2007, and it has increased slightly since then to 2009 (7%). Reports of cocaine and benzodiazepines as principal drug of concern have remained low and relatively stable.

Figure 17: Changes in principal drug of concern, WHOS Sunshine Coast, 2005-2009



Recent use of alcohol has increased slightly over the years from 68% in 2005 to 78% in 2009, and was the most common drug recently used. Similarly, cannabis also increased from 57% in 2005 to 66% in 2009, and was the second most common drug recently used (Figure 18). Recent use of meth/amphetamine increased from 2005 (46%) to 2006 (59%); it remained stable until 2009 when it decreased to 45% (from 56% in 2008). Recent use of heroin has been increasing from 2006 (28%) to 2009 (39%). Recent use of benzodiazepines has increased markedly from 35% in 2005 to 57% in 2009. With the exception of 2005, recent cocaine use remained low and relatively stable.

Figure 18: Recent use of drugs, WHOS Sunshine Coast, 2005-2009



NB: Recent use refers to the 30 days prior to admission

Severity of dependence and recent injection

Dependence, as measured by the severity of dependence scale, was almost universal amongst clients. Reports of recent injection were highest in between 2006 and 2008 (Table 38).

Table 38: Recent drug use and median days of use, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
SDS score 4 or more (%)	98	100	100	97	96	99
Injected in past 3 months (%)	70	57	71	74	75	64

* In the month prior to admission (maximum 30 days)
** per day of use

Heroin

Recent use of heroin increased from 2006 to 2009 (Table 39). Median days of use was approximately 12 days (out of a possible 30 days). Median number of shots per day of use was two.

Table 39: Use of heroin, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Recent use (%)	33	30	28	30	35	39
Median days used*	12	14	14	11	12	11.5
Median no. shots*	2	3	2	1	3	2

* In the month prior to admission (maximum 30 days)
** per day of use

Meth/amphetamine

Recent use of meth/amphetamine was highest from 2006 and 2008. Median days of use was low at approximately five days, or just over once a week, in the month prior to interview (Table 40). Median number of shots was two per day of use.

Table 40: Use of meth/amphetamine, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Recent use (%)	53	46	59	58	56	45
Median days used*	5	2	7	5	7	4.5
Median no. shots*	2	2	2	2	2	2.5

* In the month prior to admission (maximum 30 days)
** per day of use

Alcohol

Recent use of alcohol has been increasing from 2005 to 2009. Median days of use was approximately seven, and median number of drinks consumed decreased from 12 in 2005 to six in 2007; this remained stable to 2009 (Table 41)

Table 41: Use of alcohol, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Recent use (%)	77	68	76	78	77	78
Median days used*	7	7	6	6.5	6	8
Median drinks consumed*	7.5	12	10	6	6	7

* In the month prior to admission (maximum 30 days)
** per day of use

Cannabis

Recent use of cannabis has been increasing from 2005 to 2009 (Table 42). Median days of use was highest in 2006 (20 days) and lowest in 2008 (10 days), and there was a decrease in the median number of cones smoked in a day of use from 2005 (10) to 2009 (6).

Table 42: Use of cannabis, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Recent use (%)	66	57	63	67	68	66
Median days used*	14	16	20	12	10	12
Median cones consumed*	8	10	12	5	7	6

* In the month prior to admission (maximum 30 days)
** per day of use

Cocaine

The proportion of clients reporting recent use of cocaine was highest in 2005 (14%), and reports of recent use have remained low in the preceding years (less than 10%) (Table 43). Median days of use was two days; this remained relatively stable across the years. Median number of shots per day of use was three.

Table 43: Use of cocaine, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Recent use (%)	8	14	8	4	9	7
Median days used*	2	2	4.5	4.5	2	2
Median shots*	3	3.5	2	4	4	2

* In the month prior to admission (maximum 30 days)
** per day of use

Benzodiazepines

The proportion of clients reporting recent use of benzodiazepines increased from 2007 to 2009. Median days of use was approximately one week of use in the month prior to admission (Table 44). Median number of pills reported to be used per day of use was four.

Table 44: Use of benzodiazepines, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Recent use (%)	45	41	47	35	45	57
Median days used*	7	6	7	5	7	7
Median no. pills*	4	4	2.5	4	4	3

* In the month prior to admission (maximum 30 days)
** per day of use

3.5.3 Risk and harms associated with drug use

The proportion of clients reporting that they had operated heavy machinery (such as driving a vehicle) on a daily basis, whilst under the influence, has fluctuated from a low of 26% in 2007 to 36% in 2005 and 2006 (Table 45). Approximately one-fifth reported operating heavy machinery on a weekly basis. The proportion of clients that reported engaging in unsafe sexual practices at least once, in the 12 months prior to admission fluctuated from a low of 48% in 2005 to a high of 69% in 2008.

Approximately three-quarters of the sample reported that they never shared needles in the 12 months prior to admission, fluctuating from a low of 72% in 2008 to a high of 86% in 2005 (Table 45). Of those that reported sharing needles in the 12 months prior to admission, this most likely occurred once or less than monthly. Over half of the clients reported sharing injecting equipment (spoons filters, tourniquets etc.) in the three months prior to admission in 2005 and 2009. In 2006 to 2008 approximately 40% of clients reported sharing equipment. Whilst the majority of clients reported never sharing a needle in the three months prior to admission, of those that did, it occurred, most commonly, once.

Table 45: Harms and risks associated with drug use, WHOS Sunshine Coast, 2005-2009

	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
Operate heavy machinery (%)#						
Never	30	27	22	34	28	32
Once	4	2	8	4	3	4
Less than monthly	10	7	6	9	12	12
Monthly	9	9	6	12	6	10
Weekly	18	18	22	16	20	16
Daily	30	36	36	26	31	28
Practice unsafe sex (%)#						
Never	40	52	32	45	31	44
Once	9	7	14	9	7	8
Less than monthly	12	11	19	10	14	10
Monthly	13	11	15	12	18	8
Weekly	20	11	12	21	21	25
Daily	7	7	8	4	9	5
Shared needles (%)#						
Never	75	86	71	79	72	74
Once	10	5	14	8	12	10
Less than monthly	10	7	12	9	10	10
Monthly	2	2	1	1	3	3
Weekly	3	0	3	3	3	3
Daily	0	0	0	0	0	1
Share injecting equip. (%)*##	44	56	40	42	40	51
Used someone else's needle (%)*##						
More than 10 times	2	4	2	3	2	2
6-10 times	5	0	0	3	7	6
3-5 times	6	0	2	6	6	9
Twice	6	4	9	6	5	4
Once	9	16	9	8	5	11
Never	74	76	78	75	74	68

* Of those that had recently injected
# Past 12 months
Past three months
NB: due to rounding, numbers may not add to exactly 100%

The proportion of clients scoring high for psychological distress at admission fluctuated from a low of 41% in 2005 to a high of 67% in 2006. The proportion of clients reporting a recent suicide attempt has also fluctuated, from a high of 18% in 2005 to a low of 5% in 2006 and 2008.

Almost one-third of clients reported that they 'always' had experienced financial problems in the three month prior to admissions; fewer proportions reported that they either 'often', 'sometimes', or 'never' had financial problems in the three months before admission; this remained fairly consistent across the years (Table 46).

Approximately one-third of those clients who had partners reported that they 'sometimes' experienced conflicts with their partners in the three months prior to admission; 20% reported that they 'always' had conflicts with their partner before admission. Of those who had relatives, approximately one-third of clients reported that they either 'never' or 'sometimes' had conflict with their relatives in the three months prior to admission; less than one-in-seven reported that they 'always' experienced conflicts with their relatives. Of those who were employed, the majority 'never' experienced conflict with their employer in the three months prior to interview; this fluctuated over the years. Very small proportion reported that they 'often' experienced conflicts with their employer.

Two-fifths of the sample reported that they had not lived with a drug user in the three months prior to admission; this remained relatively consistent across the years. Approximately one-quarter reported that they had 'always' lived with a drug user in the three months prior to admission. Large proportion reported that they 'often' or 'always' spent time with non-drug-using friends.

Table 46: Psychological and social wellbeing, WHOS Sunshine Coast, 2005-2009

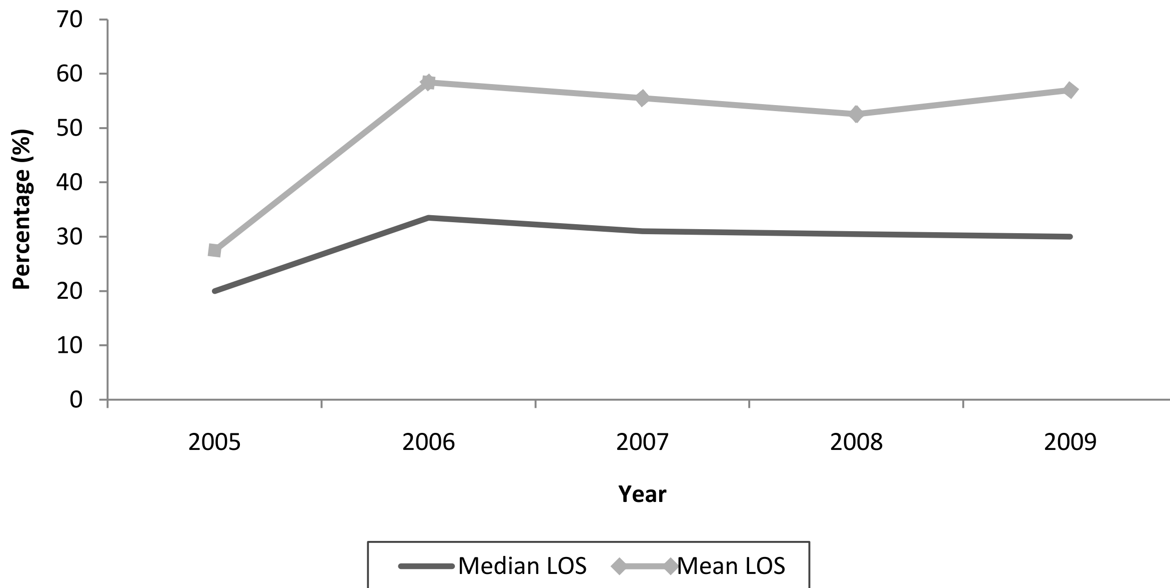
	Total (N=557)	2005 (n=44)	2006 (n=78)	2007 (n=139)	2008 (n=148)	2009 (n=148)
High psych. distress score	49	41	67	52	42	45
Recent suicide attempts	11	18	5	16	5	12
Finance probs						
Never	22	30	14	24	23	22
Sometimes	25	18	28	27	22	26
Often	22	27	22	25	21	20
Always	31	25	36	25	34	32
Conflict with partner						
Never	24	25	15	21	27	28
Sometimes	32	33	37	37	35	33
Often	24	21	15	31	19	27
Always	20	21	33	21	19	12
Conflict with relatives						
Never	32	37	25	29	33	35
Sometimes	36	29	37	39	32	38
Often	19	20	16	19	20	18
Always	14	15	23	13	15	9
Conflict with employer						
Never	64	48	51	74	58	70
Sometimes	25	43	27	16	32	22
Often	8	10	17	4	8	8
Always	3	0	5	5	3	1
Lived with a drug user						
Never	44	41	51	41	47	42
Sometimes	21	25	26	17	23	20
Often	10	9	8	12	9	12
Always	24	25	15	30	22	26
Spent no time with non-drug-using friends						
Never	14	21	15	14	14	11
Sometimes	14	11	17	13	16	11
Often	45	43	44	48	42	47
Always	28	25	24	26	28	31

#calculated as a score of 6 or more out of 8
NB: due to rounding numbers, may not add to exactly 100%

3.5.4 Treatment retention and cessation

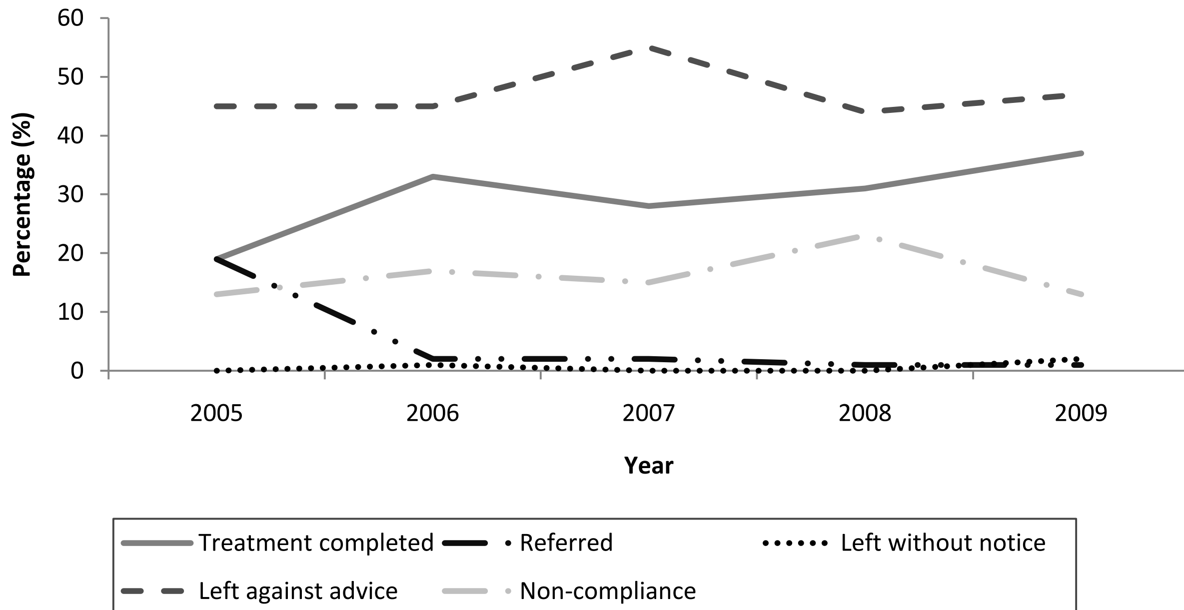
Length of stay (mean and median) are presented in Figure 19. There was an increase in the mean and median length of stay from 2005 to 2006 (from 20 to 33.5 and from 27.5 to 58.4, respectively). This has remained relatively stable with the exception of a slight increase in the mean number of days from 52.6 in 2008 to 57 days in 2009.

Figure 19: Mean and median length of stay, WHOS Sunshine Coast, 2005-2009



Reasons for treatment cessation are presented in Figure 20. 'Left against advice' was the most common reason for treatment cessation; this has remained relatively stable at around 45%, with the exception of 2007 when it increased to 55%. There has been an increase in the proportion of clients completing treatment from 19% in 2005 to 37% in 2009, though since there was only data for half the year in 2005, results need to be interpreted with caution. The proportion of clients leaving treatment due to non-compliance has fluctuated over the years from a low of 13% in 2005 and 2009 to a high of 23% in 2008. In 2006 the decrease in the proportion of clients that were referred to another service (from 19% to 2%) was mostly due to the establishment process WHOS utilized, i.e. clients from other WHOS services who helped set up WHOS Najara were transferred back to their originating service resulting in a high referral rate for that year only being 19%. Since then, the proportion of clients referred to another service has remained low. The proportion of clients that left treatment without notice has been low, and this has been consistent across the years.

Figure 20: Reason for treatment cessation, WHOS Sunshine Coast, 2005-2009



WHOS Sunshine Coast – key points

- There was an increase in the proportion of clients reporting that they worked in the month prior to admission. There was also an increase in the proportion of clients reporting to be homeless
- Meth/amphetamine was the most common principal drug of concern from 2006, though this has been decreasing from 2007. There has been a slight increase in heroin as principal drug of concern in recent years
- Alcohol was the most common recently used drug; this has been increasing slightly over the years. Cannabis was the second most common drug recently used and this has also been increasing
- Reports of recent use of meth/amphetamine have been decreasing, whilst reports of recent use of heroin have been increasing
- Recent injection was highest from 2006 to 2008
- 26% of those who injected reported sharing needles in the 12 months prior to admission; 50% reported sharing equipment in 2009
- Two-fifths scored high for psychological distress, and reports of recent suicide attempts fluctuated
- Mean and median length of stay increased from 2005 to 2006 and remained relatively stable. From 2007 there has been an increase in the proportion of clients completing treatment

3.6 WHOS MTAR

WHOS MTAR uses the Therapeutic Community (modified) model of drug treatment to assist clients to stabilise and then reduce off methadone while learning the skills necessary to live drug free.

WHOS MTAR (established in 1999), funded by the Commonwealth Dept of Health and Aged Care under the National Illicit Drug Strategy, is a service provided by WHOS (We Help Ourselves). WHOS MTAR also provides a residential aftercare bed service and one justice health bed (MERIT) funded by the NSW Department of Health. MTAR is a four to six month program offering group work, counseling, support and education, stress management and skills development. Group-work covers topics such as social and communication skills, assertiveness skills and self-esteem building, living skills, self and group evaluation awareness, exiting client groups, relapse prevention and ex-residents groups. WHOS MTAR also provides HIV and other infections disease education and adopts a harm minimisation approach should a drug-free outcome not be chosen. WHOS MTAR is situated at Rozelle, close to the Sydney city and handy to all the professional facilities that a city has to offer.

3.6.1 Demographics

Demographic characteristics for the MTAR service are presented in Table 47. Mean age at admission has fluctuated from 2002 to 2009; from a low of 31.2 years in 2003 to a high of 35.4 years in 2009. Approximately two-thirds of the clients were male; there was a marked increase in the percentage of males from 2005 to 2007, though this has dropped back to previous numbers in recent years. Less than 10% of clients identified themselves as being Aboriginal and/or Torres Strait Islander, and the vast majority reported that they were born in Australia; however, this seems to have decreased from 2006 onwards. Small proportion (less than 10%) reported that they had worked in the month prior to admission; this appears to have decreased over the years, from 11% in 2002 to 2% in 2009. Very small numbers reported that they were homeless in the month prior to admission. Note: homeless definition does not include those clients who reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission.

Table 47: Demographics of admissions to WHOS MTAR service, 2002-2009

Characteristic	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Age	33.4	33.0	31.2	33.1	32.2	33.7	32.8	33.8	35.4
Male (%)	67	67	66	61	70	76	70	62	65
ATSI (%)	6	11	9	6	5	7	3	7	6
Born in Aus (%)	86	94	91	93	92	82	80	85	86
Worked in previous month (%)	5	11	9	9	7	3	4	5	2
Homeless (%)	1	0	0	0	0	1	1	3	1

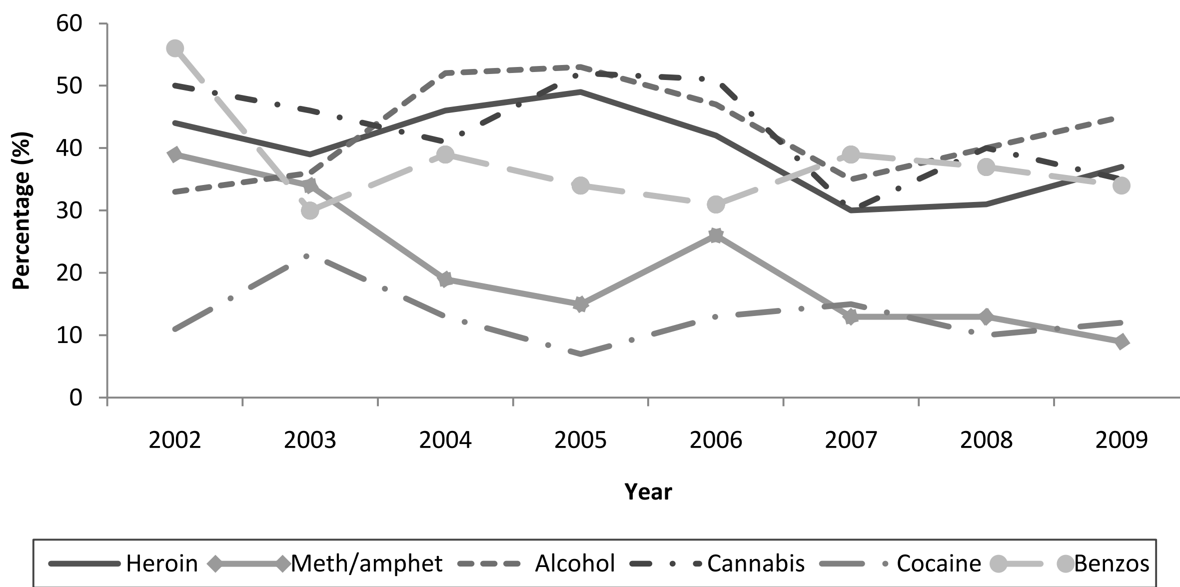
3.6.2 Drug use

Principal drug of concern is not reported here, as methadone or buprenorphine was the principal drug of concern across all years for WHOS MTAR due to the nature of the client target group.

Recent drug use

As can be seen by Figure 21, trends in recent drug use have changed markedly over the years from 2002 to 2009. Reported recent use of alcohol peaked in the years 2004 to 2006; reported recent use has been increasing from 2007 (35% in 2007 to 45% in 2009). Similarly, heroin appears to have followed the same pattern as alcohol, peaking in 2004 to 2006; again, like alcohol, recent use has increased slightly from 2007 (30% in 2007 to 37% in 2009). Recent use of cannabis has fluctuated over the years; recent use peaked in 2005 and 2006, before decrease in 2007. Whilst recent use of cannabis increased in 2008 (40% from 30% in 2007), it decreased again in 2009 (35%). Reported recent use of meth/amphetamine has decreased from 2002 (39%) to 9% in 2009 with the exception of 2006 when there was a slight increase. Recent use of benzodiazepines decreased markedly from 56% in 2002 to 30% in 2003; since then it has fluctuated at around 40%. Recent use of cocaine has also fluctuated over the years, from a peak of 23% in 2003 to a low of 7% in 2005; recent use has remained relatively low when compared to other drugs.

Figure 21: Recent use of drugs, WHOS MTAR, 2002-2009



NB: recent use refers to use in the 30 days prior to admission

Severity of dependence and recent injection

Dependence, as measured by the Severity of Dependence scale, was almost universal amongst clients (Table 48). Recent injection (three months prior to admission) peaked in 2004 and 2005 (74% and 70% respectively); it decreased to 56% in 2009.

Table 48: Recent drug use and median days of use, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
SDS score 4 or more (%)	97	100	86	100	94	98	97	96	100
Injected in past 3 months (%)	64	67	68	74	70	65	65	57	56

Heroin

Recent use of heroin peaked in 2004 to 2006, decreasing in 2007; recent use increased from 2007 to 2009 (Table 49). Median days of use in the month prior to admission was approximately five, though this

fluctuated over the years from a low of 2.5 days in 2002 to a high of eight days in 2008. Median number of shots in a day of use was two; this remained relatively consistent over the years.

Table 49: Use of heroin, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Recent use (%)	38	44	39	46	49	42	30	31	37
Median days used*	5	2.5	4	7	6	4.5	8	7	3
Median no. shots**	2	3	2	2	1	1	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Meth/amphetamine

Reported recent use of meth/amphetamine decreased from 39% in 2002 to 9% in 2009, with the exception of a slight increase in 2006. Median days of use was low, at around two days in the month prior to admission, and median number of shots was two per day of use (Table 50).

Table 50: Use of meth/amphetamine, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Recent use (%)	17	39	34	19	15	26	13	13	9
Median days used*	2	2	5	2	2	2	2	2	2
Median no. shots**	2	3	2	1	2	1	2	2	2

* In the month prior to admission (maximum 30 days)
** per day of use

Alcohol

Recent use of alcohol peaked in 2004 to 2006; from 2007 reported recent use of alcohol has been increasing again (Table 51). Median days of use was low at around three days in the month prior to admission, and the median number of drinks consumed per day of use was approximately four.

Table 51: Use of alcohol, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Recent use (%)	43	33	36	52	53	47	35	40	45
Median days used*	3	1.5	5	3.5	3	3	3	3	4
Median drinks consumed**	4	2.5	6	3	5	4	4	4	4

* In the month prior to admission (maximum 30 days)
** per day of use

Cannabis

Recent use of cannabis peaked in 2005 to 2006, similar to alcohol; from 2007 recent use has been increasing again. Median days of use was seven the month prior to admission, this however, has fluctuated over the years (Table 52). Median number of cones consumed was approximately five.

Table 52: Use of cannabis, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Recent use (%)	41	50	46	41	52	51	30	40	35
Median days used*	7	3	12.5	14	10	5.5	6.5	4	12
Median cones consumed**	5	4	4	5	5	5	4	5	6

* In the month prior to admission (maximum 30 days)
** per day of use

Cocaine

Recent use of cocaine has also fluctuated over the years, from a peak of 23% in 2003 to a low of 7% in 2005; recent use has remained relatively low when compared to other drugs (Table 53). Median number of days of use in the month prior to admission was two; this however, had fluctuated over the years. Median number of shots per days of use was two; this remained relatively consistent across the years, with the exception of 2002.

Table 53: Use of cocaine, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Recent use (%)	13	11	23	13	7	13	15	10	12
Median days used*	2	9	1	2	4.5	3	2	2	2
Median shots**	2	8.5	2	1	5	2	2	3	2.5

* In the month prior to admission (maximum 30 days)
** per day of use

Benzodiazepines

With the exception of 2002, recent use of benzodiazepines has fluctuated between 30% and 40% across the years (Table 54). Median days of use had fluctuated over the years, from a low of three days in 2007 to a high of 20 days in 2003. In recent years (2006 to 2009), median number of days of use had been more consistent, at around four days. Median number of pills used per day of use was approximately four.

Table 54: Use of benzodiazepines, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Recent use (%)	37	56	30	39	34	31	39	37	34
Median days used*	5	7.5	20	7	7	4	3	5	4
Median no. pills**	4	2	6	5	3	4	5	4	3

* In the month prior to admission (maximum 30 days)
** per day of use

3.6.3 Risk and harms associated with drug use

Risk and harms associated with drug use are presented in Table 55. Reports of operating heavy machinery (e.g. driving a vehicle) under the influence, on a daily basis, decreased from 2003 (36%) to 2009 (10%). Approximately one-in-ten clients reported that they operated heavy machinery whilst under the influence on a weekly basis. This remained relatively consistent across the years. Less than 20% of clients reported engaging in unsafe sexual practices on a weekly basis; this remained relatively consistent across the years with the exception of 2005, 2007 and 2008 (where much lower rates were reported). Small proportions (around 3%) reported engaging in unsafe sexual practices on a daily basis (though this appears to have decreased in recent years) (Table 55). Over 20% reported engaging in unsafe sexual practices on a monthly or less basis (with the exception of 2006, when only 5% reported engaging in unsafe sexual practices on a weekly or less basis).

In 2003 and 2004, approximately half of the clients admitted reported sharing needles in the 12 months prior to admission; this has decreased markedly since then, with 15% reporting sharing needles in 2009. Of those that reported sharing needles in the 12 months prior to admission, this most commonly occurred either once or on a less than monthly basis. There appears to be a general decrease in the proportion of clients reporting sharing injecting equipment (i.e. spoons, filters, tourniquets etc.) in the three months prior to admission, from

58% in 2002 to 22% in 2009, with the exception of 2008 when it increased (from 32% in 2007 to 43% in 2008). Of those clients that reported sharing needles in the three months prior to admission (approximately 20%), this most commonly occurred once. Small proportions reported that this occurred more than 10 times in the three months prior to admission (Table 55).

Table 55: Harms and risks associated with drug use, WHOS MTAR, 2002-2009

	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
Operate heavy machinery (%)#									
Never	58	44	36	37	46	59	64	71	59
Once	4	0	5	6	4	6	1	5	3
Less than monthly	8	17	7	9	16	3	6	5	13
Monthly	4	6	5	6	5	7	2	4	3
Weekly	9	11	11	6	12	11	11	5	11
Daily	17	22	36	37	18	14	16	11	10
Practice unsafe sex (%)#									
Never	50	50	39	22	37	64	54	52	56
Once	10	11	2	17	15	6	6	15	8
Less than monthly	17	17	25	22	22	5	23	17	13
Monthly	7	0	7	13	15	9	4	6	3
Weekly	13	17	18	19	8	15	11	9	18
Daily	3	6	9	7	4	2	2	3	2
Shared needles (%)#									
Never	75	72	50	52	69	84	80	76	85
Once	11	11	21	22	15	7	9	10	6
Less than monthly	11	11	27	20	15	5	9	9	9
Monthly	2	0	0	0	2	4	1	5	0
Weekly	1	6	2	6	0	1	1	0	0
Daily	0	0	0	0	0	0	1	1	0
Share injecting equip. (%)*##	37	58	37	48	43	35	32	43	22
Used someone else's needle (%)*##									
More than 10 times	3	0	0	0	3	1	8	4	4
6-10 times	1	0	0	5	0	1	0	4	0
3-5 times	5	8	3	0	7	7	4	7	0
Twice	2	0	0	3	2	1	2	2	0
Once	6	8	3	3	3	3	11	8	7
Never	83	83	93	90	85	86	75	76	89

* Of those that had recently injected
# Past 12 months
Past three months
NB: due to rounding, numbers may not add to exactly 100%

Table 56 presents data on psychological and social wellbeing of clients at admission. Just over one-quarter of clients scored high for psychological distress. This has remained relatively consistent across the years. Approximately 5% reported a recent suicide attempt; this appears to have increased in the past two years.

Approximately one-in-seven reported always suffering from financial problems in the three months prior to admission, one-in-four reported that they often experienced financial problems and approximately one-third reported that they sometimes experienced financial problems. One-third of clients reported that they experienced no financial problems in the three months prior to admission. Of those clients that had a partner, approximately equal proportions (37% and 38% respectively) reported that they either 'never' or 'sometimes' experienced a conflict with their partner; however, there was great variability across the years (Table 56).

Of those clients that had relatives, approximately two-fifths reported that they 'sometimes' had a conflict with them in the three months prior to admission; one-in-seven reported that they 'often' had conflict with their relatives and less than 10% reported that they 'always' had conflict with their relatives in the three months before admission. Approximately one-third reported that they 'never' had a conflict with their relatives before admission. Of those that were employed, the vast majority (over three-quarters) reported that they 'never' had a conflict with their employer in the three months prior to admission. Of those that did report conflict, this occurred 'sometimes'.

Over 50% of clients reported that they had lived with a drug user in the three months prior to admission; this however was quite variable across the years, from 44% in 2002 to 66% in 2005. Approximately one-in-five reported that they 'always' lived with a drug user in the three months prior to admission. Less than 20% reported that they 'never' spent time with non-drug-using friends in the three months prior to admission; one-quarter reported that they 'always' spent time with non-drug-using friends (there was great variability in these proportions across the years, Table 56).

Table 56: Psychological and social wellbeing, WHOS MTAR, 2002-2009

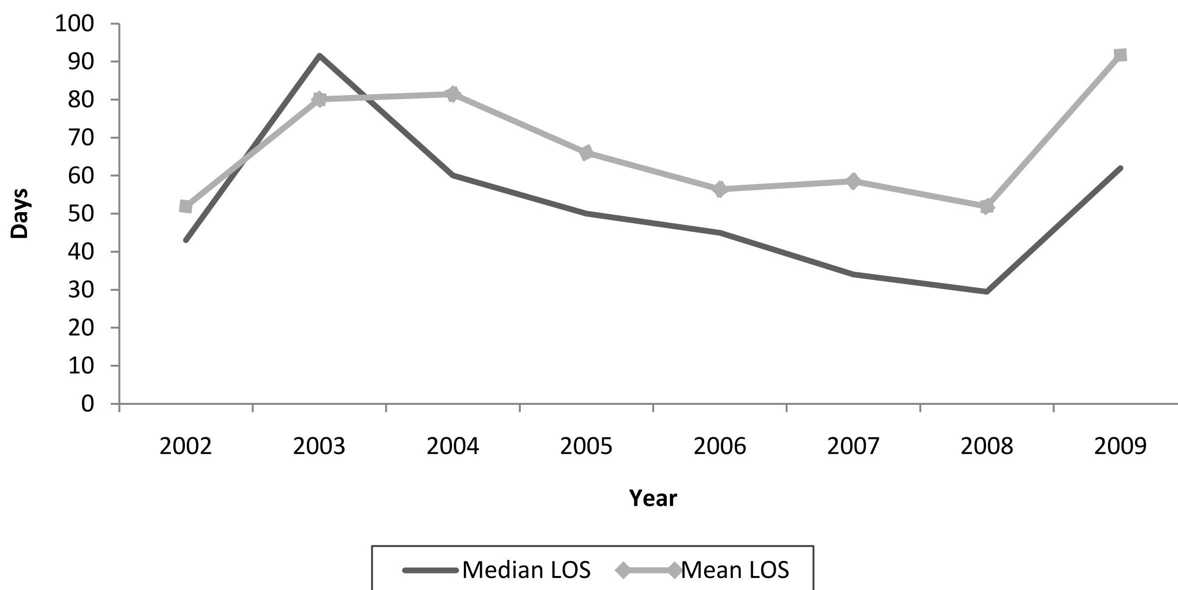
	Total (N=695)	2002 (n=18)	2003 (n=44)	2004 (n=54)	2005 (n=83)	2006 (n=106)	2007 (n=142)	2008 (n=151)	2009 (n=97)
High psych distress score#	27	22	32	32	25	26	23	31	26
Recent suicide attempts	5	6	7	6	2	3	3	8	8
Finance probs									
Never	33	11	41	33	23	30	37	36	36
Sometimes	31	50	36	32	31	34	30	30	27
Often	20	28	18	22	29	19	20	17	18
Always	15	11	5	13	17	17	13	17	20
Conflict with partner*									
Never	37	23	50	26	24	31	43	42	37
Sometimes	38	62	35	45	35	29	30	40	48
Often	16	15	15	16	22	23	16	12	12
Always	10	0	0	13	20	17	12	6	3
Conflict with relatives*									
Never	37	31	35	29	34	44	36	38	40
Sometimes	43	50	40	50	44	38	47	39	40
Often	15	13	21	13	20	14	14	15	15
Always	5	6	5	8	3	4	4	8	5
Conflict with employer*									
Never	76	75	75	84	77	78	75	68	83
Sometimes	19	13	17	5	23	19	17	30	13
Often	3	13	8	11	0	3	2	0	0
Always	2	0	0	0	0	0	6	2	3
Lived with a drug user*									
Never	56	44	50	61	66	64	56	45	58
Sometimes	16	17	21	19	15	13	16	15	19
Often	9	6	2	9	4	9	11	12	8
Always	19	33	27	11	16	14	18	29	16
Spent time with non-drug using friends*									
Never	18	11	11	13	17	24	24	13	18
Sometimes	18	33	23	24	22	21	15	13	18
Often	39	39	27	44	40	36	35	46	40
Always	25	17	39	19	22	20	27	29	25

calculated as a score of six or more out 8
*Of those that had a partner/relatives/employer.
NB: due to rounding, numbers may not add to exactly 100%

3.6.4 Treatment retention and cessation

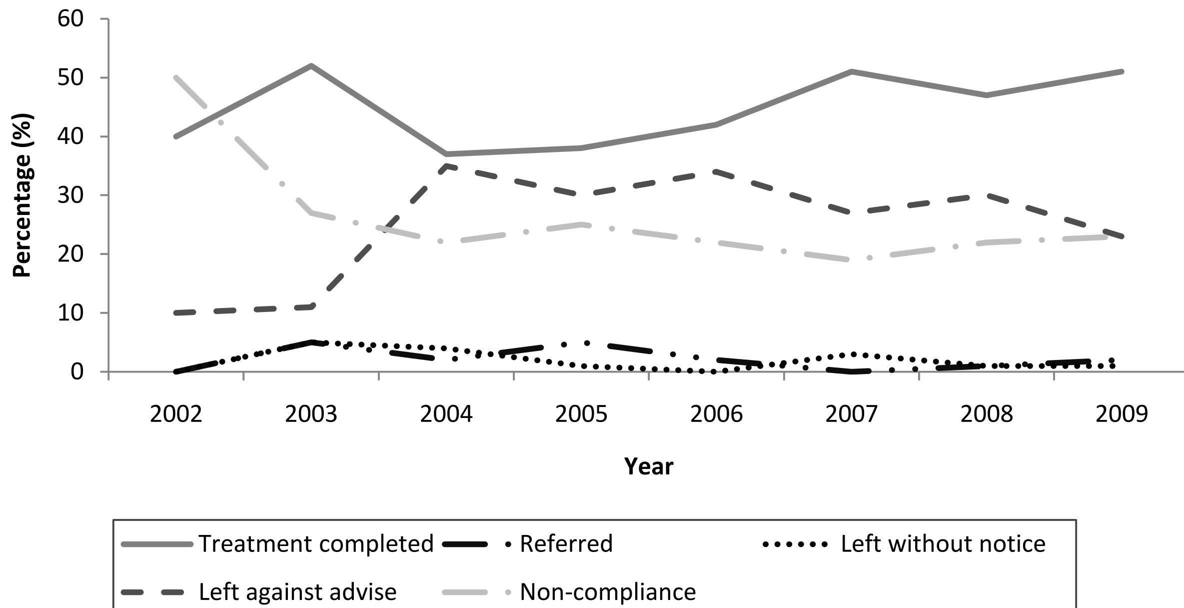
Mean and median length of stay is presented in Figure 22. There was an increase in mean and median length of stay from 2002 to 2003 (51.9 days to 80.1 days and 43 days to 91.5 days, respectively). From 2004 to 2008 both mean and median length of stay decreased (to 51.9 days and 29.5 days respectively). In 2009 there was a marked increase in mean and median length of stay.

Figure 22: Mean and median length of stay, WHOS MTAR, 2002-2009



Reasons for treatment cessation are presented in Figure 23. From 2003, the most common reason for treatment cessation was treatment completion, whilst there was a decrease in treatment completion in 2004 (52% to 37%); from 2004 to 2009 the proportion of clients completing treatment has been increasing. From 2005 the second most common reason for treatment cessation was 'left against advice'. This increased markedly from 11% in 2003 to 35% in 2004; from 2004 it has slightly decreased to 23% in 2009. There was a marked decrease in the proportion of clients that left due to non-compliance, from 50% in 2002 to 27% in 2003. From 2003 to 2009 it has remained relatively stable. The proportion of clients that were wither referred or left without notice has remained low and stable across the years.

Figure 23: Reason for treatment cessation, WHOS MTAR, 2002-2009



WHOS MTAR – key points

- ❖ Mean age has fluctuated across the years; it was a mean of 35.4 years in 2009
- ❖ There has been a decrease in the proportion of clients working in the month prior to admission
- ❖ Recent drug use (other than prescribed opioid treatment) varied greatly over the years
- ❖ From 2007 the recent use of alcohol and heroin increased. Alcohol was most common drug recently used
- ❖ Recent use of cannabis and benzodiazepines decreased in 2009
- ❖ Recent use of meth/amphetamine dramatically decreased across the years from 2002
- ❖ Reports of recent injecting have been decreasing since 2004
- ❖ There has been a decrease across the years in reports of sharing needles and other injecting equipment
- ❖ Over one-quarter scored high for psychological distress. There was a slight increase in recent suicide attempts
- ❖ In 2009 there was a marked increase in mean and median length of stay. Treatment completion was the most common reason for treatment cessation, increasing from 2004

4.0 DISCUSSION

4.1 Main findings

There were three major finding in the present study. Firstly, the average age of a client at admission has been increasing from 2002 to 2009. Secondly, the proportion of female clients has been increasing over the same time period. Finally, both length of stay and the proportion of clients that have completed treatment have been increasing from 2002 to 2009.

4.2 Demographics

The average age of WHOS clients increased over the years from 29.91 in 2002 to 33.0 in 2009. The increase is most noticeable in the Gunyah and Hunter services. Average age at Gunyah increased from 30.3 years to 33.6 years and average age for the Hunter service increased from 28.1 years to 32.2 years. Furthermore, mean age has increased markedly over the years when compared to a study conducted in 1993 on WHOS clients (Swift, Darke et al. 1993). In 1985 the mean age of clients was 24.8 years and the mean age in 1988-1991 was 26.7 years (Swift, Darke et al. 1993). A marked increase in age can also be seen in comparison to a study conducted in 1996 (Darke, Kelaher et al. 1996), of which WHOS clients were included, that found that the age of people seeking treatment for illicit drug use increased from 26.8 years in 1988 to 27.9 years in 1992, though this was still much lower than the mean in the present study. This result is consistent with previous research that found that the mean age of treatment entrants was increasing (Darke, Kelaher et al. 1996).

There was an increase in the proportion of females over the years; this increase is most likely attributable to the increase in women entering New Beginnings due to an increase in funding and the availability of more beds as a result of this. Furthermore, there was a decrease in the proportion of clients reporting that they were born in Australia; it must be noted, however, the proportion that were born in Australia is still greater than the in first study on WHOS clients (80% in 1988-91 compared to 88% in 2009).

There appears to have been a decrease in the proportion of clients that reported working in the month prior to admission, mainly evident in New Beginnings, Hunter and MTAR services. Conversely, there was also a slight increase in the proportion of clients that reported they were homeless before admission (though this was still quite low – less than 10%). However, it should be noted that the homeless definition on the data collection tool does not include those clients reported being temporarily accommodated in refuges or crisis accommodation services in the weeks prior to admission. These results suggest that clients may be those more have additional problems (i.e. finance, housing etc.) that may need to be addressed throughout treatment.

4.3 Changes in drug use

There appears to have been a similar pattern across the services (with the exception of New Beginnings and MTAR) in trends of meth/amphetamine use. From 2002 there was an overall decrease in reports for heroin as principal drug of concern and an increase in meth/amphetamine. This is consistent with research that suggests that around this time there was a shift from heroin to meth/amphetamine (Topp, Day et al. 2003; Roxburgh, Degenhardt et al. 2004; Degenhardt, Day et al. 2005; Maher, Li et al. 2007). In 2009, however, meth/amphetamine, as principal drug of concern, decreased markedly. For Gunyah, Hunter and the Sunshine Coast, reports of meth/amphetamine as principal drug of concern increased from 2002 and peaked in 2006 to 2008 where it was often the most common drug as principal drug of concern. For these services there has been a marked decrease in the proportion of clients reporting meth/amphetamine as principal drug of concern in 2009. Conversely, as meth/amphetamine as principal drug of concern increased, heroin decreased. With the recent decrease in meth/amphetamine as principal drug of concern, there has been an increase in heroin. Interestingly, previous research, which included WHOS clients, also found this change in principal drug of concern from heroin to meth/amphetamine, and as one increased over the years, the other decreased, even though this research was conducted 15-20 years ago (Darke, Kelaher et al. 1996). This suggests that drugs may work in a cyclical fashion, based on supply and demand, and this is especially evident for heroin and meth/amphetamine.

Another important finding has been the increase in alcohol as principal drug of concern in recent years. In all services, whilst alcohol is generally the most common recently used drug, reports of it being the principal drug of concern have increased, with the exception of MTAR (due to the drug-specific target group i.e. opioid maintenance treatment). The increase was most notable in the New Beginnings service, where whilst alcohol has been the most common principal drug of concern for a few years, it dramatically increased recently. Similarly, it appears as though as alcohol as principal drug of concern increased so did the recent use of benzodiazepines. It appears that the increase in recent use of benzodiazepines may be related to the detoxification of clients with alcohol problems, considering that median days of use was approximately four days – the same amount of time that many clients need for detoxification from alcohol. Reports of cannabis as principal drug of concern have also been increasing, specifically in the last couple of years.

These results suggest that there are often changes in the drug market that are reflected in the clients that are presenting for treatment. It is important to be aware of these changes and the impact that such changes will have on the types of people presenting for treatment and how best to tailor treatment programs towards these people.

4.4 Risks and harms associated with drug use

4.4.1 Heavy machinery

Most of the clients reported operating heavy machinery (e.g. driving a vehicle) whilst under the influence of drugs across all of the services. The Sunshine Coast recorded the highest proportions that were likely to drive whilst under the influence; with approximately one-third reporting that they had driven under the influence on a daily basis. Men were also significantly more likely to operate heavy machinery whilst under the influence than women. This is consistent with research that has found young males were over-represented among drug drivers (Kelly, Darke et al. 2004). This research also documented the dangers of driving under the influence and reported on the significant causes of head trauma created from drug driving. As WHOS is a Therapeutic Community organisation that advocates harm reduction, it may be useful to include topics covering the risks and harms associated with drugs/alcohol and driving.

4.4.2 Injecting risk behaviour

There was a decrease, across the years, in the proportion of clients for all WHOS services reporting that they had shared needles or shared injecting equipment, with the exception of the Sunshine Coast (in 2009 less than 18% of clients at the other services reported that they recently shared needles, compared to 26% of clients from the Sunshine Coast). This may be related to the fact that the proportion of clients reporting recent injection had been decreasing in these services. In the Sunshine Coast service, there was an increase from 2005 to 2008 in the proportion of clients reporting that they had recently shared needles. Around the same time, both recent injecting and meth/amphetamine, as principal drug of concern, increased for the Sunshine Coast. Reports of needle sharing have been decreasing in recent years.

Approximately one-quarter of all clients reported that they had shared needles in the preceding 12 months and approximately 50% admitted to sharing injecting equipment. With the strong focus on harm reduction at WHOS and support of recent research (Simpson, Brown et al. 1997; Gossop, Marsden et al. 2001; Teesson, Mills et al. 2008), it is hoped that these levels would be much lower after treatment cessation.

Consistent with previous research (e.g. Bennett, Velleman et al. 2000; Evans, Hahn et al. 2003; Breen, Roxburgh et al. 2005), women were significantly more likely to share needles, despite being less likely to report recent injection. Research suggests that women are placed at more risk due to sharing needles as they are more likely to be recent initiates to injecting (Fennema, van Ameijden et al. 1997), whereas other research suggests women may be more likely to engage in risky behaviours as a result of being more likely involved in sex work then males (Montgomery, Hyde et al. 2002; Evans, Hahn et al. 2003). Women may be placing themselves at greater risk of contracting BBVIs, so continuation of WHOS harm reduction groups and messages are vital to educate these clients of the risks and harms associated with this behaviour.

4.4.2 Sexual risk behaviour

Similar to driving under the influence, a significant minority also reported in engaging in unsafe sexual practices. Interestingly, whilst 50% of the MTAR clients report that they engage in unsafe sexual practices,

approximately 60% to 65% of clients from the other services report engaging in unsafe sexual practices (with the exception of the Gunyah service where 55% report engaging in unsafe sexual practices). This difference between MTAR and the other services was significant. Previous research (e.g. Gossop, Marsden et al. 2002; Teesson, Mills et al. 2008) has found a decrease in risk-taking behaviours after treatment engagement. It may be that, since MTAR clients were already engaged in treatment services (i.e. methadone and buprenorphine services), messages surrounding risk-taking behaviours were already well received by this group. These results suggest that continuation of WHOS harm reduction groups are a vital component of treatment.

Females were significantly more likely to report engaging in unsafe sexual practices than males in the three months prior to admission. This is consistent with previous research (Gollub, Rey et al. 1998; Holt, Ritter et al. 2002; Dunn, Day et al. 2010) that found that females were more likely to be inconsistent with condom use than males. With the risk of STIs and HIV, WHOS harm reduction groups should continue to focus on the importance of practicing safe sex. Research suggest that involvement in treatment is likely to reduce these risky behaviors after treatment cessation (Gossop, Marsden et al. 2002).

4.5 Psychological and social wellbeing

4.5.1 Psychological wellbeing

There appears to have been an increase in clients suffering from high psychological distress in the Gunyah and New Beginnings services in 2009. There was a decrease in the proportions with high distress scores in the Hunter and these proportions remained stable for the Sunshine Coast and MTAR services. In 2009 an onsite doctor and multiple complex-needs nurses were introduced to WHOS services at Rozelle (Gunyah, New Beginnings and MTAR) as well as a part-time nurse at Hunter. WHOS Sunshine Coast has had the services of a nurse for four years. The introduction of these nursing services was in response to the need to better treat clients with comorbid problems. The increase in clients with psychological distress for Gunyah and New Beginnings could suggest that these new services are meeting these needs and clients with more mental health problems are being admitted into the services.

Additionally, at admission clients, from the MTAR service recorded the lowest proportions reporting high levels of psychological distress when compared to other services. It appears as though those clients on an opioid pharmacotherapy at treatment entry may be suffering from less distress and associated psychological problems than those clients that are abstinent at treatment entry. The pharmacotherapy (i.e. methadone, buprenorphine or buprenorphine-naloxone) may act in reducing the psychological distress of a client. Anecdotal reports, however, suggest that whereas the psychological distress of abstinent clients appears to reduce from treatment entry, those attempting to stop or reduce their opioid pharmacotherapy (i.e. MTAR clients) suffer from an increase in psychological distress as their dose is reduced and move towards abstinence. Further research into this area would be beneficial.

4.5.2 Social wellbeing

The majority of clients in all services reported suffering from financial problems or being involved in conflicts with partners, relatives or employers in the three months prior to admission. Research on treatment outcomes in the United Sates (Simpson, Brown et al. 1997), the United Kingdom (Gossop, Marsden et al. 2001) and Australia (Teesson, Mills et al. 2008) suggests that there are many benefits to treatment, including a reduction in problems associated with drug and/or alcohol use. Consequently, it is expected that these problems will most likely be reduced for the vast majority of clients that enter into WHOS treatment services, especially for those clients who complete treatment.

4.6 Treatment cessation and retention

Despite the changes in demographics and drug use, overall from 2002 to 2009 there has been an increase in mean and median length of stay and the proportion of clients completing treatment across all WHOS services. The exception has been a recent decrease in the proportion completing treatment in both the New Beginnings and Hunter services in 2009. MTAR clients were significantly more likely to complete treatment then clients from drug-free services, though there was no difference in terms of males and females. Future monitoring of these patterns are necessary in order to determine what factors may influence length of stay and treatment completion, though it appears as though – despite changes in the types of clients that present

to WHOS treatment services – treatment completion is not adversely affected. WHOS treatment services appear to be able to offer quality treatment to a wide variety of clients suffering from drug and alcohol dependence and related problems.

4.7 Limitations

As with any research, there are a few important caveats that need to be noted. Firstly, data collected at admission was self-report. Whilst self-report data is believed to have problems associated with accuracy, research suggests that self-report data amongst drug users in research settings have acceptable levels of reliability (Darke 1998; Welp, Bosman et al. 2003). Secondly, the data on unsafe sex is not detailed enough, for example, there is no detail on casual or regular partners or how many different partners a client might have had sex with. This needs to be remembered when interpreting the results.

4.8 Conclusions

There has been a great amount of change in characteristics of clients admitted to WHOS treatment services from 2002 to 2009. There has been an increase in age and a change in drug use patterns, from heroin, to meth/amphetamine, and to alcohol more recently. Clients reported being involved in a range of risky behaviours and there were also many gender issues differences. Males were more likely to operate heavy machinery under the influence, whilst women were more likely to engage in risky sexual behaviours and needle sharing. Continuation of WHOS harm reduction education will assist in reducing these harms. Furthermore, there were differences between the abstinence services and MTAR clients. MTAR clients were less likely to engage in risky behaviour and suffered less psychological distress. Research suggests that this may be because they are already engaged in services prior to admission to WHOS (i.e. OTP) and have been exposed to messages to reduce harm associated with drug use; on the other hand, they may simply have less opportunity to engage in these practices. Despite these changes, overall, the proportion of clients completing treatment has been increasing from 2002. WHOS, as a treatment services, is able to adapt to changes over time and continue to provide quality support to drug and alcohol users and their recovery.

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